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INTERNAL PASSIVES IN SEMITIC:
FUNCTIONAL SYMMETRY IN A VARIATION-AND-CHANGE MODEL

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List of Abbreviations [1]

1 - first person

2 - second person

3 - third person

ABS - absolutive

ACC - accusative

ACT - active

AUX - auxiliary

CS - Central Semitic

DAT - dative

DU - dual

DUR - durative

ERG - ergative

ENA - Eastern Neo-Aramaic

ES - East Semitic

IMP - imperative

INF - infinitive

INSTR - instrumental

IP - internal passive

IPFV - imperfective

KAI - Donner, H. and W. Rollig. 2002[5]. *Kanaanäische und aramäische Inschriften.* vol. I. Wiesbaden: Harrasowitz.

MSA - Modern South Arabian

NENA – North Eastern Neo-Aramaic

[1] Terminology for Semitic verbal stems and transcription norms—namely the use the symbol √ for root; R_1, R_2, and R_3 for the three root consonants, and the paradigmatic root √*qtl*—are laid out in detail below (in §1.2).

NP – noun phrase

NWS - Northwest Semitic

OBJ - object

OBL - oblique

OSA - Old South Arabian

PASS - passive

PC - prefix conjugation

PFV - perfective

PL - plural

PP - prepositional phrase

PRET - preterite

PRON - pronoun

PTCP - participle

SBJV - subjunctive

SC - suffix conjugation

SG - singular

SUBJ - subject

TAD - Yardeni, A. and B. Porten, B. 1986–1993. *Textbook of Aramaic documents from ancient Egypt.* 3 vols. Jerusalum: The Hebrew University.

WNA - Western Neo-Aramaic

WS - West Semitic

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Chapter 1: Introduction

1.1 Preliminaries

The Semitic languages possess several ways of expressing the passive voice. The most widespread of these, attested to some extent in all branches of Semitic, is the affixation of a dental morpheme *t*. A prefixed nasal morpheme *n* also serves this purpose, but does not occur in Aramaic, Ethiopic, Modern South Arabian (MSA), or Old South Arabian (OSA), and so is less pervasive.[1] However, since it is present in both Akkadian and West Semitic (WS), the passive-marking prefixed *n* is reconstructable to proto-Semitic (PS).

Another passive marker, restricted to WS, is the distinction of a PASS verb from an unmarked active counterpart by differences in the vowels of the stems and prefixes.[2] It is this third kind, the so-called "internal-passive" (hereafter "IP") constructions, that are the subject of this dissertation. It ultimately seeks to reconstruct their diachronic development, a task that has yet to be satisfactorily achieved, despite more than a century of attempts.

In the following introduction, a summary of the terminology and transcription used is given. Next, the distribution of IPs is surveyed, and the various forms attested are listed, with some reference to the ramifications thereof for the reconstruction of their development. The bulk of the introduction provides an overview of the literature on IPs to date, not only because it serves as the starting point for the current study, but also to highlight what shortcomings have prevented

[1] The N occasionally forms quadriradical verbs in Ethiopic and MSA, but it does not occur as a passive marker.
[2] In addition to these verbal stems, analytical passives, where the marking occurs not on the finite verb itself, but instead at the level of the VP (in a periphrasis combining an AUX and a verbal adjective), are also attested. These, though, are far less common than synthetic passives in Semitic, and largely restricted to modern languages. For examples from modern Arabic and Aramaic dialects, see Fassberg, 2010, §4.4.20; Khan, 2008, §15.9; and Retsö, 1989, 15. Insofar as Semitic analytical passives are neological, relative to the passive verbal stems, their role in the development of the latter, and consequently their importance to this study, is limited.

previous scholars from achieving their goals. Finally, a working hypothesis and the proposed methodology for the dissertation will be presented.

1.2 Terminology and Transcription

"Passive" is naturally a crucial linguistic term employed in this dissertation, but so too are other, related categories falling under the broader rubric of "detransitive", namely "mediopassive", "reflexive", "reciprocal", and "middle", as well as various subcategories thereof. The primary purpose of the following explanation of these terms is to inform the survey of the literature, so it follows the relatively simple framework adopted by studies of IPs to date. Shortcomings of this understanding, and the modified approach consequently adopted, are discussed in detail in Chapter 2.[3]

As one might imagine, "detransitive" refers to a reduction in syntactic transitivity, so that a verbal predicate takes fewer arguments. The valency of a transitive verb specified for two arguments—linked to the grammatical relations SUBJ and OBJ, corresponding to the respective semantic roles of agent and patient (or similar)—can be reduced by removing either the first (SUBJ) or second (OBJ) argument, resulting in two different constructions, with distinct meanings. From the basic active sentence (1) *John broke the vase*, removal of the first argument (*John*, the SUBJ) results in the passive sentence (2) *the vase was broken (by John)*, in which the patient, *the vase*, is promoted from the OBJ slot into the SUBJ slot. If the agent is explicitly mentioned at all—and many languages prohibit this—it is at least demoted to an OBL slot, in

[3] Linguistic-theory material is presented in terms of the lexical-functional grammar framework, for a simplified version of which, see Kroeger, 2004.

this case a PP.[4] If the agent is deleted altogether, and removed from the semantic specification as well the surface representation, the result is a slightly different kind of first-argument reducing detransitive, the "mediopassive" sentence (3) *the vase broke (on its own)*.

The valency of a transitive verb may also be reduced by the syntactic deletion of its second argument (OBJ). In this case, reference to its semantic role (patient) is subsumed by the SUBJ, resulting in a reflexive or reciprocal meaning.[5] For example, (4) *the man washed (himself)* is reflexive, in contrast to the basic transitive sentence (4b) *the man washed the car*; (5) *the men wrestled (each other)* is reciprocal, in contrast to (5b) *the men wrestled the boys*.

Two important sub-classifications of the broader category of reflexivity are further to be made: "natural" versus "prototypical", and "direct" versus "indirect". The first pair simply distinguishes between verbs whose semantics have a natural tendency towards reflexivity and those in which the agent and patient are prototypically distinct entities—e.g., (6a) *he shaved (himself)* versus (6b) *he shot himself*.[6] The second distinction, between direct and indirect reflexivity, relates to the *semantic* role with which the reduced original OBJ is associated. Where this is anything other than a patient—Kemmer claims it can otherwise only be recipient or benefactor—the reflexivity is termed "indirect", since such a role is less directly central to argument specification of the predicate than is a patient.[7] For example, the basic transitive sentence (8a) *Tom poured a drink for himself* may be transformed into an indirect reflexive (8b)

[4] The transitivity of a verb with SUBJ and OBJ arguments is in a sense higher than that of one with SUBJ and OBL, since an OBJ is an *obligatory* argument (or "term"), and thus linked more closely to the verbal predicate than an OBL, which is an *optional* adjunct (Kroeger, 2004, 15–16, 94).
[5] Reciprocal is a subcategory of reflexive, occurring with plural SUBJs, and lexically specified according to the semantics of the verb.
[6] The same distinction exists between natural and prototypical reciprocals—cf. e.g., (7a) *they kissed (each other)* and versus (7b) *they hate each other*. Note that this is a distinct use of the term "prototypical" than that of Shibatani (1985), discussed in chapter two. The fact that the reflexive pronouns in the examples given are optionally omitted with no loss of meaning reflects the extent to which these acts are, in of themselves, naturally reflexive.
[7] Kemmer, 1993, §3.5.

Tom poured himself a drink, where the patient "*drink*" remains an OBJ, while the beneficiary "*himself* is promoted from OBL to OBJ.[8]

The term "middle" is problematic enough that an entire section of Chapter 2 is devoted to its discussion. Suffice it here to note that Semiticists variously use "middle" to refer to mediopassivity, natural reflexivity, and indirect reflexivity. It is sometimes also applied to (usually, though not exclusively, intransitive) verbs bearing morphology usually associated with reflexive marking, but which possess no basic unmarked counterparts.[9]

In brief, one may distinguish between first-argument–reducing detransitives (i.e., passives and mediopassives) and second-argument–reducing ones (i.e., reflexives, including reciprocals, and, depending on how one uses the term, middle verbs). Detransitives are also subdivided according to semantic characteristics (e.g., between passive and mediopassive) of the verb and its argument specification (e.g., between direct and indirect reflexives). Further complicating the situation, the use of a given detransitive marker may straddle several categories and extend beyond detransitive functions, ultimately lexicalising to the point that it occurs with no associated function.

Semitic forms are cited according to the standard terminological norms of the discipline, using the paradigmatic root √*qtl* and the 3MSG conjugation as a reference form.[10] The basic verbal stem is referred to as the "G" (for German *Grundstamm* "Basic stem"); that with characteristic doubling of R_2 is termed the "D"; that with characteristic lengthening of the first

[8] Where reflexivity is marked only in the verbal morphology (e.g., in the Semitic t and N detransitive verbal stems) there is no distinct reflexive pronoun that is coreferential to the SUBJ so the semantic role beneficiary is subsumed by the SUBJ rather than being promoted to OBJ. Reciprocals may also be indirect—e.g., (9a) *Tom and John poured each other drinks* with the corresponding basic sentence (9b) *Tom and John poured drinks for each other*.
[9] Such verbs are otherwise termed "deponent" (see, e.g., Kouwenberg, 2010, §10.8).
[10] The symbol "√" is used to indicate the "root", or sequence of (usually) three consonants according to which the Semitic lexicon is arranged. The use of √*qtl* as a paradigmatic model is maintained even in languages where this root is unattested, where *q* is usually transliterated as *ḳ*, or where its presence would result in sound changes causing deviation from regular morphology (all of apply to MSA). Where reference is made to root letters in abstraction rather than in relation to a specific form, they are labelled R_1, R_2, and R_3, respectively.

vowel the "L"; that with the addition of a sibilant or laryngeal causative prefix (*s-/š-/h-/ʔ-*) the "C"; and that with the nasal prefix *n-*, the "N". The D, L, C, and N all have a direct derivational relationship to the G. In cases like where the causative prefix is added instead to the D, for example, this is specified by combining the appropriate labels—e.g., Ethiopic "CD" *ʔaqattala* =(C) *ʔa-* + (D) *qattala*.

A dental morpheme *t* may be added to each of the G, D, L, and C, and it is combined with their respective labels according to its (prefixed/infixed) position relative to R_1 of the G, D, and L or to the causative morpheme of the C in the form "tX" or "Xt" (where "X" stands for the basic unmarked counterpart). Thus, "tD" stands for the D with prefixed *t*, and "Gt" to the G with *t* infixed after R_1—e.g., Arabic *taqattala* and *(ʔi)qtatala*, respectively. Since IPs can be formed from various stems, they are likewise labelled as "Xp": "Gp" is the IP to the G, and "Ctp", that to the Ct—e.g., Arabic *qutila* and *(ʔu)stuqtila*, respectively.

The conjugational parts of the verbal paradigm are terminologically familiar enough from the discipline of Semitic linguistics to require just a brief explanation.[11] The suffix conjugation (SC) is the WS form expressing perfective aspect (or past tense), etymologically cognate to the Akkadian "stative", and created by the conjugation of a stem with person-marking suffixes. The PC is the form *yv-qtvl*, consisting of a monosyllabic stem conjugated with person-marking prefixes. It occurs throughout Semitic with a range of functions, but is especially important in CS, where, combined with various modal suffixes, it encodes imperfective aspect.[12]

Ethiopic, MSA, and Akkadian also retain another prefix conjugation, that with a disyllabic stem, deriving from **yv-qattvl*. According to standard use in the relevant disciplines, *yv-qattvl*

[11] The Semitic verbal paradigm also contains an infinitive (INF) and imperative (IMP), but these are only rarely associated with IP stems, and so bear a marginal relationship to the matter in hand.
[12] PC forms given are those with no modal suffixes since the bare stem (mainly serving as a jussive, but with some preterite use) is, morphologically speaking, the most basic form. For instance, Classical Arabic forms are given as the jussive *ya-qtul*, even though the indicative *ya-qtul-u* is normally the reference form.

and *yv-qtal* are respectively referred to as imperfective (IPFV) and subjunctive (SBJV) in relation to Ethiopic and MSA, and as durative (DUR) and preterite (PRET) in relation to Akkadian. A participle (PTCP) is a verbal adjective so deeply embedded into the verbal paradigm as to be restricted to one side of the bipartite division of grammatical roles according to the nominative-accusative alignment of Semitic. Thus, an ACT PTCP is a form that can refer to the subject of an intransitive verb or agent of a transitive one; a PASS PTCP, by contrast, can only express the patient of a transitive verb.[13]

1.3 Distribution and Forms

IP constructions are restricted to WS and do not occur in Akkadian. Considering the initial bifurcation of PS into WS and (proto-)Akkadian, the earliest stage to which they may therefore be reconstructed is proto-WS.[14] Within WS, though, IPs are not ubiquitous; they are absent from Ethiopic, most Arabic dialects, and the latest stages of Canaanite, and are poorly attested in Aramaic. This distribution, it must be stressed, does not correspond to any recognised genetic subgrouping within WS.

It is quite uncertain which of the IP constructions in WS languages, if any, are etymologically related rather than independent, parallel developments. Rather than viewing IPs as genetic features inherited from a common proto-language, some scholars have argued that where they *are* cognates, they instead represent areal features that spread via diffusion.[15] Establishing an answer to this controversial question is a primary goal of this dissertation.

[13] The precision of this formulation is necessary because there exist in Semitic not a few verbal adjective patterns that are less rigidly tied to the verbal paradigm, which may fulfill any of these functions, depending on the lexical specification of the verb in question (e.g., the Akkadian stative, or *qatīl* adjectives in Arabic).
[14] The current work adopts the standard genetic classification of Semitic, as presented, for example, by Faber (1997).
[15] For IPs as a supposed areal feature, see Appleyard, 1996, 220. This kind of thinking is also pervasive in the work of Retsö, 1989.

One consideration regarding the distribution of IPs that must not be ignored is dialectal and diachronic variation within individual languages. For example, in Aramaic and Canaanite there is a marked decline in the productivity of IPs over time. They are also far rarer in contemporary Arabic dialects than in Classical Arabic, and though there is not unanimous agreement that this is the result of a decline like that in Aramaic and Canaanite, work charting the ongoing decline in dialects that do still possess IPs strongly suggests it is.[16] In any case, the decline of IPs is almost as major a concern of the literature on them as is their emergence. In this regard, complexities in their dialectal and diachronic distribution, specifically in terms of a genetic family-tree model of Semitic, have been a major obstacle to previous attempts at a reconstruction of IP development.

The following lists the main IP forms dealt with in this dissertation, presented in the form suffix SC ~ PC ~ PTCP.:

- Classical Arabic: Gp *qutila ~ yu-qtal ~ maqtūl*, Dp *quttila ~ yu-qattal ~ muqattal,* Lp *qūtila ~ yu-qātal ~ muqātal*, and Cp *ʔuqtila ~ yu-qtal ~ muqtal*, and, more rarely, Gtp *(ʔ)uqtutila ~ yu-qtatal ~ muqtatal*, tDp *tuquttila ~ yu-taqattal ~ mutaqattal*, tLp *tuqūtala ~ yu-taqātal ~ mutaqātal*, and Ctp *(ʔu)stuqtila ~ yu-staqtal ~ mustaqtal*;[17]
- Ḥassāniyya Arabic of Mauritania: Dp *uqattal ~ yu-qattal ~ muqattal*, Lp *uqātəl ~ yu-qātəl ~ muqātəl*, and Cp *usaqtal ~ yu-saqtal ~ musaqtal*;[18]
- Najdi and other Central and Eastern Arabian dialects: Gp *qtil/qitl/qitil ~ yi-qtal ~ maqtūl*, Dp *qittil ~ y(i)-qattal ~ m(i)qattal*, Lp *qītil* ~ ? ~ ?, and Cp *ʔiqtil ~ yi-qtal ~ miqtal*;[19]

[16] Petraček (1963, 615–16), for example, argues that the distribution of IPs represents a register distinction, such that Classical Arabic preserves them because of its literary character. Retsö (1989, 172–75, 180–84) does not believe the IP constructions of Dialectal and Classical Arabic are even etymologically cognate. On the decline of IPs in Omani Arabic, see Holes, 1998.
[17] Wright, 1896, 298–301.
[18] Taine-Cheikh, 2007, 245.
[19] For Omani, see Holes, 1998; Edzard, 2008, 488; for Najdi, Ingham, 1994, 26–28, 75–78; 2008, 332; for Bahraini, Holes, 2006, 253; and for Kuwaiti, Holes, 2007, 618. For an overview of IP constructions in dialectal Arabic, see Kaye and Rosenhouse, 1997, 297–98.

- Aramaic: Gp *qətīl* (SC and PTCP, with no PC attested), Cp *huqtal* ~ no PC attested ~ *m(əh)aqtal / muqtal*;[20]

- Canaanite: Gp **qutal* ~ **yu-qtal* ~ **qatūl*, Dp **quttal* ~ **yu-quttal* ~ **muquttal*, and Cp **huqtal* ~ **yu-qtal* ~ **muqtal*;[21]

- MSA forms are discussed in detail in Chapter 6. Suffice it here to mention that IPs other than the Gp are quite rare (especially in the Mainland MSA languages), and that IPs occur in all three conjugations found in the language (SC ~ IPFV ~ SBJV);

- IP forms for OSA and Ugaritic are not presented here since insufficient data regarding their vocalisation is available. Nonetheless, their presence in these languages is inferred from the existence of forms whose orthography is identical to active verbs, but whose syntactic or semantic contexts demand their interpretation as passives.[22]

1.4 Literature on IPs to Date

The following survey of literature on IPs organises works according to the several main theories of IP development to which they subscribe, with the proviso that the distinction between some of these is not always clear cut. Next, literature dealing with the decline in IP productivity are discussed. There is much to be criticised in the work to date on these constructions, not least of all, that it frequently fails to contextualise individual forms within the broader IP paradigm, let alone the detransitive system more generally. Nonetheless, their findings will, of necessity, inform a general theory of IP development.

[20] Bauer and Leander, 1927, §28. Though the description presented follows the consensus opinion on the Aramaic IP situation, the discussion in chapter three finds it was likely considerably more complex.

[21] These are reconstructed proto-Canaanite forms based primarily on Biblical Hebrew (for which, see Jouön and Muraoka, 1991, §§53g–h, 55–58). Very sporadic tGp and tDp SC forms are attested in the Masoretic vocalisation of the Hebrew Bible, as are a handful of dedicated INF forms for the IP stems.

[22] This thinking is based on the idea that cross-linguistically, passives are (almost) always morphologically distinguished from their active counterparts (Keenan, 1985, 255).

Before turning to how scholars explain IP diachrony, a brief word is in order regarding the theoretical background from which their theories spring. The conception of the detransitive stem system as expressed in Brockelmann's seminal *Grundriss der vergleichenden Grammatik der semitischen Sprachen* at the turn of the twentieth century underpins the position of the vast majority of Semiticists thereafter.[23] IPs, the N, and *t* stems are all understood as primarily syntactic detransitives, with the N and *t* stems reducing second arguments and IPs first arguments.[24]

A semantic component is also admitted for detransitive stems with consonantal affixes, though, so that uses of *t* stems for verbs of motion and states, for example, are presented as secondary functions resulting from the extension of SUBJ affectedness to non-reflexive situations.[25] This functional distinction is framed in synchronic terms; Brockelmann does not explicitly identify non-syntactic detransitive uses as later developments than syntactic ones. The frequent passive use of *t* stems, by contrast, is explicitly identified as a neologism in younger Semitic languages, whereby they oust IPs in this function as part of a push-chain. His description of the N stem is basically the same: originally reflexive, and later developing into passive.

Brockelmann barely refers to the function(s) of IPs, only briefly mentioning that in some Arabic dialects they are used for illnesses, and even other states. It is hinted that this is a secondary development from an original functional restriction to passivity, rather than the remnants of an earlier use of the form, though no detailed analysis of this phenomenon is given. It is instead implicitly considered so obvious as to not warrant mention that IPs may be simply

[23] Brockelmann, 1908, §257H.
[24] Since indirect reflexivity may reduce a *third* argument, "non-first argument" would, strictly speaking, be more accurate than "second-argument' in this context, but the current formulation is adopted for clarity and simplicity.
[25] Brockelmann (1908, §257He) cites, amongst others, the example of Arabic *(ʔi)ttabaʕa* (Gt) "to follow", which is basically synonymous with its unmarked counterpart *tabaʕa* (G).

understood, in purely syntactic terms, as first-argument–reducing detransitives; that is, expressing the passive is their sole function.[26]

This attitude has been followed by virtually all scholarship on IPs to date, so that actual discussion of the functionality of IPs (i.e., rather than their formal dimension) is scarce.[27] Nor does Brockelmann really address the diachronic morphology of IPs. He does, however, make the observation about their distribution that they are limited to WS—Akkadian statives may also express the active voice and so are not IPs, while the Gp PC *yu-qtal* in the Amarna corpus is a Canaanism, that is WS rather than Akkadian—which does implicitly ascribe them a terminus post quem of the proto-WS stage for their creation.[28] This then, is the view of the functions of the Semitic detransitive stems that has informed virtually all subsequent scholarship: IPs are restricted to syntactic passive uses, and contrasted to the N and t, which have syntactic detransitive functions—originally second-argument reducing, but subsequently also first-argument reducing—but also express the semantic feature of SUBJ affectedness, including in instances with no change to the syntactic arrangement of arguments.

Elsewhere, Wright identifies IPs as "real passives, as distinguished from the reflexives and effectives, which so often discharge the functions of passives". Apart from being restricted to first-argument reduction (and never having reflexive functions, for example), he does not conceive of an "effective" dimension as being central to their functionality in the same way it is in the N and *t* stems.[29] The explicit distinction between "passive" and "effective" in his Arabic

[26] Brockelmann, 1908, §257I.
[27] Two significant deviations from this conception of IP functionality are the works of Von der Gabelentz (1861), and Bicknell (1984). The former claims that Hebrew IPs are less frequently passive, properly speaking, than they are mediopassive, while the latter believes they mark resultative aspect, with no reference to syntax, and so can perform second- as well as first-argument–reducing detransitive functions.
[28] The view that Akkadian statives are not IPs is doubtless correct, though the contrary view had enough currency that early works on IPs—Blake (1901, 46), for example—felt the need to explicitly refute it.
[29] Wright, 1890, 222.

grammars perhaps indicates that he intends to refer, with the latter term, to resultative aspect rather than the semantic category of SUBJ affectedness:

> [T]he *passive* indicates that a person is the object of, or experiences the effect of, the action of *another*; whereas the *effective* implies that an act is done to a person, or a state produced in him, whether it be caused by *another* or by *himself*.[30]

Although the bifurcation between IPs on the one hand and the N and *t* stems on the other, based on their functions, is, in of itself an entirely reasonable distinction, it has given rise to a regrettable tendency for scholars to treat IPs in isolation. That is a shortcoming this dissertation aims to redress; just because IPs differ functionally from other detransitive stems, that does not mean their diachronic development should be treated apart from them. On the contrary, it is precisely by examining the functions of the various forms (and specifically the differences between them) that one might best find clues about the development of the system as a whole.

There are relatively few main theories on the functional origins of IP morphology, and the various proposals in the existing literature can basically be reduced to three proposed derivations of IPs: 1) from the verbalisation of nominal forms (specifically those relating to affliction, or the results of actions more generally), 2) from a functional reassignment of stative/intransitive verbs, and 3) from the grammaticalisation of a copula in a periphrasis.[31] However, these same general principles are applied to the data in various ways, resulting in a complicated, interrelated web of theories. One important factor in this is the extent to which scholars view IP forms from different languages, or different parts of the paradigm of a single language, as related, in which regard there is great variation of opinion.

To complicate matters, even if someone attributes distinct etymological origins to various forms, he/she may still see interrelations between them—analogical influences, for example—as having affected their formal development. Moreover, the different proposed sources cannot

[30] Wright, 1896, §48; his italics.
[31] For a brief summary of the major theories and their main exponents, see Retsö, 1989, 23–26.

always be neatly separated, since, conceptually speaking, they are not even entirely distinct in their own rights. For example, insofar as the copular of a Semitic nominal clause exists in the nexus between its (pro)nominal SUBJ and the predicate, for those who see the stem of the Gp SC as deriving from a verbal adjective (inflected, like the SC in general, with pronominal suffixes), at some level, the distinction between this notion of IP development as resulting from the verbalisation of an adjective and a copula-based theory is simply a matter of perspective.[32] Further, whether one describes IP SCs as deriving from finite stative/intransitive verbs or ascribes them nominal origins could depend on the extent to which one considers the SC in general to have grammaticalised from its nominal origin at the stage when IPs were first created.

1.4.1 Nominal-Origin Theories of IP Development

One common understanding of the origin of IPs is that they derive from nominal forms. At its most extreme, such thinking associates the vocalic sequence *u-a* throughout the IP system with a nominal pattern **qutāl* that expresses afflictions, and even further, with sound-symbolism linking this sequence to a cry of pain.[33] This is supposed to have provided the stem of the nascent IPs, which received various verbal inflections and underwent several consequent phonological processes necessary to create the attested forms.[34] As mentioned, scholars who posit a single nominal form as the (ultimate) origin of IPs generally need to combine this with supplementary elements from different theories to account for the entire paradigm. Thus, for example, Bauer

[32] The key difference is the identification of part of IP morphology as deriving from an *overt* copula.
[33] While such a development does not follow the grammaticalisation chain lexical verb > auxiliary found in Chinese and Vietnamese words meaning "suffer" that develop into passive markers—for which, see Haspelmath, 1990, 41—it does possess semantic similarities.
[34] Bauer (1915, 562) is the first major exponent of this theory, building on Brockelmann's identification of links between IPs and Arabic verbs denoting afflictions. His phonological reconstruction resorts to levelling of a short reflex of **ā* in closed syllables, and assimilation of the prefix vowel to the *u* following R_1 before the latter was elided—e.g.,**qutāl-tā* > pre-Hebrew Gp SC **qutal-ta* and **ta-qutāl* > **tu-qutal* > *tu-qtal* Arabic/Hebrew Gp PC.

extends the passive marker *u* (whose origin he sees as a nominal form **qutāl*) from the Arabic Gp PC *yu-qtal* into the stative/intransitive SC *qatila* to form the Gp SC *qutila*.

More recently, Retsö has followed the *u-a* nominal-origin theory, at least for the Hebrew Dp (and Gp, to the extent that it exists) and the Arabic √3=*y* Gp SC by-form *qutā*, but not the Gp PC *yu-qtal*.[35] He is less restrictive about the semantic dimension than Bauer, stating that the source of the vocalic sequence *u-a* refers to the results of actions, rather than to affliction specifically. Nor is he as rigid as Bauer about the morphology of the source, presenting distinction between *qutāl*, *quttal*, and *qutal* as basically irrelevant in terms of IP development.

It is not only IPs with the vocalic sequence *u-a*, though, that have been ascribed a nominal origin. In fact, in his *Diathesis in the Semitic Languages*, Retsö reconstructs nominal origins for all IPs except *yu-qtal* (on which his views are discussed below). However, he does not posit a common *origin* for all the forms, merely seeing them as parallel developments proceeding along similar lines. As a result, Retsö reconstructs no fewer than six separate (sets of) sources that he believes have developed into IPs:

- **qutāl*, discussed above, for which he also proposes variants **quttal* and **qutal*;
- *qīl*, and far more rarely *qūl*, serving as the Gp SC for √2=*w/y* in Arabic and Aramaic, as well as a few scattered cases in Hebrew;
- **qatīl*, which gives rise to the Aramaic Gp SC *qətīl*;
- **quttul* and **huqtul*, which he believes lie behind the Classical Arabic Dp and Cp SC *quttila* and *ʔuqtila*, respectively, with the vocalic sequence *u-i* subsequently being used to generate a comprehensive IP SC paradigm;
- *muqattal*, on the basis of which the Arabic Dp PC *yuqattal* was formed;

[35] Retsö, 1989, 166–70. Nowhere in his discussion of the Gp/Cp *yu-qtal* (ch. 6) does he mention any sort of relationship to such IP forms (whether shared etymology or analogical pressure, running in either direction). The consequent, somewhat troubling implication is that the shared vocalic sequence *u-a* is merely a coincidence.

- and *qitil*, which serves as a dialectal Arabic Gp SC—being so productive that its vocalic sequence was secondarily extended to create a Dp *qittil* and Cp *ʔiqtil*—as well as being the origin of the Mainland MSA Gp SC *qətēl/qitíl* (Mehri/Jibbāli).[36]

Of these, the theories about proposed proto–vocalic sequences *u-u* and *i-i*, and the formation of *yu-qattal* from *muqattal* are not found elsewhere in the literature and so warrant some further attention.

Retsö believes the vocalic sequence *i-i* lies behind many Semitic constructions, including, in addition to the aforementioned IPs, verbal adjectives with resultative nuances, some finite verbs with specifically *active* orientation, and nouns tied to the verbal system without reference to the organisation of arguments.[37] This means that *i-i* IPs would have emerged from a nominal pattern that originally had neither specifically active or passive value, but in the process of verbalisation, could (and did) develop into either. Moreover, Retsö links *i-i* IPs of dialectal Arabic to those with *u-i* in Classical Arabic by asserting that the origin of both sequences was **u-u*, with the distinction that "the *i-i* form can be seen as a regular phonological development; the *u-i* forms arise from the application of the *u-u* pattern on III-*y* roots".[38] Retsö's ideas about *i-i* IPs perfectly embody his two main innovations in the arena of nominal-origin theories of IPs: the removal

[36] For these theories on IP origins, see Retsö, 1989, ch. 7, with the ideas summarised in ch. 8. The MSA situation is discussed separately in Chapter 6 of this dissertation.

[37] For active *i-i* and *u-u* forms, Retsö (1989, 184ff.) cites *qitl* and *qotl/qətol* (deriving them from **qitil* and **qutul*, respectively), which function as stem allomorphs for both the Hebrew G IMP and INF. He also reconstructs the Hebrew D SC *qittel* and C SC *hiqtīl* (as well as occasional C IPFV uses of *hiqtel*) as retentions of original **qittil* and **hiqtil*, respectively. Seeing voice specification as a secondary result of verbalisation, though, is incompatible with Retsö's (1989, 176) earlier claim that the *u-u* sequence itself ultimately derives from the **qatul* pattern, since this is associated with *patiens* adjectives. Further, based on both Hebrew-internal evidence from theme vowels and the Semitic situation generally, strong objections are to be made against associating IMP morphology with a nominal form rather than the jussive *yv-qtvl* form.

[38] Retsö, 1989, 186. Considering the great extent to which his work deals with Arabic dialects, it is surprising that he does not incorporate *q(u)tul* IPs—for which, see Kaye and Rosenhouse, 1997, 297–98—into this argument. Further, no explanation is given for the different development of *u-i* IPs in Classical Arabic—first in √3=*y* before spreading through the paradigm—and *i-i* in some Arabic dialects. Incidentally, he believes that the same motivation to avoid impermissible ***uy* lies behind the use of the *u-a* sequence in Hebrew IPs, though was achieved here by using a form (**quttal*) already present in the language (as a nominal form), rather than by a sound change (**u-u* > *u-i/i-i*).

from the source of a necessary orientation towards the patient, making voice distinction instead an (accidental) by-product of the verbalisation process, and the incorporation of phonological considerations into arguments about the development of the morphological material itself.

In another nominal-origin argument, Retsö asserts that the Arabic Dp PC *yu-qattal* is created on the basis of the D PASS PTCP *muqattal*, thereby contradicting the oft-held opinion that *yu-qattal* must be etymologically related to Hebrew Dp PC *yə-quttal*.[39] That is, he rejects the traditional assumption that the Hebrew form derives from a proto-form like the Arabic with progressive assimilation prior to the reduction of the prefix vowel (i.e., *yə-quttal* < **yu-quttal* < **yu-qattal*).[40] In a novel approach—and an exceptional instance in the literature on IPs adopting the same approach as the current dissertation—Retsö looks outside of the IP paradigm to the rest of the detransitive system to find the origin of this form.[41] He notes a corollary among Arabic dialects, which vary with respect to whether they possess the D PASS PTCP *mvqattal* and Dp PC *yv-qattal*, as well as in the form of their tD PC: the D PASS PTCP *mvqattal* occurs only where the tD PC invariably has the theme-vowel *a* between R_2 and R_3, and the Dp PC *yv-qattal* in turn only occurs in languages with a D PASS PTCP *mvqattal*.

From this correlation Retsö concludes that the tD PC, the D PASS PTCP, and the Dp PC are tied together in a developmental chain of the grammaticalisation of the vowel *a* between R_2 and R_3 shared by all three. That is, he believes this vowel started out as phonologically governed allomorph in the tD PC but came to be analysed as inherent to the (passive) marking of this stem. It was subsequently extended to the D (ACT) PTCP *muqattil* to create a PASS PTCP. The final

[39] For his views on *yu-qattal*, see Retsö, 1989, 187–94.
[40] Hetzron (1977, 43n1) believes this occurred precisely "because a short vowel in that position was doomed to be reduced to a šwa, but the functional value of the *u* rescued it by making it appear in the next syllable".
[41] Retsö, 1989, 187–94. Forms are presented in the following with unspecified prefix vowel *v* instead of the *u* of Classical Arabic, since in many dialects this reduces to *ə*.

step was a proportional analogy *yu-qattil* (D PC) : *muqattil* (D ACT PTCP) :: *muqattal* (D PASS PTCP) : *X* creating the finite Dp PC *yu-qattal*.

At one level, this ascribes to the Dp PC *yu-qattal* a nominal form as the source of its morphology. However, insofar it relies on the extension of the marking of the theme vowel *a* of the tD, and considering that Retsö believes the tD originally marked intransitivity, this theory also contains elements of the stative/intransitive-origin theory of IP development. Intriguing though such a proposal may be at first glance, it is noteworthy that the distribution of the relevant forms requires that the proposed developments occurred not according to genetic divisions, but rather according to a geographical dialect continuum cutting right through Arabic and grouping Aramaic with some dialects but not others. Retsö's theory also has to rely on some interdialectal influences to account for "mixed" Arabic dialects that do not conform to his model.

The rest of Retsö's proposals for nominal origins of IPs are not so novel. For example, since the turn of the twentieth century, scholars have seen the Aramaic Gp SC, *qətīl*, is an Aramaic-specific development conjugating the passive PTCP (< **qatīl*) with the pronominal suffixes of the SC. The same holds for the identification of *qīl* and *qūl* Gp SC forms as reflexes of the homonymous passive PTCP forms from √2=*w/y*.[42] That said, however plausible such theories of nominal origins for these particular IPs may be, they have not been universally accepted. No less authoritative a Semiticist than Brockelmann, for example, derives Aramaic *qətīl* from **qutila*

[42] For an early expression of both of these views, see Blake, 1901. The most extreme derivation of finite IPs from a nominal form **qatīl* comes from Praetorius (1923–1924, 140), who argues it is also the source of the Arabic Gp SC *qutila*. He does not, however, posit a *wholly* nominal origin for *qutila*, insofar as the *u* is said to have been transferred from the PC *yu-qtal*, for which he (137) proposes a copula origin.

(like the Arabic Gp SC).[43] Wright asserts that **qutila* is also the origin of *qīl* and *qūl* Gp SCs in √2=*w/y*, arising by monophthongisation of underlying **quyila* and **quwila*.[44]

Theories about nominal origins of IPs, then, are widespread and cover a variety of different forms, though by and large this kind of argumentation is invoked more often to account for SCs than PCs. One noteworthy consideration about such proposals is that the underlying notion of a nominal origin of verbal morphology may also holds for *active* verbs in Semitic, if one looks with deep enough chronological perspective.[45] In IPs, the development is supposedly one of a noun depicting the result of a process becoming a resultative verbal adjective (including a PASS PTCP, in a more restrictive sense), and ultimately forming the stem of a finite verb that receives inflectional affixes taken over from the existing verbal system.

Examination of the passives throughout the languages of the world in Chapter 2 finds that the creation of passive verbs from nominal sources more often occurs when a true periphrasis, including a copula and a PTCP, grammaticalises. By the time of WS, however, it is hard to view the SC as anything other than a fully verbal, finite conjugation (and any non-verbal origins of the PC were completely opaque). Therefore, if any IPs arose by inflection of a nouns with affixes from the active verbal paradigm, these were not a grammaticalisations of nominal predications, properly speaking, which are discussed below in the section on copula-origins of IP development.

[43] Brockelmann (1908, §257I) explained the lengthening of the *i* as resulting by *analogy* to the PASS PTCP **qatīl*, but crucially did not attribute a common *etymology* to the Gp SC and PASS PTCP.
[44] Wright (1890, 224–225) also believes the Aramaic Gp SC derives from **qutila* rather than **qatīl* (largely based on differences between the Gp SC and G passive PTCP in √3=y). Unlike Brockelmann, though, he ascribes the change **i* > *ī* not to analogical influence but to phonological conditions, namely the stressed position of the vowel.
[45] Hodge (1975) argues that the creation of verbal morphology from a nominal origin, having many separate instances in Semitic, is in fact something of a linguistic universal.

1.4.2 Stative/intransitive-Origin Theories of IP Development

A second large group of theories about IPs derives them from the WS stative/intransitive verb **qatila ~ *yi-qtal*. The categories passive and stative are sometimes claimed to be linked by their common characteristic of lack of agentivity, in support of which perceived functional overlap *qutila* by-forms for stative *qatila* verbs in Arabic are cited.[46] However, *qatila ~ yi-qtal* does not only express non-agentive, stative actions; it is also frequently used for intransitive *fientive*, *agentive*, verbs. Moreover, while passives have defocussed agents often—virtually always, in Semitic—absent from the surface structure, they remain present in the semantic specitication (otherwise the verb is *medio*passive, not passive). Functional links between stative/instransitive **yi-qtal* and passive **yu-qtal* are tenuous at best, which explains why proponents of the repurposing of morphology from the former to the latter must attributed this to the "improvisatory character" of passive marking.[47]

At its core, the stative/intransitive-origin–theory considers the Gp PC *yu-qtal* a variant of *yi-qtal*, whose function became specialised to passive use, but whose original stativity is sometimes retained (e.g., Hebrew *yūḵal* "he is able").[48] Depending on the extent to which individual scholars connect the etymologies of the various parts of the paradigm, the vowels *u* and *a* are then extended to other contexts (e.g., to the stative SC *qatila*, resulting in the Arabic Gp SC *qutila* and the Hebrew Dp SC *quttal*).[49]

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[46] Retsö, 1989, 6: "In Semitic there is another category that plays a crucial role in the P[assive] C[onstruction], viz. the stative…the reason for this must be a semantic feature which the subject of a stative verb shares with the subject in a P[assive] C[onstruction]: non-agentivity". Apart from *yu-qtal*, Retsö (1989, 193) proposes the development of an IP from an instransitive verb with the derivation of the Dp PTCP (and consequently the Dp PC) from the tD, which he charactersises as a fundamentally intransitivising (but not stative) form. For other expressions of a perceived functional link between passive and stative/intransitive, see Blake, 1901, 48; Retsö, 1989, 24–26.

[47] Retsö, 1989, 5.

[48] The precise origin of this variation is not of primary relevance to the theory *per se*, but mainly *yu-qtal* is identified as a √l=w allomorph of *yi-qtal* (Retsö, 1989, 159). Other proposals include extension of *u* from the D and C (Petraček, 1963, 597) or the underspecification of high vowels at an early stage of Semitic (Blake, 1901, 48–49).

[49] The preceding description of the stative/intransitive-origin–theory of IP development is that of Blake (1901).

Unless one ascribes different origins to the various IP stems such an approach necessarily attributes pre-eminence amongst them to the Gp, by analogy to which the other IPs are then thought to be derived.[50] This bears on the relationship between Semitic detransitive stems generally; if the Gp was the first IP, its scarcity in Biblical Hebrew must be due to a decline from earlier full productivity. For those that adhere to this hypothesis, it is generally understood to result from the redundancy of having two detransitive stems to the G (the N and Gp); according to such thinking, the originally reflexive N ousted the Gp, taking over its passive function.[51]

Several scholars subscribe to this development of *yu-qtal*, proposed by Blake already at the turn of the nineteenth century, with just minor additions or emendations. Petráček integrates the Akkadian stative into the discussion and argues that the motivation for creating the Gp SC was to parallel the formal distinction between active and passive verbs that existed in the PC after the creation of *yu-qtal*. In this regard, voice would be a fixed feature of the new WS perfective SC, whereas it had been an incidental category of its PS precursor, the stative (as preserved in Akkadian), which was instead marked for resultative aspect with no inherent reference to the syntactic organisation of its arguments.[52] The relationship between passivity and resultative aspect is doubtless an important one and features heavily in several works on IPs, particularly in relation to Hebrew.[53] In this regard, though, Petráček's work serves best as a cautionary tale of

[50] Of the major works that adhere to this theory—those of Blake (1901), Petraček (1963), and Retsö (1989)—only the last denies any etymological or derivational link between the *u-a* sequence of the Gp/Cp PC *yu-qtal* and these vowels as found elsewhere in the IP paradigm.
[51] For such a position, see Blake, 1901, 50–53.
[52] This supposes the morphology developed to express a syntactic distinction already present in the mind of the speakers. Such a notion of passivity being unmarked in the morphology, only determined by syntactic or semantic context, but nonetheless a central quality of a finite verb, is highly problematic—see discussion of Haspelmath (1990, 26–27) and Keenan (1985, 255) in Chapter 2.
[53] Fassberg (2001) and Meehan (1991), for example, have identified a shift in the function of the Dp PTCP in post-Biblical Hebrew from passive voice to resultative (and even perfective) aspect.

suspect conclusions reached through argumentation based on a flawed understanding of the relationship between these categories.[54]

It has been mentioned how stative/intransitive-origin theories tend to give primacy to the Gp over other IP stems, but there are also implications for the different conjugations within the Gp itself. If, as Petráček proposes, the Gp PCs of Arabic and Hebrew and the Gp SBJV of MSA are reflexes of a repurposed stative/intransitive *yi-qtal*, this must have happened during proto-WS; the heterogeneity of the SC, by contrast, he takes to reflect its parallel independent developments in the descendent languages.[55] By and large, other adherents to stative/intransitive-origin theories likewise see *yu-qtal* as the origin of all other IP morphology.[56] Retsö is unusual in that, though he derives *yu-qtal* from the stative PC *yi-qtal*, he does not link this to any other IP. He does, however, derive sporadic dialectal Arabic *qitil* forms from the stative **qatila*.[57]

The only other work to contribute significantly to the stative/intransitive-origin hypothesis is that of Retsö, who not only proposes a morphophonological motivation for the emergence of the Gp PC, *yu-qtal*, but also links this to other parts of the detransitive system, specifically the Cp PC. In this respect, he places the situations of various languages at different stages along a development that spread through WS by way of areal diffusion.[58] Specifically, based on

[54] Placing too much weight on incidental passivity in the Akkadian stative (a resultative verbal adjective) is precisely the converse of the error made by Bicknell (1984), who instead overemphasises the role of resultativity in finite passive forms (including IPs). She goes as far as claiming that this is the primary category for which Biblical Hebrew IPs are marked, so that they do not even necessarily express a syntactically passive arrangement of arguments, but may be reflexive.

[55] Petraček (1963, 601) believes that Amarna Canaanite is a language from a stage by which the Gp PC *yu-qtal* had been formed, but no corresponding Gp SC yet had.

[56] Haupt (cited in passing by Blake, 1901, 47n3) exceptionally suggests that the Arabic Gp SC *qutila* results from a combination of the vowels of the stative patterns *qatila* and (the far rarer) *qatula*.

[57] Retsö (1989, 184) stresses these are only *occasionally* used as a passive and are not to be confused with the Gp SC *qitil*, from a **qitil* noun, in dialects with *productive* IP systems.

[58] One part of Retsö's (1989) overall theory is that the formal identity of the Gp and Cp PCs of Arabic and Hebrew (all *yu-qtal*), is due to their having a common etymological origin, rather than resulting from a phonological process in the Cp—i.e., the elision of the causative morpheme (**yu-Cvqtal* > *yu-qtal*). This is of course an important point in relation to IP development as a whole, but does not relate specifically to the matter of stative/intransitive-origin theories, and so is not addressed here, but is covered in detail in Chapter 4.

anomalies in the distribution of *yu-qtal* forms throughout WS, Retsö proposes the following three-stage diachrony: (1) in the second millennium BCE, in Amarna Canaanite and Ugaritic, *yu-qtal* occurred sporadically as a Gp PC; (2) during the first millennium BCE, in Biblical Hebrew, it was sporadic as a Gp PC and productive as a Cp PC; and (3) from the first millennium CE onwards, in Classical Arabic, it was productive in both functions.[59]

Another significant modification Retsö has contributed to the stative/intransitive-origin theory is his observations on the phonological factors influencing the distribution of *yu-qtal* forms and the ramifications for it they developed. In Amarna Canaanite, Hebrew, and Ugaritic, they often occur in weak roots, from which he concludes that a restriction against formation of the N in √1=*w* (as occurs in Arabic) led to the reemployment of the existing stative/intransitive form *yi-qtal*, or rather its √1=*w* allomorph *yu-qtal*, in the passive function. This use, Retsö argues, was extended from √1=*w* to other √1=weak verbs, and subsequently spread through the whole paradigm.[60]

The component of Retsö's work that really sets it apart from other literature on IPs, though, is how it treats the relationship between them and other detransitive stems. Since he sees the initial motivation for the development of the Gp (PC) as phonological, the traditional explanation of the N replacing the Gp in Hebrew does not hold. Indeed, Retsö argues that the presence of scattered Hebrew *yu-qtal* does not necessarily mean this stem ever reached productivity in that language, but could represent a sort of arrested development.[61] Overall, with regard to whether

[59] Retsö, 1989, 33. Within the two earlier stages, he (46–48) further claims a genre-based distribution, such that Biblical Hebrew Gp forms belong to formulaic, sacral, poetic language, and that all Ugaritic literature necessarily reflects language of this style.
[60] At the level of the more overarching conception of Semitic, Retsö's theory (1989, 143–145, 159–160) appeals to bi-radicalism since it argues the N was used with triradical roots, while *yu-qtal* arose in those that originally possessed just two consonants (√1=*w/n/ʔ*).
[61] Retsö, 1989, 144: "[T]he *yuqtal* PM in Hebrew constitutes an archaism but not in the sense commonly thought…it should be seen not as a remnant of a more productive system which has been reduced, but as a category which could have expanded but whose development was halted and 'frozen'".

the passive to the G is expressed by the Gp, N, or tG/Gt in a given WS language, Retsö describes a situation of continuous struggle among the various options, contracting and expanding in relation to one another.

Thus, Retsö dichotomises WS, according to which stem first expressed the passive to the G, into "*t*-dialects" (including some Arabic dialects, Aramaic, and Ethiopic) on the one hand and "*n*-dialects" (including other Arabic dialects, Classical Arabic, Hebrew, and Ugaritic). This bifurcation does not correspond to any recognised genetic sub-classification of WS, and the distribution is explained as an areal isogloss.[62] Just as the N and tG competed as means of expressing the passive to the G at the WS level—actually, he describes this only in relation to the PC *yu-qtal*, with no discussion of how the more manifold Gp SC fits into this overall theory—the N and the Gp subsequently came to do so in the N dialects.[63]

In Hebrew, most of the Arabic N dialects, and Ugaritic, it was the N that became the productive means of expressing passivity relative to the G, at the expense of the moribund Gp; only in Classical Arabic and a few Arabic N dialects did the Gp triumph and reach full productivity, with a concomitant functional restriction of the N to mediopassivity. This triumph of the N Retsö ascribes to two factors: the triradicalisation of Semitic—since he argues *yu-qtal* was originally restricted to biradical root types—and the rise of his "apothematic" *yaqtil* causative, which tended to reserve *yu-qtal* as its own passive counterpart.[64] Regardless of the rest

[62] Retsö (1989, 148–150, 153–157) splits a polygenetic proto-Arabic into two areas, each aligning with a different branch of NWS. To the north lie the Arabic "t dialects", which are grouped with Aramaic; to the south, the Arabic "N dialects", grouped with Hebrew. He does not mention why Ethiopian became a t-dialect, but since it does not belong to the Northern area, he presumably saw this as an independent parallel development.
[63] Retsö, 1989, 141–142. No justification is given in this regard for either OSA or MSA, both of which have a Gt and Gp as passives to the G, but no N. Interestingly, Yemeni Arabic, which is geographically close to OSA and MSA (more so the former), has a similar situation. See Watson, 2002, 133 and the discussion chapter three.
[64] Retsö, 1989, 144. Against this position, one may object that the regularisation of triradicalism throughout the verbal paradigm certainly occurred long before the development of a *yu-qtal* IP, which cannot pre-date WS. Moreover, the restriction of *yu-qtal* as a passive to a causative cannot apply in Ugaritic, since this has a sibilant causative morpheme, rather than an "apothematic" causative (if indeed such a thing exists). Nor does Retsö account for the Classical Arabic situation, in which *yu-qtal* remains both the Gp and Cp PC form.

of his argument and the various problems therewith, this notion of different detransitive stems in competition is an important innovation Retsö has introduced into how one ought to regard IP development.

1.4.3 Copula-Origin Theories of IP Development

The third major group of theories about the origins of IPs proposes that they developed through the grammaticalisation of periphrastic constructions comprising copulas with verbal adjectives. Opinions vary on the precise origin of the copula item, and about the degree of certainty to which it can even be identified. Praetorius, for example, is highly confident in his assertion that this it is a long *ū* deriving from the verbal root √*hwy* "to be" (as preserved in Aramaic).[65] More recently, Hetzron has argued that the *u* vowel in IPs derives from a copula **wn*, which he reconstructs to proto-Afroasiatic, by which stage it had already grammaticalised so far as to have no discernible lexical origin.[66] Least certain of all is Vycichl, who hints that a copula is the most likely origin for what he identifies as a passive marker *ū*, but identifies other possible origins as an impersonal SUBJ marker, a locative element, or a reflexive marker.[67]

Opinions voiced on the mechanics of the morphological dimension of copula-origin theories are far more confident and homogeneous than those relating to the functional dimension of the

[65] This long *ū*, Praetorius (1923–1924, 137) argues, is preserved in the open syllables of the Hebrew Cp PC from √2=3 (e.g., *yūsaḇ*) and √2=w/y (e.g., *yūqam*).
[66] Hetzron, 1977, 42–47. In addition to being the source of IPs, he sees **wn* as the origin of the N, and the indicative mood markers *-u* and *-na*. He also reconstructs a (separate) copula origin for the *t* stems, all of which speaks to his general attitude regarding the development of passives, or detransitives more generally.
[67] Vycichl, 1959, 81–83. Despite Semitic instances of a *u* vowel functioning as a SUBJ marker and occurring in a locative affix, these options cannot explain the theme vowel *a*. Further, a more expected result from the grammaticalisation of a locative would be a progressive-aspect marker (see, Rubin, 2005, §6.5). For cross-linguistic parallels of passives derived from SUBJ markers and reflexives, see Haspelmath, 1990, §§4.2, 4.4. Vycichl is quite right in seeing the absence of any clear lexical source for the proposed copula as unproblematic; etymological opacity is entirely expected in constructions that have undergone a high degree of grammaticalisation.

etymology.[68] There is a consensus among their proponents that the copula first occurred in the PC, between the person-marking prefixes and the stem: *yu-qtal* < **y-u(:)-qvtal.* From here, IP SCs are supposed to have been formed by the secondary extension of this copula element, though there is some disagreement about the precise mechanics of how this occurred.[69]

Since the stem of the Gp PC is supposed to derive from a verbal adjective, the dividing line between copula-origin theories of IP development and the nominal-origin theory is not entirely clear.[70] Insofar as the theme vowel *a* of the Gp (and Cp) PC of this stem *-qtal* is said to mark instransitivity/stativity, as it does in the G PC *yi-qtal*, the distinction between copula-origin theories and stative/intransitive-origin theories is likewise blurred. Furthermore, since IP SCs are explained by extension of *u* from the PC to other contexts, theories may combine elements of stative/intransitive-origin and nominal-origin theories with the underlying copula origin they propose for IP morphology.[71]

1.4.4 Literature on the decline of internal passives

The preceding sections have summarised the main theories on how IP morphology developed. However, another major concern of literature on IPs is their scarcity in later Semitic languages compared to earlier stages, which is observable, to different extents, in each of the Arabic,

[68] This is somewhat ironic considering the wealth of cross-linguistic data for exactly such a development throughout the world's passives (for which, see Haspelmath, 1990, 38–42).
[69] Praetorius (1923–1924, 137–138) believes that IP SCs was created by extension of the *u* from the PC into the slot following R_1. Hetzron (1977, 44), by contrast, reconstructs a stage where it stood before the SC stem and was subsequently inserted after R_1 (i.e., **u-qatila* > *qutila* in Arabic). He does not, however, believe the Ḥassāniyya Arabic Dp SC, *ū-qattal*, represents an archaism in this regard (contra Vycichl, 1959, 79–80).
[70] The key issue distinguishing copula-origin theories of IP development from those proposing nominal origins is the identification of a specific morphological element (e.g., the *u* vowel) that was originally the copula in a periphrasis.
[71] Praetorius (1923–1924, 138), for example, combines the *u* of the Gp PC with a nominal form **qatīl* to create the Arabic Gp SC *qutila*. Vycichl (1959, 77–80) thinks the *i* of *qutila* derives from the stative verb, by analogy to its theme vowels *qatila : ya-qtal :: qutXla : yu-qtal*.

Aramaic, and Canaanite branches.[72] Generally, this is understood as the result of the decline of previously productive constructions. This section details salient points raised by scholars on this subject, with particular reference to the perspective adopted of viewing IPs within the broader context of Semitic detransitive stems.

One case of IP decline that has received much comment is that of the Gp in Canaanite. In the earliest recorded stage of the branch, the fourteenth-century BCE language of el-Amarna, the Gp PC *yu-qtal* is fairly well attested.[73] Williams' explanation for the rarity of the same in Biblical Hebrew reflects the traditional opinion on the diachronic development of the Canaanite Gp:

> the *Niphʿal* theme, originally with reflexive or middle and reciprocal force, came to be used also to express the passive idea. Consequently, the passive *Qal* [Gp] became increasingly less common, until by the time of biblical Hebrew it was obsolescent.[74]

The diachronic distribution of Gp forms in the Hebrew Bible, he claims, supports this theory; two-thirds occur in poetry, reflecting the tendency towards archaism in this genre. Though primarily concerned with Biblical Hebrew, Williams also mentions in passing that he sees Ugaritic and Phoenician as reflecting an early stage of the functional expansion of the N at the expense of the Gp, though he does so without expanding on the ramifications this has for the sub-classification of Canaanite and the relative chronology of the Gp.

Williams lists fifty roots preserving traces of the Gp in the Hebrew Bible, but which have been reanalysed as Dp or Cp forms, or revocalised as N forms.[75] However, the absence of D counterparts for some *quttal* IP SCs, which instead have corresponding G actives, gives a clue to their underlying identity as *Gp* (rather than Dp) SCs. Apart from the SC, Biblical Hebrew *yu-qtal*

[72] Data covering sufficient time depth is not available to make comparable diachronic evaluations for either MSA or Ugaritic, and I am unaware of any claims concerning OSA in this regard.
[73] Rainey, 1996, 2:75–80.
[74] Williams, 1970, 45–46. It is interesting that neither he nor most other adherents to this position cite the cross-linguistically common grammaticalisation path reflexive > mediopassive > passive (for which, see Haspelmath, 1990, 42–46) in support of this putative pull chain.
[75] Williams (1970, 50) proposes that the Gp SC was originally **qutila* but became **qutala* "on analogy to the perfects of all other passive themes". While original heterogeneity between the *i* and *a* vowels of Gp **qutila* and Dp **quttala* and Cp **huqtala* is not logically impossible, nor is it very plausible.

forms are typically understood as belonging to the Cp. In a parallel to his arguments about *quttal* forms, Williams proposes that in roots with no active C counterpart, these should instead be analysed as belonging to the Gp.[76] According to these criteria, the preponderance of SC over PC forms in the Gp (thirty-two versus nineteen), leads Williams to the conclusion that many Gp PC forms were revocalised as N stems (whose consonantal orthography would be identical).[77]

Fassberg has also investigated the decline of the Hebrew Gp, though his temporal scope is somewhat later, focussing on the post-Biblical period to draw conclusions about what happened during prior stages. He finds that one important factor in the decline of the Hebrew Gp was a tendency from the fifth century BCE onwards for roots that had previously formed their basic verbs from the G to instead do so using the D.[78] Without refuting the canonical explanation that the expanding N replaced the Gp in a push chain, this shift, first occurring in the Dead Sea Scrolls (mid-third century BCE to 70 CE), is identified as a supplementary motivation.[79] Fassberg also makes a similar claim regarding the reanalysis of the Gp PC *yu-qtal* as a Cp, namely, that this was facilitated by a simultaneous replacement of G verbs by forms from the C.[80] Though limited in scope, his analysis of the decline of the Hebrew Gp is to be commended on how it takes into account, and refers to, other developments within the stem system.

Scholarship on the decline of IPs is not limited to the Hebrew Gp, or indeed to Canaanite. Meehan, for example, addresses the decline of the Dp and Cp in post-Biblical Hebrew and Aramaic. In Mishnaic Hebrew, finite Dp forms have been replaced by the tD; the D PASS PTCP is retained, but functionally redeployed or restricted to resultative aspect. The decline of the Cp

[76] Cf. Arabic, in which *yu-qtal* is the PC to both the Gp and Cp.
[77] Williams, 1970, 49–50. A strong argument in favour of this is the fact that all but two of the Gp PC *yu-qtal* forms identified come from irregular root types (√1=n/l, √2=w/y, and √2=3) whose consonantal orthography does not permit revocalisation as N forms.
[78] Fassberg (2001, 243–252) draws parallels to the lexicalisation of this stem distinction in Geʿez and Neo-Aramaic.
[79] Fassberg, 2001, 254: "[A]n additional factor played a role in the disappearance of the *Qal* internal passive and its replacement by the *Puʿʿal*, namely the abandoning of the *Qal* stem in favor of the *Piʿʿel*".
[80] Fassberg, 2001, 251.

is less advanced, though "there are definite signs of its receding in the 'past' (*qaṭal*) [SC] and especially in the 'future' (*yiqṭol*) [PC]".[81]

In Aramaic, Meehan believes the Cp SC *huqtal* died out before the tC *ʔettaqtal* arose. The latter is an Aramaic-specific neologism, filling the gap in the stem system left as the original Semitic Ct stem (<**staqtala*) ceased to be used. From the earliest attested stage of the branch only a few remnant Ct forms are attested.[82] Meehan therefore posits an interim period of Aramaic, when it no longer possessed a Cp nor yet a tC to express the passive of the C, such that

> *qal/peʿal* [G] forms frequently served this purpose in M[iddle]A[ramaic] and M[ishnaic] H[ebrew], especially in verbs of motion, the only constraint being that the agent be not explicitly stated; in this latter case transitive *hifʿil*/*afʿel* [C] were most likely used instead.[83]

Perhaps the most compelling evidence in favour of his hypothesis is a Midrash (from Genesis Rabbah) that explicitly identifies the possibility of the G being equivalent to the Cp, albeit to clarify that this is not so in this specific case in hand.[84] However, by Meehan's own admission, Mishnaic Hebrew uses the N as passive to the C more commonly than the G in this function, so one might well query whether this phenomenon, to the extent that it occurs, is an Aramaism. Moreover, the overwhelming majority of the data discussed is translated material, and therefore potentially not the most reliable witness of natural language.

Nonetheless, though it may not provide concrete answers, the questions Meehan's work raises are highly relevant to IP development, specifically with respect to their decline. One factor he mentions in passing that is of undeniable importance in the diachronic mapping of

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[81] Meehan, 1991, 112; Fassberg (2001, 250n41) argues that in Tannaitic, the Dp participle expresses *perfective* rather than resultative aspect, though he does not specify how this use would differ from a tD SC form.
[82] The Ct was also lost in Hebrew, where it is restricted to one root, √*ḥwy*. Judging from the rarity of this stem in Ugaritic, the same process was also underway there. The loss of the Ct, then, was a general NWS process, albeit one having reached differing degrees of completion in the three main sub-branches thereof.
[83] Meehan, 1991, 114.
[84] Meehan, 1991, 125–126: "'Those who were brought in' is not written (here) but rather 'Those who entered' – *of their own accord*…The purpose…is to prevent one from interpreting the active participle as the passive of the *hifʿil* and therefore categorically states that it does not have this connotation". Cf. Koenig and Ewald (cited by Bicknell, 1984, 17), who suggest Biblical Hebrew generally avoids passive verbs where active ones may be used, and consequently argue that many instances of *mūt* mean "he was killed" rather than "he died".

detransitives in Aramaic—not to mention dialectal Arabic—is the use of active generalised-SUBJ constructions.[85] In this case, the unavailability of a Cp and/or tC/Ct to express the passive to the C has led to a preponderance of generalised-SUBJ constructions with the C in this function in Middle Aramaic.[86]

In the Arabic language family, Clive Holes has studied the recent and ongoing decline of IPs in the Omani dialect.[87] He has no doubt that their retention, to the extent that they are retained at all, represents an archaism.[88] Holes identifies a distinction that he believes is retained from the detransitive system of Classical Arabic, between the functions of IPs on the one hand, and those of the N and *t* stems on the other. The former express passivity in strictly syntactic terms, with an unknown or unspecified (though always semantically implicit) agent; the latter instead simply express the semantic category of SUBJ affectedness. Insofar as the action may not even require an agent in its semantic specification, the N therefore is often mediopassive.[89]

When attestations of Omani Arabic IPs are mapped, several distributions relating to tense, person, and root become apparent. In sedentary dialects, Holes finds 3MSG IPFV forms are more common than other conjugations, though Ingham sensibly notes that this may simply be the result of language-universal pragmatic factors and does not necessarily bear on the decline of Omani Arabic IPs specifically.[90] There also exists a strong skewing towards a small number of weak roots, particularly in the Gp. Moreover, as IP usage declines, they are increasingly

[85] The relationship between generalised-SUBJ constructions and passives is discussed in detail in Chapter 2.
[86] Meehan, 1991, 131.
[87] Holes, 1998.
[88] It bears reminding that this has no *necessary* bearing on the validity of this assertion elsewhere (e.g., in Hebrew).
[89] Holes (1998, 354–55) distinguishes between what he calls "narrative" and "resultative" semantics of IPs and N/*t* stems, respectively. For what is called "mediopassive" in this dissertation, he uses the term "ergative".
[90] Holes (1998, 349–52) records fifty-three 3MSG IPFVs, three 1SG SCs, and one 3MSG SC. Without comparative figures of the total distribution of verbal forms, though, it is hard to evaluate the significance of these findings. Ingham (1994, 26–28) further acknowledges the possibility the commonness of the impersonal-passive construction, with default 3MSG agreement, plays a role in this distribution. Watson (2002, 233n7) notes a similar prevalence of PC over SC forms in Yemeni Arabic IPs.

restricted to fixed expressions. Thus, in Bedouin Omani dialects, where IPs are rarest, two forms *yigāl* (Gp of √*qwl*) "it is said" and *yisamma* (Dp of √*smy*) "he/it is called" account for the overwhelming majority of IP forms attested, while other instances occur in contexts like proverbial expressions, in which frozen expressions or formulaic language is to be expected.[91]

Holes attributes the decline of IPs in Omani Arabic to two complementary factors: a phonological motivation and an inter-dialectal influence. First, he infers that the majority of IPFV forms come from weak root types because this is precisely where the contrast between the vowels of active and passive forms is most pronounced (i.e., more so than in strong roots).[92] Put another way, Holes concludes that syncretism between G and Gp PC forms is the force driving the loss of Omani Arabic IPs. Where the G PC has the theme vowel *a* the merger is total since both have the same prefix vowel *i*: *yišrab* (G/Gp) "he drinks/it is drunk". Even where there a distinction between active and passive theme vowels exists (*u* and *a*, respectively), it still only falls on an unstressed, short vowel: *yúktub* (G) "he writes" versus *yúktab* (Gp) "it is written".[93]

In addition to these phonological considerations, Holes observes a dialectal distinction whereby speakers of sedentary Omani dialects (particularly the elderly, and those from the mountainous interior) use IPs more than speakers of Bedouin dialects, who tend to use generalised-SUBJs in the same contexts. Furthermore, in the Bedouin Omani Arabic, IPs are more common among inland than coastal dialects.[94] Even if the impetus for the loss of IPs in absolute terms is phonological in nature, their dialectal distribution of their preservation /loss is

[91] Holes, 1998, 349–52. This greater contrast is a result of the fact that √2=w/y verbs have long, and therefore stressed, vowels, and the final vowels of √3=y verbs are often realised as long before pronominal suffixes or prepositional complements.
[92] Holes' (1998, 353) examples include *yibīʕ* (G) "he sells" versus *yibāʕ* (Gp) "it is sold" from √*byʕ* (i.e., √2=*y*), and *yissawī luh* (D) "he makes for it" versus *yisawwā luh* (Dp) "it is made for it" from √*swy* (i.e., √3=*y*).
[93] Holes, 1998, 350–53. The possibility of a decrease in IP productivity owing to syncretism between IPs and their corresponding active forms has interesting ramifications for the MSA situation, examined in Chapter 6.
[94] Holes, 1998, 355–358. This situation is paralleled in the Bedouin dialects of North Eastern Arabia more generally: IPs are fully productive in the heartland of the interior, and progressively less so towards the coast.

affected by sociolinguistic factors. Specifically, the loss of IPs is spreading inland from the coast due to the socioeconomic dominance of coastal dialects and their consequent prestige status. Mixing between the dialects of migrant workers in the Gulf states has also resulted in an urban koine, whose features (one of which is the absence of IPs) speakers from the interior of Oman have brought back with them on their homecoming from jobs in coastal urban centres of the Gulf.[95]

1.5 Methodology

The preceding survey of literature on IPs to date shows that works adhere to a small number of often interrelated theories. There is a recurring tendency for scholars to identify one element as the core of IP morphology, and then explain the rest of the paradigm by its transferal to new positions. In the case of stative/intransitive- and copula-origin theories, this entails the extension of the *u* prefix vowel of the PC into the SC. However, the same desire for a unified theory explaining the whole paradigm also lies behind theories that posit a nominal origin for the IP SC stem, some or all of whose vocalic sequence *u-a* was subsequently extended to the PC.

The same rationale lies behind the perception of relationships among the different IP stems. For example, it is generally held the Arabic Gp was the first IP formed in this language, and the respective vocalic sequences of its SC and PC *u-i* and *u-a* were applied to the consonantal structures of all active verbal stems other than the G to form IPs other than the Gp.[96] The specifics of how different scholars explain the initial formation of the Gp are not germane to this question of how they conceive of the next stage in their reconstructions of IP development. However, the strong tendency for the Gp to be ascribed precedence over other IPs is noteworthy,

[95] Holes, 1998, 359–361.
[96] For explicit formulations to this effect, see Blake, 1901, 50; Petraček, 1963 603; Praetorius, 1923–1934, 140–141.

because it is incompatible with some of the attested data (e.g., the rarity of the Canaanite), and for this reason, found to be a major shortcoming of literature on IPs to date.

The one scholar whose work on IPs deviates significantly from the above model is Retsö. Reacting to what he calls the "resort to Procrustean methods in order to uphold the idea of a common origin based on a 'passive' morpheme", he argues that there is no reason to assume a relationship between different parts of the paradigm. On the contrary, he proposes that since the active G PC and SC are etymologically unrelated, and that the former is older, the same should also hold for IPs.[97] Retsö likewise does not believe the different IP stems of a given language, let alone those of different languages, necessarily share a common origin.[98]

Regardless what the diachronic origins of the different IP forms, there is no doubt that at the synchronic level, they have been integrated as complementary parts of a system within the individual languages. Nonetheless, Retsö remains completely silent on how the different IPs have come to fit together. His conception of manifold independent, parallel developments in the IP system is greatly undermined by his failure to link in any way beyond observing their general similarity. Even if the different parts of the paradigm have separate histories and arose from different sources—which is itself a troubling and objectionable assertion—they can certainly not be properly understood except in relation to each other.

[97] Retsö, 1989, 27 (for quotation), 32. An obvious objection to this position is that IPs arose no earlier than proto-WS, by which stage the G PC and SC were fully integrated together in the verbal paradigm, despite their separate diachronic origins.

[98] For example, Retsö (1989, ch. 7) does not think the Hebrew and Arabic Dp SC (*quttal* and *quttila*, respectively) represent reflexes of a single proto-form, or, for that matter, the stems of the Arabic Dp SC and PC (*quttila* and *yu-qattal*, respectively) are etymologically related. Given Retsö's fractured view of IPs, it is somewhat ironic that he (140) identifies the Gp and Cp PC forms as having a single diachronic source: an allomorph of stative/detransitive G PC *yi-qtal*, whose function was secondarily extended to express the passive to the C. Praetorius (1923–1924, 139) argues the converse, that *yu-qtal* was originally a Cp PC whose function was subsequently extended to express the passive to the G. Both positions diverge from the consensus opinion that the formal identity of the Gp and Cp PC results from elision of the causative morpheme in the latter (as also occurs in the C).

Retsö may be correct to criticise previous scholars for making a priori assumptions about relationships between parts of the IP paradigm, but he is equally guilty of creating a theory in which they do not stand together as an interrelated system at all. Instead, he proposes a plethora of parallel processes resulting in the various forms of the paradigm. The IP system is presented as highly heterogeneous in terms of individual sources, even if the paths of development along which these proceed are largely similar. Apart from the Gp/Cp PC *yu-qtal*, which he derives from the stative/intransitive verb *yi-qtal*, Retsö believes all IPs result from the verbalisation of nominal forms.

Though some motivation(s) driving the *loss* of IPs are identified in the literature (discussed above in §1.4.4), Semiticists have largely remained mute on the impetus for their *creation*. What few proposals have been made in this regard tend to follow as secondary inferences from theories about the development of the morphology, rather than serving as their theoretical underpinnings.[99] Since existing theories on *how* and *when* IPs developed have failed to satisfactorily account for the attested situations, the current dissertation will start with the neglected matter of *why* they did, realising that any compelling reconstruction of formal developments will not only provide an answer to this question, but should in fact logically follow from that answer.

Any number of motivations may lie behind the creation (or more commonly repurposing) of morphology, such as ridding the language of some ambiguity resulting from an insufficiency in the existing inventory of forms, regularising the paradigm so it has more structural symmetry, or to compensate for a morphophonological restriction against an alternative construction. That is,

[99] Retsö (1984, 143–45), for example, ascribes the rise of *yu-qtal* to a morphophonological restriction against N formation (though he does not give reasons for the development of any other IPs), while Petraček (1963, 593–95) explains the development of the IP system as a whole as a multistage process, each step of which reacts to paradigmatic asymmetry in the previous situation and attempts to resolve it.

the motivation(s) for the development of IPs can best be discerned by finding what undesirable situation, in linguistic terms, is resolved (at least partially) by their presence. As such, a starting point for the search for what provoked IP development will be identifying key features languages with IPs have in common, and then contrasting these with the situation prior to IP development.

Cross-linguistically, passives are related to a number of categories, including, but not limited to, other detransitive constructions (e.g., mediopassive, reflexive, middle). Work on the linguistic theory behind passivity has reached many of its conclusions precisely by examining the nature of the relationships between these categories.[100] In view of such universal considerations, any study that aims to contextualise IPs within the verbal system generally cannot ignore the rest of the stem system to which they belong, and in particular, the N and *t* stems, which also express the passive (among other functions) in a number of Semitic languages.

Literature on IPs often treats them in an isolated fashion, without connecting them to other structures in the language (other than their active counterparts). In the rare cases where relationships between different stems are considered, this is generally done in a rather piecemeal, superficial way.[101] What is lacking to date is an attempt to view the totality of IPs together, in all their forms and throughout their distribution, *in relation to—or rather as part of—the detransitive stem system as a whole*, and specifically to see their development against the backdrop of that of the N and *t* stems.

The same shortcomings also hold with regard to how literature on IPs addresses (or rather, fails to address) relationships between passivity and other verbal categories like perfective aspect, associated with conjugational parts of the verbal paradigm. The role of such categories in

[100] See discussion of Haspelmath (1990) and Shibatani (1985), in Chapter 2.
[101] Retsö's (1989, 187–194) work is a notable exception, insofar as it relates the Gp PC *yu-qtal* to the tG/Gt and N and suggests a link between the D PASS PTCP/Dp and tD in Arabic and Aramaic. Williams (1970) and Fassberg (2001) also attempt to relate one part of IP development, the decline of the Gp, to other developments within the stem system, the functional expansion of the N and the shift from the G to the D, respectively.

IP development must likewise be carefully considered, even if their relationships to passivity may not be as immediately self-evident as those of detransitive categories like reflexivity, whose marking is associated with the verbal stem system. Describing the relationships between passivity and these various other categories within language is a major concern of Chapter 2.

Once the general linguistic theory underpinning the analysis of IPs and the reconstruction of their development, Chapter 3 will turn to the specific data of Semitic. According to the methodological proposal of viewing IPs within broader detransitive contexts, and with the hypothesis presented below in mind, the detransitive systems of the various branches of Semitic will be mapped, and reconstruct the situation in the stage before IPs were attested (proto-WS if not PS). Based on the findings thereof, the various IPs will be analysed in Chapter 4, and a reconstruction of their development presented in Chapter 5. Chapter 6 will address the languages of the MSA family, describing and analysing their IPs including a reconstruction of the proto-MSA situation in this regard. The conclusion of Chapter 6 will synthesise its findings with those of Chapters 4 and 5 to give an understanding of the MSA situation within the broader Semitic context.

1.6 Hypothesis

One noteworthy feature of the PS verbal stem system is the difference between the detransitives to the basic stem (G) and those to the derived stems (D and C). Describing pre-Akkadian, Kouwenberg observes that

> G-stem verbs realise first-argument reduction (passive and mediopassive) by means of the N-stem and second-argument reduction (reflexive, reciprocal, and middle) by means of the Gt-stem or the N-stem. The primary derived [D and C] stems have only one verbal means of valency reduction,

> namely, the secondary [Dt and Ct] stems, which accordingly are used for all detransitive categories.[102]

If the same holds for proto-WS, immediately prior to the emergence of IPs—and verifying or falsifying this hypothesis is be a major goal of Chapter 3—it seems possible that they may have been created precisely to level out this imbalance.

If this proposition is correct, two important corollaries logically follow from it. Firstly, it would entail the Dp and Cp having developed before the Gp, though it must be stressed that this does not necessarily have any ramifications regarding the etymological relationships (or lack thereof) between the various forms.[103] Secondly, where an IP stem exists, the corresponding *t* stem is expected to lose first-argument reducing detransitive functions to make symmetrical the functional proportionality of X : Xp : tX/Xt in expressing unmarked stem : first-argument–reducing detransitive : second-argument–reducing detransitive.

The strength of the motivation towards the resolution of this asymmetry between G ~ N ~ tG/Gt versus D ~ tD/Dt and C ~ Ct is most apparent in that it comes to fruition independently in many different branches of Semitic, not always in the same manner. For example, both Aramaic and Ethiopic have independently created systems where each basic stem has just one detransitive counterpart (the *t* stem) by losing the N. Conversely, Hebrew and various Arabic dialects lose the tG/Gt so the N is the only detransitive to the G.[104]

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[102] Kouwenberg, 2010, §10.8.3. Retsö (1989, 141) notes in passing a comparable schism in the attested languages—"in the G-stem different morphological types tend to compete, whereas the derived stems show a more unitary morphological system"—though he does not elaborate on this or tie it to his overall theory of IP development.
[103] It is interesting in this regard that Retsö (1989, 177) believes Classical Arabic IP SCs developed first in the Dp and Cp, before the Gp was created by extending the vocalic sequence *u-i* into the G. However, in accordance with his reticence on relative chronology in general, he does not tie this to his broader theory of IP development.
[104] It is true that Aramaic and Hebrew possess IPs that upset the symmetry their respective losses of the N and tG was supposed to have promoted, but in both cases, IPs ultimately disappear from the language—after just a few centuries of poor attestation in Aramaic, in fact—and symmetry is restored to their stem systems. Moreover, the situation is a complex, nuanced one, and it is precisely to tease out the subtleties of the development that an in-depth study like the current dissertation is required. The oversimplification presented here serves mainly to present the main thrust of the hypothesis in a clear, concise manner.

The proposal advanced as a starting point for the investigation of IPs in this dissertation is that they arose as strategy to resolving this same asymmetry. Specifically, in the first stage of IP development, the Dp and Cp were created, so the reflexive of any stem (X) was marked by tX/Xt; the passive of the G was marked by the N, and that of the D and C by the (new) Dp and Cp stems. In support this hypothesis, it is noted that precisely such a detransitive stem system occurs in at least one Semitic language, the Ḥassāniyya Arabic of Mauritania.[105]

It must be stressed here that this is merely a working hypothesis, though one whose validity preliminary research does support, at least as an initial avenue of enquiry. For example, only in those languages without an N—some Arabic dialects, Aramaic, Ethiopic, MSA, and OSA—does the tG/Gt productively express the (medio)passive of the G. This conforms to the prediction that it would expand into such a function only where the original means of doing so (the N) has been lost.[106]

Importantly, there is a striking homogeneity to the developments that affect Semitic detransitives; they can collectively be subsumed under a general rubric of reorganisation of the stem inventory whereby its constituent elements undergo functional expansion and restriction in relation to one another. This overarching commonality bridging the differences between Semitic languages gives validity to the methodological standpoint that detransitive verbal stems (and crucially among them, the IPs) develop as interrelated constituents of a cohesive system.

The descriptions of the different Semitic languages Chapter 3 confirms that creation and promotion of symmetry in the inventory of verbal stems is a central motivating factor in the developments of their detransitive systems, including with specific regard to the creation and

[105] Taine-Cheikh, 2007, 244–245. This is not to say that this is necessarily an archaic retention of original features of the WS situation, but merely serves as an attested example of a detransitive system using precisely the asymmetry-resolution strategy that the working hypothesis of this dissertation proposes initially provoked IP development.
[106] Kouwenberg (2010, §14.4.2) summarises WS uses of the Gt/tG, except for MSA (for which, see Rubin, 2010, §6.5.4), and OSA (for which, see Stein, 2003, §4.1.4).

further evolution of IPs. Chapter four will move from the question of *why* this happened to that of *how* it did, and Chapter 5 of *when*. The mechanics of the development(s) are certainly not disconnected from their underlying reason(s), but rather based upon them. For example, it follows that since the Dp and Cp were created to parallel the N as first-argument–reducing detransitives, then the scarcity of the Hebrew Gp might reflect an arrested development of a form that never established its place in the language, rather than, as is commonly argued, the decline of a previously productive stem.

Such a view demands a more nuanced conception of language development than that of most previous scholarship, which merely reconstructs the emergence of IPs to a given stage (proto-WS, for example), and then accounts for subsequent developments in the descendent languages by proposing sound changes and analogical processes.[107] Accordingly, one of the main methodological innovations is the application of a variation-and-change model. The detailed linguistic theory thereof is outlined in Chapter 2; suffice it here to summarise that it views productivity as scalar rather than binary, with new constructions emerging as marginal innovations and (potentially) developing along a continuum to an endpoint of full productivity.

Crucially in addition to becoming *more* productive over time, construction may also become less so, even being lost altogether (as is proposed for the Hebrew Gp). The only irreversible stage is the very final step in the development, where an innovation replaces an existing construction and language change proper is achieved. The underlying principle that explains this dimension of the variation-and-change model is that constructions exist in competitive *variation* with

[107] Retsö (1989, 195–205) admittedly reconstructs separate, etymologically distinct origins for most IPs. Nonetheless, he ignores relative chronology, making only a vague diachronic identification of an archaic periphery without IPs and an innovative core possessing them. This (areal rather than genetic) model of Semitic of Retsö's is only loosely formulated and relates anyway primarily to his views about causatives rather than IPs.

vicissitudes in their relative fortunes, something that may endure for extended period including being inherited from one node of the family tree to its daughter languages.

Traditionally, the variation-and-change model (as applied in sociolinguistics, for example) is concerned with variation between innovative and conservative constructions. This dissertation modifies the framework slightly to cover the possibility of simultaneously created variants, specifically those of by-forms with the same function. An incipient construction may be functionally homogenous at an early stage, even when its formal manifestation is not yet stable. Consequently, different forms in the descendent sub-branches—e.g., Arabic (*muqattal*) versus Hebrew (*məquttɔl*) D PASS PTCPs—may not be etymologically cognate in the strictest sense, thought their morphologies arise from the same overall development.[108] This means that an areal component to IP development need not relate to the *creation* of a construction per se, but to the selection of morphophonological material from an existing possibilities (**muqattal* / **muquttal*, both reconstructed to CS).

[108] Analogous is the development of the definite article. The kernel of a construction utilising demonstratives **ʔal* or **han* existed in proto-CS, but developed differently in its descendent branches (for which, see Rubin, 2005, §4.4).

Chapter 2: The Theoretical Linguistic Framework

2.1 Introduction

This chapter provides the theoretical linguistic framework for the practical application to the specific case of Semitic IPs. According to the methodology outlined above (in §1.5), passivity will be considered within a discussion of detransitivity more generally. Further, the links between passivity and other verbal categories—it is presumed from the outset that passivity is a verbal category, though evidence for this position will be presented in the current chapter—which have not received a rigorous treatment in literature on IPs to date, will be addressed. Since it is the theoretical framework at issue here, reference to the Semitic data will be sparing, though occasional examples are mentioned in passing, where pertinent.

First, the traditional syntactic analysis of passivity will be presented, and then shortcomings with this, and alternative, non-syntactic (that is, pragmatic or semantic) analyses will be presented. Turning to the specific matter of the interrelations between different detransitive constructions, and in particular, the question of their diachronic interrelations, the grammaticalisation and prototype models of passivity are assessed in terms of both their general validity and their applicability for the work in hand. Next, the problematic category "middle" is addressed, with close attention paid to its distinct, though overlapping, semantic and syntactic elements, and the ways in which its analysis affects the understanding of other detransitives (including, of course, the passive). Finally, the variation-and-change model of language diachrony is outlined, with reference to its origins within the sociolinguistic discipline.

2.2 The traditional syntactic analysis of passivity

In the late 1970s, Perlmutter and Postal rejected the prevailing analysis, proposed by Chomsky in his seminal "Syntactic structures" some twenty years prior, that passive clauses are generated by the application of a linear transformation rule, affecting the word order of active counterparts. They are correct that, inasmuch as many languages (including Semitic ones) do not exhibit a difference in word order between passive sentences and their active counterparts, no such universal transformational rule may be identified; "[p]assivization is a phenomenon of natural language that is independent of linear order".[1] They further dismiss a characterisation of passivisation in terms of case on the grounds that case categories are themselves in need of universal characterisation, a point admittedly far truer in 1977 than it is now. Further, although ACC-marked nominals in active sentence tend to receive NOM marking in passive counterparts, this does not account for passivisation in languages without overt case marking of NPs.[2]

Finally, Perlmutter and Postal criticise the analysis of passivisation as a morphological process affecting the verb, arguing that there is "no language-independent notion of 'passive morphology', that is, no way to independently theoretically pick out certain morphological properties in some languages as 'passive' rather than 'active'".[3] In support of their position, they cite languages in which verbal morphology is identical in active and passive sentences. This analysis, though, is contentious, and the possibility of zero-marked finite passives is flatly denied by subsequent major theoretical works on passives.[4]

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[1] Perlmutter and Postal, 1977, 396.

[2] I am wary of Perlmutter and Postal's (1977, 396–98) further claim that in Basque case marking is identical between the active and (what they conceive of as a) "passive", with ERG agent and ABS patient. Spreng (2002) demonstrates that the construction in question should not, in fact, be analysed as a passive.

[3] Perlmutter and Postal, 1977, 398. I see no logical reason allowing this to be taken as an argument against passive being a verbal category.

[4] See, for example, Haspelmath, 1990, 20–27; Keenan, 1985, 255. In Semitic, zero-marked passives are extremely rare, as far as one can tell considering the unvocalised scripts of certain languages, and can largely be explained as mergers between originally distinct active and passive forms due to phonological or analogical processes.

Ultimately, Perlmutter and Postal propose the following characterisation of passivisation:

> (17) A direct object of an active clause is the (superficial) subject of the "corresponding" passive.
> (18) The subject of an active clause is neither the (superficial) subject nor the (superficial) direct object of the "corresponding" passive…
> (19) In the absence of another rule permitting some further nominal to be the direct object of the clause, a passive clause is a (superficially) intransitive clause.[5]

It is based on these supposed universals that they intend to account for the tendency for the case-marking phenomena occurring with passivisation. That is, an ACC marked OBJ of an active will be marked NOM in the corresponding passive, since this is the case used to mark SUBJ of an intransitive verb; in languages where NPs are not marked for case in active clauses, the same holds for their passive counterparts. A comparable claim about ERG-aligned languages, that the reason patients of passive clauses are marked ABS is because this is the case used for SUBJ of intransitive clauses, as illustrated by Eskimo examples:

gimmi-p	*miiraq-ø*	*kii-vaa*	→	*miiraq-ø*	*gimmi-mik*	*kii-tsip-puq*
dog-ERG	child-ABS	bite-3SG.A/3SG.P		child-ABS	dog-INS	bite-PASS-3SG
"The dog bit the child"				"A child has been bitten by the/a dog".[6]		

Similarly, word-order phenomena associated with passivisation are identified as the results of language-specific factors, secondary to the universal characterisation of passives.

By Perlmutter and Postal's own admission, their position rests on the assumption that the elements composing clauses are connected in an interrelational network, both at the universal linguistic level and in the specific grammars of the individual languages. This view fits neatly within the lexical-functional grammar framework that was, at the time of writing, in its

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[5] Perlmutter and Postal, 1977, 399.

[6] Perlmutter and Postal (1977, 400) do not mention the antipassive construction (for example, also from Eskimo:

angut-ø	*arna-mik*	*unata-a-voq*
man-ABS	woman-INS	beat-ANTIP-3SG.S

"The man beat a woman", for which, see Kroeger, 2004, 293).
Antipassives are also intransitive, but they detransitivise their active counterparts by demoting patients (to OBL, with concomitant promotion of the agent, making it a derived ABS-marked S) rather than demoting agents, as passives do. Antipassives are more typically found in ERG-aligned languages than are passives, but they are rare in NOM-ACC languages and therefore only of tangential relevance to Semitic.

incipiency, but has in the meantime been well developed by Bresnan and others, and has since become too familiar to warrant summarising here.[7] Ultimately, Perlmutter and Postal reach the conclusion that the primary component of passivisation is (patient) promotion, which, due to the uniqueness condition—namely, that a given grammatical relation can only be applied to one element in a clause—means that the agent is relegated to an (obsolete) "chômeur relation". The surface representation of this chômeur agent in passive clauses differs between languages according to the specific rules of their individual grammars.[8]

The foundation of Perlmutter and Postal's syntactic analysis has provided a theoretical basis for many subsequent understandings of passivity—in fact, as a conceptual framework, it well fits the understanding of passive assumed by most literature on IPs specifically.[9] However, even if one explains the passive in solely syntactic-relational terms, it is not necessary to assume that patient promotion is the primary process of passivisation and agent demotion contingent upon it. Indeed, one might well assume the inverse—that agent demotion is the basis of passivisation, and promotion of another element is a common though not strictly obligatory by-product thereof, owing to a general tendency to avoid an empty SUBJ slot.

In fact, it is arguably preferable to understanding passivisation as primarily concerned with agent demotion rather than patient promotion, since the latter cannot explain impersonal passives (those with semantically empty SUBJs) formed from transitive active clauses. Perlmutter describes SUBJs of impersonal passives formed from *intransitive* actives as promoted dummy

[7] In fact, several problems with Perlmutter and Postal's (1977, 401ff.) representation of passive-clause structure are solved when one uses a nuanced analysis distinguishing function and argument structures—that is, between SUBJ, OBJ, OBL, on the one hand, and agent, patient, beneficiary, and so forth, on the other—as layers of analysis.
[8] Perlmutter and Postal, 1977, 406–11. Some languages (including most Semitic) do not permit surface realisation of the agent in passive clauses, some mark them prepositionally (as in contemporary Arabic cases where passive agents are introduced by the PP *min ṭarf* "by the part of"), and some mark them with case inflection (e.g., INSTR).
[9] Dryer (1982), for example, is among the scholars who followed Perlmutter and Postal (1997; and subsequently Perlmutter, 1978), building on their work and defending it against its critics. Slight refinements relaxing the parameters of the relational network—discussed below—are necessary in order to account for passives formed from intransitive active clauses or those whose promoted SUBJ is not a patient (but instead, a recipient, for example).

OBJs (created in order to have something to be promoted by the passivisation process).[10] However, in *transitive* active clauses, the OBJ slot is already occupied by a patient—retained in this slot in an impersonal passive—so a similar creation of a dummy OBJ (for subsequent promotion to the SUBJ slot) would violate the uniqueness principle.[11]

Furthermore, in some syntactically ERG-aligned languages, ABS patients possess properties allowing them (rather than the ERG agent) to be identified as SUBJ in transitive active clauses just as they are in passive ones. Consequently, there is no promotion in the passivisation; the process involves no change in the grammatical relation (SUBJ) with which semantic role patient is associated.[12] Admittedly, an analysis of SUBJ demotion works no better to explain such cases. Instead, they serve as a clue that an approach other than the strictly syntactic relational one might better account for the data.

2.3 A prototype model of passivity

In the 1980s, scholars reacting to Perlmutter and Postal's work proposed that the core element of passivity needed to be defined, not in the relational terms of syntactic arguments and their grammatical relations, but rather according to a different perspective. As Shibatani stated,

> the formal approach advocated by Relational Grammar is too restricted to account for the patterns of distribution which a passive morphology exhibits. Indeed, concepts such as (syntactic) promotion or demotion are too narrow; a much broader pragmatic notion is required in order to account for the use of passive morphology in a variety of constructions.[13]

He views the passive as an essentially morphological category expressing a variety of (related) categories, rather than seeing passivisation as a basically syntactic, and potentially unmarked,

[10] In Dutch *Door de kinderen wordt (er) op het ijs geschaatst* "skating on the ice is done by children" (lit. "by the children (it) is skated on the ice"), Perlmutter (1978, 178) considers the semantically empty SUBJ *er* "it" a promoted dummy OBJ whose overt inclusion in the passive is determined by dialect other considerations such as word order.
[11] This objection has been made by Comrie (cited in Shibatani, 1985, 822, 834).
[12] Shibatani (1985, 836–37) mentions, in this regard, the Mayan language Mam, in which the ABS patient of the active clause, but not its ERG agent, can control equi-deletion.
[13] Shibatani, 1985, 822.

process as Perlmutter and postal had done. Accordingly, Shibatani sought to identify the common features of different functions frequently performed by the same morphology as the passive, and thereby define the core use, his "prototypical passive" (in contradistinction to more peripheral uses). Such a holistic perspective fits well with the methodology proposed above (in §1.5) of viewing IPs within the context of the Semitic detransitive stem system generally.[14]

It has long been noted that agent defocusing—that is, making the agent less salient—is a central reason passives are used in English. It is Shibatani's contention that the *pragmatic* process of defocussing the agent is cross-linguistically the primary function of the passive, and its *syntactic* demotion merely a frequent, but not strictly necessary, side-effect thereof.[15] Although demoting an agent from the SUBJ slot is a common means of defocusing it, this can be achieved in other ways. For example, pluralisation may defocus an agent as a strategy to encode an honorific—as, for example, in the use of "vous" the 2PL pronoun in French as a polite form for a singular addressee—while still retaining its link to the grammatical relation SUBJ.[16]

Just as syntactic analyses can potentially lead to different conclusion—favouring SUBJ demotion or OBJ promotion as primary—so too have alternative pragmatic analyses also been proposed. Givón, for example, sees the pragmatic function of patient topicalisation (rather than agent defocussing) as the basis of passivation.[17] Shibatani marshals various arguments against Givón's position, including the fact that "the subject selection of passives operates along a different hierarchy from that of topicality…which casts doubt on the claim that passivization is a

[14] Many of the functions Shibatani (1985) mentions—the reflexive, reciprocal, mediopassive, and potential—are familiar from Semitic N and *t* stems, which also function as passives in some languages; a few, though, such as honorific and plurality marking, are not.
[15] Shibatani (1985, 820) notes that four of the five reasons Jesperson give for use of the passive in English represent agent defocusing.
[16] Shibatani, 1985, 837–38.
[17] In Givón's analysis (as summarised and rebutted by Shibatani, 1985, 830), the syntactic promotion of patient to SUBJ is viewed simply as a means of encoding the basic pragmatic function of its topicalisation, which parallels Shibatani's own analysis that syntactic agent demotion stems from the primary pragmatic function of defocussing.

topicalization mechanism."[18] He is not explicit in defining either of these hierarchies, but in a vague, impressionistic fashion, suggests that passive SUBJs tend to be obscure and unfamiliar or even unknowable, which is quite unlike the definite or generic (and therefore familiar) status that topicalised elements tend to have.

Furthermore, Shibatani notes that languages whose morphology and syntax are arranged according to a focus-based system—that is, unlike NOM-ACC aligned languages, which treat the grammatical relation SUBJ as the most prominent element, they instead view the sentence from a perspective based around the pragmatic topic—also exhibit (marked) passive structures distinct from (basic) active ones. This would not be expected if the primary purpose thereof was to topicalise non-agents. The existence of such a construction would be somewhat redundant, inasmuch as the topic is already marked in the basic sentence, regardless of its semantic role or grammatical relation.[19]

In support of agent defocusing as the primary function of the passive, Shibatani mentions the cross-linguistic tendency for a restriction against overt agent phrases in passive clauses, and their rarity even in languages where they are permitted. Specifying that *agent* defocusing is the process at work also explains why many languages cannot create passives if the SUBJ is not an agent (but rather, for example, an instrument).[20] This causal link between agent defocussing and its deletion is fairly self-evident, but it also explains instances where agents are retained. A focus

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[18] Shibatani, 1985, 381n4.

[19] Shibatani (1985, 834–836) stresses that the contrast between the respective Chamorro active and passive clauses

Man-l-in-alatde	*I*	*famagu'on*	*ni*	*ma'estron-ñiha*
PL-RED-P.FOC-scold	ART	children	ART	teachers-their

"The children were the ones that were scolded by their teachers"

and

Man-ma-lalatde	*i*	*famagu'on*	*gi*	*eskuela*
PL-PAS-scold	ART	children	at	school

"The children were scolded at school"

is not to do with patient topicalisation (since it is topicalised in both), but rather the absence of an agent in the latter.

[20] Shibatani, 1985, 833. This corresponds to a saliency hierarchy among semantic roles, whereby agents are naturally more conceptually prominent than experiencers, as is reflected by the tendency for the latter to occur with DAT marking in some languages, rather than NOM, which is more focussed, and the normative case for SUBJs.

hierarchy (SUBJ > OBJ > OBJ2 > OBL) among the grammatical relations means that an OBL argument—i.e., the demoted agent of a passive clause in a PP—is naturally less salient than a SUBJ, so the (syntactic) demotion of agent from the latter slot to the former can easily be explained as a by-product of (pragmatic) defocusing. Moreover, Shibatani argues that use of plural referents, indefinite forms, or lack of person agreement can obscure the identity of the agent, thereby defocusing it.[21]

Proposing that agent defocusing is the primary function of the passive does not deny its other dimensions. Rather, Shibatani's characterisation of the prototypical passive also includes both semantic properties (the semantic valence of the predicate as possessing both an agent and a patient, and the SUBJ being affected by the action) and syntactic ones (the agent is deleted from the surface representation, and the patient appears in the SUBJ slot). It is also morphologically marked, relative to the active counterpart, which occurs at the level of the VP.

Crucially though, while a passive may not possess all of these characteristics—for example, some passives have overt agent phrases or arguments with semantic roles other than agent and patient, and some do not promote the patient into the SUBJ slot—Shibatani maintains that passives *always* serve to defocus the agent; this is the core of the construction. Further, this is the characteristic he believes explains the connection between passive morphology and honorifics, potentiality, and spontaneous actions.[22] Other verbal categories that are cross-linguistically linked with passive morphology encode aspect or *Aktionsart* notions such as stativity, perfectivity, and resultativity. Here too, Shibatani sees agent defocusing, which they have in

[21] Shibatani, 1985, 832–33.
[22] Shibatani, 1985, 837–38. In honorifics, where agent defocusing is part of a universal tendency to use indirect reference to express deference, the frequent use of impersonal 3rd-person marking has noteworthy parallels in impersonal-passive, desubjective, and generalised-SUBJ constructions, discussed below.

common with the prototypical passive, as a key component behind the perspective from which they present the predication:

> the well-known correlation of the passive with the stative, the resultative, and the perfect results from the inactive nature of the passive subject and the fact that the patient is placed in the subject position. This *has the effect of shifting the perspective from the agent's side to the patient's*, *and accordingly from the beginning to the end of the event.*[23]

In addition to these constructions, Shibatani also draws links between prototypical passives and other detransitive constructions that are frequently expressed by the same morphology and share the basic pragmatic function of passivity, but differ with regard to other characteristics. Mediopassives, for example, share all the various aforementioned properties with prototypical passives except that the detransitivisation applies not only at the syntactic level but also at the semantic one: the agent is removed from the semantic specification as well as being removed from the surface syntactic representation. The event therefore occurs spontaneously, whereas in a prototypical passive the existence of an agent is implicit, even if he is unmentioned and his identity is unknown. Shibatani further argues that potentiality is a common development from the mediopassive, since events that occur spontaneously are, as a general matter, apt to occur, and therefore the potential for them to occur is conceptually heightened.[24]

Shibatani's prototype model also posits a reason why reflexives and reciprocals are likewise frequently encoded with the same morphology as passives: their common semantic characteristic of SUBJ affectedness.[25] Like mediopassives and prototypical passives, most reflexives entail a reduction in the argument structure insofar as the element linked to the OBJ slot of the active

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[23] Shibatani, 1985, 841; my italics.
[24] Shibatani, 1985, 839. Though I can see how this makes sense at the real-world level of natural events and the like, it is not clear to me that this is necessarily a logical corollary. A very good example of this is the eruption of a volcano, which, even if unlikely in practical statistical terms, has a very high degree of conceptual potentiality.
[25] Shibatani, 1985, 825–27. Reciprocal is a semantically restricted subcategory of reflexive conditioned by the meaning of the verb and requiring a dual/plural SUBJ For brevity, the term "reflexive" will be used to include reciprocal, unless otherwise mentioned. Instances such as Arabic *tamāsaka l-jasadu* "the (parts of the) body held together" (lit. "the body grasped itself") show how the distinction between plain reflexivity and reciprocality may become blurred where collectivity is involved. A "soziativ" use may further develop, where multiple agents perform an action together (Kouwenberg, 2010, §10.8.3.5).

transitive counterpart is removed, its semantic role (patient) being subsumed by the SUBJ. This syntactic detransitivisation perhaps makes the connection of reflexivity (and mediopassivity) to prototypical passivity more intuitive than that of resultativity or honorifics, for example.

However, any proper understanding of reflexivity (and in particular its relation to passivity) must recognise that syntactic detransitivisation is not inherent to reflexivity; it does not occur with *indirect* reflexives, in which the second semantic role subsumed by the SUBJ (apart from agent) is not patient—Kemmer claims that this only occurs with the semantic roles recipient and beneficiary.[26] For example, from "Tom poured a drink (for himself)", one may form an indirect reflexive "Tom poured himself a drink", also called "benefactive" because the semantic role linked with "himself", promoted from OBL to OBJ, is a beneficiary, rather than a patient. There is no syntactic detransitivity relative to the basic sentence because the original patient "a drink" is retained in the grammatical relation OBJ(2); in fact one might argue that, insofar as an OBL argument is an optional adjunct and OBJ an obligatory argument, a predicate categorised for OBJ and OBJ2 is in fact of higher valency than one categorised for OBJ and OBL.[27] Thus, it is not just passives, but indeed "detransitive" constructions generally—the quotation marks are used here precisely because certain so-called detransitive constructions *do not*, in fact, reduce syntactic (or semantic, for that matter) transitivity—that may require an analysis beyond the strictly syntactic.[28]

Even with regard to the syntactic dimension of passives, Shibatani rightly warns that one must be precise in distinguishing the notions of *detransitivisation* and *intransitivisation*. Thus, though passives always reduce syntactic valency (i.e., the transitivity) by one argument, one

[26] Kemmer, 1993, §3.5. One might wonder whether the same might also apply to the semantic role *theme*.
[27] The same also applies to indirect reciprocals, for example, "Tom and John poured each other drinks" from the transitive active "Tom and John poured drinks (for each other)".
[28] Shibatani (1985, 841–42) also mentions the causative reflexive among the constructions that possess the semantic property of SUBJ affectedness (linking them to prototypical passives) but still raise syntactic valency.

cannot necessarily say that this results in intransitivity. Firstly, when the process is applied to a ditransitive active counterpart, the resulting clause is still transitive, having undergone a reduction from a three-argument structure to one with two, but still requiring an OBJ. Further, in some languages the OBJ of an active transitive clause remains in the ACC case associated with this slot even when the clause is passivised (rather than taking the NOM case normally associated with the SUBJ), in which case it is problematic to identify the resulting clause as intransitive. The same valency decrease of one argument applies to the reflexives, though here it is the second argument (OBJ) that is removed rather than the first (SUBJ) as occurs in passives. Ultimately, then, to account for the tendency for prototypical passivity, mediopassivity, and reflexivity to be expressed with the same morphology, Shibatani appeals to a multifaceted characterisation, encompassing both the syntactic similarity of valency reduction, and the common semantic property of SUBJ affectedness.[29]

Ultimately, this nuanced view of passives and other "detransitives"—as constructions with clusters of common pragmatic, semantic, and syntactic properties resulting in the use the same morphology for different purposes—fits into a framework in which active and passive exist not in binary opposition to each other, but rather at either end of a spectrum. As such, the most passive clause (that is, a "prototypical" one) possesses all the aforementioned features associated with that pole of the spectrum, while a fully active clause possesses none. Other constructions, possessing the primary feature of agent defocusing (and possibly others)—but not, for example, the syntactic encoding of patient as SUBJ—are located somewhere in the middle.[30] When this attitude is combined with Shibatani's observations regarding links between passive morphology

[29] Shibatani, 1985, 840–843. "We find both semantic and syntactic similarities among passives, reflexives, and reciprocals. For some languages, these similarities are sufficient to permit one form to perform the functions of the others" (843).
[30] Shibatani, 1985, 844–846.

and that expressing indefiniteness, honorifics, and plurality, the conclusion is natural: these various constructions, by dint of their agent-defocusing properties, can come to be reanalysed as passives and in the process take on more and more of the characteristics of the prototypical passive. In this last regard, Shibatani has been unfairly challenged by opponents of his prototype model, who claim that it is at odds with observable cross-linguistic historical developments between passives and other detransitives, particularly within a grammaticalisation framework. He *does* assert that his proposals are concerned with synchronic analysis only and roundly refutes the inference, made by some critics, that placing the prototypical passive at the centre of his analysis, conceptually speaking, necessarily implies it has diachronic precedence.[31]

2.4 Grammaticalisation theory and the development of passive constructions

Apart from the preceding syntactic analysis of passives, and Shibatani's prototype model, another approach to the subject that looks specifically at their diachronic development warrants attention. Haspelmath argues that passives almost always arise through grammaticalisation.[32] In this way, he links passives to a number of related constructions, including those Shibatani addresses in his prototype framework but also others that Shibatani barely mentions, such as the causative.

Though Haspelmath argues that passives themselves cannot be a source of grammaticalisation since there are no lexical passive items, nor are they the endpoint of the chain, which is reached with ergative case marking, finally becoming generalised to the point of being the unmarked construction. Having charted the various common grammaticalisation paths

[31] Shibatani, 1985, 846: "Since the description of passives is one of the major concerns of linguists today, the foregoing discussion has placed them in the center of the analysis. This should by no means be taken to mean that all those related constructions have sprung from the passive. On the contrary, it is historically more likely that passive interpretations and their grammaticization arose from the other constructions"; contra, for example, Anderson's (1990) and Haspelmath's (1990) criticisms.
[32] Haspelmath, 1990.

leading to passivity (and beyond, to ergativity), he ultimately seeks to identify the diachronically original function of passivity and from it explain the other characteristics associated with the category.[33] This will be discussed following a presentation of Haspelmath's general methodology and of his specific proposals regarding the common grammaticalisation paths leading to passives.

The application of grammaticalisation theory to passives rests in the first place on challenging the position of previous studies, that passivisation is fundamentally a syntactic rearrangement. Haspelmath instead opines that the passive is essentially a morphological category of the verb that causes various (secondary) changes in clause structure due to its meaning. He rejects the traditional syntactical approach to passives on the grounds that if the passive were basically a relational reorganisation, one might expect to find passive constructions without marked verbal morphology. If, by contrast, passivity is a category of the verb (in the same way as tense, aspect, and modality categories are), it is expected to always be morphologically marked on the VP in some way.[34] Ultimately, the decision as to whether passives unmarked in the verbal morphology exist at all rests on personal interpretation of certain controversial cases. Naturally these are best understood by specialists of the individual languages, but in general, Haspelmath's interpretations of some alleged cases of zero-marked passives are more convincing than the alternative explanations of those whose work he is refuting.[35]

[33] Here, as in general, one must be mindful to rigorously maintain the distinction between Shibatani's synchronic approach and Hapselmath's diachronic one, which is rather trying to uncover the *historically* original function of passives, and explain others as chronologically secondary developments thereof.
[34] Haspelmath, 1990, 25–27.
[35] One illustrative example is whether one takes the Chinese *bei* as a preposition marking the agent (following, e.g., Postal, 1977; Dryer, 1982) or as an auxiliary verb taking a complement clause (as Haspelmath, 1990, 27), which therefore constitutes marking on the VP.

Nor does Haspelmath agree with Shibatani (and Givón) that passivisation is a primarily pragmatic function. Of the various common sources of passives he identifies, only one favours a pragmatic feature (whether agent defocusing or patient topicalisation) as the core function of passives: generalised-SUBJ constructions, which, by their very nature, defocus agents (although they do not necessarily topicalise the patient).[36] This suggests that like the syntactic operations of SUBJ demotion and OBJ promotion—to which they are indeed related—the pragmatic effects of passivisation are secondary developments relating to another, more original function (discussed below). The same argument levelled against the syntactic analysis of passives, that they are always marked on the VP, also counts against pragmatic analyses, since processes like topicalisation are typically marked on NPs.[37] Finally, no significant correlation between the frequency of passives in a language and the dominant word order is attested; if the original function of passives was patient topicalisation, they would presumably be more common in SVO than OV languages (since here the OBJs initial position would make such a means its topicalisation unnecessary).[38]

Turning to the specifics of passive morphology, Haspelmath compares eighty languages from around the world and notes some interesting generalisations. First, more than half of these (forty-nine) possess no passive morpheme at all, while of the remainder there are just four languages with two passive morphemes, and two with three. The overwhelming majority (twenty-five out of thirty-nine) of the passive morphemes in the data set are affixes added to the stem, and six are constructions of an auxiliary with a passive participle, but several other rarer kinds—particles, extra-inflectional affixes, differential subject person markers, alternate stem affixes, and sound

[36] Strictly speaking, they do not only defocus agents, but potentially any other semantic role tied to the grammatical relation SUBJ—for example, the experiencer in German *Man fürchtet das Unbekannte* "People fear the unknown".
[37] In addition to this dissimilarity, Keenan (1985, 244–46) mentions that passives typically allow syntactic strategies—e.g., the formation of yes/no questions and relative clauses—that topicalisation strategies do not, which relates to the fact topicalisations occur at the sentence, rather than VP level, of syntax.
[38] Haspelmath, 1990, 61.

replacements, each represented between one and three time in the sample—are also attested.[39] Haspelmath disagrees that there is a constraint against passivity being marked by tone or reduplication (in fact citing examples of the latter being used to form passive participles), arguing that the absence of such cases from recorded languages is merely an accidental gap.

One of the main bases for Haspelmath proposing a grammaticalisation-based origin for passive markers is their common polysemy. In addition to their obligatory overt morphological marking in the VP, he argues that the frequent use of passive morphology for other functions would be unexpected for an essentially syntactic process, but quite natural for a verbal marker. As he did with the different types of morphology used for marking passivity, Haspelmath begins his search for the core function of passives by examining common cross-linguistic trends in this polysemy. He finds that it is more common for a passive morpheme to have other uses than not—twenty-five of his data set do; fifteen do not—and it is not uncommon for them to have several.[40]

Common uses for morphology that also expresses the passive are reflexive, reciprocal (including collective action as a subcategory), resultative, mediopassive (or "anticausative", in his terminology), potential passive, fientive (i.e., the verbalisation of a stative situation), reflexive-causative, deobjective (more commonly referred to as "antipassive"), and desubjective (with an unspecified subject).[41] In discussing these various functions, it is readily admitted—and this is crucial to the current study insofar as it intends to look at the interrelations between

[39] In Semitic, several of these types are represented: the morphemes that form the N and *t* stems are additional stem affixes; IPs are of course a type of sound replacement (though, as discussed in §1.4.3, some have argued that they derive diachronically from the incorporation of an affix); Aramaic and some Arabic dialects possess auxiliary + passive participle types; and differential subject person markers are attested in Mehri (discussed in Chapter 6), though this is usually accompanied by sound replacement in the stem and only serves as the sole marker of passivity in certain root types and parts of the paradigm where the stem is identical to that of the active.
[40] Ten passive morphemes from Haspelmath's (1990, 32, 36) data set have at least four alternative functions.
[41] In addition to these common uses, Haspelmath (1990, 32–36) identifies three rare ones—habitual, repetitive, and unintentional, occurring just once each in his data set—but has little to say on the matter.

different morphemes within the context of the Semitic detransitive stem system as a whole—that in some, the passive morpheme may occur in conjunction with another morpheme; indeed, in the only Semitic example Haspelmath cites, the reciprocity of (Tigre) *tə-salämu* "they greeted each other" and collectivity of *tə-balläʕu* "they ate together" results not just from the *tə-* prefix (also used to express passivity), but also from the characteristic morpheme of the L stem (namely length in the first vowel of the stem).[42] Having described the various uses of passive morphology, Haspelmath lays out the main thrust of his thesis: the relationships between these various functions can be best understood according to grammaticalisation theory identifying four specific sources from which passives often grammaticalise, describing and illustrating their various paths of development to passivity, and further to an ergative construction: (1) inactive auxiliaries, (2) reflexive NPs, (3) causatives, and (4) generalised-subject constructions.

In the first of these, the term "inactive" refers not only to verbs describing states, but also to those expressing non-agentive fientive actions (such as "fall"). These auxiliaries, which usually have intransitive sources, but occasionally transitive ones, are at a midpoint along the grammaticalisation path from lexical verbs—with meanings like "be", "stay", and "come" (intransitive); "undergo" and "receive" (transitive)—to affixes attached to the stem of the main verb. At the source, they occur in biclausal constructions, but as the grammaticalisation progresses, they become more closely bound to the main verbs. As Haspelmath points out, passive meaning is often not contained within the auxiliary per se, but rather depends on a periphrastic structure combining it with a non-finite verbal form (namely a participle).[43]

This is one place where the link between passivity and resultativity is evident, since the same verbal adjectives are often formed from unaccusative verbs with active orientation to denote that

[42] Haspelmath, 1990, 33, 36; Raz, 1984, §6.1.2a.
[43] Haspelmath, 1990, 40.

the action has been completed (e.g., "the fallen soldier, the escaped prisoner").[44] The reason resultative adjectives frequently come to express the passive is because typically the result of an action affects its patient. This applies not only where the patient is the second argument of a transitive verb (i.e., a syntactically transitive one), but also explains the meaning of resultative adjectives from unaccusative verbs, as described above, whose primary (indeed only) argument is semantically a patient.[45] In relation to Semitic, this interplay between resultativity and passivity has important ramifications for the Akkadian stative, and in particular theories such as those of Petráček, who have sought to see in it the origin of the WS IP.[46]

A second common source for grammaticalisation into passives is the reflexive verb, via an intermediate stage of mediopassivity. First, the agency restriction on the SUBJ found in reflexives is lost, which constitutes a generalisation in the use of the morphology, a well-recognised characteristic of grammaticalisation.[47] This may result in ambiguity between

[44] From Semitic, Retsö (1989, 15) mentions a Northern Egyptian example of this kind of construction and Rubin (2010b, §3.4.2) one from Maltese. For periphrastic passives in the Neo-Aramaic see Khan (2008, §15.9) and Fassberg (2010, §4.4.20). Of greater relevance to this specific study, though, is Praetorius' (1923–1924; cf. Hetzron, 1977) work, deriving Semitic IPs from a construction made up of a conjugated auxiliary (<*√hwy "to be") with a passive/intransitive verbal adjective discussed in §1.4.3.

[45] Perlmutter (1978, 162ff.) cites Dutch examples showing that the only syntactically intransitive verbs from which passives may be formed are unergative ones (that is, those whose first, indeed only, argument is semantically an agent). Where the morphology elsewhere used for passive participles is applied to unaccusative verbs, they can express resultativity, but an impersonal passive construction is ungrammatical: *De lijken zijn al gerot* "the bodies are already rotted", but not ***Door de lijken werd al gerot* "being rotted is already done by the bodies".

[46] Huehnergard (1987, 227) has convincingly demonstrated that the Akkadian stative is a verbal adjective denoting resultativity. Thus, the stative of an unergative verb will express the result of the action on the agent: *wašib* "seated", from *wašābum* "to sit". However, from an unaccusative (including those expressing states) or a syntactically transitive verb, the result of the state on the patient: *damiq* "good" from *damāqum* "be strong" and *šemi* "heard" from *šemûm* "to hear", respectively. This is linked to SUBJ in the former, but OBJ in the latter. The "passive" value of *šemi*, for example, is a logical by-product of the interaction between the resultative aspect for which the form is primarily marked and the argument categorisation of the verb in question, which is lexically specified.

[47] This same characteristic can be seen in a grammaticalisation chain resulting in another verbal category: volition > future. In Mehri, for example, the verb *ḥōm* "to desire" also serves as an auxiliary marking future. Only where the agency restriction has been removed, and the use of the verb thereby generalised (to inanimate SUBJs) can it be unambiguously be identified as a grammaticalised auxiliary rather than the original lexical verb: *ḥōm lkteb* "he wants/is going to write"; *ḥayōm tḥōm təgzā* "the sun is going to set" but not **"the sun wants to set" (for which, see Simeone-Sennelle and Vanhove, 1997, 87).

reflexivity and mediopassivity depending on whether agency is present; with an inanimate SUBJ, though, only a mediopassive reading is possible (since inanimacy precludes agentivity).[48]

The other component of the development from reflexive to mediopassive is a semantic bleaching whereby the mediopassive loses the notion that the action is self-affecting. In this regard it is important to clarify that the issue is not the loss of coreferentiality of the grammatical relations SUBJ and OBJ, but rather that between the semantic roles agent and patient. The removal of the self-affecting property causes a semantic restriction on the predicate, such that it must be able to be conceptualised as lacking an agent. Paradoxically, the next step in the chain, from mediopassive to passive, reintroduces the notion of agency into the semantic specification as part of a generalisation from mediopassive use to include non-spontaneous events. This has the logical *semantic* consequence of an implicit agent (which that is not to say this agent will necessarily be *syntactically* present, that is, appear in the surface structure, or even be permitted to do so).

In relation to Semitic, this grammaticalisation path bears upon the N and *t* stems, since, as mentioned, in different Semitic languages these variously have reflexive, mediopassive, and passive functions. This is not the place to discuss whether such an explanation will fit the development of these stems; the subject matter of Semitic detransitives specifically is dealt with in Chapter 4. Suffice it to note, though, at this point, that *if* this grammaticalisation path is used to account for the functional development of any construction, there are certain theoretical ramifications: reflexivity must be seen as its original function (or at least one diachronically prior to passivity), and a passive interpretation should not be possible for the construction if a

[48] Haspelmath (1990, 44–45) provides the illuminating example "John hurt himself", with the two possible meanings "John (intentionally) caused himself pain" (agentive, and therefore reflexive) versus "John got hurt" (a spontaneous, that is, mediopassive event).

mediopassive one is not (or has not been) permitted, since the latter is the intermediate stage in the development.[49]

Causatives are Haspelmath's third proposed source for passives. This development, though, is rarer than the others, and no plausible potential candidates may be identified in Semitic, so it is only covered here cursorily.[50] Causatives share with passives the pragmatic property of agent defocusing, since the causee (the agent of the action itself rather than of the causation) is less salient than the causer (the agent of causation) and the patient (of the caused action). This has the logical corollary of highlighting the affectedness of the patient, which Haspelmath argues is also integral to passivity.[51]

As in the grammaticalisation from reflexive to passive, the loss of the agency restriction on the SUBJ reflects a loss of semantic specificity, which is common to grammaticalisation. For example, the most important difference between the German *Nesrin lässt sich fotografieren* "Nesrin has herself photographed" and *Das Fahrrad lässt sich reparieren* "the bike can be repaired"—causative-reflexive and (potential) passive, respectively—is that the notion of volition inherent in agentive action is absent from the latter. This allows the AUX *lassen* "let", and therefore the whole construction, to take an inanimate SUBJ. Since inanimate SUBJs preclude true reflexivity (due to their lack of agentivity), the latter example can only be interpreted as passive.[52]

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[49] Possible alternative developments, such as a (medio)passive form taking on reflexive use to compensate for the loss of a form that originally performed this function, should not be ruled out. This explanation—the N stem taking over reflexive function due to the decline of the Gt—is exactly what Kouwenberg (2010, §14.3.4) proposes for Akkadian. It seems plausible that the semantic property of SUBJ affectedness, common to both (medio)passivity and reflexivity, was the factor that allowed such a development to occur.

[50] For this grammaticalisation path, see Haspelmath, 1990, 46–49.

[51] It is true that different patients may have different levels of affectedness (according to the semantic transitivity of the verb, for example), and that both passivity and causativity highlight this characteristic. Usually, though, the affectedness discussed in relation to passives is that of the *SUBJ*, which obviously does not apply to causatives.

[52] Haspelmath,1990, 47. This kind of passive is restricted to potential modality in German; the example cannot mean *"the bike is repaired", only "the bike is repairable". This perhaps reflects vestigial remnant of the lexical meaning of *lassen*, "to allow", before further semantic bleaching allowed the extension to passive use more generally.

Haspelmath's fourth and final grammaticalisation source for passives is what he calls the "generalised-subject construction", elsewhere called "impersonal, a transitive verb whose

> SUBJ is pronominal and has arbitrary ('anyone'), indefinite ('someone') or generic ('people in general') reference. Most often a 3pl pronoun is used, but sometimes a special "impersonal pronoun" like German *man* is used. Such impersonal nouns are commonly derived from general person nouns like "person".[53]

As mentioned in relation to Shibatani's prototype model, such constructions also have in common with passives the defocusing of the agent, insofar as it is semantically generalised. However, whereas in generalised-SUBJ constructions the agent is linked to the grammatical relation SUBJ and the patient is not, passive constructions by definition cannot have an agent SUBJ, but typically (though not necessarily) do have a patient SUBJ.

The transition from the generalised-SUBJ to passive comes about through reanalysis, first of the agent, then of the patient. Thus, when the OBJ (=patient) of the original generalised-SUBJ construction is topicalised, the already defocused agent becomes even less salient than in a clause unmarked by topicalisation and may be reinterpreted as a nonparticipant. The topicalised OBJ is next reanalysed as filling the now-vacant SUBJ slot. Along with this syntactic restructuring, there is a concomitant morphological reanalysis of the erstwhile generalised SUBJ as a passive marker, (potentially) allowing the inclusion of an overt, specific, agent phrase.[54]

Semitic sometimes uses generalised-SUBJ constructions for prototypical transitive verbs. This is particularly common in Aramaic and Ethiopic, where they usually have 3MPL SUBJs, although there is no evidence that such constructions have undergone the reanalysis as passive constructions, since they do not allow the inclusion of overt agent phrases.[55] However, some scholars have posited a generalised-SUBJ origin for Semitic constructions whose statuses as

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[53] Haspelmath, 1990, 49.
[54] Haspelmath, 1990, 49–50.
[55] For Ethiopic, see Dillmann and Bezold, 1907, §192. In Aramaic, generalised-SUBJ constructions are attested right through from Biblical Aramaic (for which, see Daniels, 2001, 76–77) up to contemporary dialects—Rubin (2010b, §3.4.2) gives an example from the Neo-Aramaic of Qaraqosh.

passives is beyond doubt. Vycichl, for example, wonders whether the *u* vowel of Arabic IPs was originally a (generalised) SUBJ marker, drawing parallels to the MPL morpheme *-ū* found in both the verbal and nominal paradigms.[56] Elsewhere, Retsö believes the N stem to go back to an original dummy SUBJ marker, claiming that the Hausa (Chadic) perfective impersonal pronoun, or "4PL", *an-*, is a cognate preserving this original function.[57] These proposals are extremely speculative and so cannot further our understanding at the theoretical level, but they do show how the relationship between generalised-SUBJ constructions and passives have been understood by some Semiticists, namely, with a shaky grasp of the mechanics of diachronic change between these functions, and indeed of their synchronic distinction, but with vague reference to their similarity regarding the non-syntactic characteristic of agent defocusing.

Haspelmath briefly mentions some non-grammaticalisation sources of passives, the most important of which is "the lexical expansion of initially idiosyncratic derivational morphemes".[58] This is of particular relevance to the current study since the example he gives to illustrate the phenomenon—Greek *-thē* (Ancient) > *-θ* (Modern)—exactly parallels the proposed development of IPs from vocalism associated with intransitive, stative verbs (discussed in §1.4.2).[59] The precise mechanics of this change are not entirely clear, though the implication is that affixes originally marked stativity ("inactivity" in Haspelmath's terminology) became extended to fientive verbs, which they stativised. In any case, this process seems to relate to one characteristic of passivity identified by Abraham and Leissiö, namely, predicative stativisation.[60]

[56] Vycichl, 1959, 81.
[57] Retsö, 1989, 154–157.
[58] Haspelmath, 1990, 51.
[59] For IPs developing from statives, see, for example, Blake, 1901; and Retsö, 1989, inter alia.
[60] Abraham and Leissiö, 2006, 2.

It is interesting that precisely the opposite development is also recorded, namely, that whereby, through fientivisation of a stative verb, a passive use is reached.[61] Haspelmath notes that fientivisation is one of the functions frequently performed by passive morphology, though he does not provide any discussion—this particular phenomenon not falling within the remit of a work focussing on passives arising through grammaticalisation—apart from vaguely mentioning a possible connection with stative auxiliaries, especially "be(come)".[62] One dimension of passives as a cross-linguistic category that Haspelmath largely ignores, for much the same reason that it is not a part of the diachronic grammaticalisation developments which he is concerned, is the notion of potential passivity.[63]

Haspelmath's proposed grammaticalisation sources of passives entail some important predictions about their morphology. For example, the prevalence of stem affixes as passive markers is expected since this is how AUXs tend to develop, and two of the paths described are grammaticalisations of AUXs.[64] This distribution is further expected on the basis of Bybee's "relevance principle, which says that the more relevant a meaning element is to another one, the more likely it is that it will be expressed inflectionally or lexically, and the closer to it it will occur if it is expressed as an affix".[65] Thus, passive markers tend to occur closer to the stem than TAM markers, since inactivisation—which Haspelmath sees as the diachronically original function of passivisation, discussed below—is more central to the meaning of a verb than its

[61] This is precisely the explanation Kouwenberg (2010, §12.6) very persuasively proposes for the development of the N stem, discussed in detail in §3.2 of this dissertation.
[62] Haspelmath, 1990, 55.
[63] About this, Haspelmath (1990, 55–56) merely observes that the (irrealis) modality of the predicate seems to have some connection with the habitual, generic notion of imperfective aspect, from which it possibly follows as a result of Gricean implicature.
[64] Haspelmath, 1990, 52: "Because of the correlation between prefixing and head-dependent order on the one hand and suffixing and dependent-head order on the other, the stem of an auxiliary (which is a head) generally comes to stand between the stem of the dependent verb and its own aspect/tense/mood affixes; i.e. it becomes a stem affix on its host verb".
[65] Haspelmath, 1990, 32.

aspect or tense values (which merely affect the predicate but not its arguments). This is an interesting point in relation to the distinction between the N and *t* stems on the one hand and IPs on the other, considering their functional distributions, and the analysis of their morphology as derivational versus inflectional.[66]

Since grammaticalisation typically entails a break-down in the phonetic material of an element, passive marking by means of sound-replacement (as occurs in IPs) can result from further grammaticalisation of affixes (that is beyond an initial step like *AUX > clitic). With regard to how an extraposed affix would come to occur within the stem, assimilation would be one possibility, which is precisely what Praetorius and Hetzron propose happened with the *u*-vowel of Semitic IPs.[67] Haspelmath also speculates that speakers might reorder elements to better conform to the relevance principle, moving grammaticalised passive-markers from their original position outside of inflectional (e.g, TAM) affixes to occur inside of them.[68] The origin of differential subject person markers are more obscure; Haspelmath mentions just one case, where they seem to have possibly developed from a generalised-SUBJ construction.[69]

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[66] Kouwenberg (2010, §10.5) discusses whether Akkadian derived stems are rather derivational or inflectional morphology. Ultimately, I agree with him that the distinction is not binary but scalar, along a spectrum on which Semitic verbal stems are situated rather toward the derivational end. IPs, though, fit more of the criteria for inflectional morphology (such as productivity, for example) than do the N or *t* stems, though it is not impossible to identify (rare) instances where they perhaps form new lexemes (which would qualify them as derivational)—e.g., in Mehri the Ga *xəlūḳ* means "to create" but its corresponding Gp *xəlēḳ* means "be born" (Rubin, 2010, §7.1.7).

[67] Praetorius' (1923–1924) and Hetzron's (1977) theories are discussed, and rejected, in §1.4.3. However, marking by sound-alteration (albeit of person, rather than voice) that derives from assimilation to a subsequently lost suffix, the 3MPL suffix *-*ū*, is attested in MSA (Appleyard, 1996, 210; Dufour, 2017, 55; discussed in §6.5).

[68] Haspelmath (1990, 53) thereby accounts for the rarity of passive-marking extrafixes, that is, affixes occurring outside of inflectional affixes, relative to the stem. This would still leave the passive-marking elements outside of the stem, rather than representing a sound-alteration internal to it. Anyway, the applicability of this thinking to Semitic, with its non-concatenative morphology is questionable.

[69] Haspelmath, 1990, 53. The only Semitic example of differential SUBJ passive marking (discussed in §6.2) is found in Mehri, and seems not to have arisen from grammaticalisation, but instead from the extension of another verbal-category marking, since the set of person-marking affixes occurring with the Gp are also those used in some derived stems. Moreover, only in certain parts of the conjugation and weak root types is the differential SUBJ the only passive-marking feature, and in most of the paradigm it is accompanied by sound replacement (i.e., the ablaut characteristic of IP morphology).

It is crucial to Haspelmath's proposed developments of passives that they possess certain semantic characteristics common to grammaticalisation in general. Firstly, they undergo the desemanticisation common to the initial stages of all grammaticalisation. For example, verbs like "go" and "suffer" and nouns like "head" lose their lexical meaning and come to serve as grammatical words, auxiliaries, and reflexive pronouns, respectively.[70] Secondly, the loss of an agency restriction in the grammaticalisation path reflexive > mediopassive (> passive) reflects a metaphorical shift away from the cognitively concrete world of human experience toward a more abstract realm of meaning. The same process is present in the grammaticalisation of other verbal categories, such as along the path volition > future.[71]

While passivity represents a convergence, a common result of various paths, it is not the endpoint of Haspelmath's proposed grammaticalisation chain(s), which is instead a construction that is the unmarked way of expressing transitive clauses in terms of relational syntax, and represents the default arrangement of arguments with respect to theta-role assignment. Within the framework of grammaticalization theory, this reflects the maximum extent of generalisation of the construction, and the loss of all meaning associated with it.[72] That passive is the (most recent, but not ultimate) origin of such constructions is often apparent in their ERG alignment, whereby the semantic role patient retains the case marking associated with the grammatical relation SUBJ, in which regard it resembles the actant of intransitive active clauses. A key component of this stage of development is the status of the agent: as the construction proceeds along the grammaticalisation path toward ergativity, the agent becomes an increasingly central

[70] For a description of this in a work specifically focusing on Semitic, see Rubin, 2005, 2–4.
[71] See Heine (1993, §2.4.1) on desemanticisation: "Event schemas lose their association with the world of human beings (the ontological category PERSON), they come to be extended to a world where the distinction human versus nonhuman is immaterial (OBJECT)", and on the concomitant conceptual shift from concrete to abstract (§3.1).
[72] With regard to the formal development, the expectation is also morphological reduction (just as occurs at the semantic level), ultimately ending in ø. Once grammaticalisation has progressed to ergativity, it is unlikely that the erstwhile passive marker will be retained as anything more independent than a verbal-inflectional marker with an expected tendency toward lightness, that is, limited length and stress, in its physical form(s).

clause constituent. Thus, in mediopassives, for example, it is not even semantically implicit; in passives, depending on the language, its overt expression is very often impermissible or at least rare; but as one approaches the endpoint of the chain, the agent becomes a core element until it ends up an obligatory (ERG) SUBJ.[73]

One of the most important premises underpinning grammaticalisation theory as a way of explaining language change is the notion of unidirectionality, which predicts that development along a grammaticalisation path always proceeds from one end (the source) to the other (the endpoint), and never in the opposite direction.[74] For example, though passives often develop from a construction combining a verb meaning "be" and a resultative participle, the inverse is unheard of and would violate one of the most fundamental predictions of grammaticalisation theory. There are cases, though, where developments *from* passives do appear to violate unidirectionality, which a treatment of passivity within this framework must therefore address.

One important case is that of the chain reflexive > passive, for which examples running in the opposite direction exist—for example, the English "get" passive/reflexive "get broken" (passive) > "get dressed" (reflexive). Haspelmath stresses that such cases are restricted to "natural" reflexives (e.g., "he washed himself"), which are usually carried out by people on themselves, in contrast to "prototypical" reflexives, which are actions usually carried out by one person on another (e.g., "he shot himself"). The former resemble intransitive verbs insofar as they may be perceived as one-participant actions and therefore "can be treated linguistically just like spontaneously occurring intransitive processes which are expressed as anticausatives".[75] This has interesting ramifications for the N stem, insofar as it allows for an alternative diachronic

[73] Haspelmath, 1990, 56. In Semitic, the development from passive to ergative is primarily discussed in relation to NENA, for which, see Coghill, 2016.
[74] For unidirectionality in grammaticalisation theory, see Hopper and Traugott, 2003, ch. 5.
[75] Haspelmath, 1990, 57; for a more detailed discussion of this point, see Kemmer, 1993, §3.4.

development for its uses than that of reflexive > passive, as has traditionally been reconstructed (provided no examples of *prototypical* reflexive N verbs occur).[76]

Another attested development running directly contrary to a grammaticalisation path is that where, desubjective constructions arise from passives. In this regard, Haspelmath points out that the "difference between passive and desubjective is of a syntactic rather than a semantic nature", so "desubjectives are not more or less grammaticized than passives".[77] This overlap or equivalency is evident in that the two structures may only be distinguished when formed from transitive active verbs, whose OBJ the passive promotes to SUBJ, whereas the desubjective retains it as an OBJ; intransitive verbs do not have an OBJ that can be promoted to SUBJ in a passivisation, and therefore look identical to desubjectives.[78] A prudent examination of generalised-SUBJ and desubjective constructions (in relation to passives) should entertain the possibility that their common characteristics may reflect diachronic developments proceeding in ways other than (or indeed directly contrary to) common grammaticalisation paths, even if the specifics of such changes are, as yet, not well understood.

Haspelmath concludes his study by synthesising its findings to recover the basic function of passives. Ultimately, he believes it may not be possible to identify one main cross-linguistic function for passives at the synchronic level, and therefore concentrates the diachronic origin of their function. What Haspelmath finds various sources of passives have in common is "the inactive nature of the verb", corresponding to "predicative stativisation" in Abraham and

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[76] This rests on the assumption that mediopassivity may come to be expressed with morphology (the N) marking prototypical passivity at a stage when the same could not express reflexivity, which is, in fact, the analysis I propose for the Classical Arabic N stem (for which, see ch. 3, contra Wright, 1896, §52).

[77] Haspelmath, 1990, 58.

[78] Haspelmath, 1990, 35. An example of a desubjective is Finnish "It was eaten" ← "Maija ate it":

Maija	*Söi*	*sen*	→	*Syö-ttiin*	*Sen*
Maija.NOM	eat.3SG	it.ACC		eat-DESUBJ.PAST	it.ACC

In Semitic, the distinction may be made between, for example, the Arabic *julis-a ʕalay-hā* (sit.PRF.PASS-3MSG PREP-3FSG.GEN) "it was sat upon" as an impersonal passive from an intransitive active verb, and Soqotri *i-ruʔa to-s* (3MSG-see.IPFV.PASS ACC-3FSG) "she was seen" as a desubjective from a transitive one.

Leissiö's list of core characteristics of passivisation.[79] This is an *Aktionsart* feature, precisely the kind expected to be expressed by a verbal category marked at the VP level, since these (like TAM categories) modify some dimension of the predication itself; changing rather than the prominence relationship between the arguments, as achieved by topicalisation, for example, is instead the domain of sentence-level marking.

This function of stativisation is clearest in stative auxiliaries, the common source of passives among Haspelmath's data set; in the reflexive and causative-reflexive sources it is reflected in their SUBJ affectedness. Only generalised-SUBJ constructions and non-reflexive causatives are sources of passives where an original stativising function cannot be perceived.[80] The syntactic and pragmatic functions occurring with passives and related constructions, it is further argued, are simply logical side effects of this original TAM function of predicative stativisation.[81] Agent defocusing naturally follows from this, and is realised by its demotion. This creates an empty SUBJ slot, which in turn provokes OBJ promotion, with an additional pragmatic effect of patient topicalisation.

2.5 The verbal category "middle"

One crucial dimension of the theoretical linguistic framework does not relate directly to passives, but rather to the often problematic voice category "middle". There is much variation in the use of this term.[82] The traditional, broad, and somewhat simplistic definition of "middle" proposed by Croft, Shyldcroft, and Kemmer, refers to all instances where the syntactic "subject is both the

[79] Haspelmath, 1990, 59–61; Abraham and Leissiö, 2006, 2.
[80] Haspelmath (1990, 59–60, and n18) also finds stativisation is present as a characteristic of passives that do not arise through grammaticalisation.
[81] The OBJ-promotion step in then causal relationship between the different characteristics of passives, as Haspelmath (1990, 60) understands it, matches Perlmutter's (1978) proposed advancement of patients to the SUBJ slot in unaccusative verbs as a fundamental principle of his "unaccusative hypothesis".
[82] For this confusion, see Croft et al., 1987, 179; Kemmer, 1993, §2.1.

initiator and the endpoint of the action".[83] This covers all reflexives, including reciprocals, regardless of the distinction between prototypical and natural. Considering that the SUBJ of a benefactive like "pour oneself a drink" is both the initiator and the endpoint of the action, this use also covers indirect and direct reflexives alike. Part of the confusion surrounding the use of the term "middle" is that some scholars have used it restrictively, to distinguish between direct and indirect or between prototypical and natural subcategories of the reflexive (a confusion compounded by the fact that they use "middle" in contradistinction to "reflexive").[84]

According to the first definition provided above, "middle" is simply a synonym with "reflexive", and therefore redundant. However, throughout the world's languages (including Semitic), we find that various verbs that are not syntactically reflexive—in the sense that the grammatical relation SUBJ is not linked with two distinct semantic roles—but whose SUBJ may be conceived of as the endpoint of the action as well as its initiator, are frequently marked with the same morphology as reflexives. Cross-linguistically, these fall under a number of related semantic classes, such as verbs expressing changes in body posture, intransitive motion more generally, and spontaneous changes in state, cognition, emotional responses, and speech acts (particularly those with an emotional dimension).[85]

The distinction between use and form is crucial; like natural reflexives, verbs of these types can appear with no special marking, relative to a more basic counterpart. Considering the focus of the current work, though, we are really only concerned here with *marked* middles, in the restrictive sense of morphologically marked verbs, whose marking is associated with

[83] Croft et al. (1987, 184) qualify this with explicit definitions of the terms "initiator" and "endpoint" as "the entity which is the causal source of the action; the term is deliberately neutral as to the volitionality of the causer" and "the entity which is altered or affected in some way by the action's taking place," respectively.
[84] In their description of Hebrew, Jouön and Muraoka (1991, §§51c, 53i) apply the term to benefactive indirect reflexives, in distinction too "reflexive" for direct reflexives. For a discussion on how "middle" is sometimes applied to natural reflexives (but not prototypical ones), see Kouwenberg (2010, §10.8.3.6), though the secondary extension of the marking to intransitive actives is also central to his understanding of the category.
[85] Croft et al., 1987, 180–83; Kemmer, 1993, §§2.1–2.3.

prototypical reflexives (and potentially other categories, such as passive), but are not reflexive. Specifically, such cases need to be integrated into the theory of the Semitic "detransitive" stem system as a whole—the quotation marks reflect the fact that such middle verbs are no lower in valency than their unmarked counterparts and not, therefore, *syntactically* detransitive.[86]

In Kemmer's discussion of middle verbs (in the broadest sense, including reflexives), he ties coreferentiality of initiator and endpoint, or more specifically their conceptual distinguishability, to the relative degree of elaboration of events. The notion of event elaboration refers to whether a reciprocal action, for example, can be perceived as separate simultaneous actions by the actants (more elaborated) or is seen as a single simultaneous action in which they participate together (less elaborated). The lower the degree of elaboration, the less conceptually distinct initiator and endpoint are. The event elaboration, and therefore distinguishability of participants, is higher in prototypical than in natural reflexives, which in turn have higher event elaboration than middle verbs without transitive basic counterparts (such as verbs of emotion, motion, and other classes).[87]

Thus, the reason that verbs expressing emotions—e.g., Dutch *zich schamen* or Aramaic *ʔiṯbəheṯ* (both) "be ashamed" and Spanish *arrepentirse* or Hebrew *niḥam* (both) "repent"—can be marked as middle is that the SUBJ is the source of the action, but also at some level its endpoint. However, the two positions cannot be conceived of as separate, and are both tied to a single semantic role (experiencer). The shame or repentance emanates from the SUBJ's mind,

[86] The syntactic valencies of the verbal predicates of French *la glace fond* and *la glace se fond*, both "the ice melts"—unmarked and middle forms, respectively, in free variation for many speakers—are identical. They both possess just one argument, SUBJ, linked to the semantic role patient, which is both the initiator and endpoint of the action—the ice itself may be considered the causal source of the melting, due to its inherent physical properties. *Se* in the latter is not a reflexive pronoun linked with any grammatical relation; it is rather syntactically null, marking the semantic category middle (see Kemmer, 1993, §2.2).
[87] Kemmer, 1993, §4.1.3.

but can simultaneously be seen as affecting his/her mental state.[88] In the case of mediopassives, spontaneous actions with no associated agent, middle marking can arise as a result of the fact that "where no readily identifiable participant that can be ascribed a causal role is available…a typical strategy is to select the entity undergoing the change as the chief nominal participant".[89] Again, it is important to note that event is not syntactically reflexive; the SUBJ is associated with just one semantic role (patient), and the sentence is not related to a basic transitive counterpart.

As to how middle marking develops, based on typological cross-linguistic parallels, Kouwenberg talks of "a lexicalisation of an original voice distinction in a group of reflexive verbs".[90] Hereby, a reflexive marker loses its functional weight in verbs whose lexical meanings inherently tend toward reflexivity (e.g., "to wash", to which adding a reflexive pronoun "oneself" is largely redundant). The marker may subsequently be extended to active intransitive verbs, owing to the similarity of their argument structure to that of reflexives (they are likewise specified only for SUBJ). This is particularly common where the functional weakening of the reflexive marker has provoked the development of a new one, with the original reflexive marker then being restricted to natural reflexives and middle verbs.[91] Ultimately, the development can result in verbs—traditionally labelled "deponent"—from these aforementioned semantic groups (emotion, motion, etc.) bearing the same middle marking, but for which corresponding unmarked forms do not exist.[92]

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[88] Kemmer, 1993, §4.2.1. The examples cited are pairs of the same lexemes from European and Semitic languages to highlight the cross-linguistic trend at issue. Those from Aramaic and Hebrew mark the middle voice using the tG and N, respectively, which will be addressed further in the relevant sections (§3.5 and 3.6.2) of Chapter 3.
[89] Kemmer, 1993, §4.3.1.
[90] Kouwenberg, 2010, §10.8.3.6.
[91] Kemmer (1993, ch. 5) describes and illustrates this development for a number of unrelated languages. In such two-marker systems, where the two markers are etymologically related, the middle/natural marker is invariably morphologically "lighter" than the prototypical reflexive marker, either due to the older marker having undergone erosion as a result of grammaticalisation, or the new reflexive marker being formed by reinforcement of the older one by the addition of an emphatic element.
[92] Kouwenberg (2010, §10.8.3.6n39) notes, for example, that from Dutch *zich schamen* "to be ashamed" a corresponding **schamen* does not exist. For the term "deponent", see Kemmer, 1993, §2.2.

Although reflexives are the most common source for middle markers, alternative developments also bear consideration. Kemmer describes how the Latin middle suffix *-r* has impersonal and passive uses both in that language and in related languages (in which it does not mark middle). The communis opinio is that an original 3PL marker came to be used in a generalised-SUBJ construction and developed into a passive marker whose use was then extended to middle events.[93] Despite such cases, Kemmer characterises the middle as being, at its core, conceptually derived from the reflexive, which has cognitive primacy; this is why middle marking tends to develop from reflexive morphology, there exists a complementary restriction against the opposite development, and reflexive is more frequently a morphologically marked category throughout the world's languages than is middle.[94]

Various Semitic languages possess marked middles (in the N and *t* stems) belonging to the various semantic classes outlined above, and whose historical developments are pertinent to a study of IPs, considering they form part of the functional (re)distribution of the detransitive stem system as a whole. Kouwenberg gives an Akkadian example of a middle verb of motion having developed from a reflexive marker: basic G *ʔalākum* "to go" forms a middle Gt *ʔatlukum* "start going, set out", which focuses on the beginning of the motion.[95] The reason for this aspectual distinction to the unmarked form, which rather views the action as a whole, is that the semantic property of the middle SUBJ being the endpoint of the action is expressed in terms of a change of state implicit to an entity that was in one position and is no longer in this initial position. The animacy and agency restriction present on the SUBJ of *ʔatlukum* but not of *ʔalākum* is a

[93] Kemmer, 1993, §5.1. As discussed in §2.4 in relation to Haspelmath's (1990, 57–58) work, in view of the middle's intermediate position between passive and reflexive in a semantic mapping, and the principle of the unidirectionality of grammaticalisation, the use of *-r* is expected to never spread further to prototypical reflexivity.
[94] Kemmer, 1993, §§5.5.1, 6.4.2–6.4.3. For a diagram of the "semantic relations among middle and other situation types", see §6.1 diagram 2.
[95] In Kouwenberg, 2010, §14.3.4. Precise parallels to this exist in Spanish *irse* and Old Norse *ganga-sk* which are both middles formed from "go" + morpheme originally marking reflexive.

characteristic preserved from the originally reflexive meaning of the infixed *-t-* morpheme (since reflexives necessarily have animate, agentive SUBJs), though Kouwenberg also notes that such a semantic restriction fits well with the idea that middle formation is a kind of lexicalisation.[96]

Apart from *t* stems, the other common Semitic middle marker is the N stem. As mentioned above (in §1.4), the N is traditionally analysed as originally having been reflexive, and subsequently having developing other functions including passive and middle.[97] Pardee, though, opines that in Ugaritic—implicitly suggesting that this was also the case as far back as WS—its original functional domain was middle, in contrast to the Gt, which expressed the reflexive proper, and the Gp, the passive (all in relation to an unmarked G).[98] Most important for the diachronic functional development of the N is whether it ever expresses the reflexive. If, as Gzella maintains, sporadic putative instances of such in Hebrew and Ugaritic are invariably natural reflexives or semantic middles, this leaves the possibility that the middle function of the N developed from original passivity, which would of course be of great import to the development of another construction possessing this function (namely, IPs).[99] Whatever the case may be, these examples and the preceding theoretical linguistic discussion highlight why a purely syntactic analysis of the Semitic detransitivity is insufficient to understand its verbal stem system; the semantic dimension of SUBJ affectedness needs to be recognised and incorporated into any functional mapping (on both the synchronic and diachronic planes) of the N and *t* stems.

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[96] Kemmer, 1993, §5.1, esp. 156–158; Kouwenberg, 2010, §14.3.4.
[97] See, for example, Brockelmann (1908, §257H) and Williams (1970, 45–46) for early and recent statements to this effect.
[98] Pardee (2003/2004, 266), in distinguishing between "middle" and "reflexive", is clearly using the former, which he defines as "an act stated in terms of the patient but with no expressed passivity", in a restrictive sense. Gzella (2009, 305–308) identifies a similar situation for proto-CS.
[99] Gzella (2009, 301n23, 305–7) actually sees the N stem as originally not having been a syntactic voice category, but rather marked for the semantic characteristic of SUBJ affectedness, with the specific use being determined by the verb in question, in which respect he is essentially following Jenni (1973).

2.6 The Variation-and-Change Model of Language Development

The final part of the theoretical linguistic framework to be discussed relates to the language diachrony in the abstract rather than in terms of specific cases. That is, looking at the history of language, there are various ways the development from situation A to (a different) situation B can be conceived of as having changed. Like other comparative linguists, Semiticists have largely employed a family tree model, less often an areal wave model, or at the most nuanced level, some combination of the two, to describe and analyse the languages they study.[100]

As outlined above (in §1.4), these models have failed to satisfactorily account for the attested IP forms. In brief, divergent forms cut across established isoglosses in the phylum and defy being explained as cognates, whether through genetic inheritance of material or loaning in a contact situation. Moreover, the various IP forms appear and then disappear from the language several centuries later, at different rates and stages depending on the stem, conjugation, and/or language/dialect. If this arc of IP productivity is to be explained as a series of punctual changes, the resulting picture is unacceptably messy, with little cohesion in the overall development of IPs as a part of the paradigm.

Instead, the preliminary findings of a survey of Semitic verbal stem systems have led to an alternative theoretical framework for application to Semitic detransitives: the variation-and-change model. This was formulated by Labov in the 1960s, whose seminal work on raising of the diphthongs /ay/ and /aw/ in Martha's Vineyard analysed them using this new theoretical framework.[101] In brief, he noticed that a tendency towards raising had become more pronounced among the Chilmark Yankees and subsequently been adopted (and even exaggerated) by the

[100] This terminology and concepts to which it refers is familiar enough to any linguist not to warrant much explanation here. For a general overview of family tree and areal wave models, see Lyle, 1999, ch. 7. For their application specifically within Semitic, see Huehnergard and Rubin, 2011.
[101] Labov, 1963.

descendants of Portuguese immigrants. The primary motivation behind this development, Labov found, was the assertion of the speaker's identity as a native Vineyarder (as distinct from a summer visitor). The fundament of the variation-and-change model—whose mechanics, and adaptation for the current study, are discussed below once its scholarly origin and development have been addressed—has thus traditionally been the explanation of synchronic variations in terms of their sociolinguistic motivations.

However, since Labov's pioneering work, he and others have built upon it, expanding the scope of the model beyond the synchronic to address diachronic variation, including change as a possible outcome thereof. An excellent early example of such work is Lüdtke's "Invisible-Hand Processes and the Universal Laws of Language Change".[102] Elsewhere, Hickey's edited volume contains illuminating chapters by Matthews, Milroy, and Newmeyer, amongst others, on the reasons behind language variation and change, including social factors but also addressing other motivations.[103] The following formulation is based on such studies from the discipline of sociolinguistics, but focusses especially on those that are primarily concerned with language diachrony.

At its core, the variation-and-change model views change as a possible result of variation within the language. Innovative variants arise through various means and motivations (addressed below) and exist alongside original ones, competing for a place in the grammar. When an innovative form fares well in this competition, it spreads, being extended both to new contexts in

[102] Lüdtke, 1989; a decade later, Awedyk (1999) was still addressing the issue of reconciling language diachrony as understood in sociolinguistics with traditional historical linguistics methodologies. Notably, both these works appeared in volumes edited by Ernst Jahr, an important contributor to the scholarship on this issue. More recently still, Ringe and Eska (2013) have continued the task of keeping the methodology of historical linguists up to date and in keeping with the evolution of the variation-and-change model.

[103] Matthews, 2003; Milroy, 2003; Newmeyer, 2003; McMahon (1994) and Garcia (1997) have also provided input regarding the motivations behind variation (and change) in the variation-and-change model of language diachrony.

the language and within the speech community, being adopted by new speakers. At the greatest extreme of success, the innovative variant replaces the original one in all contexts.

For example, Hebrew possesses two independent 1SG pronouns, *ʔɔnōḵī* and *ʔănī*. These coexist in texts from the Hebrew Bible, but the former is more prevalent in the earlier books (and archaising material), and the latter in later books. In this instance, variation ultimately gave way to change proper, since the variant *ʔɔnōḵī* was irretrievably lost at the expense of *ʔănī* by the stage of Mishnaic Hebrew. From a situation of variation between the two forms through much of Biblical Hebrew, an irreversible change has occurred.[104]

However, due to the ability of speakers to simultaneously possess more than one grammar, even if these grammars are seemingly incompatible, it is not a given that variation will result in true, irreversible change. Innovative forms can coexist alongside original ones for extended periods. They may not manage to gain the upper hand in the competition and ultimately be abandoned in favour of the original variant they failed to supplant:

> there is so much room for creativity in language that innovations abound; many of them are *hápaks legómena*, nonce expressions. Others may remain for a while until they disappear. Some may enter into serious competition with established rivals and eventually oust them. We should reserve the term 'change' for those phenomena which consist in the *abolition* of something that had been current in a language; such change is much rarer, indeed, than the creation of something new.[105]

For example, variation between (unmarked) SOV and SVO word order has continued from the Homeric Greek until that of the present day. Shifts through time in the relative scopes of these two variants reflect the gradual victories the innovative SVO word order in the early stage of a *variation*, where it coexists in competition with original SOV. However, this expansion of

[104] Jouön and Muraoka, 1991, §39Aa; Segal, 1927, §67.
[105] Lüdtke, 1989, 135.

the innovative word order could yet be reversed; the final stage of *change*, whereby it has ousted the older variant altogether, has not yet been reached.[106]

Such a view that language change is defined by something disappearing from the language views diachronic development somewhat differently than does the historical linguistics model traditionally applied in the discipline of comparative Semitics. There, the loss of features is often played down since it cannot be used as a diagnostic feature for genetic classification purposes. This is because it is generally more likely for unrelated languages to coincidentally lose a feature that they have in common than for them to independently develop the same innovation.[107] Importantly, the possibility of competing constructions coexisting in the language allows for diachronic developments to be gradual and untidy processes, whereby change proper can only be identified as having taken place once something irreversible has affected the language (i.e., something in it has disappeared).

This contrast with more conventional comparative historical linguistic approaches notwithstanding, the mechanical framework of the variation-and-change model is in large part the same. For example, analogy is identified as an important means by which an innovative variant can arise in the first place, just as it is wholly familiar as a source of language change in other theoretical frameworks of language change.[108] Other proposed sources of variation (and hence change), such as language learner error, are arguably less familiar outside of the variation-and-change framework.[109] On the whole, though, those enumerated by Labov—"assimilation or differentiation, …analogy, borrowing, fusion, contamination, random variation"—are all

[106] Henry, 2003, 272ff.
[107] Hetzron, 1977, 97.
[108] On analogy within the variation-and-change model, see McMahon, 1994, 70–84.
[109] On language-learner error in the variation-and-change model, see Ringe and Eska, 2013, 36–37.

processes of language change cited by Semiticists working in the comparative historical linguistics tradition.[110]

The key difference of the mechanics of the variation-and-change model with regard to diachronic development—and consequently, the reason that its application to the data of Semitic detransitives yields new results not achieved by previous attempts—is the process by which innovations are seen to (potentially) replace their original counterparts:

> Variation between new and old forms is not alternation but *competition*: the forms in variation are competing forms in the same environments and the form whose frequency is increasing is, for some reason, winning the competition.
> From this perspective, the crucial question in the study of the spread of new forms in the language is what *advantage* they have over the old forms they replace.[111]

As for the precise nature of the advantage one variant may have over another, considering that the model is firmly rooted in the realm of sociolinguistics, it is hardly surprising that its proponents champion the role of social pressure in the selection of one variant over another.[112]

Apart from the sociological dimension, though, language-internal factors may also affect speakers' selections between variants. Among these is Lightfoot's "transparency principle", which "requires derivations to be minimally complex and initial, underlying structures be 'close; to their respective surface structures".[113] That is, a variant is advantageous if it is tied more closely in the speaker's conception to its function(s) or meaning(s) in the language. This motivation is very apparent in language changes occurring in grammaticalization processes. For example, the innovative variant "you'll" is more advantageous than the original variant "you will" as a future marker because its reduced phonetic realisation closer reflects the functional

[110] Quoted in McMahon, 1994, 248.
[111] Ringe and Eska, 2013, 54 [my italics].
[112] The textbook example of diphthong raising in Martha's Vineyard has been explained by Labov (1963) as socially motivated, namely, to affirm native the speaker's identity as native to the island rather than a visitor.
[113] Mcmahon, 1994, 119–20. Subsequent modifications and variants (e.g., Roberts' "least effort strategy") are discussed by McMahon (125–37) and Newmeyer (2003, 22–24). Suffice it for the purposes of an overview of the variation-and-change model to limit the description to the most basic, original formulation since these do not change the fundamental notion of the transparency principle that one variant is selected over another owing to greater conceptual clarity.

downgrading from the category lexical to functional and the concomitant semantic bleaching (i.e., the loss of its meaning "to want").[114]

The motivation for language to move towards greater transparency only influences language variation and change in a palliative manner. There is no mechanism for preventatively blocking developments that introduce opacity, only for redressing them after the fact.[115] Changes occur that violate the transparency principle and must subsequently be fixed. This results in a state of perpetual tension that Newmeyer describes as an "uneasy balance", governed by the push-and-pull between competing pressures.[116]

Within the variation-and-change model, the possibility of simultaneous influences is an important factor. If the transparency principle were the only one motivation governing selection of variants, one would expect all languages to simply progress to a functionally optimal state of maximum transparency, with far less typological variation between languages than exists in the world. Instead, languages are affected by the complex networks of pressures arising from and dependent on features inherent within the language (e.g., phonological motivations) and extra-linguistic realities alike (e.g., social pressures). As a result, languages differ in how they select one variant over another, even to the extent that one compares cognate pairs of variants in similar languages.[117]

[114] Newmeyer (2003, 23–26, 28–29) discusses the language changes associated with grammaticalisation as a result of the "least effort strategy", and specifically the role of iconicity, which is closely related to the "transparency" of the relationship between an element of the language and its role therein.
[115] As Mcmahon (1994, 121) phrases it, "grammars practise therapy rather than prophylaxis", meaning that "speakers and grammars are not prescient, and thus cannot stop changes which may cause complexity although they may clear up the complexity afterwards".
[116] Newmeyer, 2003, 29.
[117] Newmeyer, 2003, 29.

For example, in Middle English, original OVS sentences—e.g., "the king$_{SG.DAT}$ liked$_{PL}$ the pears$_{PL}$"—were reanalysed as having SVO word order, and true OVS sentences were lost.[118] This was because when the dominant word order of English had switched from SOV to SVO in the twelfth century, consequent ambiguity between SVO and OVS sentences deprived the latter word order of its conceptual transparency. OVS sentences like ** "him$_{SG.DAT}$ liked$_{SG/PL}$ pears$_{PL}$" became ungrammatical and the transparency principle triggered their replacement by SVO "he$_{SG.NOM}$ liked$_{SG/PL}$ pears$_{PL}$".

In Romanian however, also an SVO language, OVS sentences remain permissible. One important difference was that by the time of the reanalysis just described, English had lost case marking, making the distinction of SVO and OVS sentences far less transparent than in Romanian, where case marking is preserved.[119] This shows that though the transparency principle (or some similar formulation) can explain the diachronic change of the loss of OVS sentences in English, it must be situated within a network of interrelated motivations including (but not necessarily limited to) the loss of case markers and the shift of dominant word order from SOV to SVO. Furthermore, insofar as each of these individual developments in English had its own motivation(s), the network of competing pressures at play extends not just synchronically across the language at the stage of the reanalysis of "the king like pears", but diachronically back through its history.

This question of the motivations behind language change is one important difference between the variation-and-change model and more traditional methodologies of historical linguistics; in the latter, explanations for why language changes tend to be language-oriented

[118] See Mcmahon, 1994, 122 for this example of language change and the proposed reasons motivating it. The Old English (i.e., before it became ungrammatical and was reanalyzed) was actually "Þam cynge līcodon peran"; Modern English equivalents with case marking and number labels indicating grammatical relations and (non)agreement are used here for convenience.
[119] Mcmahon (1994, 126–27) describes this contrasting situation to the reanalysis in English described above.

rather than speaker-oriented.[120] This is in no small part due to ignorance of the human aspect of languages from historical periods long past; one cannot propose social motivations behind language change, for example, without knowing the social situation. The resulting view of language change as an organic, endogenous process has also often had the unfortunate side effect of detracting from the attention paid to its causes generally (i.e., not just the sociolinguistic motivations) in traditional analyses of historical linguistics.

The variation-and-change model, by contrast, is greatly concerned with what provokes language change, particularly insofar as this relates directly to the speakers themselves and to their role in language transmission. Of the motivations behind language change, works using this theoretical framework often stress social pressures (e.g., prestige language and identity marking), which is hardly surprising considering that the model was developed in the discipline of sociolinguistics. At the language-internal level, though, conceptual transparency—that is, the ease of association between linguistic material and its function in the speaker's mind—also conditions the competition between variants.

In such a speaker-oriented understanding of the motivations behind language change, variants cannot simply be identical alternatives at the psycholinguistic level, otherwise there would have been no reason for the innovative variant to arise in competition with the original one. Crucially, if there is not a difference in their transparency favouring one over the other, they must tell us "different things about the same referent, since the alternating variants present the

[120] Milroy, 2003, 143: "[I]n what might be called the dominant tradition in historical linguistics, it has been assumed that languages change within themselves as part of their nature as languages. The 'external' agency of speaker/listeners and the influence of 'society' in language change have tended to be seen as secondary and, sometimes, as not relevant at all…it has been assumed that it is languages that change and not (necessarily) speakers who change languages…that language change is not something that speakers 'do' to their language, and that 'endogenous change is part of the nature of the beast'".

'same' referent from different perspectives, and under a different light".[121] At the same time, and conversely, the speaker requires a degree of redundancy between variants. If their informative loads are distinctive enough, they are kept separate; the coexistence of variants presupposes that in some contexts at least, the perspectival distinction between them is irrelevant.[122]

The preceding formulation of the variation-and-change model provides the understanding of language diachrony on which the analysis and reconstruction in this dissertation is based. The principles of ongoing competition between variants and potentially abortive innovations were intuited in the conception of the Semitic verbal stem system that underpins the working hypothesis presented above (in §1.6).[123] However, such an impressionistic understanding, while helpful in guiding the initial examination of Semitic detransitives, is not rigorous enough to proceed beyond simple description of the data, hence the need for the preceding precise and methodologically grounded formulation.

It must be clarified, though, that this dissertation therefore does not simply employ the variation-and-change model precisely as it has been developed and used in the discipline of sociolinguistics. Because of certain key differences in the data at issue, it instead adopts the key theoretical components of the model and adapts them for use as an analytical lens through which to view IPs (and detransitives more generally). For example, to the extent that studies in the discipline of sociolinguistics address diachrony at all the tend to do so on a micro scale, and with much interest on how language transmission from one generation to the next can affect change.

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[121] Garcia, 1997, 24. This is accurate only for lexical and syntactic variation; phonemes, for example, contain no informative load of their own save their individual social values, which is then the distinction that governs the variation (and potentially change) between these units of speech.

[122] Lüdtke, 1989, 132.

[123] Specifically, the hypothesis characterises Semitic detransitives as existing in a situation of flux and explains the developments therein as the result of competition between stems (e.g., between the tD/Dt versus Dp, the N versus Gp, or otherwise the N versus tG/Gt). Furthermore, IPs are found to have arisen and then disappeared without ever replacing the N and *t* stems with which they existed in competition, and thereby reflect the *variation without change* for whose possibility the model accounts (though this point was not identified in the initial hypothesis, and only became clear from the descriptions and analysis of Chapters 3 and 4).

However, the diachronic scope of a study of all Semitic IPs is far greater, spanning centuries and even millennia of mainly extinct languages, so this consideration is irrelevant.[124]

In fact, the very nature of historical data can impede the accurate identification or description of variation (and change) that may have existed.[125] If a variant arises and then disappears without affecting change, there is no guarantee the arc of its productivity will have been accurately captured in the historical data attested. In the absence of native speakers alive to confirm that a change has occurred with the loss of a construction occurring during earlier stages of a language, the only evidence is negative evidence. However, incomplete and/or redacted data, or distributional anomalies in a historical corpus arising from the disproportionate attestation of certain genres can obscure the picture, so the absence of a construction from the textual record is not necessarily a fair reflection of its absence from the language as such.

Moreover, even if a variation may be identified in historical data, it is not always possible to ascertain which of variants is more original, and as a result, to rule out the possibility that they were created simultaneously. Crucially, though, understanding how the coexistence of variants initially arose is not a prerequisite in describing and analysing the variation between nor the end result thereof, particularly when discussing developments covering such a protracted period of time. Therefore, the question of whether variants are original or innovative (relative to each other) features less prominently in the analysis of IPs (and Semitic detransitives, generally) using the variation-and-change model that it does when this model is applied to contemporary data in the field of sociolinguistics.

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[124] One can directly observe how language is transmitted in living speech communities, whereas it must be reconstructed for historical languages (which must be done with the utmost caution, if at all). This somewhat accounts for the abstract conception in historical linguistics whereby language changes by itself as a spontaneous, organic process, and the role of speakers (and even more so, learners) in this is downplayed. Awedyk (1999) and Milroy (2003) deal with this issue in detail.

[125] On these barriers to the application of the variation-and-change model to historical linguistic data, see Labov, 1994, 11; Lightfoot, 1999, 9; and Ringe and Eska, 2013, 1–2.

Finally, it must be stressed that the adoption of the variation-and-change model of language diachrony is not meant to reject traditional comparative-historical linguistic methodology, nor to devalue work achieved using it. Like all theoretical frameworks, the genetic family-tree and areal wave models are not entirely accurate representations of reality. Nonetheless, as convenient fictions they have great value in how, in most contexts, they allow the organisation, presentation, and analysis of data to an acceptable degree of precision. At the macro level, many of the major diachronic developments in Semitic fit neatly onto the branches of a family tree; with a relatively brief description of a few important changes and their isoglosses between languages, one can map a family tree of the whole phylum.[126]

By contrast, it is a vast undertaking to provide an account—and admittedly, one with some notable gaps and lacking definition and specificity in places—of just the detransitive system(s) of the Semitic using the variation-and-change model. Clearly it would be entirely unfeasible to provide an account of all the diachronic developments of a given language, let alone a whole language family, in terms of all the interweaving variations this entails, even if one only limited oneself to commenting on those that ultimately resulted in language change proper. With regard to the scale at which variation-and-change may best be observed, it is notable that the model was originally applied, and often remains so, in studies of a discreet feature (e.g., a given sound change, or a lexical alteration) among a relatively limited speech community.[127]

This divergence between methodologies may be compared to evolutionary biology theory—fittingly, since that is the origin of the family tree model in linguistics. Representing a phylum as dividing into descendent branches (species or language families) whose members share

[126] For example, Huehnergard (2005, esp. 191–92) provides a thoroughly convincing identification of the Central Semitic branch, aligning the proto-CS node with half a dozen innovations, in under thirty pages.
[127] The textbook case was Labov's (1963) study on raising of /ay/ and /aw/ in Martha's Vineyard. A list of his (1994, xi) research projects from decades later shows that his work has retained a tight focus both in terms of the variations addressed and the language communities covered.

important innovative characteristics is a convenient abstraction, and not even wholly inaccurate. However, the actual mechanism by which change occurs in the real world is that an innovative variant (e.g., an animal with a new mutation or a new linguistic form) gradually replaces a variant in competition with which it has arisen. Rather than replacing the family-tree model, the variation-and-change model is thus used in this dissertation as an auxiliary analytic lens for an instance where a disconnect between traditional models of language change and the reality of the situation cannot be reconciled.

2.7 Conclusion

This chapter has described the traditional syntactic analysis of passives and presented alternatives that instead associate the phenomena with primarily pragmatic and semantic functions. It has also described some of the most important issues surrounding the relationship between passivity and other detransitive (and non-detransitive) categories. It is clear that passivisation possesses a number of key characteristics, though the question of which among these is the most crucial is a matter of much contention. On balance, the arguments from impersonal passives and languages with alignment systems other than NOM-ACC for SUBJ demotion or agent defocusing being the basis of passivisation are stronger than those for OBJ promotion or patient topicalisation.

That said, the absence of passive syntax without morphological marking on the VP suggests it is basically a verbal category.[128] Support for this position can be found in Semitic in the fact that in Arabic dialects and MSA, the decline of a certain kind of passive morphology, namely the IPs, is directly linked to the blurring of its distinction from corresponding active forms arising

[128] In adopting this position I follow Keenan (1985) and Haspelmath (1990), among others, contra Perlmutter and Postal (1977) and Dryer (1982), and, for different reasons, Shibatani (1985).

due to phonological processes.[129] Haspelmath's claim that the *Aktionsart* property of predicative stativisation is central to passivisation therefore seems more reasonable than either a syntactic or pragmatic analysis, both of which are less compatible with it being a verbal category. In any case, it may not be necessary to pick a side in the debate regarding the core function of passivisation in order to reconstruct the development of Semitic IPs provided that the multifaceted nature of the construction is recognised and taken into account.

Considering the methodology of the current study, viewing IPs in relation to other Semitic verbal stems, connections between the passive and other detransitives (such as the reflexive) are important, particular diachronic derivational relationships between them. Many of the world's passives can be convincingly attributed to grammaticalization processes which also account for various formal and functional commonalities among them. However, there also exist examples of developments in the diachrony of passives running contrary to common grammaticalization chains, which thus violate the principle of unidirectionality at the core of this theoretical framework, and even its champion, Haspelmath, recognises that not all passives arise by way of grammaticalisation.[130] Therefore, perhaps one ought not rule out the possibility that there is no single, basic component at the heart of passivisation, that it is not a monolithic, universal linguistic category, but rather adopt the perspective that the passive represents some kind of functional convergence, the common result of various (possibly interrelated) processes, even if this has the disadvantage of failing to capture some of the generalisations about passives.

Shibatani schematises various related constructions, according to shared characteristics, into an arrangement centred around the prototypical passive, though it is important to note that he

[129] The work of Holes (1998), which reaches this conclusion, has been discussed in §1.4.4. For the possibility of a similar development in MSA, see Chapter 6.
[130] Haspelmath, 1990, §4.5.

explicitly identifies the model as applying at the *synchronic* level.[131] However, that is not to say that this cannot serve as a starting point for an investigation of developments in Semitic detransitives other than by grammaticalisation. Where scholars of Semitic languages have attempted this before—as in stative/intransitive-origin theories of IP development—they have frequently been let down by impressionistic argumentation. However, their failure to apply a rigorous theoretical linguistic framework does not invalidate the approach in of itself. It seems worthwhile to investigate, for example, whether the N stem might have undergone a functional drift from original passive toward middle and natural-reflexive functions, facilitated by the shared semantic characteristic of SUBJ affectedness. This could have been caused by a push chain resulting from the rise of a new passive construction (the IP), a pull chain from the decline of a form that had been marked middle (the Gt), or some combination of the two (or, for that matter, different processes in different areas).[132]

A final recurring theme in the discussion of the theoretical linguistic framework of this study is the need to look at passives and other detransitives from a non-syntactic perspective. For example, prototypical reflexives frequently develop into middle verbs, which have no syntactic detransitivity relative to their unmarked counterparts but are instead defined only in semantic terms (the SUBJ is both initiator and endpoint of the action). Semantic (and pragmatic) properties of passives have also been shown to have potential ramifications on other categories such as aspect (specifically engendering resultative, inchoacive, or inceptive meanings). Accordingly, the current investigation into IPs (and other detransitive stems) will look beyond the syntactic dimension, viewing these constructions from semantics-based perspectives as well.

[131] Shibatani (1985, 846) explicitly argues that grammaticalisation is likely the way many passives developed, such that they derive *from* other constructions, and not the other way around.
[132] This would contradict the traditional position that the N stem was originally reflexive and moved toward middle and passive use (Brockelmann, 1908, §257Hε; Williams, 1970, 45–46).

Chapter 3: The Detransitive Systems of Semitic

3.1 Introduction

This chapter provides an overview of the detransitive verbal stems of the Semitic languages, and, based on this, reconstructs that of PS, with proposed developments leading to the attested situations. To this end, each of the major branches of Semitic are described in turn with reference to the respective standard grammars and other works on the stem systems specifically.[1] In the first instance, the reconstruction is based on the traditional comparative-historical method. However, this analysis ultimately fails to account for the data in a satisfactory fashion, and the conclusion (§3.9) instead presents a proposed development of Semitic detransitive stems within the variation-and-change framework of language diachrony.

The Semitic detransitive stem systems are a feature of the morphosyntax of the language. Morphological and syntactic material can be loaned between languages, given prolonged close contact, especially where the target language already possesses similar structures to those being loaned in. Generally, though, such features are not as prone to areal diffusion as phonological, phonetic, or lexical elements. Therefore, initially—that is, until it is modified according to the more nuanced variation-and-change model—the historical reconstruction refers to a genetic family-tree of Semitic, where characteristics common to different branches are identified as shared innovations inherited from a common genetic mother node, retentions from earlier stages of the language (lost in other branches), or independently occurring parallel developments. That said, where findings cannot be reconciled with the family-tree by now securely established for

[1] See §3.2 for Akkadian, §3.32 for Classical Arabic, §3.4 for dialectal Arabic, §3.5 for Aramaic, §3.6 for Canaanite, §3.7 for Ethiopic, and §3.8 for OSA and Ugaritic. The data accompanying these descriptions are present in table form in Appendix A. MSA is treated separately in Chapter 6, and the accompanying data presented in table form in Appendix B.

Semitic on the basis of the preponderance of evidence from all other parts of the language, elements of an areal wave model are incorporated into the analysis as appropriate.[2]

When describing a detransitive system, the functions of detransitives must be understood in relation to their basic, unmarked counterparts (as indeed must those of verbal stems that *raise* transitivity, for example). The formal addition of the *t* morpheme to the G to create the tG/Gt (*t* + G → tG/Gt), for example, is paralleled by a functional modification (function of *t* + function of G → function of tG/Gt).[3] As in other parts of the grammar, the detransitive stem system is expected to exhibit a significant degree of isomorphism. That is, the relationship between the G and tG/Gt should be at least somewhat analogous to that between the D and tD/Dt and between the C and Ct/tC, insofar as each of these pairings results from the same derivational process. However, this is a general truism rather than a logical necessity; it is of course possible for a single morpheme to possess divergent functions in different contexts. Moreover, the derivational relationship in an unmarked-marked pair may become obscured when the marked member is subject to lexicalisation, something particularly common in the Gt and Ct in several Semitic languages.[4]

3.2 Akkadian [5]

Akkadian, as the sole representative of East Semitic (ES) stands in opposition to the rest of the Semitic languages, which together constitute West Semitic.[6] The value of Akkadian data to the

[2] For the consensus genetic subclassification of Semitic adopted by this dissertation, see Faber, 1997. For the use of family-tree and areal-wave models in relation to Semitic, see Hetzron, 1976, Huehnergard and Rubin, 2011.
[3] In reality, languages function in a more organic, messy fashion. However, this idealised equation serves to capture the general reality of the parallel between the formal and functional dimensions of verbs that is at issue here.
[4] Lexicalisation also affects the D and L stems in Ethiopic and MSA, and to a certain extent, in contemporary Arabic dialects and later stages of Hebrew.
[5] The data on which the following description is based are presented in Table A1.
[6] The only other ES languages attested is Eblaite, for which the available data cannot contribute in any helpful way to the discussion of detransitives, and which therefore does not feature in this dissertation.

current study lies precisely in the facts that the language *does not* possess IPs, and its verbal system is in some ways highly archaic. Of particular importance is the early stage of the grammaticalisation of the stative verbal adjective and the behaviour of the N.[7] Barring a few Akkadian-specific developments—i.e., the development of a set of stems with a prefix *tan-* and a second Ct stem (referred to in Assyriological literature as the Št2)—the verbal stem system of Akkadian, particularly during earlier stages, is substantially similar to that reconstructed for PS.

There are two detransitive verbal morphemes in Akkadian: the consonantal affixes *n* and *t*. The former appears in the N, which relates to the G as its unmarked counterpart; the latter appears in the Gt, Dt, and Ct, which relate, respectively, to the G, D, and C. When these morphemes perform syntactic detransitivisation—their other, non-syntactic functions are discussed below—they possess an interesting distinction with regard to argument reduction. In early Akkadian

> G-stem verbs realise first-argument reduction (passive and mediopassive) by means of the N-stem and second-argument reduction (reflexive, reciprocal, and middle) by means of the Gt-stem or the N-stem. The primary derived [D and C] stems have only one verbal means of valency reduction, namely, the secondary [Dt and Ct] stems, which accordingly are used for all detransitive categories.[8]

Thus, relative to *ṣabātum* (G) "to seize", *niṣbutum* (N) "to be seized" is passive, while *tiṣbutum* (Gt) "to hold on to each other" is reflexive. Relative to *ullulum* (D) "to purify", *utallulum* (tD) can be passive, "to be purified" or reflexive "to purify oneself".

The N and *t* stems, though, have other uses besides these *syntactic* detransitive functions. For example, in the case of the N derived from a syntactically intransitive G, or even a syntactically transitive one that has low transitivity in semantic terms, the N cannot be passive. This is because Akkadian does not permit the passivisation of intransitive verbs, that is, impersonal passives with

[7] The grammaticalisation of a stative verbal adjective into a perfective finite verb is a key isogloss of WS. The same process lies behind the development of the N, a historical derivation still clear in Akkadian, but opaque in WS.
[8] Kouwenberg, 2010, §10.8.3.

semantically empty dummy SUBJs.[9] Instead, when formed from an intransitive or low-transitivity G, the N adds the notion of ingressive aspect. Examples of this are (G) *bašûm* "to be present" versus (N) *nabšûm* "to emerge" and *labāšum* (G) "to wear (clothes)" versus *nalbušum* (N) "to put on (clothes)", of which the first pair are syntactically intransitive and the second pair are transitive but with low semantic transitivity.[10] Such cases, though, are not very frequent, and (medio)passivity relative to a transitive G accounts for eighty percent of attested Akkadian N verbs, which Kouwenberg sensibly explains in terms of the verbal system as a whole:

> An important reason for the rarity of the ingressive N-stem is the fact that in adjectival verbs it competes with the G-stem, which is the unmarked option for expressing the fientive, and therefore ingressive, side of an adjective.[11]

Kouwenberg argues that the (medio)passive and ingressive uses of the N result from its core function of verbalising a resultative adjective, namely the G stative verbal adjective. In support of this analysis is the morphological congruence in Akkadian between the lexically determined theme vowel of the N preterite from a given root and that of its G stative verbal adjective, so the G stative *paris* forms N *ipparis*, whereas *parus* forms *ipparus*.[12] This also explains why a transitive G forms a (medio)passive N, while an intransitive or low-transitivity G forms an ingressive one; the result of N formation naturally depends on how the referent of the G stative verbal adjective participates within the verbal action.

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[9] Hasselbach (2013, §4.6) claims impersonal passives may be formed from verbs of speech like *qabûm* "say" and *šapārum* "send (word)":

aššum	*puḫ*	*eql-ī-ya*	*apāl-ī-ya*	*i-qqabī-kunūšim*
concerning	substitute.CSTR	field-GEN-1CSG	pay.INF-GEN-1CSG	3-be.ordered.PRET-2MPL.DAT

"it was ordered to you to pay me my substitute field".
However, at some level, one may consider the PP "concerning the substitution of my field", which expresses the semantic role theme (i.e., the content of the speech act), to be linked to the SUBJ slot. It is not therefore entirely clear to me that this is an impersonal passive in the same way as, for example, Dutch *er wordt gedanst* "dancing is done (lit. it is danced)".

[10] Kouwenberg (2010, §§12.2.2.1, 12.2.2.3) highlights the natural overlap between the categories ingressive and mediopassive, the latter being a subcategory of the former in which there is no semantic specification for agency.

[11] Kouwenberg, 2010, §12.2.2.2. Crucial to this is the fact that in Akkadian the distinction between static and dynamic Aktionsart is encoded not lexically or inflectionally as in many languages (including WS), but derivationally, these two categories being encoded by the stative and the various prefix conjugations respectively.

[12] Kouwenberg, 2010, §§12.5–6.

Thus, the fientivisation of an adjective expressing the result of a transitive action on its patient, as does the G stative from transitive verbs, relates to how that state came into being, in specific relation *to the patient*. This naturally results in a (medio)passive sense: e.g., *šebir* (G stative) "is broken" ~ *iššebir* (<**yi-n-šebir*; N) "breaks" (mediopassive) or "gets broken" (passive). When the G stative is intransitive or transitive but with low semantic transitivity, the stative verbal adjective refers to the result of the action *on the agent*, so the fientivisation thereof represents the agent bringing that state into being by beginning the action: e.g., *labiš* (G stative) "is wearing (clothes)" ~ *illabiš* (<**yi-n-labiš*; N) "puts on (clothes)". Similarly, fientivising an adjective that describes a state focuses on that state coming into being: e.g., *masik* (G stative) "is bad" ~ *immasik* (<**yi-n-masik*; N) "becomes bad".

This derivational origin has become obscured in WS, not least of all because the PS stative has developed into a finite perfective verb, the suffix conjugation (SC) there. Unlike its historical source, the WS SC is not a resultative verbal adjective referring to a participant in a verbal action, but a finite form referring to the action itself.[13] Its relationship to the N is therefore no longer transparent in WS, and the N has been reanalysed as marking SUBJ affectedness, becoming increasingly restricted in some languages to first-argument–reducing syntactic detransitive functions, and even mediopassivity specifically.[14] The origin and development of the N from PS into Akkadian and WS has been described here because it is an example of how a finite verb may arise through the fientivisation of a resultative verbal adjective. This has

[13] The term "resultative verbal adjective" is not used here in the restrictive sense of referring only to adjectives describing the agent of an *intransitive* action when described in terms of that action—e.g., *wašib* "is sitting"—as it often in literature on Semitic languages (e.g., Huehnergard, 1987, 225). Instead, it refers to any adjective that describes a participant in a verbal action in terms of the results of that action, crucially, without the morphology making specific reference to which semantic role is being described. Thus, in addition to *wašib*, both *labiš* "is wearing" and *šebir* "is broken" are resultative verbal adjectives since they describe their referents (linked to the respective roles agent and patient) in terms of the result of the verbal action, which in both cases is transitive.
[14] Kouwenberg, 2010, §12.6.2: "In Ugaritic, Arabic, and Hebrew, the emergence of the N stem led to the abandoning of the verbalizing function of *N* so that only the grammatical function of detransitivisation remained"

important ramifications for developments in Aramaic (discussed below), as well as being an important consideration in the theory of IPs generally.[15]

Apart from (medio)passive and ingressive uses, the Akkadian N has some second-argument–reducing functions. However, these are exceptional, and their relevance is only clear when viewed within the overall context of the detransitive system, specifically in relation to the diachrony of the Gt. Reflexive use of the N cannot be reconstructed to PS, and instead represents an Akkadian-specific development, where it remains highly marginal.[16] Kouwenberg shows that the Gt (discussed below) declines through the history of the branch, with the N gradually replacing it in reflexive (including reciprocal) contexts.[17] Indeed, reciprocal N and Gt forms co-exist in a suppletive relationship in Old and Standard Babylonian, whereby one conjugational part of the paradigm (the *t*-infixed perfect) may be formed in the N, while there is a restriction against its formation in the Gt. Viewing the functions of each detransitive stem in the context of others, specifically in terms of the competition between them (in this case, between the N and Gt) is precisely the perspective from which this dissertation addresses the development of IPs.

With regard to Akkadian reflexives, it is also noteworthy that nominal markers (e.g., *ramān-* "-self" and *aḫāmiš* "each other") increasingly took over second-argument reducing functions, and were the only way to express prototypical reflexivity. Marking the reflexive or reciprocal with a derivational stem (whether the N or Gt) was restricted to situations that naturally possess such an arrangement of their arguments—e.g., √*mgr*, of which both the N *namgurum* and Gt

[15] Haspelmath (1990, 34) barely mentions fientivisation in his treatment of passives. He only states that the two functions occasionally share morphology but does not address the developmental relationship between them. This is perhaps because his primary thesis is that the original function of most constructions that develop into passives was predicative stativisation, that is, precisely the opposite of fientivisation.

[16] Because a similar loss of the Gt and concomitant expansion of the N occurs also in Hebrew, and is perhaps also underway in Ugaritic, Kouwenberg (2010, §14.4.2) proposes that "the decline of the Gt-stem and its replacement by the N-stem and nominal markers already began before Proto-Semitic was split up". Careful examination of the chronology of this process in the different languages, though, instead suggests that it occurred as an independent parallel development in each.

[17] Kouwenberg, 2010, §12.2.2.

mitgurum mean "to agree (with each other)".[18] The ability of the N to take on this function arises from conceptual similarities between the argument structures of *natural* reflexivity and the more original mediopassive use of the N, namely that both can be viewed as one-participant actions. Prototypical reflexivity, though, entails higher distinction between the semantic roles of agent and patient so this functional expansion cannot extend to this category.[19]

The other detransitive stem derived from the G in Akkadian, the Gt, develops in a directly opposite and complementary fashion to the N. It becomes rarer through time, more restricted in its functions, and increasingly lexicalised, particularly in literary use. The Gt was originally a reflexive marker, but was progressively displaced in this domain by nominal markers and, in naturally reflexive situations at least, by the N.[20] Kouwenberg reconstructs this development all the way back to PS, which I believe is too early, considering that no common PS lexical reflexive marker may be identified that has reflexes in both Akkadian and WS, and also that reflexive uses of the N are, on the whole, somewhat rare in WS. Moreover, one of Kouwenberg's arguments about the decline of the Gt is that the rise of a *t*-infixed perfect was at least partly responsible.[21] Since this conjugation is an Akkadian-specific development, this argues against the decline of the Gt dating to an earlier stage.

The Akkadian Gt never reduces the first argument to express the (medio)passive. Kouwenberg is noncommittal as to whether (medio)passivity, along with reflexivity, was an

[18] Kouwenberg, 2010, §§10.8.3, 12.2.2, 14.3.4.
[19] For the development from mediopassive to natural reflexive, see Haspelmath, 1990, 57; for detail on the conceptual similarities between the two categories, see Kemmer, 1993, §3.4. This is discussed above at §§2.5, 2.5.
[20] This happened earlier with plain reflexivity than with reciprocity. Kouwenberg (2010, §14.3) believes that this is because the original function of the Gt was as a reflexive, to which reciprocity was added at a secondary stage. However, reciprocal functions are attested for the tG/Gt in Akkadian and several branches of WS, and so may be reconstructed back to PS. Trying to separate the two is excessively speculative, and in any case not relevant here.
[21] Kouwenberg, 2010, §14.1.

original function of the Gt in PS, ultimately taken over by the N in Akkadian.[22] However, comparative evidence suggests that it was not. In WS the N *always* counts mediopassivity (and usually also prototypical passivity) amongst its functions, while the tG/Gt almost never does unless the N is not present to perform this function. It makes sense, then, that in those WS languages with a first-argument–reducing tG/Gt—Aramaic, Ethiopic, MSA, and some Arabic dialects—this is a new function, taken over by this stem as a reaction to the loss of the N (as an independent parallel development in each branch where it occurs).

Since (medio)passivity cannot be reconstructed as a function of the tG/Gt in either proto-WS or Akkadian, it follows that it also was not in PS. From the preceding, the distribution of detransitive functions in terms of argument reduction relative to the G can be reconstructed the same in PS as in Akkadian: first-argument reduction was performed by the N; second-argument reduction by the tG/Gt.[23] The fact that the *t* morpheme can reduce the first argument when it occurs as a detransitive marker *relative to the D and C* does not automatically mean it can do so in the tG/Gt. Unlike the G, which possesses the N as a counterpart to perform this function, the D and C have no corresponding **ND or **NC stems to do so.[24] One may summarise the functionality of the PS Dt and Ct by stating that, relative to their unmarked counterparts, they perform the functions that both the tG/Gt *and* N do relative to the G; their diachronic

[22] Kouwenberg, 2010, §14.2: "Whether the Gt-stem ever had mediopassive function in an earlier stage of the language is hard to say".
[23] Insofar as this refers to a no-longer attested stage of Akkadian before lexical reflexivity had arisen (i.e., in which lexical markers had not yet taken over reflexive functions from the Gt), it might be somewhat more accurate to refer here to "proto-Akkadian", or better still "pre-Akkadian", since such a reconstruction is based largely on internal reconstruction rather than the comparative method.
[24] The G is a basic stem compared to the D and C, so it is unsurprising that it might, at an early stage, develop multiple detransitive stems performing different functions, while the D and C only had one each (the Dt and Ct, respectively). Nonetheless, as this dissertation demonstrates, the systems of the various Semitic languages show a notable tendency to push back against this situation and re-establish paradigmatic symmetry throughout the history of the phylum, albeit doing so in a variety of different ways.

developments in the descendent languages parallel those of the tG/Gt, but as the findings of this chapter demonstrate, crucially also reflect their position as a counterpart to the N.

Thus, like the Gt, the Akkadian Dt may express (natural) reflexivity and reciprocity relative to its unmarked counterpart the D: e.g., *pussumum* (D) "to veil (transitive)" ~ *putassum* (Dt) "to veil oneself". However, it too (and likewise the Ct) increasingly lost this function to nominal markers, particularly in prototypical reflexives, with the same concomitant development of middle verbs (discussed below) as found in the Gt: e.g., *luḫḫušum* (D) "whisper" ~ *lutaḫḫušum* (Dt) "whisper to oneself", where there is no difference in syntactic transitivity (neither verb is specified for an OBJ), but the Dt has an additional semantic notion of SUBJ affectedness. Additionally, the Akkadian Dt and Ct can mark the (medio)passive or fientivisation of a stative situation (as the N does): e.g., *puṭṭurum* (D) "to break up (transitive)" ~ *putaṭṭurum* (Dt) "to break up (mediopassive)" or "to be broken up (passive)" and *kubbulum* (D) " to be lame" ~ *kutabbulum* (Dt) "to become lame".[25]

Akkadian *t* stems, like the N, also have non-syntactic functions in this language. Specifically, they developed semantic middle uses when the *t* morpheme lost its original force of marking reflexivity in verbs whose lexical meaning already possessed a natural tendency towards that sense. The marker was then extended to active intransitive verbs, owing to the conceptual similarity of their argument structure to that of natural reflexives.[26] That is, just as an act of self-grooming—e.g., "washing (oneself)", in which the reflexive pronoun "oneself" is tellingly redundant in English—can be perceived as an action with just one associated semantic role, so can an emotional response. Thus both *piššušum* "to anoint oneself" (Gt INF from √*pšš*) and

[25] These examples for the Dt are from Kouwenberg (2010, §14.5.1); cf. his statement (§14.5.2) that the Ct parallels the Dt both in form and function, with the proviso that detransitive of causative is a highly marked category, so the Ct is a rare stem (as compared to the N, Gt, or tD).

[26] The linguistic theory behind this process of through the "lexicalisation of an original voice distinction in a group of reflexive verbs" (Kouwenberg, 2010, §10.8.3.6) is discussed above at §2.5. The following discussion is framed in relation to the Gt, but as mentioned, equally applies to the Dt and Ct.

šitmurum "to become excited" (Gt INF from √*šmr*) are one-argument verbs, even though, of the corresponding unmarked G forms, *pašāšum* "to anoint" is transitive, while *šamārum* "to rage" has the same intransitive argument structure as its Gt (albeit with slightly different semantics).

The new class of Akkadian *t*-stem verbs like *šitmurum*, in which the *t* morpheme does not perform a syntactic function, fall into a number of specific semantic groups, such as verbs expressing changes in body posture, intransitive motion more generally, spontaneous changes in state, acts of cognition, emotional responses, and speech acts (particularly those with an emotional dimension). These are precisely the kinds of verbs expressing actions that are cross-linguistically often associated with reflexive morphology even though they do not possess syntactic reflexivity. The key commonality such middle verbs (for the theory behind this term and its usage in this dissertation, see §2.5) share with reflexivity is a *semantic* property, namely SUBJ affectedness. This theory of middle-marking *t* stems also explains some of their less common functions in Akkadian that scholarship to date has found somewhat problematic. For example, *alākum* (G) "to go" forms a Gt *atlukum* that is traditionally analysed as separative (i.e., "to go away"), the relation of which to the more common functions of the Gt is not immediately apparent. Middle marking adds to the unmarked counterpart a notion of SUBJ affectedness, which manifests here as a focus on the initiation of the motion.[27]

These developments in the N and *t* stems are inextricably linked to non-verbal detransitive marking in Akkadian. Specifically, the weakening of the reflexive function of the *t* morpheme provoked the development of new reflexive markers, namely NPs that grammaticalised into

[27] Cf. direct European parallels: Spanish *irse* and Norse *gang-sk*, both "to go away", formed by adding reflexive morphology to unmarked forms meaning simply "to go". Kouwenberg (2010, §14.3) links the animacy restriction present in the Gt *atlukum* but not its unmarked counterpart to the reflexive origin of the *t* morphology, since animacy is a prerequisite of reflexivity.

pronouns.[28] There are a number of instances of comparable WS nominal detransitives, generally found more in later languages than in earlier ones.[29] However, these are not etymologically cognate with the Akkadian ones and therefore cannot be considered common inheritances from the proto-language (PS). Instead they are perfectly natural independent parallel developments. Nonetheless, the following description of the detransitive systems of WS shows that throughout the branch, semantic middle *is* a common function of the tG/Gt. Since this is also true of Akkadian, middle should be reconstructed as a function of the tG/Gt back as far as PS, even if at that stage it may have been a relatively recent development from the more original reflexivity.[30]

3.3 Classical Arabic [31]

Classical Arabic has a highly productive detransitive stem system. It possesses an N *(ʔi)nqatala ~ ya-nqatil* relating to the G, and a *t* stem counterpart to each of the G, D, L, and C (Gt *(ʔi)qtatala ~ ya-qtatil*, tD *taqattala ~ ya-taqattal*, tL *taqātala ~ ya-taqātal*, and Ct *(ʔi)staqtala ~ ya-staqtil*, respectively). In addition to these consonantally affixed detransitives, an IP may be formed from any syntactically transitive verb, and even from a syntactically intransitive verb with a patient(-like) argument in an OBL slot (i.e., as a PP), including from *t* stems when they do so.[32]

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[28] Kouwenberg, 2010, 10.8.6.3. In the terminology Kemmer (1993, §4.1.2) uses, the N and Gt are the "light" markers restricted to natural reflexivity, while the nominal markers *ramān-* "self-" and *aḫāmiš* "each other" are the "heavy" ones which can also be used with prototypical reflexive value.

[29] For nominal WS reflexive and reciprocal markers, see Rubin, 2005, 3.1.3–3.1.4.

[30] Middle use of the Gt increases through the history of Akkadian, but Kouwenberg (2010, §14.3.1.1) gives examples of it already from the earliest recorded stage of the language. Given the reconstruction of middle as a function of the tG/Gt in PS, the stage at which this stem only performed syntactic reflexivity—i.e., before this gave rise to semantic middle uses—would best be termed "pre-PS", since it is hypothesised on the basis of an internal reconstruction of PS rather than using the comparative method as applied to its descendent branches.

[31] The data on which the following description is based are presented in Table A2.

[32] Wright (1896, §73) rules out the possibility of IP formation only from "intransitive verbs of the form *faʿula*…and of the 9th, 11th, 12th, 13th, 14th, and 15th forms…as well as of those verbs of the forms *faʿila* and *faʿala* which designate not an act (transitive or intransitive), but a state or condition (being or becoming)." However, Badawi, Carter, and Gully (2004, §1.10, esp. 1.10.7) correctly state that no Np occurs in Modern Standard Arabic. To the

Classical Arabic IPs are formally homogenous insofar as in all IP stems the SC possesses a vocalic sequence *u-i* while the PC has *u-a*. In the SC, *i* occupies the slot preceding R_3 while all preceding vowels, including prosthetics, are *u*. In the PC, the vowel of the prefix is *u*, while *a* occurs in all subsequent slots. This results in forms like Gp *qutila ~ yu-qtal*, Dp *quttila ~ yu-qattal*, tLp *tuqūtila ~ yu-taqātal*, and Ctp *(ʔu)stuqtila ~ yu-staqtal*, etc.[33]

In terms of the functions of detransitive stems, Wright says the N expresses "originally…a *middle* or *reflexive* situation", further specifying that the reflexivity expressed by this form is invariably direct, and never extends to reciprocal use.[34] His views conform to the consensus of Semiticists at the turn of the twentieth century, that second-argument reduction was the original historical function of the N, and first-argument reduction a secondary development thereof.[35] This characterisation, though, is flawed. None of Wright's proposed examples of N verbs reduces a second argument; without exception, they express the passive or mediopassive (reducing a first argument), or semantic middle (causing no syntactic change)—e.g., *(ʔin)qāla* "to be said" (passive), *(ʔin)kasara* "to break" (mediopassive), and *(ʔin)hawā* "to sink down" (semantic middle). Indeed, perusal of the standard reference grammars and lexica confirms that reflexive uses of the N are extremely rare, if not absent altogether.[36]

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extremely limited extent that Np forms are found in Classical Arabic—e.g., *ʔunṭuliq bī* "I am carried off" (Ṣaḥīḥ Muslim 44:201) or *ʔunquṭiʕa bi-hi* "he was prohibited (from travelling)" (Ibn Manẓūr, 1981. 5:3676)—I strongly suspect these are not genuine forms spontaneously created by native speakers, but artificial literaryisms.

[33] The length of the vowels in the Lp matches that of the L, and does not impact on the discussion of the distinction in the *quality* of the vowels at issue in the formation of IPs and the contrast from their active counterparts.

[34] The precise scope of Wright's (1896, §§52–53) "middle" is unclear, but likely covers (perhaps restrictively) the mediopassive in contemporary terminology. Nonetheless, he frames this use an offshoot off reflexivity in the prototypical sense.

[35] Brockelmann, 1908, §257Hε. Noeldeke (1897, §22) diverges slightly, believing the original function of the N was (tolerative) causative-reflexive (i.e., for something to "let itself be X-ed"), but this is still at its core a second-argument reduction, albeit a slightly more complex one.

[36] Wright, 1896, §52. Fischer (1972, §169) provides one possible example of a truly reflexive N is *(ʔi)nnamasa* "to hide (oneself)". Even here, the semantic roles (agent and patient) are hardly distinct, and the action can be construed as a one argument verb (i.e., naturally rather than prototypically reflexive). This verb is also unusual in its phonology, since √1=*n* does not usually permit formation of the N.

Wright's position is problematic not only because it posits reflexivity as the original function of the N even though such a use of the N is not present anywhere in Arabic (or in fact, anywhere in Semitic, in *prototypical* reflexive use). It also entails a failure to understand the non-syntactic functions of the N, that is, the formation of a semantic middle with no syntactic change: e.g., *hawā* (G) ~ *(ʔi)nhawā* (N), both "to sink down" (intransitive). To deny that the N can be formed from syntactically intransitive G verbs leads to the conclusion that such (admittedly rare) cases are either "incorrectly formed", or derived not from the G but from the C.[37] All of Wright's purported examples of such N verbs, though, have corresponding G forms from the same roots that are either intransitive and (near) synonymous with the N or transitive and (near) synonymous with the C. Thus, *(ʔi)nzaʕaja* (N) "to be alarmed" could be detransitive to *zaʕaja* (G) "to alarm" rather than, as he proposes, to *ʔazʕaja* (C) also "to alarm"; *(ʔi)nṭafaʔa* (N) "to go out (of a fire)" a semantic middle of the roughly synonymous *ṭafiʔa* (G) rather than syntactically detransitive to *ʔaṭfaʔa* (C) "to extinguish".

Considering that Arabic N verbs from intransitive G counterparts tend to belong to semantic classes that are cross-linguistically common among middle-marked verbs, the best analysis of the Classical Arabic N is that it marks SUBJ affectedness.[38] This is mainly restricted to first-argument reduction, and never reduces a second argument, but also occasionally applies to intransitive G verbs to create semantic middles. Where the N has a syntactic function, there is an additional semantic restriction against the specification of agency (i.e., to the mediopassive), owing to the presence of an alternative stem (the Gp) to the prototypical (agentive) passive of the

[37] Wright, 1896, §53 remark b.
[38] The native Arabic grammatical tradition applies the term *muṭāwiʕ* to the N and all of the *t* stems. This literally means "compliant, submissive", but in contemporary linguistic terminology it seems to refer to the semantic quality of SUBJ affectedness (see, e.g., al-Labdi, 1985, 141).

G: e.g., *kasara* (G) “to break” (transitive) ~ *kusira* (Gp) “to be broken [by somebody]” (passive)” ~ *(ʔin)kasara* (N) “to break [spontaneously]” (mediopassive).

Of the Classical Arabic *t* stems (the Gt, tD, tL, and Ct), the Gt is the most functionally diverse. It performs all second–argument-reducing detransitive functions, whether simple reflexive or reciprocal, and in the former at least serves for both direct and indirect uses. The Gt can be formed from an intransitive G to create a semantic middle with no syntactic change.[39] Examples of these different functions are *ġaṭā* (G) “to cover” ~ *(ʔi)ġtaṭā* (Gt) “to cover oneself” (direct reflexive); *ʔaḫaḏa* (G) “to take” ~ *(ʔi)ttaḫaḏa* “to take for oneself” or “to adopt” (indirect reflexive); *laqā* (G) “to meet” (transitive) ~ *(ʔi)ltaqā* (Gt) “to meet [each other]” (reciprocal); and *zāda* (G) “to be more” ~ *(ʔi)zdāda* (Gt) “to increase” (semantic middle, with inchoative aspect as a manifestation of SUBJ affectedness).[40]

Wright claims that the Gt also occasionally expresses the passive of the G. However, this use is subject to a morphophonological restriction, occurring only in √1=sonorant, where the phonetic characteristics of R_1 prevent formation of the N: e.g., G *radaʕa* “to repel” forms *(ʔi)rtadaʕa* (Gt) “to be held back”, not***(ʔi)nradaʕa*.[41] Considering the existence of another means of expressing the passive to the G (i.e., the Gp), genuinely passive Gt use is most exceptional, if a reality at all. Where the Gt stands in for an N, it is *mediopassive* rather than prototypically passive. Thus, *(ʔi)mtalaʔa* (Gt) “to fill up” is a mediopassive describing a spontaneous action; to express the *agentive* passive “to be filled up [by someone or something]”,

[39] Wright, 1896, §§55–57; Diem, 1982, §39.
[40] The Gt is less commonly reciprocal than plain reflexive, no doubt due to the frequent use of the tL (discussed below) in the former function. Reciprocal Gt forms are generally limited to direct, naturally reciprocal action, or at least ones whose semantics preclude a reflexive interpretation: e.g., “to meet”. Reflexive Gt verbs, and especially direct ones, tend to be natural; prototypical reflexivity is instead often expressed using nominal markers such as *nafs* “soul” in periphrasis rather than verbal markers: *qatala nafsa-hu* “he killed himself”—cf. the discussion of Akkadian nominal reflexives above in §3.2. This blurs the distinction between reflexive and middle uses of the Gt.
[41] Wright, 1896, §57; Diem, 1982, §39.

one would instead use the Gp *muliʔa*.[42] Finally, the Classical Arabic Gt exhibits a strong tendency towards lexicalisation, so its meaning is not necessarily predictable based on the G counterpart, as in *ḥarama* (G) "to forbid" ~ *(ʔi)ḥtarama* (Gt) "to respect", for example. Diem argues that the functional diversity and lexicalisation of the Gt go hand in hand, by contrast to the predictable meanings of the tD and tL (discussed below), which are restricted to the primary functions of plain reflexive and reciprocal, respectively.[43]

Wright describes the relationship between the D and the tD as follows: the latter "expresses the state into which the object of the action denoted by the second form [D] is brought by that action, as its effect or result. In English it must often be rendered by the passive".[44] It is thus a TAM category, namely resultative aspect, that he considers the primary function of this stem. It is true that defining the core function of the tD thusly rather than in terms of the syntactic rearrangement of its arguments accounts for how its functional scope can cover both reflexive and mediopassive uses. However, it does not explain semantic middle tD verbs with no syntactic change relative to the D—e.g., *ṭallaba* (D) ~ *taṭallaba* (tD), both "to demand". A preferable analysis is that the *t* morpheme, instead of primarily marking a syntactic or aspectual feature, adds the *semantic* notion of SUBJ affectedness, which is common to all of the aforementioned functions of this stem.

Finally, the Classical Arabic tD may have an antipassive function, whereby the second argument (OBJ) of the D is removed and its semantic role either absent or subsumed to an OBL position: e.g., *kallama-hā* (D) "he addressed her" ~ *takallama* (*maʕa-hā*) (tD) "he talked (with her)". In the world's languages, reflexive morphology is frequently the source of antipassive

[42] The same holds for other supposedly passive Gt verbs, for which see Wright,1896, §50.
[43] Diem, 1982, §39: "Bei t2 [tD] und t3 [tL] überwiegt jeweils eine Funktion stark…während bei t1 [Gt] kaum eine Funktion derart dominiert…Es läßt sich also die Bedeutung bei Bildungen der Form t2 [tD] und t3 [tL], auf 02 [D] und 03 [L] bezogen, mit einiger Wahrscheinlichkeit voraussagen, bei tl nicht. Die beiden Feststellungen lassen sich so zusammenfassen, daß tl [Gt] anders als t2 [tD] und t3 [tL] stark lexikalisiert ist".
[44] Wright, 1896, §47.

marking, particularly in the relatively infrequent cases where antipassives occur in ACC-aligned languages (such as Classical Arabic).[45] This relatively sporadic antipassive use of the tD, a morphological form more commonly associated with reflexivity, does not have parallels elsewhere in Semitic—and is therefore identified as an Arabic-specific development—but it is in line with cross-linguistic expectations.

Unsurprisingly, a relationship similar to that between the D and tD exists between the L and the tL; again the *t* morpheme marks SUBJ affectedness, which manifests at the syntactic level as either passive or reflexive to the L: e.g., *bāraka* (L) "to bless" ~ *tabāraka* (tL) "to be blessed" and *sānada* (L) "to support" ~ *tasānada* (tL) "to support oneself".[46] A notion of coparticipation between agent and patient is frequently present in the L, so, as one would predict, the tL tends to be reciprocal rather than plain reflexive. If coparticipation is present in the L, then the tL is *necessarily* reciprocal and has a collective, dual, or plural SUBJ: e.g., *ṣāraʕa-hu* (L) "to wrestle (someone)" ~ *taṣāraʕa* (tL) "to wrestle (each other)" but never **"to wrestle (oneself)".[47] In addition to restricting plain reflexive use, this inherent notion of coparticipation makes antipassive tL use infrequent, since, if the patient of the L is a contributory participant in the action, it cannot be entirely removed from the tL without significantly altering the semantic specification of the predication.[48]

[45] Janic, 2013, 68: Apart from a few examples…most accusative languages to derive the antipassive, they [sic] use a polyfunctional marker that is either diachronically related to reflexivity…or to reciprocity".
[46] Diem (1982, §39) specifies that second-argument reduction performed by the tL, whether plain reflexive or reciprocal, is invariably direct.
[47] Wright, 1896, §50. The cited example, *tasānada* (tL), can equally be a plain reflexive "to support oneself" or reciprocal "to support each other" depending on the degree of coparticipation between the arguments of the unmarked counterpart, that is, whether the patient of *sānada* (L) is a dynamic participant in the action. The distinction between plain reflexive and reciprocal can be blurred, depending on the compositional characteristics of the SUBJ: e.g., *tamāsaka* (tL) *l-jasadu* "the [parts of the] body held together", lit. "the body grasped itself".
[48] One does find sporadic examples where the patient of the L really is just a passive participant and the tL need not possess a reciprocal sense: e.g., *fāḫara-hu* (L) "to vie with someone in glory" ~ *tafāḫara* (tL) "to boast".

Uses of the tL with a meaning of feigning the G—e.g., *jahila* (G) "to be ignorant" ~ *tajāhala* (tL) "to feign ignorance" and *māta* (G) "to die" ~ *tamāwata* (tL) "to feign death"—combine the factitivity inherent in the L and the reflexive function of the *t* morpheme; that is, they mean "to make oneself (seem) G".[49] Finally, the tL can encode the aspectual category of iterativity relative to the G: e.g., *saqaṭa* (G) "to fall" ~ *tasāqaṭa* (tL) "to fall continuously, piece by piece". This conforms to a cross-linguistic tendency whereby "naturally collective events" and "chaining events", in which multiple participants follow one another in performing an action, are often marked with morphology also associated with reciprocity, due to the common characteristic of low event elaboration.[50] Once again, as with the antipassive and notions of feigning, the apparently anomalous use of *t* stem morphology to encode the iterative can be traced back to its more basic reflexive (including reciprocal) function.

The final Arabic *t* stem to be discussed is the Ct *(ʔi)staqtal ~ yastaqtil*. This performs several functions whose relations to those of the other *t* stems are not immediately apparent. For example, the Arabic Ct often means to ask someone to perform the G, or to consider someone or something to be in the state expressed described by the G: e.g. G *ġafara* "to pardon" forms Ct *(ʔi)staġfara* "to ask for pardon" and G *ṯaqula* "be heavy" forms Ct *(ʔi)staṯqala* "to consider heavy".[51] Kouwenberg considers such uses denominal, and argues that proto-WS Ct SC **staqtala* is a denominal verbal formation created by the affixation of a verbalising sibilant morpheme to the nominal pattern *taqtvl*.[52] This position deviates from the consensus opinion that

[49] This is likewise how Gzella (2009, 317) explains the Hebrew tD form *hiṯḥallɔ* "to feign sickness". The notion of factitivity is applied in the looser sense of making oneself *appear* ill, rather than affecting one's actual condition.
[50] Kemmer, 1993, §4.1.5. Cf. collective ("soziativ") uses of the Gt in Akkadian cited by Kouwenberg (2010, §10.8.3.5). Iterative uses of the tL lend weight to the reciprocal being its primary function in Classical Arabic. This is far more plausible than Wright's (1896, §50) claim that expression of repetitive or continuous action by the tL reflects a notion of effort implicit in the conativity marked by the L.
[51] These uses have analogues in Ethiopic, MSA, and OSA Ct verbs, for which see the relevant sections below.
[52] Kouwenberg's (2010, §14.6.2.3) argument suffers from several major flaws. Firstly, the marking more commonly associated with denominal verbs in Semitic is gemination (i.e., that of the D) rather than a sibilant morpheme (that

it results from the affixation (specifically infixation) of the detransitive *t* morpheme to the causative (C) stem **saqtvl*; in other words, Kouwenberg analyses **staqtvl* as *s* + *taqtvl* rather than *t* + *saqtvl*.

However, much like the aforementioned cases where the tL expresses a notion of feigning, estimative or requisative uses of the Ct can be simply analysed as combining the derivational value of the C with a standard function of the t morpheme. When the Ct means "to ask someone to do G", it combines the causative (of the C) with the indirect reflexive (of the t); to ask someone to do something is to (try to) make them do it for one's own benefit. When it means "to consider something to be G", it combines the factitive (of the C) with the semantic-middle (of the *t*); to consider something to be in a certain state is, at some level, to make it be in that state in such a way as affects oneself. Specifically, rather than expressing a transformation in objective reality (as would the C), the semantic-middle component added by the *t* makes this a conceptual transformation that exists only in the speaker's own mind. According to the analysis adopted here, the SUBJ affectedness of the *t* manifests itself as a speaker-oriented modality, which is how it transforms a plain factitive C into a declarative Ct.

It should be noted, though that even where the combination of causative and reflexive is more straightforward, the distinction between doing something (G) and making oneself do something (Ct) is not always clear. This can result in instances where the meaning of the latter is not entirely predictable: e.g., G *qāma* "to stand, rise" forms Ct *(ʔi)staqāma* "to stand upright, be straight". Wright defines such Ct uses as "neuter", but his explanation of this term does not help to clarify what this might refer to in contemporary linguistics terminology, whether to stative

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of the C). Moreover, he admits regarding the putative **taqtvl* noun source morphology, "that taPRvS nouns with the required reciprocal and reflexive meaning are very rare in West Semitic".

verbs, to unaccusatives more generally, or perhaps even simply to intransitives.[53] In any case, this does nothing to explain the relationship between Ct and its unmarked counterpart in such cases, since whatever property he is describing applies equally to the G; *qāma* is no more unaccusative, stative, or intransitive than is *(ʔi)staqāma*. Instead this "neuter" Ct form (and those like it) is a semantic middle, relative to its unmarked G counterpart.[54] In support of such an analysis is the fact that Wright's examples of "neuter" Ct verbs conform to the semantic groups—bodily movements, emotional responses, etc.—cross-linguistically associated with marked-middle morphology.[55]

Apart from the above uses, a fair number of Classical Arabic denominal Ct verbs with no corresponding C (or in some instances, even G) exist: e.g., *(ʔi)stawzara* "to make someone *wazīr*" from *wazīr* "governor" and *(ʔi)stansara* "to become like an eagle" from *nasar* "eagle". Along with the semantic middle uses, these reflect the reality that Ct has undergone significant lexicalisation. Hereby, uses have developed where the historical identity of *t* as a detransitive morpheme, or else of *(ʔi)sta* as a combined factitive/causative-detransitive morpheme, has become opaque. Crucially, though, where no such lexicalisation occurs, the functions which the *t* morpheme in the Ct do not differ from those it has in the Gt, tD, or tL: it may have various second–argument-reducing but not first–argument-reducing detransitive functions (relative to the C), and even where it effects no syntactic reorganisation, always contains the semantic notion of SUBJ affectedness. That is, the Ct never expresses the *passive*-causative of the G, but only the *reflexive*-causative or *middle*-causative.

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[53] Wright (1896, §75) says verbs that "express a state or condition that is, by its very nature, confined to the person of the subject, and cannot pass to another individual as its object (as *mariḍa* to be sick, *nāma* to sleep), are aptly called *neuter* verbs, since they are neither really active nor really passive somewhere between the two".

[54] The theoretical linguistic considerations of how this semantic middles arises as a lexicalisation of reflexive construction have been described above (in §2.5), and a detailed illustrative discussion of a case thereof in the Akkadian Gt has provided been provided (in §3.2).

[55] As examples of "neuter" Ct verbs, Wright (1896, §64) cites *(ʔi)staqāma* "to stand upright", *(ʔi)stakāna* "to be humble", *(ʔi)staḥaqqa* "to deserve", and *(ʔi)staḥyā* "to be ashamed".

As throughout Semitic, the functions of Classical Arabic IPs are far simpler and more homogeneous than those of the N and *t* stems. This is evident in that Wright's grammar addresses each of the N, Gt, tD, tL, and Ct in individual sections, all of which apart from that on the tL take up several paragraphs, while he treats all IPs together in a single paragraph. The terminology of traditional Arabic grammars calls IPs *al-majhūlu fāʕiluhu* "whose agent is unknown". This refers to the fact that they are used when the agent of an agentive action is unknown, cannot be mentioned, or the speaker does not want to mention him/her. At the level of linguistic theory, all of these concepts reflect agent defocusing, the pragmatic property of prototypical passivity. Another traditional term for IPs, *bināʔ al-mafʕūl* "the construction of the OBJ" relates to the recognition of OBJ promotion as a crucial feature of IPs, or at least an important secondary by-product of their primary function.[56]

Apart from these pragmatic and syntactic functions, Arabic IPs also fulfil the semantic characteristic that distinguishes prototypical passives from mediopassives: although the agent is prohibited from appearing in the surface representation, it is always implicit at the semantic level.[57] Thus, Gp *kusirat al-kaʔs* can only mean "the cup was broken (by someone)" and never **"the cup broke (of its own accord)", for which one must instead use the N *(ʔi)nkasarat*. In the

[56] The reason I interpret *fāʕil* as "agent" (in terms of semantic role) and *mafʕūl* as OBJ (in terms of grammatical relationship) is because of the use of these labels in other contexts. *Nāʔib al-fāʕil* "substitute for the agent" refers to a promoted patient in a passive clause, that is, one acting as the substitute (*nāʔib*) of the agent (*fāʕil*) in filling the SUBJ slot, since the agent usually does this in active clauses. *Mafʕul ǧayr ṣarīḥ* "impure OBJ" refers to a patient that does not appear as OBJ in an active clause (but rather as OBL) and therefore cannot be promoted into the SUBJ slot in an (impersonal) passive clause. It is designated "impure" (*ǧayr ṣarīḥ*) because though not a *real* OBJ (*mafʕūl*), it does possess an important attribute commonly associated with this grammatical relation, namely its being tied to the semantic role patient. It is hardly surprising that a grammatical understanding formulated many centuries ago may not correspond neatly to the labels of contemporary theory, but the interpretation adopted here at least reconciles the two without convoluting the relationship(s) between them.

[57] In Modern Standard Arabic, agent phrases increasingly occur in passive clauses as prepositional phrases like *min qabali* "on the part of" and *min jānibi* "from the side of", likely under the influence of European languages (Badawi, Gully, and Carter, 2004, §3.12.1). For occasional instances of Classical Arabic IPs which retain the SUBJ of the corresponding active in a PP using the preposition *li-* "to", see Bubeník, 2008, 555–56. It is important to note that this possibility is restricted to verbs of perception, whose SUBJs are linked the semantic role of experiencer rather than agent, and so not necessarily governed by the pragmatic feature of agent defocusing.

majority of IPs, the patient of the corresponding active clause is promoted into the SUBJ slot and accordingly receives NOM case marking—some exceptions are discussed below—so they fit Shibatani's model of the prototypical passive perfectly, in terms of all of its characteristics, pragmatic, semantic, morphological, and syntactic.[58] The same cannot be said of the N or *t* stems, which variously lack syntactic detransitivisation (e.g., in semantic middles), semantic specification for agency (e.g., in mediopassives), or agent defocusing (e.g., in reflexives).

The preceding observation requires some qualification, since in number of instances Classical Arabic IPs deviate slightly from the model of the prototypical passive. Firstly, they may be formed from active verbs specified for semantic roles other than agent and patient. For example, the demoted SUBJ may be an experiencer rather than an agent (e.g., G *samiʕa l-rajulu l-ṣawta* "the man heard the noise" forms Gp *sumiʕa l-ṣawtu* "the sound was heard"); the promoted OBJ may be a recipient or beneficiary instead of patient (e.g., G *wahaba l-rajulu l-walada l-ḏahaba* "the man gave the boy the gold" forms Gp *wuhiba l-waladu l-ḏahaba* "the boy was given the gold"). An OBJ can also be promoted if it is linked to a semantic role of location or time (e.g., G *sāra Zaydun sāʕatayni* "Zayd travelled two hours" forms G *sīra sāʕatāni* "two miles were travelled)".[59] In all of these cases, the semantic valency of the prototypical passive, that it must be characterised for agent and patient, is not fulfilled.

A second way in which Classical Arabic IPs may deviate the prototypical passive is in their formation of impersonal passives from syntactically intransitive active clauses. Here, just as in prototypical passives, the agent is deleted from the surface representation but remains semantically implicit. The key difference is that there is no OBJ to promote into the SUBJ slot. It is therefore filled with a dummy SUBJ (with default 3MSG reference), present only to ensure the

[58] Shibatani, 1985, 837.
[59] Bubeník (2008, 555), though, admits such constructions are neither productive in Classical Arabic, or even possible in Modern Standard Arabic.

syntactic well-formedness of the sentence. Since this dummy SUBJ has no semantic content, the clause cannot fulfil the semantic characteristic (SUBJ affectedness) of the prototypical passive.

However, while syntactically intransitive clauses may for IPs, impersonal IPs cannot be formed from one-argument active clauses. There is a restriction on the syntactic specification of the active verbs that are apt for IP formation such that if the active has no OBJ, it requires at least an OBL complement, appearing as a PP. Thus, G *ġaḍibū ʕalā l-binti* "they got angry with the girl" may for a Gp *ġuḍiba ʕalā l-binti* "the girl was gotten angry with", where the patient "girl" is retained in its OBL slot; however ***ġuḍiba* "it was gotten angry" cannot be formed from the single-argument active verb *ġaḍibū* "they got angry".[60]

Such Classical Arabic impersonal passive constructions are not particularly productive and have certain distributional restrictions. For example, they are far more common with verbs of motion than other kinds of verbs, and much rarer in spoken varieties of Arabic than the literary language of Classical and Modern Standard Arabic.[61] Though I have not found this stated anywhere in the literature, from personal experience of native speakers' use, I have the distinct impression that they are more common with PTCPs than with finite IPs, particularly when these function attributively rather than predicatively. That is, I expect to encounter sentences like

al-madīnat-u	*l-musāfar-u*	*ʔilay-hā*	*baʕīd-at-un*
DEF-town.F-NOM	DEF-PAS\travel.PTCP.M-NOM	PREP-3FSG/OBL	far-FSG-NOM.INDEF

"the travelled-to city is far" or

al-madinat-u	*musāfar-un*	*ʔilay-hā*
DEF-town.F-NOM	PAS\travel.PTCP.M-NOM.INDEF	PREP-3FSG.OBL

[60] These examples—for others, see Fischer, 1972, §199; Wright, 1898, §133—have been formed from active clauses with a MPL SUBJ and FSG OBJ in order to highlight the default, non-agreeing dummy 3MSG SUBJ in the corresponding passive.
[61] Agameya, 2008, 559–60.

"the town is travelled to" more often, for example, than

al-madinat-u	*yu-sāfar-u*	*ʔilay-hā*
DEF-town.F-NOM	3MSG.IPFV-IMPRS.PAS\travel-NOM	PREP-3FSG.OBL

"the town is travelled to".[62]

A further possible distributional consideration relates to which stems impersonal passives are formed from. The Gtp, tDp, tLp, and Ctp are predicted to show a greater proclivity for impersonal passives than the Gp, Dp, Lp, and Cp. This is because while the basic (G, D, L, and C) stems are not infrequently transitive—especially the D and even more so the C, which is usually transitive—syntactic transitivity is considerably less common for *t* stems. Like the distribution of impersonal passives between the different conjugational parts of the paradigm, this is not mentioned in the literature, and cannot be further investigated here due to space restrictions. These issues are instead flagged here as potentially important questions for future works on Arabic passives to consider.

3.4 Arabic Dialects [63]

It is naturally far beyond the scope of this dissertation to comprehensively map the detransitive stem systems of all Arabic dialects. This section instead provides an overview of several dialects selected to represent a number of different ways that this part of the language has developed.[64] Most Arabic dialects do not possess IP constructions, and mark the passive with consonantal

[62] If this intuition is indeed accurate, it may be related to a modal notion implicit in PTCPs, and the interaction thereof with real-world semantics associated with verbs of motion. A more mundane explanation would be that PASS PTCPs are a commonly used part of the language in a way that finite IPs are not, and that since they occur more often, they are simply more prone to being used in what is already a slightly anomalous construction.
[63] The data on which the following description is based are presented in Tables A3.1–5.
[64] In addition to various works on individual dialects, extensive reference is made to Kaye and Rosenhouse's (1997) summary, and to the relevant sections of Retsö's (1989) monograph on IPs.

affixes (the N and *t* stems).[65] It is generally held that this absence of IPs reflects a decline from an earlier system resembling that of Classical Arabic, in which they were productive. In support of this is the situation in some Gulf dialects whose IPs are increasingly restricted to cliché expressions, and where their decreasing productivity is apparent as a development in process.[66]

Apart from competition IPs receive from alternative stems (namely, the N and *t* stems), analytic and generalised-SUBJ constructions may contribute to the decline of passive verbal stems of any kind (i.e., whether IPs or consonantally affixed). This often occurs in Arabic dialects as part of an overall breakdown of the stem system to break down, and a shift away from marking categories with derivational morphology generally. For example, many dialects have lost the C, so the causative is expressed lexically or periphrastically, or by the D, which usually remains productive.[67] Equivalent developments also occur in the detransitive stems, so Modern Standard Arabic and contemporary Arabic increasingly express the detransitive categories associated with IPs and the N or *t* stems instead using periphrases (especially reflexives) or generalised-SUBJ constructions (especially passives).[68]

Of the *verbal* morphology used to express the passive of the G—in dialects without IPs; those which do possess them are discussed below—the N is used in some dialects, and a tG stem is particularly common in this function.[69] Occasionally, both of these cooccur, and the selection of which expresses the passive for a given G verb is lexically determined. Generally, though, the

[65] Agameya, 2008, 559; Holes, 1998; Kaye and Rosenhouse, 1997, 291, 297–98; Retsö, 1989.
[66] Holes, 1998, 355ff.
[67] Kaye and Rosenhouse, 1997, 294. A secondary result of this development in the C is that lexicalisation of the Ct has progressed further than in contemporary Arabic dialects than in Classical Arabic (where, as discussed above in §3.3, it is already extensive).
[68] For a periphrastic passive in Egyptian Arabic, see Retsö, 1989, 15; for replacement of IPs by generalised-SUBJ constructions in Omani, see Holes, 1998, 357–58; for periphrastic reflexives, see Kremers, 2009a, esp. 45; 2009b, 57; and Badawi et al., 2004, §3.13–3.14; for various other independent examples from Semitic, illustrating the cross-linguistic commonness of such developments, see Rubin, 2005, 33–34.
[69] A tG with prefixing of the *t* morpheme is far more frequently a *passive* marker than a Gt with infixing. In the few dialects where the Gt occurs, is generally not a passive marker, but rather prone to a high degree of lexicalisation.

two do not productively co-occur in this function. Rather, one stem loses out at the expense of the other, which is hardly surprising considering the redundancy such a situation would entail.[70] In an intriguing alternative development, but one that resolves the same redundancy, rather than eliminating one of the N or tG/Gt, Maltese and the Algerian Djidjelli dialect have combined them expressing the passive of the G by what one might label an "Nt" (e.g., G *rebaḥ* "to win" forms Nt *ntrebaḥ* "to be won").[71]

It would serve no useful purpose to become mired here in the question of the relationship between the Classical Arabic infixed Gt and the prefixed tG found in many dialects. Instead, I follow the consensus position that the tG is a neologism created from an earlier Gt by analogy to the prefixing of the *t* morpheme in the tD.[72] However, it *is* worthwhile to briefly compare the Classical and Dialectal Arabic detransitive stems *in terms of whole systems*, and in particular, the functions of the N and Gt/tG.

Crucially, as mentioned, the Classical Arabic Gt very rarely has a true passive sense; in Dialectal Arabic, though, the tG frequently does. This reality reflects the availability, or lack thereof, of alternative means of performing this function. The reason that the dialectal tG is often passive of the G is because in most dialects the N is not preserved in this function, and if present at all, is frequently restricted to occasional lexicalised items. One interesting case with regard to the interaction between these stems is Cairene Arabic, in which the tG productively expresses the

[70] For a summary of the different kinds, see Diem, 1982, §§31–38; Kaye and Rosenhouse, 1997, 297–98; cf. Retsö's (1989, 141–42) distinction between "N dialects" and "t dialects".
[71] Kaye and Rosenhouse, 1997, 297. Mifsud, 2008, 156. More precisely, In Maltese, the Nt occurs as the passive of the G in root types √*1*=resonant/sibilant; otherwise the function is performed by the N (without the *t* morpheme). The Gt occurs only very rarely in lexicalised remnants.
[72] For such a view, see Diem, 1982, §34. The most plausible alternative hypothesis would be to reconstruct a polygenetic proto-Arabic in which, from a proto-WS situation where the selection of tG versus Gt was governed by the properties of R_1 (with *t* infixed in √1=sibilant), some dialects levelled the Gt and others the tG. In any case, this would not impact significantly the description and analysis of the detransitive systems of dialectal Arabic.

passive of the G—e.g., *ġasal* "he washed" (transitive) forms *itġasal* "it was washed"—while the N and Gt are both preserved in occasional lexicalised items.[73]

3.4.1 Arabic dialects with sporadic IPs

Arabic dialects in which IPs exist as an *occasional* means of expressing passivity are not particularly common, though they are spread throughout the Arabic-speaking world. These are examined briefly, before moving on to other dialects with more vital IP systems. It is important to bear in mind, though, that in some instances, such sporadically used IPs are not in fact native to a given vernacular, and merely reflect the influence of Modern Standard Arabic in the diglossic situation.[74]

Kaye and Rosenhouse mention that several dialects in Mesopotamia, Egypt, Maghreb, and sub-Saharan Africa possess sporadic IPs. Judging from the forms *qitil* and *q(u)tul* they provide, these are restricted to the Gp and tend to have high vowels in their SC stems, thus distinguishing them from the *a* vowels of the active counterparts (e.g., Maghrebine G *xlaq* "to create" ≠ Gp *xluq* and Chadian G *sarag* "to steal' ≠ Gp *sirig*).[75] Some Egyptian *qitil/qutul* verbs—e.g., *ḫimir/ḫumur* "to ferment", *ṭiʕib* "to be(come) tired", and *ḥimi* "to be(come) hot"—lack the semantic specification of agency present in the passive, and are not to be considered IPs, but rather stative verbs.[76] There also exist, in some Moroccan and Subsaharan dialects, forms with low vowels (e.g., *ʕwaž* "to be bent" in the Jewish dialect of Fes) that some associate with the

[73] It is noteworthy that Woidich's (2006, 329) examples of lexicalised remnants of the N (*inbasaṭ* "to enjoy oneself") and Gt (*iftakar* "to think") belong to semantic classes commonly associated with middle verbs.
[74] This may be the case for rare IPs in Damascene (Kaye and Rosenhouse, 1997, 297) and has been positively identified as such in Egyptian Arabic by Agameya (2008, 561).
[75] Examples from Kaye and Rosenhouse (1997, 297–298) also include *qtul* from Iraqi, Algerian, and Moroccan, *qutul* in Egyptian and Nigerian, and *qitil* in Egyptian and Chadian.
[76] Watson (2002, 12) points out that the transitive counterparts with *a*—e.g., *taʕab* "to tire" (transitive) and *ḥama* "to heat"—are often restructured C stems.

phenomenon of ablaut passive marking.[77] These also function as stative verbal patterns, particularly denoting colours and deformities, and the degree of agentivity inherent varies depending on the given verb. As for IP PC forms in dialects with non-productive IP systems (limited to counterparts of the active G), Kaye and Rosenhouse only mention the Moroccan paradigms *qtul ~ yu-qtul* and *qtal ~ ya-qtol*.[78]

With regard to the origins of these non-productive dialectal Arabic IPs, those of *q(i)til/q(u)tul* are usually thought to be stative **qatila* and **qatula*, from which they arise by assimilation (or in the case of *qitil*, under the influence of the corresponding PC *yi-qtil*). To the extent that such forms function as a true agentive passives, the main alternative considering them etymologically derived from the *qutila* Gp of Classical Arabic—assimilating regressively to *qitil* or progressively to *qutul*—has been to claim they result from the functional extension of **qatila* and **qatula* statives.[79] I propose that North African *qtal* forms are reflexes of Classical Arabic stem IX *(ʔi)qtalla*, and not, as Retsö proposes, from resultative verbal adjectives of the form **quta(ː)l* inflected with the pronominal suffixes of the finite SC.[80] Little may be said with any certainty regarding the sporadic Gp PC forms save that the case of *qtul ~ yu-qtul* plausibly reflects interaction between different conjugational parts of the paradigm—such that the vowels of the PC have assimilated to those of the SC—a possibility which bears consideration in relation to the development of other IP morphology.

Ultimately, the mere existence of some formal similarities between forms used sporadically as passives in different Arabic dialects throughout world—e.g., high vowels in the SC in distinction to low vowels of active counterparts—does not necessarily make them etymologically

[77] Kaye and Rosenhouse, 1997, 298.
[78] Kaye and Rosenhouse, 1997, 297.
[79] Retsö, 1989, 180. This admittedly makes better sense for *qitil* than it does for *q(u)tul*;**qatula* statives, which could serve as a source of assimilation to *q(u)tul*, are attested in Classical Arabic, albeit less frequently than *qatila*.
[80] Contra Retsö, 1989, 170. This analysis is discussed further in §4.6 in relation to the derivation of the more common North African stative pattern *qtāl* from Arabic stem XI *(ʔi)qtālla*.

cognate. There exist no independent grounds to confidently assert that the forms just enumerated are descendants of a common proto-form rather than independent parallel developments, let alone to identify what such a source would be. Certainly, it is plausible that some or all derive from the Gp *qutila ~ yuqtal* found in Classical Arabic. By the same token, nor is it possible to rule out the contrary. Though there appears to be some overlap between the above-described unproductive IPs and stative verbs, leading some scholars to see their origin as a stative pattern *qatila ~ yiqtal*, ultimately, the evidence is ambivalent, and the relationship between the two categories is uncertain; a given scholar's analysis depends greatly on his or her general (pre)conceptions about how passivity relates to stativity in general. This matter therefore demands further research before any reliable claims may be made.

The extent, then, to which sporadic IPs in some Arabic dialects can inform the discussion on the IPs of Classical Arabic (let alone IPs in Semitic more generally), is limited. We cannot use these forms as the basis for arguments regarding the functional origin of morphology, or indeed their formal development. It is not even necessarily correct to identify them with IPs that *are productive* in other Arabic dialects, even if they are formally similar or identical.[81] At best, they may give some clues about the typology of IPs. Further, considering the limited degree to which these IPs express the passive to an unmarked active counterpart—it is crucial to understand that they do so only occasionally, and are by no means fully productive; that is to say, it cannot be predicted whether such a form is possible for a given root.[82]

[81] For example, Retsö (1989, 184) explicitly separates two kinds of *qitil* IP, one sporadic and the other productive, ascribing them different diachronic origins. Making such an assertion, though, is to push too hard in the other direction. At present, evidence simply does not speak decisively for either possibility.

[82] This principle becomes particularly relevant in view of the revised notion of the spectrum of productivity assumed by the variation-and-change model of language diachrony, as outlined in §2.6, modified in §3.9, and then applied throughout the analysis of Chapter 4.

3.4.2 IPs in Arabic Dialects from Central/East Arabia

The preceding has dealt with Arabic dialects possessing IPs that occur sporadically. Those in which IPs are productive are far rarer. One group spans Central and Eastern Arabia and includes Najdi, Omani, and some Bahraini and Kuwaiti dialects.[83] These dialects have a Gp *q(i)til ~ yi-qtal* that formally resembles some of the aforementioned sporadic IPs, but also a Dp *qittil ~ yv-qattal* and (if a given dialect possesses the C) a Cp *ʔiqtil ~ yi-qtal*. These Dp and Cp forms only occur in Arabic dialects whose IP systems are fully productive, meaning that IPs can be formed from any transitive active verb. The IPs of Central and Eastern Arabian Arabic are undergoing a process of decline (to varying extents among the dialects), with their function being increasingly taken over by the N and *t* stems, or by generalised-SUBJ constructions.

The N and Gp coexist in these dialects, but there is a subtle functional difference between them, albeit one being eroded as IPs become less productive. The precise nature of this difference, though, is a matter of some disagreement between scholars. Holes sees the distinction in Omani as one between the primacy of semantic SUBJ affectedness–marking in the N and the Gp being a strictly syntactic passive (much as in Classical Arabic).[84] Ingham argues that in Najdi, the function of the derivational morpheme of the N depends on the context of its use; the N can be a simple passive, but often contains a notion of potentiality, especially in the PC, and always expresses the potential passive when it occurs in the neological NtD and NtL stems (discussed below).[85] Kaye and Rosenhouse suggest that throughout all Northern Arabian dialects with both an N and Gp, the Gp is used when the agent is known, while the N is used where it is

[83] For Bahraini, see Holes, 2006, 253; for Najdi, Abboud, 1979, al-Sweel, 1987, and Ingham, 2008, 332; for Kuwaiti, Holes, 2007, 618; for Omani, Edzard, 2008, 488 and Holes, 1998; and for an overview, Kaye and Rosenhouse, 1997, 298.
[84] Holes, 1998.
[85] Ingham, 1994, 71, 75,

not.[86] It may well be the case that the specific situation varies among dialects, depending on how their respective detransitive systems have developed. However, the important commonality is the presence of a distinction between the uses of the N and Gp, which is hardly surprising considering the redundancy that would result if they were functionally identical.[87]

Another dialect with productive IPs contiguous to Omani and Najdi Arabic is Yemeni, which possesses a Gp formally identical to Classical Arabic (e.g., *kumil* "to be finished", *wulid* "to be born", *surig* "to be stolen", and *wujid* "to be found" from the SC, and *yuʔkal* "to be edible" and *yugrā* "to be read(able)" from the PC).[88] Dp (*summī* "to be called") and quadriliteral Qp (*zufliṭ* "to be asphalted") forms are attested, confirming that the *u-i* vocalic sequence is a productive means of IP formation, presumably for all transitive active verbs. In this dialect the N is very rare, though the Gt is productive, and commonly serves as an alternative to the Gp as a means of expressing the passive of the G.

With the loss of the N, the discrepancy between the G having three detransitive stems and the D, L, and C only having two each has been resolved into a symmetrical situation. For every basic active stem, there are two detransitive counterparts: an IP for prototypical passivity, and a *t* stem for other kinds of detransitivity (as well as semantic middle). That is, the stem inventory possesses G ~ Gp ~ Gt : D ~ Dp ~ tD : L ~ Lp ~ tL : C ~ Cp ~ Ct.

[86] Kaye and Rosenhouse, 1997, 298.
[87] Note that the syntactic functions of the Gt are restricted to second-argument reduction, so they do not overlap with either of the N or Gp, and therefore do not entail a similar redundancy.
[88] Watson (2002, 126, 133; 2009, 114) provides these and the following examples of Yemeni IPs. The loss of final short vowels in the SC is not relevant since the marking at issue in IPs is vocalic alteration within the stem.

3.4.3 Ḥassāniyya Arabic of Mauritania

An entirely separate Arabic dialect with productive IPs is the Ḥassāniyya Arabic of Mauritania. Each of its G, D, L, and C (as well as quadrilateral roots) has two detransitive counterparts.[89] The first of these sets is formed by affixation of a *t* morpheme—infixed in the G and C, prefixed in the D and L—and reduces second arguments in syntactic terms, as well marking the semantic middle. The second set of detransitives (i.e., other than the *t* stems), is restricted to first argument reduction, but is morphologically heterogeneous between the individual unmarked stems. Relative to the G, this slot in the paradigm is filled by the N, while the counterparts to the D, L, and C are formed by prefixing a vowel *u* to the respective unmarked active stem. The inventory of Ḥassāniyya stems is thus highly symmetrical since the functions of each of the four parallel sets of three stems match, being basic (G, D, L, C) : first-argument reduction (N, pD, pL, pC): second-argument reduction/semantic middle (Gt, tD, tL, Ct).[90]

There are only a very few minor disturbances to the order of this arrangement. One is a morphophonological restriction (also found in Classical Arabic) whereby the Gt rather than the N expresses the passive to the G in root type √1=sonorant. Another is the possibility of the Ct expressing mediopassivity relative to a transitive C: e.g., *saḥmar* (C) "to redden (trans.)" ~ *staḥmar* "to become red".[91] This is, strictly speaking, a reduction of a first argument rather than the second. However, the Cp is restricted to prototypical passivity with an agent implicit in the semantic specification, so it is hardly surprising that the functional scope of the other detransitive

[89] For the following, see Vycichl, 1959; Taine-Cheikh, 2007, 244–245.
[90] Considering that the distinction from active counterparts in the SC is found *outside* of the stem, in the form of a prefixed vowel, it is appropriate to label these pG, pD, etc. (rather than Gp, Dp, etc.). As such, one might even theoretically reject the label "IP" is valid, since the variation with the active counterpart is not even stem internal. The term IP is used here because of the historical origin of these forms (discussed here below and in §4.8).
[91] In this relation, Taine-Cheikh (2007, 245) talks specifically of "inchoative" aspect. However, as explained in relation to the linguistic theory of detransitives, mediopassives are frequently used to express the beginning of an action specifically because, in a mediopassive situation, the semantic specification contains no agent causing the action. Instead, the focus is on the beginning of the action itself, and specifically, on the change the action causes its SUBJ (=patient) to undergo.

of the C has expanded to cover *medio*passivity.[92] Finally, there exists a stem paralleling stem XI of Classical Arabic, namely *(ə)qtāl* (e.g., *gṣār* "to be short"), which expresses states. It cannot form an IP or *t* stem counterpart, and as such stands isolated, separate from the detransitive system.

Throughout WS, *t* stems include among their functions non-syntactic processes (namely marking semantic middle), while IPs, including those of Ḥassāniyya Arabic, are limited to prototypical passive function which necessarily entails a syntactic rearrangement of arguments. In Ḥassāniyya, the N has lost all its non-syntactic functions (which are already quite rare in Classical Arabic); in fact, from the descriptions given of the language, it is not even clear that it retains the *medio*passive function.[93] If it has indeed become restricted in its function to prototypical passivity, this has aligned the N more closely to IPs in contradistinction to *t* stems, and reinforced the paradigmatic symmetry of the detransitive stem system as a whole.

This paradigmatic organisation precisely resembles that which the working hypothesis proposes should be reconstructed as the situation at the earliest stage of IP development, namely that all stems had a detransitive *t* stem counterpart, and the D, L, and C each had an IP, but the G did not, since the N stands in the position which would be occupied by the absent **Gp. This is certainly not meant to imply that the Ḥassāniyya situation is an archaic retention of an earlier stage at which IPs to the D, L, and C had developed, but one to the G had not. Instead, when viewed in the context of the whole Arabic language family, it is clear that this dialect (or its pre-

[92] It is theoretically possible that Taine-Cheikh's (2007, 245) use of the term "middle"—which she lists among the functions of the Gt, tD, and tL, relative to their unmarked counterparts—covers mediopassivity, with *syntactic reduction* relative to an unmarked counterpart. Her sole example, though, (*əštəġal* "to work") suggests that she is not, but rather using the term to refer to the semantic property of SUBJ affectedness (if indeed this is not an example of a deponent verb in which the *t* morpheme has lost all functional content). Further, if her "middle" Gt, tD, and tL verbs are in fact mediopassive, it is unclear why she would parse this function as "inchoative" specifically in the Ct.
[93] This is what Taine-Cheikh (2007, 245) is referring to in her distinction between "middle/reflexive/reflexive-passive [*t* stems], on the one hand, and a real passive [N or IP], on the other".

cursor) has lost a Gp present in proto-Arabic.[94] Crucially, the overall effect of this development, was to reintroduce functional symmetry in its detransitive system.

The restructuring of the Ḥassāniyya Arabic verbal system into a more symmetrical arrangement does not only apply to the *functions* of its detransitive stems. Other developments occur that increase the *formal* isomorphism between parts of the paradigm, such as the levelling of the causative morpheme *s* from the Ct to the C to replace historical **ʔ*: cf. Classical C *ʔaqtala* ~ Ct *(ʔi)staqtala* versus Ḥassāniyya C *saqtal* ~ Ct *staqtala*.[95] Another case of this creation of formal isomorphism in Ḥassāniyya has direct relevance to its IP morphology: the levelling of the SC stem of the D and C to their corresponding PC and PTCP forms—cf. Classical D *qattala* ~ *yu-qattil* ~ *mu-qattil* and C *ʔaqtala* ~ *yu-qtil* ~ *mu-qtil* versus Ḥassāniyya D *qattal* ~ *yə-qattal* ~ *mə-qattal* and C *saqtal* ~ *yə-saqtal* ~ *mə-saqtal*. Since the active forms have the vowel *a* between R_2 and R_3 (replacing historical **i*), the only thing preventing active-passive syncretism is the reduction of the historical prefix vowel **u* that occurred in the C and D active but not their IPs (cf. C *yə-saqtal* ~ *mə-saqtal* ≠ Cp *yu-saqtal* ~ *mu-saqtal*).

It is plausible that the *u* in the prefix of IP PC/PTCP forms was preserved precisely to maintain their distinction from their active counterparts.[96] Thereby, *u*/_R_1, although not originally part of the formal contrast of IPs—it appeared in the prefix of IP PC/PASS PTCPs, but was also historically present in their active counterparts—came to be analysed as a distinctive passive marker, in which capacity it was extended to *new* contexts (i.e., IP SCs).[97] In this case,

[94] The Hebrew situation, discussed below in §§3.6.2, 3.6.4, is similar, albeit somewhat more complex. Remnants of a Gp are attested at earlier stages of Hebrew, and its disappearance can be traced through the history of the language.
[95] The same occurs as a parallel independent development in the Yemeni dialect of Ibb (Watson, 2002, 140).
[96] Cf. Williams (1970, 50), who proposes that the gemination of R_2 occurred in Biblical Hebrew Gp SC forms in order to preserve the distinctive passive-marking *u* vowel, which otherwise would have lowered to *o*.
[97] Kaye and Rosenhouse (1997, 298) suggest that if the prefixed *u* of the IP SCs is not extended from the PC/PTCP, it may alternatively result from Berber influence, though they do not provide the relevant Berber form. The burden of proof necessary to propose the loaning of such morphological material is substantial, and has not, I believe, been satisfactorily met.

replacement of the historical IP SCs (i.e., Dp SC **quttil* or similar) with the neological pD SC *u-qattal* solidified formal homogeneity throughout the IP paradigm (i.e., with the Dp PC *yu-qattal* and D PASS PTCP *muqattal*).

Ultimately, the precise mechanics behind the development of Ḥassāniyya IP SCs are neither certain nor immediately relevant to the overall question of the development of Semitic IPs, since there is no evidence at all that they descend from an earlier Arabic (let alone CS) stage. On the contrary, they are demonstrably a neologism of this dialect. Nonetheless, the proposed derivation at least illustrates one manner in which IP morphology *can* develop and as such inform the understanding of typological features of IPs throughout Semitic.

3.4.4 Reorganisations of Dialect Arabic Detransitive Systems

The preceding survey of the detransitive systems of Arabic dialects reveals a strong tendency towards developments resolving asymmetry between verbal stems. This applies equally where the detransitive systems in question have undergone quite different rearrangements, including instances where IPs are not present. For example, as mentioned, most Arabic dialects do not possess IPs, but have nonetheless resolved the tripartite-bipartite imbalance between the G ~ N ~ tG/Gt versus D ~ tD, L ~ tL, and C ~ Ct by restricting expression of the passive of the G to only one of the N or tG/Gt.[98]

The detransitive verbal systems of the Arabian dialects of Arabic whose IPs have been described above (in §3.2.3) have undergone various rearrangements that increase their paradigmatic symmetry. In Bahraini and Omani, for example, the N morpheme may be applied to the D, to create a (medio)passive to it (e.g., Omani D *sawwa* “to do” forms ND *insawwa* “to

[98] Where the tG is selected, parallelism with the tD and tL is not merely that of functional symmetry, but also entails formal isomorphism since prefixing of the *t* morpheme has been levelled to replace the infixing of the Gt.

be done" and Bahraini D *ʕawwar* "to hurt" forms ND *inʕawwar* "to get hurt"). In the latter dialect, the derivational morpheme of the N may be further extended to the tD (e.g., tD *tifarrag* "to disperse" forms NtD *intifarrag* "to be dispersed").[99]

Though the resulting systems of Bahraini and Omani Arabic are not perfectly symmetrical, the process, common to both, of extending the derivational morpheme of the N from the G into stems (i.e., the D) where it historically did not occur, serves to increase the symmetry of the inventory of verbal stems.[100] Overall, this is driving a reorganisation of the detransitive stems into two parallel series (G : Gp : N : Gt and D : Dp : ND : tD), each possessing four stems. The first series is based off the G and the second off the D, and each possesses an unmarked basic form (G or D), and IP, N, *t* variants thereof.

In both dialects the C is only preserved in occasional remnants and the Ct, though common, has become highly lexicalised and no longer has productive (i.e., predictable) detransitive functions. The L is far less common than either the G or D and is losing its original conative derivational function, serving instead as a free or lexically specified variant of the D. The corresponding IPs (the Cp and Lp) are naturally attested only to the extent that their unmarked counterparts are. The tL may be a reflexive (often reciprocal) of the L, but also increasingly expresses gradation or repetition independently of an associated L.[101] As such, C, Ct, L, and tL do not belong to the core of the verbal stem system like the G and D (and their derivatives), but

[99] Edzard, 2008, 488; Holes, 2006, 252–53.
[100] Apart from the instability arising from the fact that the systems are *undergoing a shift* toward symmetry, rather than having achieved perfect equilibrium, there exist differences between the various dialects of each of the Omani and Bahraini groups. Further, in considering these dialects, one cannot ignore the effect of a standardising koine Arabic in the Eastern Gulf, particularly in littoral areas (for which, see Holes, 1998, 360–61).
[101] Edzard, 2008, 488; Holes, 2006, 252–53. As described above (in §3.3) in relation to the Classical Arabic tL, the notion of repetition is a natural development in morphology whose more basic/original function is reciprocal, due to the common property of low event elaboration these notions share (Kemmer, 1993, §4.1.5).

are rather increasingly marginal remnants expressing lexical and TAM values, and therefore do not undergo the same extension of the derivational N morpheme (i.e., to create **NC, or NtL).[102]

The formal isomorphism of G : N :: D : ND is mirrored by functional symmetry; derivation of the ND from the D parallels the synchronic relationship of the N to the G. In the Omani Arabic of the interior, the N contains a modal notion of potentiality which is also found in the ND, in contrast to the Dp, which parallels the Gp in being a plain passive with no necessary modal nuance. For example, the contrast in meaning between Gp *yo-kal* "is eaten" versus N *yi-nnakal* "can be eaten/is edible" is precisely mirrored by Dp **yi-sakkar* "is closed (by someone)" and ND *yi-nsikkir* "can be closed".[103]

Something comparable, though slightly different, occurs in the Najdi Arabic.[104] In a development specific to this dialect, the derivational morpheme of the N can be extended to the tD and tL stems. The resulting NtD and NtL stems, formed only (or at least overwhelmingly) in the PC, add to the D and L a notion of *potential* passivity (e.g., D *šabbaʕ* "to satisfy" forms NtD *yi-ntišabbaʕ* "to be satiable").[105] Though the N is not subject to such a firm functional restriction, Ingham implies that when passive, it likewise tends towards potential (and perhaps even more specifically, negative potential) usage.[106]

The neological Nt stems thereby create an ordered quadtripartite detransitive system—G : Gp : Gt : N :: D : Dp : tD : NtD :: L : Lp : tL : NtL. Each of the G, D, and L has an IP for plain syntactic passive, a *t* stem marking SUBJ affectedness (including second-argument reduction),

[102] In Bahrain, the combination *ista-* of the C and *t* morphemes is occasionally extended to other unmarked counterparts than the G, in which case it has the TAM value of inchoative: e.g., *istafãham* (CtL) "to come to an understanding" (Holes, 2006, 253). Note that the Najdi system, discussed below, develops somewhat differently.
[103] Eades (2009, 15–17) does not provide the Dp of this root (√*skr*) specifically but his other data confirm the (non-potential) function of the stem; cf. the discussion below Najdi Nt stems.
[104] For the following Najdi data cited, see Abboud, 1979; Ingham, 1994, 69–86; 2008, 331; al-Sweel, 1987.
[105] On potential passive Nt stems, see Abboud, 1979, 474; al-Sweel, 1987, 74–75; and Ingham, 1994, 74–75.
[106] Ingham, 1994, 80: "Form 7 [N] is very often used in such phrases as *ma yindara `anh* 'it is not knowable about him'…*hu ma yin`arif* 'he cannot be known'…*ma yinšāf* 'he cannot be seen'…*ma yinğadir* 'he cannot be outdone'".

and an N/Nt marking SUBJ affectedness (including possible first-argument reduction) with a strong tendency—in fact, a restriction in the Nt stems—towards the expression of potential passivity.[107]

The restructuring of the Najdi detransitive stem system that is in process, though, has not achieved perfect paradigmatic symmetry. Because IPs simply perform syntactic passivisation, they may logically be applied to any syntactically transitive active verb, including those from stems derived by consonantal affixation. Just like in Classical Arabic, some *t*IP forms therefore exist—e.g., tL *tigāsam* "to share" forms tLp *tigīsim*, Gt *iʕtibar* "to consider" forms Gtp *iʕtibir*, and Ct *stgbal* "to welcome" forms Ctp *stigbil*—and add a derivational tier that upsets the neat organisation described above.[108] Moreover, the C has productive Cp and Ct counterparts, but does not form an **NCt.[109]

Finally, in a handful of verbs, the combined C and *t* derivational morphemes are added to the D, L, or quadrilateral basic verbs.[110] These are just isolated cases, perhaps indicating that they are an incipient development or anyway one that may not become a fully productive part of the language. Nonetheless, it is noteworthy that they reflect precisely the same tendency to form new stems by extending morphemes to new contexts as do the productive Nt stems. The crucial difference is that the new Nt stems have augmented the symmetry of the verbal system, while tDp or CDt forms disrupt the order in its inventory of stems.

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[107] The same applies to the marginal Najdi-specific "W" *qōtal* and "Y" *qētal* stems (for discussion and examples, see Abboud, 1979, 488; Ingham, 2008, §2.2.4.2). That is, their IPs (e.g. W *sōlaf* ~ *y-sōlif* "to tell (a story)" ≠ Wp *sūlif* ~ *y-sōlaf* "it was told") are plain passive and their corresponding Nt stems possess the expected notion of potential passive (e.g., NtW *yi-ntisōlaf* "to be chattable with"). Note that these stems are not very common, and their *t* stem counterparts undergo a high degree of lexicalisation.

[108] Abboud, 1979, 476–77.

[109] This is possibly due to the rarity of real-world situations in which one needs to say "it can be caused to do something", which is what such a form would theoretically express. A phonetic restriction against the complex consonant cluster /nst/ may also have impeded its formation.

[110] This is mentioned only by Abboud (1979, 474), who provides just three examples, of which all but one—CtD *yi-stifaggaddōn* "they showed concern for"—are related to quadrilateral unmarked stems.

Despite not having achieved total symmetry, the Najdi detransitive system has developed in such a way as to move towards resolution of an imbalance present in its predecessor (as reflected in the Classical Arabic situation). The same is true of Ḥassāniyya, Omani, and Yemeni Arabic, and likewise those many Arabic dialects that do not possess IPs. The fact that they have done so in a variety of manners reflects the strong influence of pressure to create and/or maintain symmetry in Semitic detransitive systems generally.

Moreover, despite differences among dialects in this regard, a number of broad developmental themes reoccur throughout the language family that may provide useful insights for the general understanding of Semitic detransitives:

- the decline/loss of IPs, which is extremely common throughout the Arabic dialects, and naturally of the utmost relevance to this dissertation;
- the loss of a stem where its very presence creates an asymmetry in the paradigm, such as in dialects where either the N or Gt is lost at the expense of the other (so that the G has only one detransitive, like the D and C do), or the loss of the Gp in Ḥassāniyya Arabic (so that the G has only two detransitives, like the D, L, and C do); [111]
- the functional reanalysis of one stem in order to alleviate redundancy in the paradigm where two stems are competing for one function, such as restriction of the N to potential passivity in Omani (since the Gp is present to express the plain passive);
- and the extension of derivational stem morphology to new contexts in which it did not previously occur, creating new stems, such as the Omani ND and Najdi NtD.

These trends can and do occur in concert. A good example of this is the Omani ND, which represents both the functional reanalysis of a stem (the N is restricted to *potential* passivity, in

[111] The creation of an Nt in Maltese and the Algerian Djidjelli dialect may be considered a related process, albeit one whereby rather than losing one of the competing N and Gt stems, they are combined.

contradistinction to the Gp) and the extension of a morpheme to a new context (the derivational morpheme forming the N is applied to the D).

3.5 Aramaic [112]

The Aramaic detransitive stem system is relatively simple compared to those of other Semitic languages, and, considering the extensive history and dialectal diversity of this branch, remarkably homogeneous across time and space—on complexities relating not to derivational stems, but rather inflectional conjugations, see below. In fact, the inventory of Aramaic verbal stems is a particularly important characteristic of this language, insofar as its most crucial distinction from the other languages of the NWS branch to which it belongs is the absence of an N. Admittedly, the *loss* of a feature is generally not the soundest criterion for a genetic classification of languages. However, in this instance, the loss of the N has contributed significantly to reshaping the detransitive stem system.[113]

With regard to the subdivision of Aramaic, I adopt Fitzmeyer's five-part periodisation into Old (from the earliest attested traces of the language around 925BCE until 700 BCE), Official (700–200 BCE), Middle (200 BCE–200 CE), Late (200–700 CE), and Modern (languages spoken at the current time).[114] Moreover, following the work of Gzella and others, a degree of dialectal diversity is understood to have existed since before the recorded history of the branch. However, inner-Aramaic diversity has been obscured by unifying processes during the creation of the koine of the Official period.[115] The most apparent synchronic dialectal subdivision exists

[112] The data on which the following description is based are presented in Tables A4.1–2.
[113] Huehnergard, 1995, 275.
[114] Fitzmeyer, 1979. This classification is qualified by the proviso that divisions between the stages really rely more on the distinction of different dialects than on historical dating, and that developments between different periods (particularly the origins of "Modern" dialects) are not always clear.
[115] Gzella, 2008.

from the Middle period onwards, for which time a simplified schema of a bipartite division between Eastern and Western dialects is more accurate than for previous periods.

This section dedicates considerably less attention to describing the functions of the Aramaic detransitive stems than do the sections covering other Semitic languages. This is because the system of this branch is significantly simpler than those of Akkadian or Arabic, for example, and can thus be accurately and comprehensively covered with just a brief summary: Since the language possesses no N stem, no other consonantally affixed stem competes with the tG. Instead, like the tD and tC, it expresses all kinds of detransitivity—the passive, mediopassive, reflexive, middle—whether syntactic and semantic, as well as having developed various lexical uses. IPs, to the very limited extent that they occur (which is discussed at length), only express the prototypical passive.

By comparing the various stages and dialects of Aramaic, the core of the detransitive system may be identified: a simple symmetry opposing the three basic stems (G, D, and C) and their corresponding *t* stems (the tG, tD, and tC, respectively). Throughout history, various developments have threatened to disrupt this system, so despite its simplicity, this regularity is far from stable. For example, during the earlier stages of the branch, the organisation of the verbal stem system is slightly disturbed by marginal traces of IPs competing with the *t* stems in passive marking. Moreover, there exists also a strong tendency throughout Aramaic for syntactic detransitivity to be expressed not with verbal stems, but using periphrastic or generalised-SUBJ constructions.[116] Nowhere is this competition between detransitive markers—with forms rising and falling in productivity according to their relative success or failure—more pronounced than

[116] In Neo-Aramaic, detransitivity marking by means other than derivational morphology has triumphed to the point that most dialects have lost their *t* stems in all but traces, IPs having long since died out (Fassberg, 2010, §4.4).

in the C; in different dialects its passive has been variously expressed by each of the Cp, the tC, and the C in a generalised-SUBJ or periphrastic construction (as discussed below).

Apart from the loss of the N, which occurred before the earliest attested stage of Aramaic, an important Aramaic-specific development within the detransitive verbal stems is the creation of a prefixed *t* stem detransitive counterpart to the C (i.e., Ct *ʔettaqtal* < **ʔitʔaqtala*). This replaces the inherited Ct **(h/ʔi)staqtala* (with the *t* morpheme *infixed* within the C), which is in heavy decline throughout NWS, but remains productive in Akkadian, Arabic, Ethiopic, MSA, and OSA.[117] Meehan believes the tC was a relatively late development, not becoming productive until well after Middle Aramaic, by which time the Cp had already disappeared.[118]

Throughout the history of Aramaic, the tD expressed the detransitive to the D, as the tG did for the G—with the caveat that it was briefly challenged (in the passive function, at least) by the Gp.[119] Prefixing of the *t* morpheme to the C to create the tC **ʔet-ʔaqtal* (> *ʔet-taqtal*) by proportional analogy—G *qətal* : tG *ʔeṯ-qəṯel* :: D *qattel* : tD *ʔeṯ-qattal* :: C *ʔaqtal* : X—created formal isomorphism within the inventory of stems.[120] It should be noted that, even at the height of its productivity, in Syriac (a Late Aramaic language), the tC was not particularly common and, detransitives of the C were infrequently expressed by the tG or tD.[121] This is hardly surprising, considering that the category detransitive-to-causative is highly marked, and that the tC was a

[117] The Ct is attested in just one root (√*ḥwy*) in Hebrew, and only a few in Ugaritic. Occasional Syriac *ʔeštaqtal* forms are not *t* counterparts to the C *ʔaqtel*, but rather to a Š stem *šaqtel*, which, though a causative in terms of its diachronic origin, often stands in isolation in synchronic terms, with no corresponding G: e.g., *šaḵlel* (Š) "to perfect" ~ *ʔeštaḵlal* (Št) "to be perfected", but no ***kal* (G) "be perfect" (Payne-Smith, 1903, 214).
[118] Meehan, 1991.
[119] In addition to creating a formal parallel between the stems (D : tD :: G : tG), the *internal* isomorphism of the tG—i.e., between its different conjugational parts—is also greater than that of the Gp, insofar as the Aramaic Gp PC (if such is indeed genuine Aramaic form), has no clear formal relationship to the Gp SC.
[120] The vowel *a* between R_2 and R_3 of the tC SC, compared to *e* <**i* in the C SC, has drawn some comment from scholars writing on detransitives. Cook (2010, 12) claims it derives from the (alternative) Cp SC **ʔaqtal*; Retsö (1989, 152) considers the tC to be historically a "ttG", so he derives the *a* vowel from that of the G, *qətal*. Neither of these theories are particularly compelling, and I proposed that it could just have well arise by analogy to the vowel of the tD *ʔeṯqattal*.
[121] Muraoka, 2005, §49.

recent, and therefore not yet firmly established, innovation. Indeed, since the tC ultimately disappears in NENA, within the variation-and-change model, it represents a temporary variant in rather than having caused irreversible change.[122]

An interesting inverse interference between the tG and tC also occurs √2=*w/y*, such that the tC rather than the tG functions as the detransitive to the G (e.g., Syriac G *sām* "to put" forms tC *ʔetsīm* < **ʔettəsīm* < **ʔitʔaśīm* "to be put").[123] Retsö proposes that such instances belong to what he calls a "ttG" stem, that is, one formed by double-prefixing of the *t* morpheme to the G (rather than by prefixing of the *t* morpheme to the C).[124] His proposed "ttG" stem also supposedly includes the Gt of √1=*w* and occasionally also √1=*ʔ* in Classical Arabic, as well as four highly anomalous Hebrew forms. He ultimately extends the scope of this hypothesised form of his to include the strong root Aramaic tC *ʔettaqtal*, claiming it was originally related to the G and only secondarily associated with the C.

This proposal is excessively complex, highly undesirable, and inextricably linked to Retsö's overall understanding of Semitic roots, whereby he considers weak root types underlyingly biradical. To deny that the Arabic Gt verbs *(ʔi)ttaḫaḏa* "to adopt" (from √*ʔḫḏ*) and *(ʔi)ttaḥada* "to unite" (from √*wḥd*) do not result from assimilation of *ʔ* and *w* to an infixed *t*—i.e., deriving <**(ʔi)wtaḫaḏa* and <**(ʔi)wtaḥada*, respectively—is idiosyncratic in the extreme, even for the

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[122] Coghill, 1999, §1.5.

[123] The non-spirantisation of the *t* indicates that it was historically geminated, this in turn resulting from the assimilation of the causative morpheme (i.e., **tʔ* > **tt* > *t*), whereas a single historical **t*, as expected in the tG, would have yielded a spirantised reflex, *ṯ*, in Syriac.

[124] I am unable to follow Retsö's (1989, 150ff.) convoluted argumentation and therefore quote here at length in case the reader may be able to make sense of it:

"First the *t* was prefixed to two-consonant base *t-kl*, *t-xḏ*…The resulting apparent gemination *tt-kl*, *tt-xḏ* would then have been interpreted as *t* + a I*t* root…In Aramaic and possibly in the Hebrew cases, we can see how the new *tt* (=*t*-affix + *t*-radical) was then extended to other biradical roots, viz. IIw/y verbs. The variation of the first radical *ʾkl ʾxḏ =tkl txḏ* may have instigated the association of the *tt* with the new CCj [causative conjugation] with its *ʾa*-prefix in the perfect. The imperfect of the Aramaic CCj would thus have been formed with the perfect as base.

This explains the theme vowel *a* in the 'ʾettafʿal' imperfect in contrast to the *i* of the 'ʾafʿel': *netaqtal* & *naqtel* (Syriac). But in the conservative IIw/y verbs, the differentiation between the G-stem and the new causative was not effected, and thus in these verbs we have the *i* also in the *tt*-forms in both the perfect and imperfect".

most dyed-in-the-wool biradicalist. Nor do any of Retsö's four proposed Hebrew "ttG" forms stand up to scrutiny.[125]

There is no need to resort to such a highly dubious "ttG" stem, which does not account for the forms it presumes to explain any better than does the traditional explanation. Instead, analogical pressure caused by syllabic structure may have been a motivating factor behind the redeployment of the tC as detransitive to the G in √2=*w*/*y*. That is, the √2=*w*/*y* tC **ʔettəqīl* and √strong tG **ʔeṯqətel* both have the triconsonantal syllabic structure *CvCCvCvC*, in contrast to the biconsonantal syllabic structure *CvCCvC* of the √2=*w*/*y* tG **ʔetqvl̄*. Thus, tC *ʔettəqīl* replaced tG *ʔetqvl̄* in this root type to conform more closely to the strong-root pattern. The pressures of formal isomorphism may once more be identified at work.

Given the presence of a tC stem, all that significantly upsets the symmetry—G : tG :: D : tD :: C : tC—so characteristic of the Aramaic verbal stem system is the presence of a limited number of IPs. These differ significantly from those of Arabic, Hebrew, OSA, and Ugaritic in their distributional situation. Specifically, they are far more restricted than are the IPs of other languages, with regard to which stems and conjugational parts of the paradigm occur, to the periods or dialects in which they occur, and to how well these IPs are attested in absolute terms.

Aramaic IPs are attested only during the earlier stages of the branch and are completely absent after Middle Aramaic; they are still present in Nabataean and the Aramaic of the Dead Sea Scrolls (Middle Period), but not in Syriac (Late Period) or Neo-Aramaic (Modern Period). Moreover, even during the stages for which IPs *are* attested, the parts of the paradigm in which they appear are highly restricted. This bears highlighting, because otherwise, an unqualified

[125] Two of the Hebrew forms, *wat-teṯaṣṣaḇ* (Exod 2:4) and *təṯaḥărɛ* (12:5), do not even exhibit the gemination of the *t* prefix intrinsic to the putative ttG stem! These should instead respectively be considered a mixed form combining the N with tD and a denominal quadriradical verb based on a *t*-prefixed noun from √*ḥry* (Jouön and Muraoka, 1991, §§53e, 59e, 77b). The remaining pair of forms, *tittəḇər* and *tittappəl*, both occur in a single verse (2Sam 22:27), so their reliability as a data point is suspect at best.

statement that Aramaic IPs were lost after the Middle Period would imply that they had previously been a fully productive category. This is decisively not the case; finite Aramaic IPs occur only in the Gp and Cp, only in the SC, and as an absolute matter, those IP forms that do occur are simply not common.

One of the most important distributional anomalies of Aramaic IPs—and one that is precisely the opposite of the Canaanite situation, discussed below in §3.6—is that no Dp exists.[126] Just three cases, all PCs, have been proposed in the literature. Two of these—3FPL *yʕrrn* "will be stripped" (KAI 222A:41) and 3MPL *yʕwrn* "will be blinded" (KAI 223B:4)—are from a single Old Aramaic textual corpus, the Sefire stelae.[127] The third, 3MSG *yzbn* "is bought" is from (Middle Aramaic) Palmyrene.[128]

In *yʕrrn* "are stripped", the orthography {*rr*} indicates that there must have been a vowel between these two tokens of R_2 and R_3. This has led some scholars to see it as a Dp (with a form like *yu-ʕarrar-ān*), rather than a Gp, which is the other commonly proposed analysis.[129] Even the Gp PC, it should be noted, is exceedingly rare in Aramaic, to the extent that it is not even beyond doubt that the very few—fewer than fifteen, compared to three for the Dp—purported cases (discussed below) are correctly identified as such. On balance, there is no justification for identifying this form as a highly exceptional Dp PC, particularly considering that even the reading {*yʕrrn*} is not undisputed—e.g., Dupont-Sommer reads {*yʕbdn*}—and the conspicuously similar {*yʕwrn*} occurs in in a comparable context on the same stele.

Some scholars have similarly read {*yʕwrn*} (KAI 223B:5) as a 3MPL Dp from √*ʕwr*: */yu-ʕawwar-ūn/* "will be blinded/awakened". However, assuming plene orthography, it could

[126] This statement refers only to finite verbs; D PASS PTCPs are entirely productive.
[127] Donner and Röllig, 2005, 53, 55.
[128] For citation and references, see Hoftijzer and Jongeling, 1995, 304.
[129] Degen, Huehnergard, and Lipiński take the form as a Dp; Bauer, Donner, Fitzmeyer, and Gibson as a Gp. See Hoftijzer and Jongeling (1995, 890) for references.

likewise simply be a G *yv-ʕūr-ūn* “will be blind/will wake”. Given the broken context, and even the uncertainty of the reading itself—it has alternatively been read as an active D PC from √*ʕwd*: {*yʕwdn*} for /*yu-ʕawwid-ūn*/ “will make a treaty”—the interpretation of this form is no more certain as that of {*yʕrrn*}, and its identity as a Dp just as implausible.[130]

Finally, relative to the active verb D *zabben* “to sell”, {*yzbn*} should be interpreted as a tD PC with total assimilation of *t* to R_1=sibilant (i.e., /*yiz-zabban*/ < **yit-zabban*).[131] None of the three possible cases of Dp forms—already a miniscule number considering the vast volume of text comprising the Aramaic corpus—stands up to scrutiny, and they may all be equally, indeed preferably, be analysed otherwise. Accordingly, the existence of a finite Dp anywhere in Aramaic, however restricted, must be judged unlikely in the extreme.[132]

Apart from this restriction according to stem—only the Gp and Cp are attested, not the Dp—Aramaic IPs are also not distributed equally throughout the conjugational parts of the paradigm. SC forms occur to the virtual exception of those from the PC. Not a single certain Cp PC exists in Aramaic, and fewer than fifteen possible Gp PCs have been identified, of which half represent a single form, *y(w)bl*.[133] Apart from one dubious Middle Aramaic (Palmyrene) form, these are restricted to Old and Official Aramaic dialects, and just three separate texts—the Sefire stelae (KAI 222, 223), a Nerab inscription (KAI 225), and the Proverbs of Ahiqar (TAD C1.1)—in addition to one epistolographical corpus, the Hermopolis papyri (TAD A2).

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[130] For references to various scholarly opinions on this form, see Hoftijzer and Jongeling, 1995, 834.
[131] Thus argue Hoftijzer and Jongeling (1995, 304), contra Wright (1890, 225), who reads this form as a Dp. The proposed form is admittedly somewhat irregular in that the tD of √*zbn*, /*yi-zdabban*/, ordinarily exhibits voicing assimilation and metathesis between *t* and *z*, but this is still a more plausible interpretation than the Dp.
[132] See comments in the conclusion (§3.9) about making inferences from negative evidence in historical data.
[133] The putative Aramaic Gp PCs are Old Aramaic *tbšr* “be shattered” (KAI 222A:38), *ygzr* and *ygzrn* “be slaughtered” (40), *yʕrrn* “be stripped” (41, discussed above), and *yqḥn* “be taken” (42); *ynṣr* “be preserved” (KAI 225:12); Official Aramaic *y(w)bl* “(let it) be delivered” (TAD A2.2:18, 2.3:14, 2.4:14, 2.5:10, 2.6:11, 2.7:5); *ymnʕ* “is prohibited” (TAD C1.1:136); and Palmyrene *yktb* (Hoftijzer and Jongeling, 1995, 542). For discussion of these forms, see Folmer, 1995, §3.8; Muraoka and Porten, 1998, §30.

Because these forms are attested in unvocalised dialects of Aramaic, it is largely based on comparative evidence from Classical Arabic and Canaanite that the Aramaic Gp PC is reconstructed as *yu-qtal*. That said, the {*w*} in the plene orthography of {*ywbl*} offers some support for such a vocalisation, and in the absence of any evidence to the contrary, there is no reason to believe the situation is otherwise. More important an understanding of Aramaic IPs than this tentative formal reconstruction of the Gp PC, though, is, a proper appreciation of its (extremely limited) distribution, and the ramifications thereof.

It occurs only in earlier dialects of the languages, and even there, only extremely rarely. Even those texts with (possible) Gp PC forms nonetheless normally express the passive of the G with the tG or generalised-SUBJ constructions.[134] Indeed, both possibilities have been proposed as alternative (and, I think, preferable) interpretations of Palmyrene *yktb* than being a Gp PC.[135] An important deviation of this dissertation from the traditional position of Semiticists is that it does not assume that the scarcity of Gp PCs necessarily represents a decline in the productivity of a previously productive form.[136] Instead, according to the variation-and-change model, the possibility is entertained that the very few Gp PC forms in Aramaic, if in fact correctly analysed as such, may represent the very first stage of an innovative development that subsequently died out without ever having achieved anything other than the most marginal status in the competition with other variants (the tG and generalised-SUBJ constructions).

Of the Aramaic IPs whose existence *is* beyond doubt, the Gp SC *qəṭīl* has a unique historical development that sets it apart from all other IPs throughout Semitic. Its etymological derivation

[134] In Sefire, for example, we find *ytšmʕ* "be heard" (KAI 222:30), without expected metathesis; for examples from Official Aramaic, see Muraoka and Porten, 1998, §29.
[135] That is, it may be a G with a generalised 3MSG SUBJ, or, less plausibly, I think, a tG with irregular assimilation **tk* > *kk* (Hoftijzer and Jongeling, 1995, 542). Similarly, Folmer (1995, §3.8) raises the possibility {*y*(*w*)*bl*} is a C PC in a generalised-SUBJ construction "let them bring" rather than a Gp PC.
[136] Folmer, 1995, §3.8: "An internal passive of the *peʿal* pref. conj. [Gp PC]…may be an 'archaic survival', which perhaps persisted only in poetry, but also in the language of the Hermopolois papyri".

from the PASS PTCP is entirely transparent. This may be contrasted to the Arabic and Hebrew Gp SCs, whose origins are opaque enough that they have not yet been reliably identified within the individual languages, let alone reconstructed to an earlier stage (e.g., CS).

The dialectal distribution of the Gp SC *qəṭīl* is narrow, and has a slightly different, (chronologically later) scope than the aforementioned Gp PCs. Unlike these forms, however, where the Gp SC does occur—Official (including Biblical) Aramaic and the closely related Nabatean dialect from the Middle Aramaic period—it is productive. That is, it seems reasonable, based on attestations, to understand that it could be formed from any transitive G verb, which certainly is not true of the Gp PC—the preceding survey indeed leaves the question open as to whether the Aramaic Gp PC may even be certainly said to have existed.[137]

In considering the Gp SC *qəṭīl*, it is important to differentiate it from its homomorph, the G PASS PTCP, which is attested at all stages and in all dialects of Aramaic. Semantic or syntactic criteria help in this, and though the 3MSG Gp SC and MSG ABS PASS PTCP are morphologically identical, when conjugated or inflected for other persons or states, they are differentiated by their affixes. For example, in Dan 7:4

ʕaḏ-dī-mmərīṭ-ū		*ḡapp-ay-h*	*ū-nəṭīl-aṯ*	…
PREP-REL-pluck\PASS-PFV.MPL		wing-PL-3FSG.OBL	CONJ-raise\PASS-PFV.FSG	…
ū-ləḇaḇ	*ʔĕnāš*	*yəhīḇ-0*		*l-ah*
CONJ-heart	man	*give*\PASS-PFV.3MSG (or *give*\PASS-PRED.MSG)		PREP-3FSG.OBL

"until its wings were plucked and it was raised up…and the heart of man was given to it", only *yəhīḇ* "given" could be a G PASS PTCP rather than a finite Gp SC (in both cases *ləḇaḇ ʔĕnāš* "heart of man" would be the SUBJ). In *mmərīṭ-ū* "were plucked" and *nnəṭīl-aṯ* "was raised

[137] Kaufman, 1974, 130; Cantineau, 1978, 74–75. According to a search on morphological form using the Bibleworks™ software, the book of Ezra contains 11 examples (4:18, 19, 23; 5:7, 14, 17; 6:2, 8, 11; 7:13, 21). In Daniel, the Gp SC is more common still, with 31 cases found: 2:29, 30; 3:21 (x2), 29; 4:3, 30; 5:21 (x2), 24 (x2), 25, 27, 28 (x2), 30; 6:11, 18. 26; 7:4 (x3), 6, 9, 10, 11 (x2), 12, 14, 22, 17.

up", the respective 3MPL *-ū* and 3FSG *-aṯ* SC suffixes are unequivocally verbal; if these were predicative adjectives, they would require the *nominal* suffixes *-īn* (MPL) and *-ā* (FSG).

There are essentially two opposing positions adopted in the scholarship with regard to the relationship between the two forms: some believe the Gp SC is merely an inflected G PASS PTCP; others derive the Gp SC from a proto-form **qutila* (as found in Arabic).[138] On balance, the arguments in favour of the former position are far more persuasive. Differences between the Gp SC and G PASS PTCP forms the root type √3=*y* in Biblical Aramaic—they take the respective forms *qətē* and *qətī*—are not decisive. It is entirely plausible that the vowel of the √strong *qətīl* has been levelled to √3=*y* in the neological SC, but not in the long-established nominal paradigm. There is also a preponderance of cross-linguistic evidence for the formation of finite passive verbs by the verbalisation of resultative or passive verbal adjectives.[139]

Classical Arabic *qutila* and Hebrew *quttal* cannot be derived like this in a straightforward (or indeed any) manner from a G PASS PTCP **qatīl*—or perhaps more appropriately **qatūl* since that is the form from which the G PASS PTCPs of these languages derive. If an etymological cognate to either of these other CS Gp SC forms existed in Aramaic when it branched off from NWS, all traces thereof were lost before the written record of Aramaic begins. Similarly, no trace of a cognate to the Aramaic Gp SC *qətīl* is found in either of the Arabic or Canaanite branches (i.e., as a variant to their respective regular Gp SC forms). It follows, then, that its creation, by verbalisation of the G PASS PTCP is an Aramaic-specific development.

[138] Blake (1901), Bauer (1915, 562), and Retsö (1989) consider the Gp SC a conjugated PASS PTCP; Brockelmann (1908, §257I) and Wright (1890, 224–225) derive it from an earlier verb **qutila*, respectively accounting for the lengthening **i* > *ī* as the result of stress and of analogical influence from the PASS PTCP.
[139] Haspelmath, 1990, 40ff. An example from Semitic, the N, has been discussed above in relation to Akkadian.

Moreover, since the Gp SC is not attested in Old Aramaic, the rise of this construction cannot date back to proto-Aramaic, but rather began during the recorded history of the branch.[140] (While strictly speaking, absence of evidence is not evidence of absence, it would be unrealistic to propose an accident of attestation whereby this part of the paradigm was part of the language of Old Aramaic, but somehow failed to appear once in the entire textual corpus.) To understand the development of this form, one must look not to proto-Aramaic, let alone earlier stages, such as proto-NWS; instead, it is the linguistic context during and immediately prior to the attestation of the Gp SC *qətīl* that best informs how and why it emerged.

Considering the extreme rarity of the Gp PC—so much so, in fact that its very existence is not beyond question—the Gp SC cannot have been created to create a conjugational counterpart to the Gp PC and thereby fill out an empty slot in the system. However, this does not mean that the relationships between the Gp SC and other parts of the paradigm are irrelevant in the question of its historical development. Rather, another development with significant parallels to that of the *qətīl* Gp SC may have motivated the creation of this neological Aramaic IP. From Official Aramaic, the ACT PTCP **qātil* grammaticalisation into an IPFV finite verb (henceforth, the "*qatl-in* IPFV", based on the formal end result of this process in NENA): Official Aramaic *pātaḥ ʔanā* "I am one who opens/I am opening" > Syriac *pāṯaḥ-nā* or NENA *patx-in* "I am opening/I (will) open".[141]

The *qatl-in* IPFV becomes an increasingly central part of the verbal system until Neo-Aramaic, by which time it replaces the original PC (derived from **yi-qtul*) in various present,

[140] I reject Li's (2009, 59, following Kaufman, 1974, 130) idea that the Gp SC *qətīl* existed from the earliest stages of Aramaic, and was retained in Official Aramaic due to Akkadian influences. I can see no reason why this would be so, since the Akkadian stative, which he presumably considers the catalyst for this contact-induced preservation, is not necessarily passive. Furthermore, and perhaps more importantly, there exist no finite uses of *qətīl* in Old Aramaic from which the Official Aramaic usage could be considered a *retention*.

[141] For the beginnings of this development in Official Aramaic, see Li (2009, ch. 3, 39–57); for a broader diachronic perspective, including the final Neo-Aramaic stage, and for the terminology "*qatl-in*", see Coghill, 1999, ch. 2.

future, and modal functions. However, the Gp SC *qətīl* does not undergo the same expansion; (Middle Aramaic) Nabataean Aramaic is the latest dialect in which it is attested.[142] There may be several reasons for this, not least of which is this absence of a corresponding PC *yu-qtal*, certainly after Official Aramaic, and perhaps ever.

However, to properly appreciate the Aramaic verbal system and the place of the Gp SC within it, one must further recognise that this is not the only finite verb based on the source morphology of the PASS PTCP. In fact, there exist at least two other verbalisations of this form that fared better than the Gp SC, having survived or even flourished, to various extents, in Neo-Aramaic. These various constructions existed in competition, albeit not that of the competition between different morphologies to perform the same function(s), but rather that of the same morphology to perform different (mutually incompatible, in one case) functions. In this competition, other verbalisations of the G PASS PTCP triumphed at the expense of the Gp SC.

Firstly, the predicative use of the PASS PTCP *qətīl* along with a suffixed SUBJ PRON has, by the time of Neo-Aramaic grammaticalised into a finite verb. The resulting verb is not present in all Neo-Aramaic dialects, but where it does occur, mainly expresses the passive, specifically perfective (henceforth referred to as the *qtil-in* PASS.PFV).[143] At the functional level, the *qtil-in* PASS.PFV is similar to the Gp SC in terms of the voice it expresses. Formal parallels between the *qtil-in* PASS.PFV and the *qatl-in* IPFV, though, are far closer than those of either with the

[142] Even in Nabataean Aramaic, the influence of the earlier Official Aramaic dialect should not be underestimated in regard to the presence of the Gp SC.

[143] For the *qtil-in* PASS.PFV, including the terminology adopted, see Coghill, 1999, §§3.2, 3.3.4; 2016, §7.6. In some NENA (e.g., Hertevin, Jewish Azerbeijani) this construction has been extended to the *active* of intransitive verbs. Furthermore, from early on in the history of the construction, when used with certain verbs associated with the semantic fields of holding, possessing, and encompassing, *qtil-in* have an active meaning even with transitive verbs—e.g., Mandaic *lgyṭn?* "I hold [=have seized]" Nöldeke (1875, §262)—a cross-linguistic tendency of which Fox (2003, 196) describes and explains a case in Akkadian. This is not to be confused with the development found in the NENA Jewish Zakho, whereby *qtil-in* with a 3MPL SUBJ can be used as transitive active, which Coghill (2016, §7.6.2) describes as "an unagented passive functioning as an active 3pl. verb", precisely the converse of the cross-linguistically common development of generalised-SUBJ constructions into passives.

Gp SC. Both *qtil-in* and *qatl-in* use the same set of pronominal suffixes, derived from cliticised SUBJ PRONs, while the Gp SC uses those of the SC: cf. **pātaḥ ʔanā* > *patx-in* (*qatl-in*) "I will open" and **patīḥ ʔanā* > *ptix-in* (*qtil-in*) "I was opened" versus **pətīḥ-it* > *pəṯīḥ-eṯ* (Gp SC) also "I was opened".[144]

Another verbalisation of the PASS PTCP *qətīl* was its grammaticalisation, along with a PP marking the agent, into a perfective *active* verb (henceforth referred to as the *qtil-li* PFV)—e.g., **pətīx lī* "[it] was opened by me" > *ptix-li* "I opened [it]". It was a calque of a Persian construction, which explains why it only occurs from the Official period onwards and is restricted to Eastern Aramaic.[145] This verb differs from both the Gp SC and the *qtil-in* PASS.PFV in one highly significant respect: while both of them are passive verbs with SUBJs linked to the semantic role of patient, *qtil-li* PFV is active. The SUBJ is linked to the role agent, and the verb can take a patient argument linked to the OBJ slot—e.g., *ptix-i-le* "he opened them", where the *-le* suffix marks a 3MSG SUBJ, and the *-i* a 3PL OBJ.[146]

A proper understanding of the Aramaic verbal system—both in general terms and with more specific regard to the Gp SC *qəṯīl*—must take into account the interrelationship between these finite verbs that have the PASS PTCP *qətīl* as their etymological origin. All three began to appear during Official Aramaic, from which stage they coexisted in competition with one another. Their respective levels of success in this competition are reflected in the distributions of each construction through time and across dialects. The *qtil-li* PFV fared best, having replaced the original Semitic SC *qətal* in all Eastern Neo-Aramaic dialects except Neo-Mandaic. The Gp

[144] Both sets of suffixes share common *ultimate* origins: the first- and second-person suffixes derive from cliticised personal pronouns and those of the third person from nominal inflectional markers. However, the two sets developed at quite different stages. Those of the SC are far older, dating back to PS, and their etymologies have long since been obscured; the suffixes of *qatl-in* and *qtil-in* arose during the period of Aramaic itself, and their etymological derivation remains entirely transparent as late as Syriac (in the orthography at least).
[145] Kutscher, 1969.
[146] Coghill, 1999, §3.2.4; 2016, ch. 6.

SC *qətīl* fared worst, having died out during the Middle Aramaic period, after just a short tenure. The *qtil-in* PASS.PFV occupies an intermediate position, having survived in Western Neo-Aramaic, where the *qtil-li* PFV did not arise to challenge it, as well as in a few Eastern Neo-Aramaic dialects, where the two (*qtil-in* and *qtil-li*) coexist a complementary distribution.[147]

By considering these various verbal forms together in an integrated fashion—examining not just the constructions themselves, but importantly the relationships between them—some observations may be made about the Aramaic verbal system, and specifically the development of the Gp SC. Firstly, the competition between the Gp SC, *qtil-in* PASS.PFV, and *qtil-li* PFV reflects a volatile system characterised by constant competition between different verbalisations of the PASS PTCP, one of which (the Gp SC) is short-lived and only marginally productive.[148] This is the kind of situation that the variation-and-change model of language diachrony predicts, with the proviso that that variation is between different functional developments of a single source morphology, whereas the model traditionally described variation between different morphologies competing for a single function.

Secondly, of these three finite verbs to develop from the PASS PTCP, the *qtil-li* PFV, which supplants the other two in NENA, is an *active* verb. Without downplaying the adstrate influence of Persian (whence the *qtil-li* PFV was calqued), and hence the geographical restriction to East Aramaic, I propose that its triumph may also reflect an Aramaic tendency towards the *loss of morphologically marked passivity*. By the Neo-Aramaic stage this applies not just to passives, but to detransitives generally, and has resulted in the loss of the *t* stems, the functions of which

[147] Coghill, 1999, §§3.2.1, 3.3.4.5; 2016, §7.6 Where these two verbs coexist in NENA, *qtil-li* expresses the ACT.PFV of transitive verbs, *qtil-in* the PASS.PFV thereof, and in some dialects (e.g., Hertevin and Jewish Azerbeijani) also the ACT.PFV of intransitive verbs, although these tend instead use either *qtil-li* (extended from *transitive* verbs) or *qatil-in*, with a reflex of the stative verbal adjective **qattīl* (rather than the PASS PTCP **qatīl*).
[148] In this regard, Kutscher (1969, 144) tellingly writes that the system is "very much in flux…and no equilibrium had yet been achieved".

are then performed by periphrastic or generalised-SUBJ constructions.[149] Finally, it must not be ignored that all three of these verbs, and indeed the *qatl-in* IPFV derive from verbal adjectives (more specifically PTCPs), which is a central principle in the development of IPs as it is in the creation of finite verbs generally.

Apart from the Gp, Aramaic also possesses a Cp.[150] Even more than in the Gp, the SC predominates in the Cp; if a tiny number of Gp PC forms may exist (however uncertain), the same cannot be said for the Cp PC.[151] The Cp SC appears first in Official Aramaic and is unattested after Middle Aramaic, occurring in the same diachronic and dialectal distribution as the Gp SC *qətīl*.[152] Most examples from Official Aramaic are from the Biblical corpus, outside of which, Muraoka and Porten mention just two cases from papyri found in Egypt: *ʔškḥ* (TAD A2.2:12) "has (not) been found" and *hpqdw* (TAD B2.9:7) "were put on deposit".[153] In the Aramaic sections of the Biblical books of Daniel and Ezra, a dozen forms are attested, which, considering the small amount of text this corpus comprises and the markedness of the category causative-passive, is a significant number.[154]

Ten of the Biblical Aramaic Cp SC forms have the internal vocalism *hoqtal* or *huqtal* (with *u* occurring before the sequence C_1C_1 and in verbs from √1=*w*, *ʔ*). Since this is formally identical to the Hebrew Cp SC, early scholars of Semitic considered the Aramaic Cp SC a Hebraism,

[149] Cf. the decline of morphologically marked reflexitiy and reciprocity in Akkadian (discussed above).
[150] The distributional variation between *h* and *ʔ* as the prefixed causative morpheme corresponds to the same in the active C, following a rough diachronic development from the former to later by way of lenition, in process during Official Aramaic and complete thereafter.
[151] The only statement I have encountered anywhere in the literature that comes close to positing a Cp PC form is Folmer's (1995, §3.8) admission that theoretically, {*ywbl*} could be interpreted as such, but elsewhere she (§§2.4n1027) explicitly favours reading it as a Gp PC; cf. Muraoka and Porten (1995, §30), who call this an "obvious and incontrovertible case" of the Gp PC.
[152] Cook, 2010, 7; Kaufman, 1974, 130.
[153] Muraoka and Porten (1995, §30) find both these cases as uncertain Cp SCs, and possibly active verbs, the first a scribal error for **ʔškḥt* "I have (not) found" and the second a generalised-SUBJ construction (with a 3MPL SUBJ).
[154] A search on morphological form using the Bibleworks™ software yielded the following results: Ezr 4:15, Dan 3:13, 4:33 (x2), 5:13, 5:15, 5:20, 6:18, 6:24, 7:4, 7:5, and 7:11.

though this position has since largely been rejected.[155] The two exceptions—3MPL *hēṯɔy-ū* (Dan 3:13) "were brought" and 3FSG *hēṯɔy-iṯ* (Dan 6:18) "was brought", both from √ʔty—cannot result from such an underlying *u-a* vocalic sequence, since there is no way of accounting for a change **huʔ* > *hē* in the first syllable. In these Cp forms (as in the corresponding active C), R_1=ʔ palatalises into a glide *y*. Though speculative, it is plausible that a restriction against the sequence **uy*—widespread throughout Semitic—replaced regular ***huytay* with another pattern.[156] These forms seem to derive instead from **haytay-ū* and **haytay-at*, respectively, with the sound change **ay* > *ē*/_*C*, regular in this dialect, having affected the phonology—the original *y* is retained in their respective orthographies {*hytyt*} and {*hytyw*}).[157]

Since the Biblical Aramaic corpus possesses just twelve Cp SC forms, these two examples represent a sixth of the data set, a by-no-means insignificant proportion. Apart from these, Cook argues that *ʔaqtal* is the standard Cp SC in the Middle Aramaic dialect of Qumran (against the traditional analysis that it is *ʔuqtal*). This is because the orthography {ʔqtl}, does not possess {*w*}, which is frequently used elsewhere in Qumran Aramaic as a *mater lectionis* for the vowel *u*.[158] However, identifying the existence of such a Cp SC with *a-a* vocalism is not to say that the *huqtal* form is not native to Aramaic. Apart from Biblical Aramaic,

> Sporadic uses of the Hophʿal in later literary dialects, such as the Yemenite tradition of Babylonian Aramaic and some Samaritan Aramaic texts, as well as the remnants of the CP in the North-eastern Neo-Aramaic (NENA) dialects suggest that in some areas or registers there may have been in fact a (*h*)*uCCaC* or (*h*)*uCCiC* vocalization of the CP.[159]

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[155] Muraoka and Porten (1998, §30n556) cite the presence of the Cp SC in Qumran Aramaic against Bauer and Leander's identification of these forms as Hebraisms. Its presence in a non-Jewish dialect of Aramaic—which does not occur—would admittedly be a more convincing argument.

[156] Such a morphophonological conditioning of IP forms, however appealing, is by no means certain, though cf. Retsö's (1989, 176ff.) theories about IP by-forms from √3=y.

[157] Cook, 2010, 6.

[158] The only Qumran Aramaic Cp SC forms that *do* have {*u*} are those from √1=**w*—e.g., *ʔwdʕt* "I was informed" and *ʔwblt* "I was transported". This does not necessarily stand for */ū/* (<**uw*), and could instead be a contracted diphthong *ō* < **aw*, since R_1=**w* is preserved as such in the C (becoming *y* in the G), and therefore presumably also in the Cp. For a list of Cp forms from Qumran Aramaic and the preceding analysis, see Cook, 2010, 7–9.

[159] Cook, 2010, 9–10.

Crucially, Cook demonstrates variation in the Cp SC, which can apparently have either *u-a* or *a-a* vocalism.

This formal heterogeneity of the Cp SC in patterns cannot be considered independently from the situation of its attestation. This was short-lived, lasting only from the Official to Middle period of Aramaic. Moreover, even during this brief period, the Cp SC faced stiff competition as a passive marker (to the C) from other constructions and never became a unchallenged, core part of the verbal paradigm, but struggled (in vain) to secure its position in the language. This status as a marginal and innovative variant facilitated the instability of Cp SC morphology, which was preventing the form from stabilising into one, invariable pattern. Ultimately, the Cp SC died out at the expense of various other constructions vying to perform the same function: initially the tC, and perhaps the G, but ultimately periphrastic and generalised-SUBJ constructions.[160]

These changes in marking detransitivity relative to the C throughout Aramaic share noteworthy characteristics with developments in the Gp SC and related constructions. Just as the tC resulted in a greater symmetry with the tG and tD than did the Cp, the *qtil-in* PASS.PFV and even more so the *qtil-li* PFV better paralleled the *qatl-in* IPFV than did the Gp SC *qətīl*. Furthermore, both the ultimate loss of the tC in Neo-Aramaic and the triumph of the *qtil-li* ACT.PFV (over *qtil-in* PASS.PFV) reflect a tendency in Aramaic towards the loss of synthetic detransitives and a shift towards analytical constructions. These developmental parallels between the Aramaic Gp and Cp SCs, and the other constructions with which they interact, provide a neat characterisation of Aramaic IPs generally: they were embattled, and ultimately disappeared after a short period of marginal attestation when they failed to supplant other variants.

[160] Between the disappearance of the Cp from the language and the creation of a neological tC, *ʔettaqtal*—contrasted with the long-since extinct inherited WS Ct, *ʔestaqtal*—was a gap of several centuries. During this time, Meehan (1991) claims, the G expressed the passive to the C, particularly for verbs of motion.

Any understanding of Aramaic detransitives cannot ignore the fact that generalised-SUBJ constructions are frequently employed to express verbal actions without reference to the agent at all stages of the branch.[161] The decline of passive-marking morphology (whether IPs or the *t* stems) is not a change that arises *ex nihilo* but rather the flourishing of a latent possibility in the language. The realisation thereof in the latest dialects culminates in typological changes in the language, specifically a shift towards ERG alignment, and then further into semantic alignment, and even back into ACC alignment.[162] Where reflexes of **qatīl* do mark passivity, they do so less and less in finite verbs—i.e., the *qtil-in* PASS.PFV wanes—and increasingly in periphrases using conjugated AUXs. Moreover, periphrastic passives in Neo-Aramaic often do not even use a reflex of the PASS PTCP, but rather INFs.[163]

This general situation of detransitive marking explains why IPs are so scarce and short lived in Aramaic. Apart from their restricted attestation, and not unrelatedly, they are characterised by disconnection from each other, in which respect they are fundamentally unlike those elsewhere in CS. That is, whereas the Arabic IP SCs *qutila ~ quttila ~ ʔuqtila*, or the different conjugational parts *quttal ~ yə-quttal* of the Dp in Hebrew, are integrated parts of cohesive systems, the Aramaic Gp SC and Cp SC have no morphological commonality. Indeed, the former is clearly an Aramaic-specific innovation, so is derivationally disconnected not just from the other Aramaic IP, but indeed from any other IP in Semitic.

The only real link between the attested IP forms, apart from their diachronic scope—both Gp SC and Cp SC are found only in Official and Middle Aramaic dialects—is that they are subject

[161] Among the Semitic languages, generalised-SUBJ constructions are particularly common in Aramaic and Geʿez (Retsö, 1989, 155). It is surely no coincidence that these are precisely the WS languages in which IPs are most restricted in scope (being wholly absent in Ethiopic).
[162] Coghill, 2016, ch. 7.
[163] Coghill, 1999, §3.4.2.3.5: "There is a general tendency for the predicative form [*qtil-in*] also to be dropped as a method of expressing the passive, in the face of other methods of expressing the passive [i.e., periphrastic constructions]". For descriptions of how various Neo-Aramaic dialects express passivity, see Coghill, 2013, 43; Fassberg, 2010, §4.4.20; Khan, 2008, §15.9; and Nöldeke, 1868, 287ff.

to the same turbulence, in effect throughout the detransitive system, whereby competition between different constructions causes them to variously flourish and perish.[164] This is precisely the sort of situation the variation-and-change model predicts, as is the presence of forms (IPs) for a limited period, before disappearing at the expense of others. Another element of the situation of variation and instability in Aramaic IPs is the formal heterogeneity of the Cp SC, for which by-forms *huqtal* and *haqtal/ʔaqtal* occur.[165]

Finally, despite the aforementioned disconnectedness in terms of their particulars, the Gp SC and Cp SC, along with the *t* stems and other non-verbal detransitive markers, have in common a general principle that governs their respective situations of flux. In keeping with a key premise of the hypothesis of this dissertation (described above in §1.6), the overall detransitive system exhibits a marked tendency towards functional symmetry and formal isomorphy between its parts. Consequently, in the competition between variants, the constructions that fare best are those that better parallel existing ones or fill in gaps in the paradigm to make it more regular—whether, in between the case of the tC versus the Cp, between its stems, or between the Gp versus *qtil-in* PASS.PFV or *qtil-li* PFV, between its conjugational parts.

3.6 Canaanite [166]

The Canaanite detransitive system exhibits a significant amount of variation in the distribution of stems across its diachronic stages and genetic sub-branches. Overall, this variety reflects a complex ongoing process whereby, first, the *t* stems undergo significant decline at the expense of the N and IPs, and then the IPs gradually recede. The first part of this development is the most

[164] If the extremely rare and uncertain instances of a Gp PC in Old and Official Aramaic are correctly identified as such—about which I have serious doubts—they are in any case such marginal, nonce coinings, that they do not bear significantly on the situation.
[165] Links with analogous variation in Aramaic PASS PTCPs, and the derivational relationship between these and the Cp SC, is discussed below in the analysis and reconstruction (in §§4.6–8, 5.3, 5.5).
[166] The data on which the following description is based are presented Tables A5.1–4.

characteristic deviation of the Canaanite detransitive systems as compared with those in the rest of WS; in Retsö's terminology of N versus *t* languages, Canaanite is the "N-language" par excellence. The incipiency of this development is already discernible in Amarna Canaanite, the earliest attested stage of the branch, but it becomes far more pronounced at later stages.

The main data considered here are from the language of the Canaanite glosses of El Amarna Akkadian (fourteenth century BCE), Phoenician/Punic (eleventh–first centuries BCE), Biblical Hebrew (eleventh–second centuries BCE, though the Masoretic vocalisation tradition was fixed much later, in the seventh–ninth centuries CE), various post-Biblical Hebrews (e.g., Mishnaic may be dated to the second–fifth centuries CE, and Samaritan Hebrew some time shortly thereafter).[167] Other Canaanite languages exist (e.g., Moabite, Edomite, and Qumran Hebrew), but are not included in the discussion here because of the paucity of material and the limited information the orthography provides, and/or because they do not diverge significantly enough from a Canaanite language that is covered to warrant separate consideration. Canaanite is a branch of Semitic in whose detransitive system IPs play a significant role, with much variation between the stem inventories of different stages and dialects. As such, a synchronic snapshot of the detransitive systems of each dialect will be described in turn, focussing primarily on IPs, before the findings thereof are synthesised to produce an overview of Canaanite detransitives.[168]

3.6.1 Amarna Canaanite

The most extensive and complex detransitive system in the Canaanite language family is also its oldest: that of Amarna Canaanite. It possesses the G, N, Gt, Gp, D, Dt, Dp, and C as productive

[167] For these dates, see Edzard, 2011, 480–81; Hasselbach, 2011; Segal, 1927, §§2–3; Florentin, 2005, §§0.1.3.3, 0.1.3.7–9.

[168] This approach, tailored to the specific situation of Canaanite, differs somewhat from that of the descriptions of the detransitive systems of other Semitic languages, but is a sort of micro-application of the methodology of Chapter 3 as a whole, that is, creating a series of individual descriptions of the different branches of Semitic, and then based on the commonalities thereof, creating a generalised schema of Semitic detransitives.

(though to varying degrees) parts of the verbal system, with extremely limited numbers of Ct and Cp forms. According to Rainey's analysis of the system as a whole, the very presence of IPs has had an effect on other stems, such that the N is relatively infrequent due to the availability of the Gp to express the passive of the G. Similarly, the Dt is not particularly common, and it never occurs with a passive function, due to the presence of a Dp.[169]

One difficulty facing the analysis of Amarna Canaanite IPs relates to the SC. No formal cognates to Arabic *qutila* or Hebrew *quttal* are attested, but *qatil* forms frequently have transitive patient SUBJs. However, such forms are not IPs, contrasted by ablaut from active *qatal* counterparts, but rather instances of the predicative verbal-adjective construction.[170] It is notable that Amarna Canaanite is early among the WS languages, and therefore perhaps not so advanced in the development of this morphology from its functional origin of the predicative verbal-adjective construction into the perfective-marking SC.[171] Moreover, the overwhelming adstrate influence of Akkadian—a language that has not developed the SC at all, and whose only (quasi-)verbal use of *qvtvl* forms is in the predicative verbal-adjective construction—is likely a factor in Amarna Canaanite *qatil* forms with transitive patient SUBJs.

The predicative verbal-adjective construction, when formed from transitive verbs, links the patient to the SUBJ slot, but the ensuing passive syntactic arrangement is an incidental by-product of the primary resultative function rather than an inherent property of the construction.[172] Thus, Amarna Canaanite *qatil* forms are not invariably passive, and can instead also have *intransitive* patients as their SUBJs. Indeed, they can even take agent-like arguments as their

[169] Rainey, 1996, 2:116, 176.
[170] Rainey (1996, 2:303–6) maintains precisely the opposite, though some of his own examples, discussed below, give lie to the supposed contrastive relationship of active *qatal* versus *qatil* as its passive counterpart.
[171] Remnants of the earlier predicative verbal-adjective construction, with no PFV aspect, are retained in Hebrew verbs like *ʔɔheḇ*, for example, though no instances occur where the SUBJ is a transitive patient, which is hardly surprising considering that language has developed passive-specific verbal morphology, namely the IPs, as discussed below (in §§3.6.2–3).
[172] Kouwenberg, 2010, §7.3.

SUBJs, as is the case with *ša-mi-ti₇* "I have heard", whose SUBJ is an experiencer, and a transitive one no less.[173] As such, Amarna *qatil* forms should be distinguished from IPs—e.g., Arabic *qutila*, Aramaic *qətīl* (where it functions as a Gp SC), and Hebrew *quttal*—whose SUBJs are always linked the patient (or patient-like, such as recipient) of a transitive verb.[174]

Apart from its lack of functional restriction, another reasons that Amarna Canaanite *qatil* cannot be considered an IP is that it appears in variation with *qatal*, the two competing for the same function(s). For example, from the root √*kšd* "to arrive", both *kašid* and *kašad* occur, with their SUBJs being linked to the agent. That is to say, there is no contrastive relationship between *qatil* and *qatal* in Amarna Canaanite—such as exists between Gp *qutila* versus G *qatala* in Arabic, or between Dp *quttal* and D *qittel* in Hebrew—which is a prerequisite of identifying a form as an IP, indeed a definitional characteristic thereof.[175] This does not mean *per se* that the spoken Canaanite vernacular of the Amarna scribes did not have a Gp SC—the only evidence in this matter is the negative evidence that one has not been identified—merely that if it did, it was certainly not *qatil*.

As for the morphology of the Amarna Canaanite IP PC forms, the Gp takes the pattern *yuqtal*.[176] Since this is identical to the Biblical Hebrew Gp PC, there is no reason to doubt that Canaanite Gp PC forms are cognate. Rainey sees the presence of *yu-qtal* forms in Amarna as reflecting the decreasing use of an inherited form—implicitly from CS, since he mentions the

[173] Rainey, 1996, 2:302.
[174] While *qətīl* is commonly associated with the intransitive patients in Aramaic when used as an attributive verbal adjective, when it receives the verbal SC inflection it is exclusively a passive. In Arabic, *qutila* is sometimes linked to the subject of verbs expressing illnesses or other states, but this is a highly marginal use (if genuine at all), exaggerated by some scholars like Blake (1901, 48).
[175] Rainey, 1996, 2:302.
[176] The most straightforward and least objectionable of Rainey's (1996, 2:77–78) examples are 3MSG *yu-ul-qé* for /*yu-lqe*/ (<*/*yu-lqaḥ*/) "let it be taken" from √*lqḥ* and 3FSG *tu-um-ḫa-ṣú* for /*tu-mḫaṣ-u*/ "is struck" from √*mḫṣ*.

Arabic Gp PC in this context—already rare in the earliest stages of Hebrew, and absent by the Hebrew of the Israelite monarchy and in Moabite and Phoenician.[177]

In the case of Moabite this might merely reflect an accident of attestation, but the corpus of Phoenician data is substantial and Gp SC forms are attested, so the absence of a corresponding Gp PC is significant, and reflects the accuracy of Rainey's statement that Gp PC died out in the recorded course of Canaanite. However, it is worth noting that concurring with the historical tail-end of the reconstruction does not automatically require one to subscribe to the beginning thereof. That is, there is no reason the Gp PC in Amarna Canaanite must already be a waning form that was productive in an earlier stage; it could instead be a recent development in the history of this branch, and simply never achieved more than a relatively modest degree of establishment within the language.[178]

Another key consideration in the Amarna IP situation, compared to the rest of Canaanite, is that its Dp PC may not have the vocalisation **yu-quttal* generally held to lie behind the Hebrew Dp PC *yə-quttal*. Instead, based on very limited data—two instances of 3MPL *tu-waššar-ū-na* "be sent" from √*wšr*—Rainey proposes this takes the same form as Arabic *yu-qattal*.[179] Applying the comparative-historical method to a purely genetic model of Semitic, he consequently argues that the Amarna/Arabic Dp PC form should be reconstructed back to CS, and that Hebrew *yə-quttal* was a secondary development thereof, though he does not explicitly describe how or why the change occurred.[180] Pardee correctly notes that just because these forms do not conform

[177] Rainey, 1996, 2:75–80; Retsö, 1989, 42–47. The formal identity of the Arabic and Canaanite Gp PCs **yu-qtal*, and the ramifications of this for the historical development of IPs, are addressed below (in §§4.9.1), in the analysis.
[178] This idea of when the Gp PC first arose is of course an important aspect in the reconstruction (in §5.6) below.
[179] Rainey, 1996, 2:11–12, 179–80. His (180) comment, "[n]ow, *tu-wa-aš-ša-ru-na* can be legitimately used as evidence for the original Canaanite D passive vocalization of the suffix conjugation. That form was *tuqaṭṭalūna*", is baffling, and presumably an editing error of "suffix conjugation" for "prefix conjugation".
[180] Hetzron (1977, 43n1) likewise reconstructs such a development, extravagantly theorising that proto-Hebrew the prefix vowel to the slot following R_1 to preserve it; Retsö (1989, 187–94) does not mention Amarna Canaanite with regard to the pattern *yu-qattal*, which is an egregious omission.

to Akkadian morphology, that does not necessarily make them reliable witnesses to the Canaanite dialect of the scribe, and I agree with him that Rainey's conclusion is a stretch on the sole basis of these two data points, which have extremely limited value, if any, for the reconstruction of the Dp.[181] Notwithstanding, it would be remiss not to mention Rainey's position insofar as it is endorsed by Tropper, not to mention Moran, a specialist in Amarna Canaanite.[182]

In the comparative historical analysis of Canaanite, one consideration often not given due attention is that dialects from different diachronic stages do not necessarily represent direct genetic inheritances, one from another. In specific relation to IPs, this could mean that the scarcity of Gp forms in Biblical Hebrew compared to Amarna Canaanite need not result from a decline, but instead reflect that after Canaanite split up into different sub-branches, development of the Gp stalled in some, such as Hebrew, but not (or less so) in others, such as Amarna Canaanite. In the Dp, it could mean that Hebrew *yə-quttal* did not derive from **yu-qattal*—if one accepts, for the sake of argument, that Rainey's analysis is correct—but instead a separate, etymologically unrelated form whose development was specific to Hebrew.

Detransitives from the C in Amarna Canaanite are extremely uncommon, though this is not particularly surprising, considering the natural rarity of the category detransitive-to-causative. Only two Ct forms are attested in the entire corpus, both from *šutēšuru* "to dispatch", a lexical verb with no clear derivational relationship to the G *ešēru* "to be straight" or C *šūšuru* "to prepare" from the same root (√ʕšr). Since these forms exhibit no distinctly WS morphological

[181] Pardee, 2018, p.c.
[182] Moran, 1992, 142; Tropper, 2000, §74.422.

features, they should not be considered part of the Canaanite substrate of the glosses, but rather Akkadian forms.[183]

The sole possible Cp form to be identified is {*ù-ṣa-ka*} for */hūṣaʔ-ka/* "will be sent to you" from √*wṣʔ*, which, Rainey admits, is not without problems, given the uniqueness of the form and the context in which it is attested.[184] If it *is* a Cp SC, though, the underlying form **huqtal* matches that of the Biblical Hebrew Cp SC *hoqtal*, so both may be reflexes of a form inherited from proto-Canaanite (or earlier), regardless of differences in frequency of attestation between the two dialects.[185] A final observation regarding the general lack of detransitives to the C in Amarna Canaanite is that this situation provides an interesting foreshadowing of the culmination of the development of the detransitive system in this branch (discussed below in §3.6.4) whereby the inventory of stems is restructured into two unmarked ~ detransitive pairs, G : N :: D : tD, with the C standing separate from this organisation, isolated as a transitivity-*raising* stem.[186]

Amarna Canaanite IPs exclusively express the prototypical passive, with an implicit agent, rather than mediopassivity. The N also occasionally does so but more often marks SUBJ affectedness with no syntactic detransitivisation. There also exist some lexical uses and formation of the N from quadrilateral roots, though the extent to which such examples really reflect Canaanite language rather than Akkadian use is doubtful. Notably, the Amarna N *cannot* mark reflexivity, even natural reflexivity, a use which is close to and can develop from semantic middle use. Rainey's use of the term "reflexive" in this context is misleading, and his definition

[183] Rainey, 1996, 2:187–88.
[184] Rainey, 1996, 2:193: "Admittedly, an Hp [Cp] form in a reply from an Egyptian official may tax our credulity". He presumably deems the presence of the 2MSG OBJ suffix (actually dative) possible because the active counterpart is ditransitive, even though such use would be quite exceptional in Semitic.
[185] Rainey, 1996, 2:190–94. In the analysis of this form, and particularly in contrast to the absence of a Cp (or indeed any IPs) in Akkadian, it is notable that it uses the laryngeal causative prefix *h* since C forms with a *š* causative morpheme in Amarna are considered Akkadianisms, and those with a causative morpheme *ø*/*h* native to Canaanite.
[186] Hasselbach (2021, p.c.) points out that the D can also raise transitivity, though unlike the C this is not its sole, or indeed primary, function.

thereof—"the subject of the verb is in some way being committed or has some kind of self-involvement in the action"—shows that he is referring to SUBJ affectedness and not reflexivity in the protoypical sense; this interpretation is confirmed by his examples, which conform to cross-linguistically common semantic fields for middle verbs, such as bodily motions.[187]

The Amarna Canaanite Gt is, in some respects, the polar opposite of its N. It can reduce the second argument (whereas the N does the first), but is far more frequently a marker of SUBJ affectedness with no change to the syntactic arrangement of arguments, compared to the unmarked G.[188] Gt verbs Rainey identifies as lexical (e.g., those from √*ʔmr* "to see", √*nṣb* "to stand", and √*šmʕ* "to hear") belong to semantic groups of verbs of perception, emotion, and body posture commonly associated with semantic middle. [189] Similarly, so-called "separative" uses of the Gt from verbs of motion (√*wṣʔ*, √*ʕly*, √*hlk*, and √*ʕzb*) may be identified as marked for SUBJ affectedness, insofar as they focus on the beginning of the action as it arises from the SUBJ.[190]

Amarna Canaanite Dt forms are rare, and never passive—in which respect they are dissimilar to their Akkadian counterparts—which Rainey ascribes to the availability of the Dp to perform this function.[191] The only other function he specifically identifies for the Dt is separative. As in the Gt, this is the natural result of the combination of SUBJ affectedness and the lexical semantics of verbs of motion. It is perhaps a little surprising that Rainey makes no mention whatsoever of reflexive Dt use (although nor does he rule it out, even though based on internal

[187] Rainey, 1996, 2:121; for the Gp functions, 75–80; for those of the N 117–32; and for the Cp, 192–93. Cf. the discussion above (in §3.2) of the naturally reflexive N in Akkadian.
[188] Rainey, 1996, 2:81–113. All of his (2:92, 111–13) examples of reflexive Gt forms are indirect: e.g., G "to ask" versus Gt "to seek counsel" from √*šʔl*. The relationships between G "to put" versus Gt "to compare" from √*škn* and G "to do, make" versus Gt "join together with" from √*ʕpš* are slightly more opaque but can likewise be understood as the SUBJ being linked to semantic roles of experiencer or beneficiary as well as to that of agent.
[189] For comparable Akkadian examples, see Kouwenberg, 2010, §14.3.4, and for the theoretical framework and examples from other languages, Kemmer, 1993, 56–57, 156–58.
[190] Rainey, 1996, 2:93–98; cf. the discussion above (in §3.2) of the same phenomenon in Akkadian, as noted by Kouwenberg (2010, §14.3.4), in accordance with the theoretical framework of Kemmer (1993, §5.1, esp. 156–58).
[191] For the Amarna Canaanite Dt and its functions, see Rainey, 1996, 2:176–78.

and comparative evidence one might well expect reflexive to number among the functions of the Amarna Dt). This reticence may simply be because his interest in the Dt is focussed on a few controversial "separative" Dt forms, and specifically the interpretation of the data in the context of Akkadian usage.

Overall, then, the Amarna detransitive system distinguishes between IPs, which exclusively expresses one kind of syntactic detransitive (the passive), and the N and *t* stems, which are primarily used to mark the semantic category of SUBJ affectedness. Where they additionally entail a reduction in syntactic transitivity (which they do not necessarily), the N only reduces the first argument, the *t* stems only the second. This system is characterised not only by the complex functionality of the N and *t* stems, but also the fundamental differences between these on the one hand and IPs on the other. Finally, the morphology of its Amarna IPs serves as a cautionary reminder that one should be wary of assuming IP development proceeded in a unitary fashion throughout the entire Canaanite branch. As a matter of sound methodology, in view of the equivocal evidence, the same thinking must be extended to NWS and CS more generally.

3.6.2 Biblical Hebrew

In the Biblical Hebrew detransitive system, it is important not only to identify which verbal stems are present, but also to recognise the different levels of attestation thereof, both in terms of stems and conjugational parts of the paradigm. The main verbal stems of Biblical Hebrew are G, N, D, Dp, tD, C, and Cp. Further, at least fifty forms have been identified as belonging historically to the Gp, but have subsequently been reanalysed as coming from the Dp or Cp, or revocalised as N forms.[192] The Gt and Ct are attested in just one root each—√*pqd* "to be

[192] On the Biblical Hebrew verbal stem system generally, see Jouön and Muraoka, 1991, §§40, 51–50; on the Gp specifically, Williams, 1970.

mustered" and √*ḥwy* "to prostrate (oneself)", respectively—the former stem perhaps also being preserved in two toponyms.

Finally, there are eight cases where IPs have been formed exceptionally from the other detransitive stems. These are four from the tGp, *hoṯpɔqəḏū* (3PL SC; Num 1:47, 2:33; 26:63; 1Kgs 20:27) "were numbered, passed in review" and four from the tDp, *huṭṭammɔʔɔ* (3FSG SC; Deut 24:4) "is defiled", *hukkabbes* (INF; Lev 12:55, 56) "being washed", and *huddašnɔ* (3FSG SC; Isa 34:6) "is fattened".[193] The uniquely attested *šōrɔšū* (3PL SC; Jer 12:2) "were rooted" appears formally, at least, to be an Lp (with the pattern *qōtɔl* <**qātal*). However, it is not related to the corresponding active L *šōreš* in a relationship of passivisation. Instead, both are roughly broadly synonymous, meaning "to take root", and best interpreted as denominal formations derived from *šórɛš* "root".[194] One other Lp, *yə-rōʕɔʕ* (3MSG SC; Isa 16:10) "is shouted", though, does appear to be a passive, albeit one for which no corresponding active L is attested, and whose identification as passive must therefore be made on a semantic and contextual basis—cf. the Dp *yə-runnɔn* "is sung" with which it stands in parallelism.

All Hebrew IPs have a vocalic sequence that derives from **u-a* in all conjugational parts of the paradigm, that is the SC, PC, and PTCP. One proviso to this is that the inherited G PASS PTCP *qɔtūl* (<**qatūl*) does not follow this pattern, though there also exists a separate, neological PASS PTCP *quttal*, tied to the Gp specifically (rather than the G) in terms of morphology, which does. The resulting IP paradigm (SC ~ PC ~ PTCP) possesses a highly conspicuous degree of formal isomorphism between Gp *quttal* (perhaps originally *qutal*, as discussed below) ~ *yu-qtal*

[193] For discussion of the IPs to detransitives, see Gesenius, Kautzsch, and Cowley, 1910, §54e–g; Jouön and Muraoka, 1991, §53h–i; Waltke and O'Connor, 1990, §§26.1.2–26.4. The twice attested *nulladū* (3PL SC; 1Chr 3:5, 20:8) "were born" should not be considered an Np, but rather a scribal revocalisation from the expected *nōlad-ū* (<**nawlad-ū*), which is the normal N SC of √1=w—cf. comments below on the morphological reanalysis of similar forms in post-Biblical Hebrew.

[194] The supposed corresponding active form—*šōreš* (Isa 40:24) "has taken root"—is syntactically intransitive, which precludes its being a source of IP formation. In any case, the two are effectively synonymous.

~ *qɔtūl* (or *quttɔl*), Dp *quttal ~ yə-quttal ~ məquttɔl*, and Cp *hoqtal/huqtal ~ yo-qtal/yu-qtal ~ muqtɔl/moqtɔl*.[195]

An efficient way of further describing this IP morphology is to make some brief observations regarding relationships between parts of the paradigm, and between Biblical Hebrew forms with counterparts from other Semitic languages. The Gp SC *quttal*, to the limited extent that it is even attested, has gemination of R_2 in the Massoretic vocalisation at least, making it identical to the Dp SC, as which it appears to have subsequently been reanalysed.[196] The same *u-a* vocalism found in the Cp SC *huqtal* so Hebrew IP SCs thus differ from those of Arabic (*qutila ~ quttila ~ ʔuqtila*), but resemble the Cp SC of Aramaic.[197]

As for the IP PCs, since Hebrew Cp forms exhibit the same syncopation of the causative morpheme *h* in intervocalic position as the active C, the Cp PC *yu-qtal* (<**yu-huqtal*) merges with the Gp PC, facilitating the aforementioned historical reinterpretation of the former as the latter. Both of these forms are identical to their Arabic counterparts, and, it is generally assumed, to all Gp PC forms throughout Semitic.[198] The Biblical Hebrew Dp PC *yə-quttal* and D PASS PTCP *məquttɔl* differ from their counterparts in Arabic and Aramaic—only the standard D PASS PTCP form *məqattal*; for evidence of a *məquttal* variant in Aramaic, see §4.6—in the vowel following R_1 is *u* rather than *a*.

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[195] There exists some variation between *o* and *u* in the prefix vowel, with the caveats that the former is more common in PTCPs (where it is presumably conditioned by the labial environment), while in the PC and SC, *o* is the default vowel, and *u* appears in doubly-closed syllables (e.g., **hu-qqal* forms from √1=*n*). In any case, there is no reasons to doubt this both vowels derive from original **u*. Nor does the presence of *ɔ* rather than *a* in PTCP forms does not reflect a different underlying historical vowel; the same difference occurs between finite and non-finite parts of other verbal stems—e.g., N SC *niqtal* versus N PTCP *niqtɔl*, both <**niqtal*.

[196] It is a matter of dispute (discussed below, in §4.9.2 and §5.7) whether this gemination was original to the Gp that allowed the reinterpretation of *quttal* Gp SCs as Dp SCs, or rather a secondary feature introduced precisely as a result of this reinterpretation.

[197] This parallel is drawn with standard Aramaic Cp SCs; as mentioned above (in §3.5) *haqtal/ʔaqtal* Aramaic Cp SC variants also occur.

[198] For discussion of *yi-qtal* Gp/Cp PC forms in Arabian dialects of Arabic, see above §3.4.2, and for the relation thereof to *yu-qtal*, see below §4.9.1 and §5.6.

With regard to the levels of attestation of the various IP stems, the Gp is extremely limited, so much so that the traditional Hebrew grammarians did not even recognise the category and reanalysed what Gp forms did occur in the Hebrew Bible as Cp PC or Dp SC forms, or revocalised them as N verbs.[199] Further, within the stems themselves, the conjugational parts vary in terms of frequency. For example, in the Dp, PASS PTCPs forms are more frequent than either the Dp SC or PC.[200] This raises the question of the role finite IPs play in the verbal system as a whole, or at least their relationship to the corresponding PASS PTCPs, particularly considering the situation of later post-Biblical Hebrew (discussed below in §3.6.4).

One peculiarity of the Biblical Hebrew IP paradigm worthy of some comment is the existence of a few dedicated IP INF forms, distinct from their active counterparts.[201] As in other Semitic languages, normal INFs are neutral with regard to voice and can relate to passive as well as active predications, so such IP INF forms are decidedly rare, numbering fewer than twenty in the entire Hebrew Bible. However, their existence does not violate the universal restriction against zero-marked finite passive forms per se, since INFs are not finite; that is, they cannot head an independent VP.[202] These dedicated IP INFs, to the limited extent that they occur at all, occur in both absolute and construct forms and syntagms.

Like all finite Hebrew IPs, IP INFs have a *u* or *o* (<**u*) in the first syllable. They each also bear as the characteristic marker(s) of the active counterpart (i.e., gemination in the D, the *h*

[199] Williams, 1970.
[200] Jenni (1973, 66) estimates that forty percent of all Dp forms are PTCPs.
[201] All the forms identified as INF bearing IP-specific morphology, and occurring in a context with passive (i.e., transitive-patient oriented) perspective total eighteen: from the Dp, *gunnōḇ* (Gen 40:15); from the Cp, *hullɛḏɛṯ* x3 (Gen 40:20, Ezek 16:14, 15), *hoṗde* (Lev 19:20), *h(ŏ)šamm-ɔ* x4 (Lev 26:34, 35, 43; 2Chr 36:21), *huggeḏ* x2 (Josh 9:24, Ruth 2:11), *hoḫŏreḇ* 2Kgs 3:23, *homleăh*, *hoḫtel* (both Ezek 16:4), *hūsaḏ* x2 (Ezra 3:11, 2Chr 3:3); and from the tDp *hukkabbes* x2 (Lev 12:55, 56).
[202] In Arabic, for example, relative to the sentence *ʔakala l-rajulu l-laḥma* "the man ate the meat", the INF *ʔakl* can be used either actively (*ʔaklu l-rajuli* "the man's eating") or passively (*ʔaklu l-laḥmi* "the meat's being eaten"); cf. "the enemies' destruction of the city" and "the city's destruction by the enemies". Haspelmath (1990, 27–28) explains that the variation is made possible by the existence of different possessive structures combining either the agent or patient with the associated verbal noun.

preformative in the C, or the *hvt-* prefix and gemination in the tD). Various vowels occur between R_2 and R_3, which parallel those of normal INFs. For example, in the sole example of a Dp INF, *gunnōḇ* (Gen 40:15) "being stolen", the *ō* matches that of the D INF (absolute) *qattōl*. The most common IP stem for INF forms is the Cp, though even these number fewer than fifteen, spread over seven roots. Two basic patterns are attested: *hoqtel*, the second vowel of which is the same as that of the C INF absolute *haqtel*; and *hoqtal*, whose *a* is not the *ī* of the C INF construct *haqtīl*, but resembles rather the vowel of finite Cp forms *huqtal ~ yu-qtal*.[203] In terms of the syntactic functions of these IP INFs, they match the expected distribution of INF absolute versus construct from elsewhere in the language (i.e., the former is used in 'tautological infinitives', the latter with possessive suffixes, etc).

One might wonder whether the presence of such IP INFs might indicate that, synchronically speaking, Biblical Hebrew speakers saw IPs as more derivationally separate from their active counterparts than did Classical Arabic speakers, for example. However, this is not the only possible reason. Instead (or in addition), the creation of occasional IP INFs may simply the central position and extensive use of INFs in Biblical Hebrew. Part of this relates to how INFs can take on TAM functions in Canaanite (e.g., use of the INF absolute as an imperative), such that they are closer to finite status than elsewhere in Semitic.[204] This may have motivated, or at least facilitated, the development of distinct IP INF forms, since active-passive syncretism in

[203] Examples of the Cp INF use as an INF absolute *hoqtel* are *hop̄de* (Lev 19:20) "being ransomed", *homleăḥ* (Ez 16:4) "being salted", *hoḥtel* (Ezek 16:4), "being swaddled", *hoḥŏreḇ* (2Kgs 3:23) "having fought/been destroyed"; those used as INF constructs are *hullédɛ̱t* (Gen 40:20, Ez 16:4, 5 with **huqtalt* resyllabified as *huqtélɛt* in the Massoretic tradition) "being born", *hoššammɔ* (with slight variants, Lev 26:34, 35, 43; 2Chr 36:21) "its being laid waste", *huggaḏ* (Jos 9:24, Ru 2:11) "being told", and *hūsad* (2Chr 3:3) "foundations (i.e., having been founded)". Further, The tDp INF *hukkabbes* (Lev 13:55, 56) "being washed" is twice attested. The assimilation **tk* > *kk* is unusual, but overall, similarity to the tD INF construct *hiṯqattel* in all regards save for the characteristic IP prefix vowel *u* is striking.

[204] For such notions implicit in the INF absolute when used to augment a finite form (including irrealis or volitional modality, perfective aspect, or recent past tense), see Jouön and Muraoka, 1991, §123. The same does not apply to the Arabic equivalent of this construction, which instead only serves to define manner more generally (Wright, 1898, §26). Cf. the advanced use of INFs to head VPs in Phoenician (Krahmalkov, 2001, 205, 207, 211).

finite VPs is impermissible—admittedly, this argument makes more sense for absolute uses than for construct ones, since it is in the former that the INFs can mark TAM features.

Ultimately, little more can be said about dedicated INF forms for IPs, save that they are certainly an independent Hebrew development—since they cannot be identified in any other language—and even there, a very marginal one. Indeed, in view of their rarity, one cannot rule out the possibility that these forms are artificial literary creations rather than a genuine part of the language ever used by native speakers. Most Biblical Hebrew IP INFs do not differ in their consonantal orthography from their active counterparts, and so may well have been created through later vocalisations of original normal INFs.

Apart from IPs, Hebrew possesses just two productive detransitive stems: the N and the tD. Among the main functions of the N is expressing the passive of the G—on its relationship to other stems, see below—but it can also be used in *medio*passive situations (with no semantically implicit agent). It has traditionally been thought that the diachronically original function of the N was reflexive, and that the mediopassive and thence prototypical passive uses developed from this. Crucially, the Hebrew N *never expresses prototypical reflexivity*. Instead,

> most of the allegedly reflexive N-forms referred to in various traditional grammars can be analysed as agentless middles according to a more sophisticated framework, since in the overwhelming majority the subject has only one semantic role instead of fulfilling the roles of both agent and patient, as would be necessary for reflexivity in the strict sense.[205]

Similarly, reciprocal N verbs tend to be naturally reciprocal actions, which possess low event elaboration and distinction between participants, in which respect they are similar to the category of semantic middle.[206] Subsuming all non-(medio)passive uses of the Hebrew N including natural reflexivity under the rubric "semantic middle" also allows one to neatly account for the

[205] Gzella (2009, 305–306) recognises one possible example, *yeḥonaq* (2Sam 17:23) "he hanged himself", where the notion of intentionality precludes the agentless meaning "he died by hanging".
[206] The fact that Muraoka's (Jouön and Muraoka, 1991, §51c) English glosses for reciprocal N forms—*nōʿaṣ* "to exchange counsel", *nōʿaḏ* "to meet", *nilḥam* "to fight", and *niḏbar* "to converse"—do not require reciprocal pronouns is illustrative of the fact that they are naturally rather than prototypically reciprocal.

roughly twenty to twenty-five percent of N verbs with a corresponding intransitive G, to which they add clear notions of SUBJ affectedness but are not syntactically detransitive.[207]

With regard to the historical developments in the uses of the Hebrew N, Hebrew data alone do not allow one to determine whether middle use is an original function inherited from an earlier stage of the language, or instead, as Gzella opines, "the N-stem was the one most suitable for taking over task previously performed by other medio-passive stems [i.e., the tG], partly assimilating them to its own semantic range, and might even have triggered or at least facilitated their loss".[208] However, based on the comparative evidence from the earlier Canaanite dialect of Amarna, in which semantic middle is the main use of the N and even *naturally* reflexive use is not permissible, it is hard to argue against a functional expansion from semantic-middle to natural-reflexive use of the N in Biblical Hebrew.[209] It is important to note that historically, scholars making presumptions without such a consideration of the comparative evidence have greatly hindered the understanding of the Hebrew N, and, by extension, of the development of IPs here and elsewhere in Semitic.

The tD is the sole Biblical Hebrew *t* stem, since the tG and Ct have been lost in all but scattered remnants. The main function of the tD is second-argument reduction relative to the D; that is, it expresses the reflexive (including, though only rarely, reciprocity), both direct and indirect. This reflexive function can combine with the factitive value of the D to result in the

[207]This estimated proportion, made by Jenni (1973, 63–64), relies on his assumption that the verbs like *niḥam* (N of √*nḥm*) "to take comfort" and *nizhar* (N of √*zhr*) "to take caution" have lost their corresponding G forms, since none is attested for either root in the Hebrew Bible. One cannot entirely rule out the possibility of a detransitive stem secondarily becoming associated with an unmarked counterpart other than that to which it was originally related—the Hebrew tD, discussed below, clearly does so. Thus, Jouön and Muraoka (1991, §51c) state that the N may be formed from the D and C as well as the G—e.g., in the above cases, from the D *niḥam* "to comfort" and C *hizhīr* "to caution", respectively. Such reorganisations of relationships between stems, though, are not unmotivated; derivation of the tD from the C in Hebrew can be understood as a reaction to the loss of the Ct (Gzella, 2009, 315–16). There is no clear analogous reason the N would have developed links to unmarked stems other than the G.

[208] Gzella, 2009, 307.

[209] This is precisely the same development as convincingly demonstrated by Kouwenberg (2010, §§10.8.3, 12.2.2) to have occurred in Akkadian; cf. the discussion of the Ugaritic N below (in §3.8.2).

notion of feigning or requesting a state or action—cf. comparable uses in Classical Arabic discussed above (in §3.3).[210]

Likewise, in a few tD forms that encode iterative aspect, this does not arise from the *t* morpheme, but rather the verbal-plurality–marking function of the D. The derivation of the tD from the D does not have any syntactic detransitive component, and instead, the nine roots to which Speiser attributes iterative tD verbs—√*ʔbl* "to mourn", √*ʔwy* "to desire", √*ʔnp* "to be angry", √*gʕš* "to shake", √*hlk* "to go", √*nḥl* "to inherit", √*ʕll* "to act", √*šʔy* and √*šʕy* both "to gaze"—exhibit a tendency, far too strong to be coincidental, to belong to semantic classes in which middle verbs are cross-linguistically common.[211] Similarly, denominal tD use results from the presence of the D morpheme—the D is the stem most commonly used to form denominal verbs in Hebrew, as in the rest of Semitic—and is unrelated to the *t* morpheme.[212] In such instances the function of the *t* morpheme is not immediately apparent, but in any case it is not syntactically detransitive; one cannot rule out the possibility that lexicalisation has eroded its functionality altogether.[213]

The Biblical Hebrew tD very occasionally reduces first arguments, though there are some important distributional anomalies among the rare instances of this. On the basis of examples from Micah, Proverbs, and Qoheleth, and the occurrence of the same in Mishnaic Hebrew, Rendsburg has asserted that (medio)passive use of the tD is characteristics of a Northern dialect

[210] On the functions of the tD, see Gesenius, Kautzsch, and Cowley, 1910, §54e–g; Jouön and Muraoka, 1991, §53i; Waltke and O'Connor, 1990, §26.4.
[211] I therefore disagree with Speiser's (1955) suggestion that they are cognate to the Akkadian *tan*-prefixed stems. Since the roots in question do not occur in the D it is effectively impossible to (dis)prove my proposed analysis with certainty. However, the natural overlap between iterativity and verbal plurality (and the lack of any clear cross-linguistic connection between verbal plurality and syntactic detransitives or SUBJ affectedness), provides extremely convincing circumstantial support. For a discussion of iterative tD forms, see Waltke and O'Connor, 1990, §26.1.2
[212] Kouwenberg's (2010, 278) statement that the "D-stem is not the only verbal stem to accommodate denominal verbs…but it is by far the most common one and may be regarded as the standard form for this purpose" refers specifically to Akkadian, but in my personal experience is broadly applicable to the whole Semitic phylum.
[213] For denominal Hebrew tD forms, see Gesenius, Kautzsch, and Cowley, 1910; §54e–g; Jouön and Muraoka, 1991, §53i; and Waltke and O'Connor, 1990, §26.4.

of Hebrew.[214] I am not convinced that this is a reliable diagnostic feature with regard to the dialectology of Hebrew, and in the case of Mishnaic at least might reflect Aramaic influence rather a feature native to Canaanite. It is clear, though, that examples occur predominantly from later texts, and in some cases—e.g. *yištakkəḥū* (Qoh 8:10) "they are forgotten", *lə-hiṯrappe* (2Chr 22:6) "to be healed"—are not passives of the D, but rather the G. Only a handful of other cases are attested: *hiṯqaddɛš* (Isa 30:29) "is celebrated", *yištammer* (Mic 6:16) "are observed", *hiṯḥallɔl* (Prov 31:30) "is praised", and *hiṯyaḥśū* (x2 1Chr 5:17, 9:1) "were registered". [215]

One way to explain the above-described situation is as a result of the expansion of the functions of the tD within the broader context of the rearrangement of detransitive stems. Specifically, with the loss of the Ct as a productive stem the tD expanded to take over its functions: e.g., from the root √ʕly, tD **hiṯʕallɔ* "exalt oneself" expresses the reflexive of C *hɛʕlɔ* "to raise up". Moreover, the functions of the N and tD became blurred over time, so in later stages of Hebrew, the latter sometimes (albeit only rarely) expressed the passive to the G, originally associated with the former.[216]

Any discussion of the Biblical Hebrew tD, particularly in relation to a putative passive function, needs to address the four examples of a tDp stem: *huṭṭammɔʔɔ* (Deut 24:4) "is defiled" and *huddašnɔ* (Isa 34:6) "is fattened" from the SC, and the INF *hukkabbes* (x2; Lev 12:55, 56)

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[214] Rendsburg, 2003, 18–19.

[215] On passive tD forms, see Gesenius, Kautzsch, and Cowley, 1910; §54e–g; Jouön and Muraoka, 1991, §53h–i; Waltke and O'Connor, 1990, §26.3. Some cases are ambiguous: e.g., Rendsburg (2006, 169) identifies *yiṯḥaššaḇ* (Num 23:9) as a passive "is reckoned", drawing specific attention to the Aramaic nature of such a usage; the interpretation as a reflexive, "reckons itself", also makes sense, and is followed by some reputable translations (e.g., the NRSV). Waltke and O'Connor (1990, §26.3) believe the passive tD can simultaneously encode causative and reflexive notions—so that *hitḥallɔl* can be read "she makes herself such as to be praised". There is neither contextual nor comparative evidence supporting this, nor indeed a compelling argument for how the morphology could result in such a complex derivational meaning.

[216] Gzella, 2009, 315, 318. Though passive tD forms in Biblical Hebrew are admittedly very infrequent, I would not go as far as Baden (2010, 33–34) to find them "statistically insignificant", particularly in view of the broader picture in Canaanite (e.g., passive is a common use of the tD in Mishnaic Hebrew) and further afield in Semitic.

"being washed".[217] As far the meagre evidence allow one to tell, these are reflexes of an underlying **hutqattal* in the SC and **hutqattil* in the INF. However, the consonantal orthography of these extremely rare forms is identical to that of counterparts from more common stems (namely the tD and N), and two of the four are IP INFs, a highly exceptional, even dubious category in its own right.[218] It is therefore possible that the tDp is not be a genuine part of the language, but rather a literaryism, arising from the revocalisation of original tD or N forms.[219] The fact that all the tDp forms are from early texts, and specifically poetic or technical priestly ones, may well be significant, but there is simply not enough evidence to assess the ramifications of this distribution.[220] In any case, whatever one might speculate about the status of the Biblical Hebrew tDp, it undeniably should not be considered a core, productive part of the stem system, but rather a marginal, if interesting, aberration.

As throughout Semitic, the functionality of Biblical Hebrew IPs is far simpler than that of the other detransitive stems; the Dp and Cp express only prototypical passives of the D and C, respectively. Similarly, to the extent that it is attested, the Gp does so relative to the G. However, for the sake of completeness, brief mention must be made of Bicknell's proposal that the Dp and Cp may express the reflexive, even though this is patently incorrect and based on deeply flawed argumentation.[221] It is highly illustrative that in her entire dissertation, Bicknell proposes just one

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[217] On these tDp forms, see Gesenius, Kautzsch, and Cowley, 1910, §54e–g; Jouön and Muraoka, 1991, §53h; Waltke and O'Connor, 1990, §26.3b. Jouön and Muraoka understand *huṭṭammɔʔɔ* "she has been defiled" not as a passive, but rather some sort of impersonal causative-reflexive, namely, "one made her defile herself".

[218] The SC forms differ expected tD SC forms only in vocalisation; the INFs exhibit assimilation of the prefix, which is unexpected with the *t* of the tD before *k*, but does occur with the *n* of the N, making the consonantal orthography {*hkbs*} identical to that of an N INF from √*kbs*.

[219] Jouön and Muraoka's (1991, §53h) calling these forms "*secondarily* passivised" (my italics) implies just this.

[220] This distribution is observed by Waltke and O'Connor (1990, §26.3).

[221] Bicknell's (1984) thesis is that the N and tD—with more focus on the former—express both passive and reflexive (of the G and D, respectively), and that there can never have been a historical distinction between these functions. She concludes that Hebrew detransitive stems are all encoded primarily for resultative aspect, regardless of the syntactic argument-structure situation. Not only does this thinking fail to distinguish between resultative aspect and the semantic characteristic of SUBJ affectedness, or to recognise the restriction of the N to *naturally* reflexive actions or the extreme rarity of passive tD forms, it also completely ignores any possibility of diachronic

example of a supposedly reflexive IP, namely the Dp PC *yə-kubbaḏ* in *wə-šōmer tōḵaḥaṯ yəkubbaḏ* (Pr 13:18), for which she proposes the translation "an observer of rebuke makes himself honoured", rather than "is honoured". Such an interpretation finds no support in translations, ancient or modern, or in the exegetical literature.[222]

Despite its considerable flaws, Bicknell's work is not without use in mapping the functionality of Hebrew detransitive stems. Notably, her analysis of the N convincingly challenges the traditional position that it originally expressed the reflexive, from which passive use secondarily developed.[223] More important, though, is the treatment of instances where the patients of N, Gp, and Cp verbs are marked with *ʔeṯ* (or clitic variant *ʔɛṯ-*)—this particle serves as an ACC marker occurring with OBJs, particularly definite ones, in transitive VPs—and sometimes also lack number and/or gender agreement with the verb.[224] An example exhibiting both traits is Gen 27:42:

way=y-uggad-0	*lə=riḇqɔ*	*ʔɛṯ=diḇr-e*	*ʕeśɔw*
CONJ=3M-PASS\tell.PFV-SG	PREP=Rebecca	PTCL=word-MPL	Esau

"but the words of Esau were told to Rebecca".

The traditional analysis of such cases is that they are desubjectives formed from basic transitive counterparts simply by removal of the semantic agency of the SUBJ and ablaut of the verb to create an IP (in terms of the morphology).[225] In this case, the vital characteristic in the standard use of IPs missing here would be the syntactic promotion of the patient—in this case, "the words of Esau", which is strictly speaking a theme rather than a patient—into the SUBJ slot.

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development. Perhaps most importantly of all, it builds on these already suspect foundations to assume that any situation true for one detransitive stem must also hold for the others.

[222] One might further object that Bicknell's (1984, 107) proposed interpretation is not, strictly speaking, simply reflexive to the meaning of the D "to honour", but rather a reflexive-causative to it.

[223] Bicknell (1984, 97–100) finds that almost half of the N forms are passives with corresponding agentive active forms, while reflexive uses are far rarer than one would expect for a diachronic source use.

[224] Bicknell, 1984, 30–31, and esp. 73–85. Her (94) claim that no such cases exist in the Dp holds only for her data set (Gen–2Kgs); cf. *yəḇuqqaš ʔɛṯ-ʕăwōn yiśrəʔel* (Jer 50:20) "the iniquity of Israel shall be sought".

[225] Jouön and Muraoka, 1991, §128.

Alternative suggestions include the idea that this situation is a trace of, or incipient shift towards, ergative alignment in Semitic, whereby *ʔeṯ*-marked arguments, as subjects of syntactically intransitive verbs, share the same marking as patients of transitive ones.[226] Far more plausible are Khan's proposal the particle *ʔeṯ* marks individuation or salience, hence its prevalence with definite NPs, or Kroeze's that among its functions may be the semantic marking of [-control].[227]

Ultimately Bicknell does not reach a definitive conclusion regarding these constructions, but she does rule out the desubjective interpretation. Her grounds for doing so are that non-agreement of *ʔeṯ*-marked patients with the verb cannot be evidence against their SUBJ status since it occurs relatively infrequently, only in the third person, and never with pronominal SUBJs, all of which is also true of non-agreement in active clauses. If these were OBJs of desubjective verbs, she argues, one would expect a higher incidence of non-agreement than occurs with the patients of IPs (and N verbs) not marked with *ʔeṯ*, which *are* indisputably SUBJs; on comparing the two kinds, Bicknell finds no such distributional distinction.[228]

On balance, the best argument against the existence of desubjectives in Hebrew is the scarcity of cases one could potentially identify as such. In the entire corpus of Gen–2Kgs there are just twenty-three IP or N verbs with *ʔeṯ* -marked patients, the majority of which occur in fixed, formulaic expressions.[229] In addition to their rarity in Hebrew specifically, comparative evidence argues strongly against the desubjective analysis since desubjective use of IPs occurs

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[226] Proponents of the ergative hypothesis—for references see Bicknell, 1989, 74, 87—include Hoftijzer and Anderson, the latter attributing it to Hurrian(!) influence.
[227] Hasselbach (2013, §4.6) summarises these and other theories behind the use of *ʔet* with the patients of passive verbs, and elsewhere (§2.3.3) provides a comprehensive rebuttal against theories of ergative alignment in Semitic.
[228] Bicknell, 1989, 90–91. A certain amount of non-agreement is hardly troubling from a cross-linguistic viewpoint. Indeed, as Keenan (1985, 255) points out, there exists a universal tendency for promoted SUBJs of passive clauses not to agree with their verbs, even if those of active verbs do. Bicknell (85–86) also cites differences between active and IP/N clauses in terms of the type of NPs marked with *ʔeṯ*—e.g., PNs, NPs modified by relative clauses, NPs modified by demonstratives, and so forth—as evidence against a desubjective analysis. However, the assumption that OBJs of desubjective clauses should behave similarly to those of normal transitive clauses fails to realise how different clause types can affect marking properties.
[229] Bicknell, 1989, 81ff.

nowhere else in Semitic except Soqoṭri (discussed below, in §§6.4–5), where it is demonstrably a neologism specific to that language motivated by factors absent from Hebrew.

Apart from IPs with *ʔeṯ*-marked patients, Bicknell also discusses passives formed from intransitive verbs, in which there is no OBJ to be promoted into the SUBJ slot. She claims these are grammatical in Hebrew, citing as her example par excellence Isa 16:10:

ū-b̲a-k-kərɔm-īm	*lō*	*yə-runnɔn-0*	*lō*	*yə-rōʕɔʕ-0*
CONJ-PREP-DEF-vineyard-MPL	NEG	3M-PASS\sing.IPFV-SG	NEG	3M-PASS\shout.IPFV-SG

"in the vineyards, no being sung occurs; no being shouted occurs" (lit. "[it] is not sung, [it] is not shouted").[230]

The corresponding D *rinnen* "to sing" is intransitive; no active L ***rōʕeʕ* "to shout" corresponding to *yə-rōʕɔʕ* is attested. Considering the weight of parallelism, though, coupled with the fact *yə-rōʕɔʕ* has no clear semantic patient, it is quite plausibly also an impersonal passive Lp.[231] Such cases though, are not common in Biblical Hebrew; Gesenius, who is usually fairly comprehensive in his coverage of rare syntagms, mentions just two other cases, both Dp SCs: *ʕɛḡlaṯ bɔqɔr ʔăšɛr lō ʕubbaḏ bāh* (Deut 21:3) "a calf by which no [labour] had been laboured" and *ʔaḥărayiḵ lā zunnɔ* (Ez 16:34) "you were not solicited" (lit. "being solicited was not done after you").[232]

In two cases, transitive active verbs form IPs whose patients occur in OBL PPs (specifically, using the preposition *l-*): *yəbullaʕ* (Dp PC) *la-m-mɛlɛḵ ū-l-k̲ol hɔ-ʕɔm* (2Sam 17:16) "lest the

[230] Bicknell, 1989, 12.
[231] Pardee (2018, p.c.) ventures that this and following cases discussed may be impersonal active verbs (i.e., "no one shouts", or more literally "one does not shout"). Such uses of the 3MSG verb for a generalised-SUBJ construction certainly occur in Hebrew (for a discussion of which, see Jouön and Muraoka, 1991, §155). However, the cost of such an analysis is that it presumes unique use of IP morphology in a non-passive syntactic arrangement. This would be far more exceptional (and therefore objectionable) than the notion of impersonal passive. Were the verb to be in the 3MPL, or otherwise accompanied by a cognate ACT PTCP representing the generalised SUBJ, I would be far more amenable to analysing it as active.
[232] Gesenius, Kautzsch, and Cowley, 1910, §121a. Neither of the roots √*ʕbd* or √*zny* form the D in Biblical Hebrew, though since the G verbs from these roots are intransitive, and the corresponding C forms causative, it is entirely possible that the D would be intransitive, and marked for verbal plurality relative to the G.

king and all the people be swallowed up" and *lō hūnaḥ* (Cp SC) *lənū* (Lam 5:5) "we are not given rest". The latter case also exhibits disagreement since its patient is 1PL and the verb conjugated for 3MSG.[233] It is tempting to see these as antipassive uses (cf. the Arabic tD discussed above in §3.3, and Ugaritic Gt below in §3.8.2), though such a use of IPs is elsewhere found only in MSA—and even there not very frequently—a language family in which IP development differs significantly from that of CS (for which, see Chapter 6). Further, it is not entirely clear that C *henīăḥ* (the active verb corresponding to Cp *hūnaḥ*) is necessarily transitive since in at least one instance (Jos 22:4) it occurs with its patient in an OBL PP using the preposition *l-*. Therefore, rather than being an antipassive, Lam 5:5 may simply be a passive of a *syntactically* intransitive verb comparable to Arabic *ġuḍiba ʕalayhā*.[234]

In summary, in the question of whether Biblical Hebrew IPs can be used in syntagms related to the paradigmatic passive but lacking some of its characteristics, the possibility of desubjective IPs can be confidently discounted. The formation of IPs from syntactically intransitive clauses, by contrast, appears to be possible, if exceptional. Moreover, since in all instances the verb is specified for an argument in an OBL PP one may surmise that, as in Arabic impersonal passives, this is a prerequisite of IP formation from syntactically intransitive verbs. In one example (Isa 16:10), this element, *b̲a-k-kərɔmīm* "in the vineyards", is linked to the semantic role location. Even if it may seem counterintuitive that the clause would be ungrammatical if this information, relatively peripheral to the main predication, were omitted, such is precisely the case in analogous Arabic clauses.

[233] There also exists one case of this phenomenon using the N: *nirpɔ* (N) *lənū* (Is 53:5) "we are healed".
[234] Gesenius, Kautzsch, and Cowley, 1910, §121a; Jouön and Muraoka, 1991, §128.

Another important dimension of the Biblical Hebrew IP functionality, to which Kroeze has devoted a paper, relates to the Cp.[235] At issue is the question of which OBJ is promoted into the SUBJ slot when the Cp is formed from a ditransitive active counterpart, whether the OBJ of the original verbal predication (the lower patient), or that of the causation itself (the causee). From an active clause "Peter made Paul kick Mary"—in which Peter is the SUBJ and causer, while Paul and Mary are both OBJs, and the causee and the lower patient, respectively—passivisation could result in either "Paul was caused (by Peter) to kick Mary" or "Mary was caused (by Peter) to be kicked (by Paul)". Both types occur with the Cp of √*rʔy*, which forms active verbs G "to see" ~ C "to show (i.e. cause to see)": *ʔăšɛr horʔe-t̲ɔ* (Exod 26:30) "which$_{OBJ}$ you$_{SUBJ}$ were caused to see" versus *wə-horʔɔ ʔɛt̲-hak-kōhen* (Lev 13:49) "it$_{SUBJ}$ will be caused to be seen by the priest$_{OBJ}$".[236] In the latter, the non-promoted OBJ causee (here, "the priest") is frequently omitted, while in the former, the non-promoted OBJ lower patient (here, the relative pronoun "which") cannot be.[237]

There exists another way the Cp can passivise ditransitive active verbs. Kroeze calls this the "double passive" Cp, where

> both the causative and verbal parts of the hifʿil become passive, the object of the causative part [causee] in the hifʿil is often omitted (or expressed by a preposition phrase), and the object of the verbal part [lower patient] in the hifʿil becomes the subject of the double passive.[238]

Ultimately, I disagree slightly with his formulation regarding the notion of causation, specifically regarding the element (if any) functioning as causee. It is only worthwhile identifying "double passive" Cp use as a distinct syntagm in instances where the *causee is obligatorily deleted from*

[235] Kroeze, 2002.
[236] There does not appear to be a restriction, based on animacy or semantic-role hierarchies, on the selection of which OBJ of a ditransitive active verb is promoted when it is passivised, as there is in Arabic (Wright, 1898, §25).
[237] Kroeze, 2002, 50, 52. The reason for omission of the causee may have to do with universal pragmatic factors relating to causativity rather than something specific to Hebrew or its passivisation process: "In causative constructions the higher agent (the causer) and the patient of the caused action are often the most important elements, while the lower agent (the causee) is either omitted entirely or expressed in the dative or instrumental case" (Haspelmath, 1990, 47).
[238] Kroeze, 2002, 52.

the semantic specification as well as the surface representation. Otherwise, there is no way (or reason) to separate such case from clauses that simply promote the lower patient to SUBJ and the causee, though optionally removed from the surface structure, *remains semantically implicit*.

Where no logical causee can be identified (as implicit in the meaning of a clause), it follows that a notion of causativity cannot be present. Consequently, Kroeze's "double passive" Cp verbs do not express the passive to the C, but rather to the G. Thus, *hoḇqəʕɔ hɔ-ʕīr* (Jer 39:2) ought to be translated simply "the city was breached" rather than "the city was caused to be breached".[239] To assert otherwise—e.g., to interpret Nebuchadnezzer's army, mentioned in the previous verse, as an implicit causee, in which case, the agent of causation would presumably have to be God—would be to infer the use of the morphology here from how it functions elsewhere. Given that textual evidence suggests precisely the opposite, to do so would be unacceptably circular.

Though formal syncretism between the Gp and Cp in the PC may have facilitated the development of the Cp functioning as passive to the G, it is unlikely to be its sole origin, since the stems are distinct in the SC. It may simply be the case that the Cp is a functionally volatile category, possibly because of the relative rarity that one needs to express the category passive-of-causative. Support for this position comes from another instance where the derivational relationship between the Hebrew Cp and C is compromised: the root √*ḥyl*, whose G means "to tremble, be in childbirth". Here Kroeze identifies a chiasma between the L, Lp, C, and Cp, whereby

> the hofʿal [Cp] seems to be the passive of the polel [L] (bring forth in labour pains/bring to birth – be brought forth by labour pains/be brought to birth), while the polal [Lp] seems to be the passive of the hifʿil [C] (be brought to trembling).[240]

[239] For similar cases of "double passive" Cp verbs functioning as passive to the G, see Gen 40:20 and Isa 16:5. The analysis that the Cp can occasionally function as the passive to the G is supported by *hopāde lō nipādɔṯɔ* (Lev 19:20) "she has not been ransomed", where the Cp INF is used to emphasise a corresponding finite (SC) N form.
[240] Kroeze, 2002, 52n28.

Apart from normal passives and the just discussed "double passives", Kroeze believes that in some instances the Cp reduces the second argument of the C rather than its first argument. He argues that the semantic role (patient) linked to the erstwhile OBJ is taken over by the SUBJ which remains linked to the first argument (agent also), so such Cp forms are reflexive rather than its passive, a development he believes has arisen because of the absence of the Ct to perform this function.[241] However, this analysis is faulty. Of the thirteen Cp forms from the five roots (√*ṭwl*, √*mkk*, √*ʕbd*, √*rʕl*, and √*škb*) he mentions, only one—*hoškəḇɔ* (Ez 32:19) "lay yourself down"—may plausibly be interpreted as a reflexive, and even then certainly tends towards natural rather than prototypical reflexivity, hence the possible English gloss "lie down", without a reflexive pronoun. Indeed, in cases like wə-hab-bərōšīm horʕɔlū (Nah 2:4) "and the cyprus-spears are made to quiver", the inanimacy of the SUBJ "cyprus-spears" precludes a reflexive reading **"make themselves quiver".[242] Moreover, the forms from √*ʕbd* bear pronominal OBJ suffixes (3MPL *-em*) which is highly irregular behaviour for an IP. Jouön and Muraoka are therefore probably correct in seeing the forms in question not as Cp forms but as anomalously formed G verbs. [243]

Considering the extremely tight semantic grouping of the verbs in question as expressing bodily motions (specifically lowering), might be tempting to see Kroeze's putative reflexive Cp forms as middle verbs. This said, contextual readings allow, or even favour, the interpretation as passive. Considering the very limited number of cases, comparative evidence—nowhere in Semitic do IPs form middle verbs—and the fact that a third of the putative cases are not even

[241] Kroeze, 2002, 53.
[242] It seems at least possible that Kroeze (2002, 53) has based his analysis not on the contextual readings of the Hebrew data but on their German glosses (e.g., "sich ducken" and "schütteln sich"),which he cites from the lexica.
[243] Jouön and Muraoka, 1991, §63b: "These are certainly no Hofals". Kroeze (2002, 53) claims that the causee is promoted to the SUBJ slot (while remaining linked to the agent of causation), while the lower patient is retained as an OBJ; that is, he reads *noʕoḇḏ-em* (Deut 13:3) "we allow ourselves to be brought to serve"—it is unclear how he accounts for the double causation of both "allow" and "be brought"—which he equates with "we make ourselves serve them", rather than the standard (and far more plausible) reading, "we serve them".

unanimously identified as Cp forms, the function of the Hebrew Cp should be considered limited to syntactic passivity. Apparent functional diversity compared with that of the Dp is merely a result of the facts that 1) the corresponding active C is often ditransitive and therefore has multiple OBJ arguments available for promotion into the SUBJ slot, and 2) the Cp may occasionally relate to an unmarked G (rather than C) counterpart.

3.6.3 Phoenician

Phoenician provides us with considerably fewer data about IPs than does Biblical Hebrew. Further, what forms are cited as evidence regarding this part of the language are not always subject to a consensus analysis. For example Krahmalkov considers *lpp (šbl)* a Gp SC "(his robe) will be twisted up"; Lehmann instead reads *lpp (šrl)* "concerning the libation tube (of the *šarli* sacrifice)", which is not even a verbal form, let alone an IP.[244] Krahmalkov, it seems, may be overzealous in identifying IPs, since he reads verse 1027 of Plautus' Poenulus as *gunebte* "I was robbed", even though Sznycer's authoritative work on this text reads *gunebel* "majesties of Bel".[245] Elsewhere, Segert identifies *ypqd* as a Cp SC "were commissioned" while Friedrich, Röllig, and Amadasi Guzzo are less confident about this precisely because "es wären dann die bisher einzigen Belege für das Perfekt Jufal [Cp]".[246] Of course there is a risk of circularity in such a position that because examples of a given form are rare, potential cases of such must be analysed otherwise. This kind of thinking has led Harris to the minimalist claim that no definitive Gp forms have, as yet, been identified.[247]

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[244] Krahmalkov, 2001, 166; contra Lehmann, 2008, 164. Teixidor's (1987, 139) translation "à la face"—for a long time widely accepted, but convincingly disputed by Lehmann (124–25)—does not even read *lpp* but rather *lpn*.
[245] Krahmalkov, 2001, 166; contra Sznycer, 1967, 137—38, 144, who also mentions the MS variant *gunebbal*.
[246] Amadassi Guzzo, 1999, §148; contra Segert, 1976, §54.381.
[247] Harris, 1936, 42. Nor does Amadassi Guzzo (1999, §131–40) identify any possible Gp forms even though she is relatively comprehensive in her discussion of IPs (including when she ultimately prefers an alternative analysis).

The scarcity of data for Phoenician IPs and the uncertainty regarding their identification is compounded by the fact that the orthography Phoenician provides relatively little information about vocalisation of forms, particularly during the earlier stages. Most of the information about the vowels of IP forms comes from Punic, where some use of *matres lectionis* for short vowels obtains, with the proviso that by the latest stage of the language, Neo-Punic, their use is quite varied.[248] Some forms are identified as IPs on a contextual basis—e.g., *ksy* (3MSG Dp SC) "was covered", *ṭʕnʔ* and *ṭnʔ* (3FSG Dp SC) "it was erected", and *ypqd* (3MPL Cp SC) "were commissioned"—but the only statement that can confidently be ventured about their form is that it must have differed from that of their active counterparts (on account of the universal restriction against active-passive syncretism in finite forms).[249]

Nonetheless, some information may be gleaned from a few other forms. *If* Krahmalkov's reading *gunebte* (1SG Gp SC) "I was robbed" is correct—and this is far from certain—then the *u* between R_1 and R_2 is in accordance with IP SCs elsewhere in CS .[250] This receives further support in the Neo-Punic 3MSG Gp SC *qybr* "was buried", where *y* is understood to represent *ü* < **u*.[251] The orthography of the second vowel of *gunebte*, however, suggests it does not derive from a proto-form with *u-a* vocalism (as found in Hebrew *quttal*). The expected reflex of historical **á* is *o*, so **gunábtī* should yield ***gunobte*; the *e* here perhaps instead suggests a **qutil* base like that of Arabic—cf. the orthography of the 1SG suffix /*-tī*/ as {*te*}. Another

[248] Amadassi Guzzo, 1999, §§104–9.
[249] For these examples, see the less-than-committal Amadasi Guzzo, 1999, §145, 148; Harris, 1936, 42; Krahmalkov, 2001, 166, 168; and Segert, 1976, 138–43. In *ṭʕnʔ* a mater lectionis for the vowel between R1 (*ṭ*) and R2 (*n*) does occur, though in the Neo-Punic stage, *ʕ* represents a variety of short vowels, so its presence does not really help the formal analysis, save that it more likely derives from **a* or **u* than from **i*.
[250] Krahmalkov, 2001, 166. His (168) vocalisation of the 3FSG Dp SC forms *ṭnʔ* and *ṭʕnʔ* as *ṭunnaʔa* is presumably motivated by his presumption that the Phoenician/Punic Dp must resemble that of Hebrew; the ensuing heterogeneity in vocalisation between his proposed Gp *qutel* and Dp *quttal* is troubling. Pardee (2018, p.c.) queries the basis on which *gunebte* is taken to be a Gp rather than a Dp. However, the root √*gnb* is elsewhere forms the G in Punic and other NWS inscriptional languages but not the D (for references, see Hoftijzer and Jongeling, 1995, 227), is considerably more common Hebrew in the G than the D in Hebrew, and occurs in the Gp in Official Aramaic.
[251] Segert, 1976, 138.

possible IP form from Poenulus (verse 941) suggesting **a* between R_2 and R_3 is *tumam*. Sznycer is uncertain about this form, though suspects it may be a Dp "may be completed". Since the context (following the conjunction *co* "so") demands a PC, he reconstructs *(i)tumam*, with the prefix unrepresented in the orthography.[252]

The final form to be addressed is Byblian *lpp*, which Krahmalkov reads as a Gp SC "will be twisted up".[253] As mentioned, the validity of this as a data point for Phoenician IPs is likewise disputed. However, if it is such, it must have possessed a vowel between R_2 and R_3 since the orthography contains separate tokens of these consonants.[254] In Phoenician's Canaanite sister, Hebrew, a fairly consistent morphosyntactic distinction is maintained between stative **qalila/*qalula* and fientive **qalala*, such that historical **i* or **u* between R_2 and R_3 is syncopated, while **a* is retained: e.g., *tam* < **tamm* <**tamima* "be complete" versus *sɔb̲ab̲* < **sababa* "go around". On balance, given this comparative evidence from Hebrew—as part of a general Semitic tendency towards retention of **a* in contexts where **i* (and **u*) are syncopated, or at least reduced—*lpp* more likely derives from **lupap* than **lupip* (or **lupup*).

The preceding description provides essentially comprehensive coverage of the putative Phoenician/Punic IP forms cited in the literature. Evidently, even if present, they are quite rare in the language—or more precisely, in the language represented by the attested texts, since we do not know with what frequency other Phoenician speech communities/registers whose language was not preserved in the written record may have used IPs. It is therefore unsurprising that passivity can be marked through other means. Apart from verbal stems, Phoenician commonly

[252] Sznycer (1967, 122) corrects the reading *pumamˈ* to *tuman*.
[253] Krahmalkov (2001, 154) vocalises this *lupep* (presumably <**lupip*), no doubt motivated by his reading *gunebte*.
[254] Cf. the active G, with only one token of $R_{2/3}$, where syncopation of the historical vowel between them yielded in a geminate consonant cluster, ultimately simplified in word-final position (i.e., *ql* for */qal/* <**/qall/* <**/qalvhl/*). This is the result of levelling of the stative **qalila* and **qalula* patterns (or their reflex **qalla* following syncopation of **i* or **u*) throughout the G in √2=*3*, just as occurs in Arabic; Krahmalkov, 2001, 169: "Verbs IIIgem. in the Qal are all based on the form *CaC(C)*, never on the form *CaCaC*".

employs generalised-SUBJ constructions, namely active verbal forms whose SUBJs are semantically empty and appear in the surface syntactic representation either as 3MPL or 3MSG SUBJ-agreement marking on the verb, or as an impersonal pronoun *ʔš* (*"man").[255]

Among the (productive) detransitive stems—the Ct is unattested—only the N can express the passive of the G.[256] The Gt occurs only twice (both as 3FSG PC), in an Old Byblian inscription: *tḥtsp ḥṭr mšpṭh thtpk ksʔ mlkh*. Although both instances reduce the first argument in syntactic terms, it is not clear that they are prototypically passive ("the sceptre of his rule shall be shattered; the throne of his kingdom shall be overturned [by someone]") rather than mediopassive ("…shall shatter; …shall topple [of their own accord]").[257]

The tD is not attested in earlier Phoenician—which is not to say it was wholly absent from the language in absolute terms, simply that it was rare enough for no forms appear in the written record—and its relatively infrequent use in later, Punic texts, reduces only the second argument, expressing the reflexive and reciprocal, with the latter function extending to collective action.[258] In view of the uncertainty regarding the attestation of IPs in Phoenician as a general matter, it would be unduly speculative to relate the historical distribution of the tD to that of the Dp. However, in the context of the variation-and-change model, and the competition between detransitive stems, the general scarcity of the tD and a possible increase in productivity

[255] Sometimes, it is not uncontentious which construction is being used. For example, the form *ksy*, widely interpreted as a Dp "he was covered" (for references, see discussion above) Krahmalkov (2001, 157) reads as a (generalised-SUBJ) 3MPL active D with OBJ, "they covered him".
[256] For the following discussion of detransitive verbal stems, see Amadasi Guzzo, 1999, §141–42; Krahmalkov, 2001, 155–57.
[257] Cf. Amadasi Guzzo's (1999, §150) glosses: (passive) "sie soll zersplittert werden" or (mediopassive) "sie möge zersplittern" for *tḥtsp* and (passive) "sie soll umgestürtzt werden" or (mediopassive) "sie möge umfallen" for *thtpk*.
[258] Amadasi Guzzo, 1999, §149; Krahmelkov, 2001, 156. The iterative use of the tD *ytlk* "they used to go about" is a function of the verbal plurality arising from the D morpheme; the *t* morpheme instead imbues a semantic sense of SUBJ affectedness—cf. argument above (in §3.6.2) for the Biblical Hebrew cognate.

tessellates conspicuously well with the status of the Canaanite branch as favouring the N and IPs over *t* stems initially, with IPs subsequently losing ground it its later history.[259]

Overall, the picture of Phoenician IPs is sketchy at best; many of the limited data are contested. Nonetheless, there is a broad consensus that this branch of Canaanite possessed IP forms, even if there is a spectrum of opinions between the maximalist position identifying Gp, Dp, and Cp forms, and the minimalist position, that only recognises the Dp. Apart from the different stems, an interesting distribution is found in that SCs are far more common than PCs—even Sznycer's reading of the Dp PC *(i)tumam* requires him to reconstruct an absent prefix on what otherwise appears to be a SC form. However, the generic nature of the data, as primarily monumental inscriptions may account for this distribution.[260]

Nor can a great deal be said about the formal dimension, except that a proto-vowel **u* between R_1 and R_2 of the SC seems most likely. That between R_2 and R_3 is less certain, though between the options of **a* versus **i* the former is slightly more likely (and supported by comparative evidence from Hebrew). The only genuinely clear part of the picture is the *function* of Phoenician IPs: of all the possible candidates, only one instance (*lpp* "will be twisted up") permits a mediopassive reading; the remainder are actions whose semantics demand agents. It is safe to assume that in Phoenician, like throughout Semitic, IPs express the prototypical passive.

3.6.4 Post-Biblical Hebrew

The final part of Canaanite whose detransitive system is described here is Post-Biblical Hebrew, specifically the Mishnaic and Samaritan dialects.[261] The most efficient way to describe these is

[259] Cf. the descriptions above of Biblical Hebrew (in §3.6.2) and below of post-Biblical Hebrew (in §3.6.4).
[260] Hasselbach (2021, p.c.) raises this possibility with regard to the prevalence of SC forms.
[261] Since Mediaeval Liturgical and Modern Hebrew are both fundamentally derivative of Mishnaic Hebrew, they will not be described separately here.

by comparison with Biblical Hebrew, which is not to say that they are necessarily direct descendants of the earlier Biblical Hebrew, though it is uncontentious to claim all of these dialects are sisters descended from a common mother (proto-Hebrew) below the proto-Canaanite node.[262] The most important distinction between Biblical and post-Biblical Hebrew with regard to the matter at hand is the relative restriction of IPs in the latter.

Neither finite Gp or Dp forms exist in Post-Biblical Hebrew, and their respective PTCPs, to the extent that these are preserved, are primarily encoded for resultative or even (in the case of the D PASS PTCP in later Mishnaic Hebrew) perfective aspect. The Cp likewise became decreasingly common through the post-Biblical period, especially in the PC, though it still remained in use to a certain degree in Mishnaic at least (on Samaritan, see below).[263] One small exception to this general decline of IPs is the liturgical language of the *piyyutim* (hymns composed in the fifth- to tenth centuries CE), in which finite Dp and Cp forms are used extensively, though with a simple intransitive rather than passive value.[264]

In the absence of a finite Dp, the tD predictably fulfils the function of expressing the passive of the D. This may be contrasted with the Biblical Hebrew situation, where the passive is an extremely infrequent use of the tD. At the same time, the post-Biblical tD also retains its original second-argument reducing and semantic-middle functions. Viewed within the long term diachrony of Semitic detransitives, these developments in the tD may be seen as a temporary

[262] For the classification and origin of Mishnaic Hebrew, and specifically the relationship to Biblical Hebrew, see Bar Asher, 1999, 118–24; for Samaritan Hebrew, particularly in relation to Mishnaic, see Ben-Ḥayyim, 2000, §0.4.
[263] Meehan, 1991, 112.
[264] Fassberg, 2001, 249–50. Considering that this material is characterised by artistic style and the use of Biblical forms absent from contemporary Mishnaic Hebrew, I suspect that such use of IP morphology reflects the fact that ablaut-marking of the passive was unfamiliar in the spoken vernacular.

restriction in passive reacting to a variant (the Dp) that competed with one of its original functions (the passive) before disappearing and surrendering this function back to the tD.[265]

The post-Biblical N performs all detransitive functions, both syntactic and semantic middle, because neither a Gp or tG is present.[266] The functional development of the N differs in two important regards from that that of the tD. The tG was already absent, and the Gp infrequent, In Biblical Hebrew, so functional expansion of the N began earlier than that of the tD. Moreover, unlike the tD *taking back over an earlier* function, reducing second arguments was originally the functional domain of the tG, and this represents a *novel use* of the N. This explains both why this functional expansion of the N is underway in Biblical Hebrew (discussed above in §3.6.2), and why it is restricted to *natural* reflexives—there is no path for the development from mediopassive to *prototypical* reflexive, which was never historically a function of the N.[267]

Retsö argues that the absence of the Dp in Mishnaic Hebrew does not represent the decline of a previously productive stem, but rather that this is a more archaic dialect than Biblical Hebrew insofar as it never developed finite Dp forms. Further, he considers the resultative aspect of Mishnaic Hebrew Dp PTCPs a retention of their original function and the passivity of the stem in Biblical Hebrew an innovation. This contradicts the canonical position that a general decline of IPs throughout WS was already underway in Biblical Hebrew (especially in the Gp) and simply advanced further in Mishnaic Hebrew.[268]

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[265] Segal, 1927, §127. It is not relevant that the tD bears a prefixed *n-* (in place of the prosthetic *h-* of Biblical Hebrew). This is merely a formal analogical extension from the N (in the SC) and does not affect the function. Rather than using the term "nithpaʿel", frequently encountered in the literature, it is referred to here as a "tD" to aid comparison between languages; cf. the use of the label "NtD" to the neological Najdi Arabic stem that combines the morphology *and functions* of the N and tD stems. It is worth noting in passing, though, that the creation of formal isomorphism in this fashion points to the centrality of the N within the Mishnaic Hebrew verbal stem system.
[266] Segal, 1927, §§119–12.
[267] See Haspelmath's (1990, 57) work on directionality, and the discussion of the Akkadian N above (in §3.2).
[268] Retsö, 1989, 167–69, contra e.g., Segal, 1927, §131.

Data from Samaritan Hebrew, a post-Biblical Hebrew dialect separate from, though parallel to, Mishnaic Hebrew, shed new light on the picture. Here, not only is the Dp absent, so too is the Cp.[269] Even if the absence of Dp forms in Mishnaic Hebrew were an archaic feature of this dialect, it would be much harder to argue that there was an earlier stage of the Hebrew branch during which no finite IPs existed at all. Put simply, the absence of the Cp in Samaritan Hebrew compared to the full productivity of this stem in Biblical Hebrew and an intermediate level of attestation in Mishnaic Hebrew reflects a decline that can be mapped through the history of language.

The simplest and most favourable characterisation of the different dialects of Hebrew with regards to their IPs is that there was a tendency for them to become rarer, and ultimately disappear. This progressed furthest in the Samaritan dialect, having resulted in the loss of not only the Dp, but also the Cp.[270] As to the reason for the difference between the two contemporaneous dialects in this regard, Florentin proposes a phonological motivation present in Samaritan but not Mishnaic Hebrew:

> the Samaritan shift *ŭ* > *a* completely undermined the formal uniqueness of the passives, which resulted in the avoidance of the use of obscured forms such as **šallam* (instead of *šullam*, שֻׁלַּם, "was paid") and **hašlam* (instead of *hušlam* הֻשְׁלַם, "has been concluded").[271]

One final consideration in the matter of post-Biblical IPs is the curious development of an Np. This occurs as an allomorph of the N in the root type √1=*n*: e.g., *nuṭṭal* "has been removed" from √*nṭl*. According to Fernandez, it is functionally restricted to the

[269] A few (approximately forty) exceptional IP forms found in the Samaritan reading tradition of the Pentateuch, do not contradict the preceding characterisation of this language, but reflect the underlying Biblical Hebrew text rather than forms native to the Samaritan Hebrew vernacular. By and large, the strategy adopted to deal with existing IP forms from Biblical Hebrew was, unsurprisingly, either to reinterpret them as actives verbs or as N or tD forms (Ben-Ḥayyim, 2000, §2.10.2–4).

[270] Ben-Ḥayyim, 2000, §2.0.8: "no mention has been made of either *Puʿal* or *Hofʿal*, Samaritan Hebrew having progressed a step beyond MH in this respect".

[271] In fairness, this sound change would not have resulted in *complete* syncretism between the D/Dp and C/Cp as Florentin (2005, 198) suggests, since the stems of the Samaritan Hebrew D and C both have the vocalism **a-i*, not **a-a*; Holes (1998) notes the role of syncretism in the decline of IPs in Omani Arabic, and the same is observe below (in §§6.2, 6.5) in Mehri.

passive of the G, while the N, as mentioned, also expresses (natural) reflexive, as well as semantic middle.[272] Here then, despite the presence of the N morpheme, which possesses a broader functional load than do the IPs, the association with IP morphology—due to the reinterpretation of the form and its attendant revocalisation to match the *u-a* sequence of the Cp SC *huqtal*—has restricted its function to passivity in purely syntactic terms.

The preceding survey of the detransitive systems of Canaanite clarifies an important point, namely that, contrary to the claims of a number of authors, there *is* a substantial difference between the various detransitive stems in terms of the distribution of strictly syntactic versus other (semantic and aspectual) functions. That is, Bicknell is incorrect to claim that Hebrew IPs can perform other syntactic functions than passivisation, and that they, just like the N and tD, merely express resultative aspect.[273] Nor is Jenni accurate when he distinguishes between the N as marking SUBJ affectedness, and the tD as a strictly syntactic reflexive.[274] The Hebrew tD can indeed be used with no syntactic change relative to the unmarked clause, in which case, just like the N (and *t* stems in other languages), it marks the middle voice.

The functional dimension of Canaanite detransitives can be neatly explained as developing from a system—that described above (in §3.2) for Akkadian, and more relevantly, PS—where the N and tD were marked for SUBJ affectedness, which, where this also entailed syntactic detransitivity, was originally restricted to first-argument reduction in the N and second-argument restriction in the tD (and tG and Ct, to the extent these existed in the very early history of Canaanite). The primary, semantic function of these stems is not as apparent as it might otherwise be, since in a great many uses, the N and tD *do* also act at the syntactic level.

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[272] Fernandez, 1997, 95–96, 98–99. In addition to √1=*n*, there exist manuscripts in which verbs from other roots, such as √*gʔl* and √*wld*, are occasionally vocalised as Np rather than N; cf. the twice attested Biblical Hebrew *nulladū* 3MPL SC from √*wld* (x2 1Chr 3:5, 20:8) "were born".
[273] Bicknell, 1984.
[274] Jenni, 1973.

Canaanite IPs, by contrast, arose with a strictly syntactic function of expressing the prototypical passive. As they became rarer through the history of the branch, the PTCP, the most resilient and durable part of the IP paradigm, was repurposed to mark aspectual categories often associated with passivity.[275]

The development of the Canaanite detransitive system can be summarised as a simplification in which first the N and IPs come to challenge the *t* stems. Then, at a later stage, IPs are used less frequently until they disappear altogether, the tD rises to prominence alongside the N so that ultimately these are the only two remaining detransitive stems. As the variation-and-change model predicts, through the course of Canaanite, the decline of the tG, Ct, Gp, Dp, and Cp—to different extents and at different stages—provoked a functional expansion of the N and tD to take over the functions of the stems that were lost. In this context competition between stems, in dialects (e.g., Biblical Hebrew) where the Dp was present and available to express the passive of the Dp, the tD largely did not perform this function, but became restricted to marking reflexivity and semantic middle; only with the loss of the Dp did the tD expand back into its passive function.[276]

Another important part of the structural reorganisation of the Hebrew stem system, though not inherently related to detransitives, was a shift in the relationship between the G and D, such that the latter was no longer so much derivationally associated with the former, but instead, which stem occurred with a given root was increasingly determined lexically. This combined with the loss of IPs to result in the organisation of post-Biblical Hebrew detransitives in a

[275] The analysis and reconstruction below (in Chapters 4 and 5) find that the PTCPs are not just the last part of the ablaut voice marking system to disappear, they are also the first to be created, which two facts are entirely related.
[276] This accordion-like effect in the functionality of the tD—retracting with the nascence of the Dp and then expanding once again back into its original functions once the Dp fell into decline—is complex when viewed in terms of the traditional comparative historical conceptions of language change. However, a perpetual tension between the two stems, where the functional ground claimed by the Dp and tD shifted back and forth under the influence of other developments in the verbal stem system as a whole, is precisely the kind of situation predicted by the variation-and-change model adopted by this dissertation (as described above in §2.6).

quadripartite arrangement of two unmarked-detransitive pairs: G ~ N and D ~ tD. Somewhat separate from these stood the C, which inhabited an isolated, transitivity-*raising* position; the Cp served for the infrequent instances where a passive counterpart to it was needed (though like the Dp, it too was destined to drop out of use).

Compared to the detransitive system of previous stages of Canaanite, such as Biblical Hebrew and even more so Amarna Canaanite, with their larger inventories of verbal stems and significant variation in productivities thereof, this is a far simpler, more symmetrical situation. The pressure against IP formation started with the Gp, which may not even have ever achieved an established place in the paradigm. The Dp was the next IP to be lost, and gradually, the Cp succumbed to the same pressure, ceasing to be used first in the PC and then the SC through the history of post-Biblical Hebrew. The decline of forms that marked voice differences by ablaut reached its culmination in Samaritan Hebrew, from which all IPs are absent.

3.7 Ethiopic [277]

This dissertation is concerned with the historical development of IPs, and as per the methodology laid out above (in §1.5), the first step in this is the reconstruction of the detransitive system back to a stage before which they cannot have arisen, namely WS. As such, developments after this stage down to the individual languages are mainly only germane except insofar as they relate directly to IPs. No Ethiopic language possesses IPs, nor is there any indication that IPs were present in the any progenitor of Ethiopic but were then lost in this branch. The following description therefore serves as an illustration of how a detransitive system can develop that reacts to the functional asymmetry of G ~ N ~ tG/Gt versus D ~ tD/Dt and C ~ Ct that existed at the WS stage, without ever having developed IPs.

[277] The data on which the following description is based are presented in Table A.6.

In view of the preceding, the most economical way to describe the Ethiopic detransitive system is to focus on Geʿez. Though it is not a mother to the other Ethiopic languages, it is "quite close to the Proto-Ethiopic pattern", and specifically, its verbal system is highly conservative.[278] Therefore, using Geʿez as a representative of the branch will not compromise the description and analysis with regard to the matter at hand of the detransitive verbal stems.

Ethiopic is unique within WS insofar as it is the only sub-branch with absolutely no voice marking by an ablaut distinction between PASS versus ACT forms, not even in non-finite PTCPs. As a result of this, and the absence of the N (as in Aramaic), the entire Geʿez detransitive load is borne by the *t* stems, in addition to some pronominal detransitive markers and generalised-SUBJ constructions. Apart from the loss of the N, several other developments (discussed below) have occurred in Geʿez to create a distinctive verbal stem system that exhibits a high degree of symmetry.

Firstly, the relationship between the G, D, and L has become lexicalised, so that the latter two are not derivationally related to the first, but instead function as unmarked stems distributed according to root.[279] Each of these three may be prefixed by a detransitive morpheme *t(a)-*, creating the tG, tD, and tL, respectively.[280] These *t* stems all express syntactic detransitivity relative to their unmarked counterparts, reducing both first and second arguments. In the former case, they cover the mediopassive as well as prototypical passive; in the latter, they can be either direct or indirect reflexives (or reciprocals, depending on context/semantics).

[278] Hetzron, 1972, 123. Ullendorff's (1955, 224–25) view that Geʿez is identical to proto-Ethiopic is outdated; consensus opinion, follows Hetzron's (1972) bifurcation of the branch into North (comprising Geʿez, Tigre, and Tigrina) and South (all other Ethio-Semitic) sub-branches of which "the Northern verbal system is more archaic than the Southern one, and…the latter is a development of the former" (125).
[279] On the lexicalisation of the relationship between G and D in Geʿez, see Greenberg, 1991, 579.
[280] On *t* stems, see Dillmann and Bezold, 1907, §§80–83 and Lambdin, 1978, §§21.1, 22.1, 44.1–2; and on the Geʿez stem system in general, Tropper and Lehmann, 2002, §44.45.

Apart from their syntactic functions, Ethiopic *t* stems also mark the semantic property of SUBJ affectedness. Traditional Geʿez grammars have tended to see such middle *t* stems not as a historically core function, but rather a secondary development from the reflexive, though the comparative evidence presented throughout this chapter of *t* stems doing precisely the same elsewhere in Semitic argues against this—at least, if it did happen, then this had already occurred at the PS stage.[281] So-called "deponent" tG verbs (i.e., those with no corresponding G forms) occur, but belong to semantic categories cross-linguistically associated with marked-middle morphology, so it is not problematic to interpret their presence as a side-effect of lexicalisation and erosion of the derivation meaning of *t* morpheme.[282]

In some instances, the tG is related not to the G, but to the C. Thus, for example, C *ʔafqara* "to love" forms tG *tafaqra* "to be loved", and C *ʔarḫawa* "to open (transitive)" forms tG *tarəḫwa* "to open (mediopassive)" or "to be opened (passive)"; neither of these tG verbs derive from a G (indeed, the roots √*fqr* and √*rḫw* do not form a G). Within the broader context of the detransitive stem system, this reflects something of a breakdown in the derivational relationships of *t* stems with their unmarked counterparts (see comments regarding the tD and tL below). An illustrative case is the root √*ydʕ*, whose C *ʔaydəʕa* means "to inform", which, based on comparative evidence (not to mention common sense) is a causative of a no-longer attested G *"to know". The corresponding tG *tayadʕa* can function as passive to either of these; that is, it can mean "to be made known" or "to be known". There also exist denominative tG verbs, which are not derived from the G (if one is even attested), but rather from some nominal element: e.g., *taləhqa*

[281] Regarding G *ʕaqaba* "to keep" versus tG *taʕaqbat* "to be on one's guard (against), to watch out (for)", which is potentially transitive—in addition to also simply expressing the passive of the G—Dillmann and Bezold (1907, §80) claim that "reflexive conceptions may become transitive *by means of a new turn*" (my italics).
[282] For example, both √*mʕʕ* "to be angry" and √*ḥśy* "to rejoice" form a tG but no G (Leslau, 1991, s.vv.).

"to be(come) a presbyter", derived from the noun *ləhiq* "presbyter", not the G verb *ləhqa* "be(come) old".[283]

What is true of the derivational relationship G ~ tG likewise holds for D ~ tD, though there are additional considerations, some of which result from fossilisations of the non-basic nature of the D. That is, at a stage before the D became lexicalised as a basic stem in Ethiopic, it had been derived from the G, to which it added a notion of verbal plurality or valency raising.[284] As in Arabic and Hebrew, the combination of the reflexive function of the *t* morpheme and the (historical) factitivity of the D can result in a notion of feigning an action or considering oneself to be in a state. Like the tG, the tD also forms semantic middles and denominal verbs as well as performing syntactic detransitivisations. Further, just as some tG forms are detransitive not to the G, but rather the C, so too can tD forms be derived from the CD rather than the D: e.g., CD *ʔasaffawa* "to give hope" forms tD *tasaffawa* "to have hope", and no corresponding D ***saffawa* is attested.[285]

Much the same applies to the tL, namely, that it serves as a detransitive (primarily) to the L, reducing both first and second arguments. Dillmann and Bezold claim that it has "in part come directly into the place of the gradually disappearing I, 3 [L]", serving rather as a replacement for the (in their view) moribund L than as a derivation from it.[286] Such a view fails to realise the important non-syntactic function of the morphology, that apart from marking the reflexive and (medio)passive, the *t* morpheme also expresses the often subtler semantic notion of SUBJ affectedness.

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[283] For these examples, see Leslau, 1991, s.vv. √*fqr*, √*lhq*, √*rḫw*, and √*ydʕ*. Regarding the meanings of *tayadʕa*, cf. the discussion above (in §3.6.2) of Hebrew *hoḇqəʕɔ hɔ-ʕīr* "the city was (caused to be) broken" (Jer 39:2).
[284] On the tD, see Dillmann and Bezold, 1907, §81.2 and Lambdin, 1978, §22.1.
[285] Leslau, 1991, s.v. √*sfw*. One of the innovations of the Ethiopic system (discussed briefly below) is that C stems may be formed from the D and L, and not just the G. This has come about as a result of the lexicalisation of the D and L, such that they are not secondarily derived from the G, but basic stems in their own right, occupying the same derivational tier as the G within the verbal stem system as a whole.
[286] Dillmann and Bezold, 1907, §82.3.

A particularly common function of the tL is the reciprocal, which in some instances occurs independently of an L, relating instead to the G, hence Lambdin's terminology "GLt" (as distinguished from tL).[287] Such cases retain traces of the original derivational function of the L—verbal plurality, manifesting as a conative sense or as heightened OBJ affectedness, relative to the G—in combination with a detransitive function of the *t* morpheme. Collaborative or iterative notions also develop from the reciprocal use, in which case the tL may relate to an intransitive counterpart (whether L or G)—e.g., G *wadaqa* "to fall" forms tL *tawādaqa* "to fall away from one another" or "to fall apart (in successive stages)".[288] If the unmarked G or L is transitive, such collaborative or iterative tL uses need not entail a syntactic reduction in the argument structure: e.g., G *kafala* "to divide" (transitive) versus tL *takālafa* (optionally transitive) "they traded (it) together" or "they sold (it) to one another", rather than intransitive reciprocal **"they divided each other".[289]

Ethiopic *t* stems, then, cover all syntactically detransitive functions, and there are also not a few verbs, especially in the tG and tD, where the *t* morpheme does not affect the argument structure, but whose semantics conform closely to categories cross-linguistically associated with middle verbs. As in Arabic, and doubtless for the same reasons, there exists a degree of specialisation in the tL, which tends towards reciprocal use and some secondary developments thereof. Finally, the sharp alignment between unmarked and marked counterparts has broken down to some extent, so that both the tD and tL may be formed from the G.[290]

[287] Lambdin, 1978, §24.1.
[288] Lambdin's (1978, §24.1) analysis of these secondary uses as simply falling under a broad rubric of verbal pluralisation (from the L morpheme) is inaccurate; they are natural developments from the low event elaboration of reciprocal acts (Kemmer, 1993, §4.1.5).
[289] Dillmann and Bezold, 1907, §82.3.
[290] At latter stages of Ethiopic, the confusion of *a* and *ā* in guttural environments further blurred the boundaries between the tD and tL (Dillmann and Bezold, 1907, §82.3; Lambdin, 1978, 13–14).

The final part of the Ethiopic detransitive stem system that remains to be described is the Ct stems (and the related matter of the C stems). In a development not found in CS, a Ct morpheme *(ʔ)a(:)sta* combining the markers of the C and t stem, is extended to each of the D and L to create CtD and CtL stems alongside the common Semitic Ct(G).[291] This is mirrored by a parallel extension of the plain causative marker to create CD and CL stems. The whole systematic restructuring ties in with the fact that the D and L have each achieved the status of basic stems at the same derivational level as the G, rather than being secondarily formed from it.

According to strict isomorphism, one might expect the CtD and CtL to be either causative to the tD and tL, or detransitive to the CD and CL (respectively). Although a degree of lexicalisation clouds the picture, two-thirds of CtD and CtL forms do indeed express the causative (or factitive) relative to their corresponding *t* stem, and occasionally relative to the most basic counterpart, especially where this is G.[292] Overall, the function(s) of the Ct stems, particularly within the broader context of derivational relationships between the different parts of the paradigm, confirm the rearrangement of Ethiopic verbal stems into a system with three basic, lexically-distributed stems G, D, and L, which each form the basis of three secondary tiers of derivation (*x*, C*x*, t*x*, Ct*x*, where *x* =G, D, or L): G ~ C(G) ~ tG ~ Ct(G) ; D ~ CD ~ tD ~ CtD ; and L ~ CL ~ tL ~ CtL.[293]

As outlined above, in addition to marking the reflexive and semantic middle, Ethiopic *t* stems can express the passive of their unmarked counterparts. Although this synchronic situation is

[291] An equivalent productive CtD/L also occurs in MSA (discussed in §6.1), though it cannot be said that these are necessarily reflexes of a common proto-form inherited from a proto-Ethiopic/MSA node rather than independent parallel developments or an areal feature.
[292] Tropper and Lehmann's (2002, §44.45) summarise Waltisberg's (2001) study of Ct functionality. As elsewhere in Semitic, common uses of notions of requesting and considering are analysable as combinations of causative or factitive (from the C morpheme) and reflexive (from the *t* morpheme).
[293] The CtL somewhat disturbs this symmetry in that it is not infrequently derived from the G ~ tG ~ C(G) series rather than L ~ tL ~ CL—cf. Lambdin's "Glt" verbs discussed above. Due to this potential for derivation of the CtL from an unmarked counterpart from the G series, more than half of all Ct verbs are CtL forms.

uncontroversial, the diachrony of this part of Ethiopic *t* stem functionality, particularly in relation to IPs, has been more contested. Dillmann and Bezold, for example, take it as a given that IPs were a feature of proto-WS, inherited by most of the descendent languages, but subsequently lost in Ethiopic, and that passive use of *t* stems is a secondary development from their original reflexive use:

> [J]ust as in the Indo-European languages the Passive was developed out of the Reflexive, so in Ethiopic also (as in Aramaic and to some extent in Hebrew) the Reflexive came in process of time to serve the farther purpose of a Passive; and this use so completely gained the upper hand in the language, that the other Semitic Passive form, effected by means of internal Vowel-change, almost entirely disappeared. One leading cause of this phenomenon certainly lies in the fact that the short *ŭ* or *ŏ*, to which the inner Passive form specially clung, gradually disappeared from the language…And seeing that in this way the Reflexive served also as a Passive, there was all the more reason in consistency to form such a Reflexive out of all the Ground-Stems.[294]

This understanding, though, suffers from a failure to distinguish the original functions of the tG from those tD, tL, and Ct, which differ in accordance the unique situation of the tG within the detransitive system, specifically in relation to the presence of a N counterpart. That is, in PS, before IPs can have ever existed, the tD and Ct expressed the passive—sometimes losing this function in different languages where Dp and Cp stems arose to take over this function. The tG did not, since the N was available for this function, and only took on passive uses in Ethiopic (and Aramaic) with the loss of the N.

The preceding is not to say that Ethiopic was immune to the pressure towards functional symmetry that motivated IP development (namely, the imbalance of having two detransitive counterparts to the G and only one to each of the D, L, and C). This language branch merely resolved the pre-existing situation in a manner different from some other CS languages: the N was lost, with the tG taking over its functions so that all detransitive marking was performed by the *t* stems (precisely as occurred in much of Aramaic, notwithstanding the early stage during which marginal IPs abortively competed for a place in the language). In a further paradigmatic

[294] Dillmann and Bezold, 1907, §80.

expansion related to the lexicalisation of the D and L into basic stems in their own right, the C and Ct morphemes came to be applied to each of the D and L.

3.8 OSA and Ugaritic [295]

The descriptions of the detransitive systems of Old South Arabian (OSA) and Ugaritic are presented here together. This is not because of any genetic or geographical relationship between them, but rather because of the commonality that, though syntactic and semantic evidence suggests both possess IPs, their consonantal orthographies preclude determining the vocalism thereof with any degree of certainty. As such, the discussion focusses rather on overall mapping the different stems attested and their functions of these, and thereby provides illustrations of (two) WS detransitive systems that have emerged that do possess IPs, while largely ignoring the question of what forms these IPs take.

3.8.1 OSA

OSA possesses no detransitive N stem, but does have a full complement of detransitive *t* stem counterparts to each of the G, D, and C.[296] These *t* stems can be used for all kinds of syntactic

[295] Because the morphology of OSA and Ugaritic IPs cannot be confidently determined based on the available evidence, only speculatively inferred from some small clues in the orthography of weak-root forms and on the basis of comparative evidence, Appendix A does not contain tables presenting the data on which these descriptions are based as it does for the other languages whose detransitive systems are described in this chapter.

[296] Höfner (1943, §71) is the only scholar to suggest the existence of an N, contra Beeston, 1962, §18; Hasselbach, 2009, §4.4; Kogan and Korotayev, 2007, §§6.2–6.3; and Stein, 2003, §4.1. The Minaic "fʕʕl" stem, in which R_2 appears twice, is beyond the scope of the current discussion. The possibility of L, tL, and Lp (and indeed, even tLp)

detransitives, reducing both first and second arguments (in the latter case including direct and indirect), as well in a semantic middle function.[297] Stein further obliquely suggests a distinction between the Gt and tD, such that the passive is less commonly a function of the latter than of the former.[298] In addition to *t* stems, IPs may be formed from all active transitive stems, including at least a few cases of Ctp and tDp forms. In keeping with IPs throughout Semitic, in OSA they are restricted to expressing the prototypical passive—for example, no mention is made in the literature of mediopassive or impersonal passive uses, nor do any of the examples cited suggest that such would be possible.[299]

Owing to the orthography of OSA, which does not represent short vowels and only rarely long vowels (and even then, mainly in word-final position), little may be said about the morphology of its IPs, although one form does provide us with some information. In the 3FSG Cp PC {*thwkb*} from √*wkb*, the presence of {*w*} suggests a vowel *a* following the causative morpheme *h*, since the sequence *iwC* is highly unlikely, while *uw* has monophthongised to *ū*, and would therefore not be represented in the script in word-medial position.[300]

Apart from the vocalisation of this form, though, the preservation of the causative morpheme {*h*} in this and other Cp PC forms is an important feature in the consideration of Semitic IPs generally.[301] Assuming that OSA {*yhqtl*} is cognate to the Arabic and Hebrew Cp PC *yu-qtal*—and in the absence of any evidence to the contrary, this is the simplest, and therefore most desirable conclusion—it follows that they are all reflexes of a common proto-form ***yu-saqtal***,

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stems cannot be ruled out, since the script does not allow their distinction from the D, tD, Dp but it may safely be assumed that they would reinforce a pattern of isomorphism of the overall system, precisely as they do in Arabic.

[297] Stein, 2003, §4.1.4–5. As in Arabic and Ethiopic, in the Ct, the combination of reflexive and causative uses frequently results in a requisitive function.

[298] Stein, 2003, §4.1.4: "Soweit erkennbar, dient T_{in} [Gt] vor allem zum ausdruck des Reflexivs bzw. Passivs zu 0_1 [G], T_{pr} [tD] hingegen als Reflexiv/Intransitiv zu 0_2 [D]".

[299] Stein, 2003, §4.1.7.

[300] Stein, 2003, 165 (ex. 355); cf. restrictions against the sequence *iwC* elsewhere in Semitic and Stein's (§4.1.6) arguments about the morphology of the corresponding active C.

[301] Cf. Ugaritic Cp PC forms with {*š*}, discussed below (in §3.8.2).

with lenition (and ultimately elision) of the causative morpheme: **s* > *h* > *ʔ* > *ø*. That is precisely what occurs to varying extents in Arabic, Aramaic, and Hebrew active C forms (especially where this morpheme occurs in medial position, in the PC and PTCP). This contradicts Retsö's claims that the *yu-qtal* IPs relating to the C are all historically Gp forms which have been extended to the function of passive-to-causative (i.e., Cp).[302]

3.8.2 Ugaritic

Ugaritic, like Classical Arabic, has a highly complex verbal stem system. In addition to all the inherited WS stems—i.e., the G, D, L, C, N, Gt, tD, tL, and Ct, the last of which is restricted to just a handful of roots—it possesses IPs to each of the G, D, L, and C when these are transitive.[303] The identification of possible Gp forms, though, requires some caution; they may often otherwise be interpreted either as active forms in generalised-SUBJ constructions or as N verbs (in the PC, at least, and particularly in prose texts). In other words, apart from comparative evidence, as Pardee prudently notes,

> The plausibility of the existence of the [Gp] form rests on two considerations: (1) the semantics of the N-stem and infixed-t forms [Gt] in Ugaritic poetry are closer to a middle voice than to the passive; (2) in certain passages, particularly where there is a potential feminine subject and a t-preformative verb…taking the verb as a G-passive appears preferable to taking it as a third person indefinite subject form.[304]

As far as the functions of the detransitive stems are concerned, there exists a stark distinction between IPs and those with consonantal affixes (i.e., the N and *t* stems): the former are strictly syntactic, and perform a single function, expressing the prototypical passive; the latter are multifarious, with a range of syntactic detransitive function as well as marking the semantic

[302] Retsö, 1989, 32–33, ch. 4, esp. 60ff.
[303] Tropper, 2000, §74.14. Pardee (2018, p.c.) notes that the L and associated stems are restricted in Ugaritic to certain weak root types (i.e.,√2=3 and √2=*w/y*).
[304] Pardee, 2003/2004, 254–55.

property of SUBJ affectedness, much as occurs throughout Semitic.[305] With regard to the schism between the tD and Dp, and likewise the Ct and Cp, the situation is relatively straightforward. Since IPs are restricted to the prototypical passive, the mediopassive and reflexive are marked by the tD and Ct (in addition to the non-syntactic features they may mark).[306]

The distribution of the functions of the Ugaritic N and Gt is an important consideration in the detransitive stem system of this language, particularly in relation to the position of the Gp within it. Scholars' findings on this matter, in fact, shed light on Semitic detransitive systems in general, and the developments they have reconstructed in Ugaritic serve as a practical example supporting the theoretical working hypothesis of this dissertation. Namely, a comparison of archaic poetic language with that of more innovative prose texts shows that the functions and distribution of the Gt and N change over time in accordance with a pattern of shifts throughout the stem system as a whole, wherein the various stems develop in relation to each other. Specifically, the N increasingly takes over passive marking as the result of a decline of the Gp.[307]

As for the Gt, as has occurred in Akkadian and Arabic, its marking of the semantic property of SUBJ affectedness has resulted in a degree of lexicalisation, such that it can be deponent (occurring in roots with no unmarked G counterpart). Apart from this, the syntactic detransitive functions of the Gt are restricted to reduction of second arguments, that is, reflexive but not (medio)passive. Another second-argument–reducing use of the Gt deletes the ACC OBJ of the

[305] None of the literature gives examples of non-prototypical passive uses (e.g., impersonal passives or mediopassive) for IP morphology. Further, Pardee (2003/2004, 284, 372, 375) mentions one specific syntactic feature of prototypical passivity—namely, the restriction against *overt* inclusion of the agent—several times.
[306] For the functions of the tD, see Tropper, 2000, §74.436. Highly illustrative of his thinking with regard to the functions of *t* stems versus IPs is his statement (§74.646) about the Ct, that "Eine passivische Funktion – nach Vorbild des akk. Št-Stamms – ist auch nicht zu erwarten, da diese im Ug. vom Šp-Stamm abgedeckt wird"—cf. his (§74.53) preference to read {ydd^{l}lln} as an Lp rather than tL on the grounds that it is passive.
[307] Pardee, 2003/2004, 266–67; cf. Kouwenberg's (2010, §14.4.2) observations about the functional expansion of the tG with the decline of the N (in Ethiopic, Aramaic, and some Arabic dialects) and the converse development in Akkadian, Hebrew, and crucially for the case in point, Ugaritic, where the functional scope of the N appears to increase over time, while the Gt becomes increasingly rare.

transitive G or demotes it into a PP "zum Ausdruck nicht-zielgerichteter Handlung", which use, in contemporary theoretical linguistics, is termed antipassive.[308] Other functions Tropper has proposed for the Gt, namely, iterative aspect and verbal plurality, are to be rejected.[309]

One possible exceptional instance of the Gt reducing a first argument is *n[k]t ytši* (1.40:24) "the burnt sacrifice is raised up" (passive) or "rises up" (mediopassive), rather than **"raises itself up" (reflexive). It is not possible that the Gt reduces the second argument of transitive G counterpart "to raise up", because reflexives necessarily have animate, volitional agents, while the subject of this verb is a dead animal. Pardee's designation of this case as a "metaphorical reflexive" perhaps implies that such a use of reflexive morphology is unusual to the point of being marked with some special stylistic or rhetorical value, though I am aware of no evidence from the text as to what this might be.[310] More relevant is the question of the functional mapping of the Ugaritic detransitive stems, though, is the inference he makes based on this form about the diachronic development of the detransitive stem system:

> If the function of this form is indeed passive, it may be an indicator that the G-passive was disappearing from Ugaritic prose. T[ropper] accepts this very conclusion based on the relative frequency of the N-stem with passive value in prose as compared with poetry…but the absence of consideration of what category of reflexivity was expressed by the Gt has resulted in that conclusion not also being applied to the Gt-stem.[311]

I am slightly sceptical about the reliability or usefulness of using this single data point as a basis for broader claims about the system as a whole. That said, given that *ytši* cannot possibly

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[308] For the functions of the Gt, see Tropper, 2000, §74.237. For an example of an antipassive Ugaritic Gt, see √*mḫṣ* "to beat" (Del Olmo Lete and Sanmartin, 2003, s.v.), whose G is transitive with an ACC OBJ and Gt is intransitive with no overt patient or one occurring in a PP with the PREP {*ʕm*}; cf. formation of the Arabic antipassive tD *takallama* {*maʕa-hu*} "he spoke (with him)" from D *kallama-hu* "he addressed him", discussed above (in §3.3).
[309] Tropper's ascription of iterative and durative aspectual functions to the Gt is excessively Akkadocentric (Pardee, 2003/2004, 263). Had he viewed the situation from a WS perspective, he would have concluded that such supposed instances are encoded by the PC conjugation rather than the verbal stem. Comparative evidence speaks against a verbal-plurality function for the Gt, and Tropper's putative examples can all be unproblematically subsumed under other, less contentious uses of this stem. Surely the burden of proof is on him to provide specific contextual evidence supporting his claim, rather than simply identifying it as such.
[310] Pardee, 2003/2004, 265. Cf. English "this book will write itself", whose meaning can only be passive and not mediopassive, let alone reflexive, since writing as an action logically requires an agent (and an animate, volitional one no less). The *metaphorical* meaning is that the writing will be so simple that it will barely require input.
[311] Pardee, 2003/2004, 265.

be a reflexive, it seems highly probable, based on cross-linguistic tendencies, that this case reflects some stage in the process whereby reflexives develop into passives via mediopassive use.[312] It is unclear whether this *ytši* is a prototypical passive, semantically specified for agency, rather than a mediopassive whereby the sacrifice is depicted as rising up spontaneously.[313] What *is* clear, though, is that *ytši* represents an instance where the Gt reduces the first argument of a transitive G, albeit an exceptional one. If a development allowing this possibility was underway in Ugaritic—and the sudden demise of the language prevents us from knowing whether this is the case, and if it was, how far it might have proceeded—it was doubtless in its incipiency.

Compared to the Gt, it is perfectly natural that the N would take on passive functions earlier and with less restriction, since it historically reduced first arguments (whereas the Gt did not); indeed, that was the only rearrangement of syntactic arguments it was capable of. Conversely, in contrast to the Gt, the Ugaritic N does not have reflexive or unergative uses (that reduce second arguments); I wholeheartedly agree with Pardee that the examples Tropper claims are reflexive are in fact mediopassive. However, I find his terminology "metaphorical reflexive" for one of Tropper's examples slightly misleading, insofar as it suggests a link to reflexivity in a more prototypical sense, which is never a function of the Ugaritic N.[314]

The case at hand is *nškḥ* in *by gšm adr nškḥ* (2.38:13–15):

by	*gšm*	*adr*	*nškḥ*
PREP	storm-GEN	great-GEN	DETR\find/-3MPL.NOM;PFV.

[312] The grammaticalisation chain reflexive > mediopassive > passive summarised by Haspelmath (1990, 44–45) is discussed above (in §2.4).
[313] Pardee (2018, p.c.) notes that after further consideration, he wonders where the action being presented as endogenous (i.e., mediopassive) could represent "the concept of the sacrifice going up in smoke", noting that conceptual parallels for this exist, albeit no lexical ones, as far as he is aware.
[314] Pardee, 2003/2004, 265–68; cf. Gzella's (2009, 305–6) refutation of allegedly reflexive Hebrew N stems, which should instead be interpreted as mediopassives or potential passives. The term "metaphorical reflexive" was far more appropriate as applied to the aforementioned Gt {*ytši*} since reflexivity *is* a core function of the Gt. Pardee (2018, p.c.) responds to this observation that this use was by way of "a non-technical term…only meaning to say that they did not really look for each other and find each other".

Very close parallels to this exist elsewhere in Semitic, such as Hebrew *nimṣɔ(ʔ)* (N) and Arabic *wujida* (Gp), both of which use morphology associated with first-argument but never second-argument reduction and can mean either "to (literally) be found" or "to exist, be located (without any finding actually taking place)", but never **"to find each other". As in these examples, I argue the specific nuance of *nškḥ* relates to irrealis modality, namely the potential passive. That is to say, the (modal) passive "could be found" or "were to be found" would be an English gloss more faithful to general functional scope of the source-language morphology than "found themselves", albeit arguable a less fluent, more stilted translation.[315]

When formed from an intransitive G, the Ugaritic N performs no syntactic rearrangement of arguments. In this relation, Pardee talks of the N expressing "strengthened intransitivity", presumably referring to a lower level of agentivity and a reduced sense of volition on the part of the SUBJ.[316] The reduction of agentivity is common to N verbs formed from both transitive and intransitive unmarked counterparts, but in the latter case cannot apply at the syntactic level and therefore only affects the semantic specification of the verb or the pragmatic characteristics of the clause. When an N is formed from an intransitive G, its semantic properties interact with aspectual notions and the action is marked as ingressive, which is common with middle verbs since the marking a verb for SUBJ affectedness naturally creates a focus on the beginning of the action or state (and how this affects the SUBJ).[317]

As the hypothesis of this dissertation predicts, diachronic developments in the functionality of the Ugaritic N relate directly to other changes in its detransitive stem system, and specifically

[315] One ought not to stress the concrete possibility of actually locating the sailors in the storm; the idea refers rather to abstract potential than to (necessary) real world possibility. As a native speaker of English, I have the instinctive impression that "were to be found" expresses this nuance better than does "could be found".
[316] Pardee, 2003/2004, 266–67; Gzella (2009, 319) gives a very succinct explanation of how the N causes detransitivisation at levels of analysis other than syntactic.
[317] Kemmer, 1993, 156–57; cf. ingressive uses of the N in Akkadian, for which, see Kouwenberg, 2010, §12.2.2.2.

to the status of the Gp.[318] Prototypical passive (rather than mediopassive) use of the N, where the semantic specification of the clause includes an agent, is far more prevalent in prose than poetry, something that both Pardee and Tropper ascribe to a decline in the Gp, which performed this function in the earlier stages of Ugaritic.[319] The other side of the same coin is that during earlier stages when the Gp and Gt were both productive, the functional scope of the N, not to mention its attestation generally, was relatively limited (compared, for example, to the Hebrew N).[320]

With regard to the vocalisation of the Gp (and other IPs), in the absence of unambiguous data in syllabic orthography or using an aleph-sign, that of the SC can only be assumed to follow either the *u-i* vocalism of Arabic or the *u-a* vocalism of Hebrew and Aramaic.[321] Tropper considers *u-i* more probable; Pardee is instead slightly in favour of *u-a*.[322] Ultimately, though, there is not sufficient evidence to rule decisively in favour of either possibility—though I certainly agree with Pardee's criticism of Tropper for reconstructing *u-i* in the Gp and Dp and *u-a* in the Cp.[323] I would urge caution that in reconstructing the vocalism of Ugaritic IP SCs, it would be imprudent to rule out the possibility of multiple variant forms occurring, as does in the Aramaic Cp SC between *huqtal* and *haqtal* (discussed above in §3.5).

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[318] Key in the distinction of the diachronic strata of the language is the recognition that Ugaritic poetic texts are couched in a language more archaic than that of the prose texts.

[319] Pardee, 2003/2004, 266; Tropper, 2000, §74.371. In this respect, a comparison may be drawn to Hebrew, where the expansion of the N at the expense of the Gp has progressed further still, to the point that the latter is virtually eliminated.

[320] Tropper, 2000, §74.371: "Die vergleichsweise seltene Bezeugung des N-Stamms im Ug. dürfte zum einen auf dessen eingeschränkte Semantik und – damit zusammenhängend – zum anderen auf die Existenz und Produktivität anderer ug. Verbalstämme zum Ausdruck reflexiver und passivischer Nuancen (vornehmlich Gp und Gt) zurückzuführen sein".

[321] Pardee, 2003/2004, 261, 333.

[322] Tropper, 2000, §74.223.1; Pardee, 2003/2004, 260–261. Nonetheless, both also provide arguments in favour of the alternative they find less likely: Tropper sees {*lak*}, with the vowel *a* in the second syllable, as a possible Gp or Dp SC, while Pardee points out that the monosyllabic stem of Gp SC {*rš*} *=/rušša/* (from √*ršš)* resembles the stative G {*ql*} *=/qalla/* (<**qalila*) of √2=3 rather than the fientive G, {*qll*} *=/qalala/*.

[323] Instances of multiple vocalic sequences running through the IP paradigm elsewhere in CS are never divided according to IP stem, but rather represents variation in a system in flux where one alternative has not stabilised as the norm (such as possible *a-a* IPs in Aramaic), or alternative formations conditioned by the phonological restrictions of weak roots (such as *qutā* forms <**qutaya* in the Arabic Gp from √3=*y*).

The morphology of the Gp PC is less contentious, not least because the comparative evidence is unanimous; both the Arabic and Hebrew cognates are *yuqtal*. What little relevant Ugaritic-internal data exists—forms from the root types √1=*ʔ* and √2=*ʔ*, e.g., *tuḫd*, *tuṣl*, and *tlakn*—weigh in favour of a basic *yuqtal* pattern, even if the use of the {*u*} sign in the first two is slightly unusual.[324] As far as the Dp, Lp, and Cp forms are concerned, there are no uncontentious data, though as with the Gp, the most straightforward reconstruction is to assume that forms follow either the Arabic or the Hebrew forms.

3.9 Conclusion

This chapter has outlined the detransitive systems of the major branches of Semitic (except MSA, which is treated on its own in Chapter 5). Where specifically relevant to IPs, detailed description of internal variation within branches (e.g., different stages of Canaanite or dialects of Arabic) has been included. The basic format in which the data have been presented, though, is the contrastive juxtaposition of a series of isolated synchronic snapshots. Nonetheless, traditional proposals regarding diachronic developments have been touched upon with the end of contextualising the relationships between these different situations.

When one views the cumulative data covered all together, they cannot be satisfactorily accounted for together using the traditional comparative historical-linguistics methodology, whether appealing to a genetic family-tree model of Semitic, an areal-wave model, or a

[324] See Tropper, 2000, §74.222. I find the use of the grapheme {*u*} to close a syllable containing the vowel *u* (instead of the standard {*i*}) unproblematic and take it to represent a secondary epenthetic vowel *ŭ* following the *ʔ*; cf. the epenthetic schwa in some Hebrew forms from √1=*ʔ*. Pardee (2018, p.c.; see also 2003/2004, 27) observes that the real unreliability of these data lies not so much the formal as the syntactic dimension; there is "nothing obviously passive about most of the forms seen in context", which he mentions in an implicit warning against circular argumentation identifying them as IPs to the end of explaining away the unexpected {*u*} grapheme. Nonetheless, for want of a more plausible alternative, and with Pardee's (2003/2004, 86) admission that he reads at least *tuṣl* (and possibly also *tubd*) as a *yuqtal* Gp PC, these data are taken as (admittedly not the most robust) evidence of such.

combination of both. Various isoglosses cut across branches of the genetic family-tree of Semitic with regard to its detransitive systems. Though features may have spread between languages from different genetic sub-branches in intense prolonged contact, this explanation does not hold for all cases and lacks plausibility when the isogloss in question does not align significantly with other features understood to be distributed according to the contact situation. To further complicate the picture, it is not always necessary to explain similarities between languages as common genetic inheritances or areally diffused features; as in all parts of the language, independent parallel developments can and do occur in the Semitic detransitive systems.

An alternative explanation for how the attested situations came to be, other than a series of genetic bifurcations and/or the diffusion of linguistic material between languages in contact, must be sought. A number of satisfactory hypotheses have been ventured to account for the diachronic developments of individual elements of the Semitic destransitive system (whether specific forms or languages/dialects). The challenge not yet overcome by scholarship is to move beyond such a piecemeal solution and formulate a theory that deals with Semitic detransitive marking *as a whole*. What is required, then, is a novel perspective with which to view Semitic detransitives that can better account for the data altogether, without having to view each development in isolation.

The variation-and-change model, adopted from the discipline of sociolinguistics provides a nuanced theoretical framework for understanding language diachrony. The initial intuitions as to how this could be applied to an analysis of Semitic detransitives underpinned the methodology and working hypothesis of this dissertation, presented above (in §1.5–6). The precise details of the framework have subsequently been presented with extensive reference to the theoretical linguistic literature, and examples of how the model works (in §2.6).

Below, the variation-and-change model is applied to some broad features of the Semitic detransitive system that have proven problematic for scholars to date. This serves as a test case to establish whether the model might be a useful framework in which to address the more specific question of the diachronic development of IPs. First, though, it will be useful to summarise why the model has not previously been used for an analysis of Semitic detransitives, including noting potential pitfalls to doing so, since this will allow modification of the model, where appropriate, to best fit the case at hand.

As mentioned above (in §2.6), the diffusion of a linguistic innovation, a prerequisite for language change in the variation-and-change model, is understood to be principally motivated by social factors. However, much of the data to which the discipline of comparative Semitics refers comes from languages with no native speakers alive any longer (often for centuries already). As a result, knowledge of their the extralinguistic context(s) depends on historical and archaeological reconstructions, which, however valuable in their own rights, are often not reliable foundations on which to base hypotheses about linguistic material. This impediment against the sociolinguistic analysis of historical data explains why most scholarship on comparative Semitic linguistics (including work in detransitive systems, and more specifically IPs) have not applied a variation-and-change model.[325]

This is certainly not to say that developments in Semitic detransitives were not subject to sociological influences, just that it is often difficult, if not impossible, to uncover them. Nonetheless, the sociolinguistic dimension of variation (and change) is observable in some contemporary situations. Holes, for example, has shown that the loss of IPs in Omani Arabic

[325] Bar-Asher Siegal (e.g., 2013) has been applying sociolinguistic theory, specifically the idea of diglossia of prestige variants in the study of Jewish Babylonian Aramaic (and historical Aramaic more generally), though he is somewhat exceptional among Semiticists in doing so.

results from the influence of a prestige dialect that does not possess these forms.[326] Some scholars go so far as to propose sociolinguistic hypotheses to account even for historical data, albeit with less satisfactory results: Rendsburg, for example, believes he can discern a group within the Biblical Hebrew speech community (specifically, Northerners) who used the tD to express the passive.[327]

Elsewhere, Retsö advances a theory that seeks to explain detransitive (and causative) developments throughout Semitic according to societal factors: he concludes his analysis by reconstructing a geographical model of the phylum with a linguistically conservative core area and innovative periphery reflecting sedentary urban versus nomadic speech communities, respectively.[328] However, his theory does not match up particularly well to the attested data from Semitic detransitive systems that he seeks to explain, nor is it independently supported by other features. Moreover, his proposal of general conservatism among sedentary speech communities, in contrast to innovative nomadic language, is unacceptably vague; any rigorous analysis based on a sociolinguistic motivation behind language change must reference *specific* sociolinguistic situations and how these apply to each individual case of variation (and potentially change).

Apart from the sociolinguistic dimension, some other barriers to application of the variation-and-change model to historical data are pertinent in the field of comparative Semitics. These relate to the availability and reliability of data, and the methodology of the analysis thereof. For example, all linguistic records preceding the advent of audio-recording technology are, of necessity, written, so the information they can provide is therefore inherently limited. In OSA and Ugaritic, for example, the presence of IPs can be confirmed, but their morphological form(s) are uncertain because of the largely unvocalised orthography of these languages.

[326] Holes, 1998.
[327] Rendsburg, 2003, 18–19.
[328] Retsö, 1989, 202–3.

Another consideration is the lack of *negative* evidence for historical languages. If no native speakers exist any longer, it is impossible to ask one to confirm that a given feature is *not* part of the language; one can only observe that since a construction is attested, its use must be (or rather, have been, at the time of the text's composition) possible. As such, the data available are subject to the limitations of the corpus, which is of course highly relevant in languages whose corpora show strong bias or restriction in terms of genre, register, or subject matter.

In Semitic specifically, the restricted size of the corpora of Canaanite languages like Moabite make it problematic to assert that IPs were not present; they may have been used but are simply not represented in the limited material available. In Phoenician, IPs are quite scarce, but this could potentially be a case of disproportionate underrepresentation owing to the genre. That is, dedicational inscriptional material using conservative, formulaic language might eschew IPs as innovative forms, even if they were productive in the vernacular.

A final barrier against the application of the variation-and-change model to historical linguistic material comes from the fact that texts may have undergone editing processes that can obscure variations that were historically present. A redactor may be motivated to homogenise a text for the sake of consistency, or to alter material to better fit his own grammar, or that of an intended audience, insofar as this differed from the grammar of the original author.[329] For example, Gp forms occur in some of the older texts of the Hebrew Bible, reflecting that they were available to speakers from that period as a variant (competing with the N) to express the passive to the G. However, by the time of the Masoretic redaction, centuries later, the Gp was no

[329] On barriers to observing language change in historical data, including in relation to applying the variation-and-change model, see Labov, 1994, 11; Lightfoot, 1999, 9; and Ringe and Eska, 2013, 1–2.

longer part of Hebrew. Consequently, the Masoretic reading reanalyses these forms as belonging to the Dp, Cp, or N, even to the extent of changing their vocalisations.[330]

Bearing in mind these provisos about barriers to applying the variation-and-change model to historical data, two elements of the Semitic detransitive systems will now be addressed by way of a test case for this analytic methodology: 1) the *t* detransitive stem(s) to the C and 2) the N versus the tG/Gt. This begins with a brief description of the shortcomings of previous attempts to explain these parts of the language using the comparative historical method, which brings into focus some areas where the variation-and-change model differs and excels. Not the least of its advantages—something conspicuously lacking from more traditional approaches—is how this innovative perspective on language change brings these two elements (and others beside) together into a comprehensive, unified theory of Semitic detransitives.

A Ct stem, infixing the *t* detransitive morpheme to the C, is present and productive in Akkadian, Classical and Modern Standard Arabic (though absent from many dialects), OSA, MSA, and Ethiopic. However, in the NWS sub-branch the situation is quite different. In Canaanite and Ugaritic, the Ct is extremely limited, occurring in just a handful of verbs. In Aramaic, by contrast, *ʔeštaqtal* Ct forms are attested with some frequency as late as Syriac. That said, the Aramaic Ct ultimately does not survive, and the detransitive of the C comes to be marked by the tC *ʔettaqtal* that *prefixes* the detransitive morpheme *t* to the C.

Because of the Aramaic situation, the loss of the Ct cannot be a genetic isogloss of the NWS branch. Nor is it particularly palatable to assume that its absence from the neighbouring language families of Canaanite and Ugaritic, whose detransitive systems are similar in other ways

[330] Similarly, in the Samaritan Hebrew reading tradition, Dp and Cp forms from the Hebrew Bible, belonging to stems not present in the Samaritan dialect, are reinterpreted as active verbs or as N or tD forms where the text allows (Ben-Ḥayyim, 2000, §2.10.1–4).

(discussed below), is coincidental. It might therefore be tempting to posit the decline of the Ct as a geographical feature that originated in the *Sprachbund* of the Eastern Mediterranean coast and spread eastward. This could account for virtual non-existence of the Ct in Hebrew and Ugaritic: as the locus where the decline began, they would also be where it had advanced furthest. In Aramaic, by contrast, the decline would have begun later and not reached its climax as early. However, in the absence of a theory outlining how, why, and when the feature spread—ideally supported by other, unrelated developments from other parts of the language that reflect the hypothesised contact situation—then to simply state that this was how the Ct fell into decline in NWS is so circular an analysis as to lack any merit.

Apart from this objection, such a proposal would be limited in the questions it can answer. For example, it does nothing to address the subsequent development of the Aramaic tC stem. It also fails to capture the nuances of the *whole* Semitic situation with regard to the Ct (and related morphology), insofar as it does nothing to address the behaviour of the southernmost Semitic languages, Ethiopic and MSA. Here, the Ct flourished and its morphology was extended to new contexts (i.e., the Ethiopic D and L, and MSA D/L). The traditional comparative historical method views Ethiopic CtD and CtL and MSA CtD/L either as an areal feature loaned from one language to the other, as a genetic isogloss they inherited from a common mother node, or as parallel developments occurring independently in each.[331]

The problem with attempts to explain developments in the Ct (and related morphology) using the traditional historical-comparative method have resulted in unacceptably fractured and ad hoc reconstructions. Multiple ostensibly unrelated developments are posited for same part of the

[331] It is unacceptably speculative to posit a proto-Ethio-MSA node on the basis of this feature alone. At the same time, that this precise development should occur independently in these geographically proximate branches, but nowhere else in WS (save for sporadic anomalies in Arabic dialects), would be a troubling coincidence to say the least. This leaves the possibility that the innovation of CtD and CtL stems was an areal phenomenon, albeit one without a concrete theoretical basis (i.e., a hypothesised contact situation, direction of loan, etc.).

language, but ignore how they interact 1) with each other, 2) with developments in other parts of the language, and 3) with the extra-linguistic context. That is, no explanation is given for how the decline of the Ct in Canaanite and Ugaritic relates to its expansion in Ethiopic and MSA, for how the Aramaic Ct and tC fit together, and for what the specific contact situations were within NWS and between Ethiopic and MSA, and how these factors affected the Ct in these different languages.

Apart from the Ct, the other language feature presented here as a test case for application of the variation-and-change model is the relationship between the N and Gt/tG stems, which is a matter of central importance in the Semitic detransitive system(s). Time and time again, different languages expand one of these at the expense of the other. Aramaic, Ethiopic, and OSA, have lost the N completely, and the Gt/tG has taken over all its functions. Conversely, 'N languages', of which Hebrew is the example par excellence, suppress the Gt/tG with a concomitant increase in the functional scope of the N.

The division of Semitic into 'N languages' versus '*t* languages' does not conform to any genetic grouping of the phylum. Aramaic and Ethiopic, for example, are on quite different branches of the Semitic tree. Indeed, Aramaic belongs to the NWS subbranch, like Hebrew and Ugaritic, both of which favour the N over the Gt/tG. Arabic dialects also vary in whether they are N or *t* languages. In a macro version of the situation within Semitic as a whole, this distribution does not align with a genetic classification of the language family. Retsö instead claims he is able to "discern, although dimly, a dividing line between *n*- and *t*-dialects in North Arabia similar to that in Northwest Semitic, still reflected in modern Arabic dialects."[332] This position fits his areal model of Semitic, and affords him an alternative view to the ad hoc selection of each dialect as either an N or *t* language, with no factors conditioning the schism.

[332] Retsö, 1989, 150.

Retsö's proposal, though, is flawed. A geographical isogloss locating *t* languages in the North of Arabia and N languages in the South completely ignores (or worse, even, is directly contradicted by) the presence of Hebrew and Ethiopic as archetypal N and *t* languages, respectively. Retsö's putative dividing line anyway does not map neatly onto the attested distribution of Arabic dialects as N versus *t* languages. In order to fit the data to his model, he relies not so much on the attested dialectal situation, but rather on a reconstruction of earlier stages, not the least objectionable aspect of which is the assertion that contemporary dialects with IPs were necessarily historically N languages (even if they are now *t* languages).[333]

Scholarship to date has failed to provide a cohesive explanation for these two elements of the Semitic detransitive systems: behaviour of the Ct and related stems, the relationship between the G and tG/Gt. Even if some individual aspects can be accounted for using the traditional comparative method of historical linguistics—and many cannot—one is left with a bewildering tangle of individual theories, each dealing with just one issue and rarely addressing the broader context, let alone cohesively engaging with each other. In a novel approach to the diachronic development of Semitic detransitives, the descriptions provided in this chapter will now be analysed within a variation-and-change model, focussing specifically on these two issues.

A small proviso, though, is in order about a slight adaptation of the model in accordance with the material at hand. The N and tG/Gt were both productive verbal stems at least as far back as PS, when they possessed complementary syntactic functions (reducing first and second arguments, respectively).[334] Their additional, common semantic function of marking SUBJ affectedness, which they also shared already by PS, developed through functional expansion

[333] Retsö, 1989, 149–50.

[334] I reject Retsö's (1989, 156) proposal that the distribution was originally N formation from the G versus *t* stem formation from only the derived stems, with the Gt/tG being relatively neological. By his own admission, this theory is highly speculative and relies on his instinctual internal reconstruction rather than comparative evidence (there is none to support it, since the Gt is reconstructed all the way back to PS). That said, I would note the parallels with the reconstruction below (in Chapter 5), whereby IPs arose first to the D and C, and later spread to the G.

from different directions—via fientivisation in the case of the N and natural reflexivity in that of the Gt.[335]

This is thus not a case of an innovative variant encroaching on an original one. Rather, variation between the two is the result of their reaching the same territory simultaneously (or in any case, long enough before the scope of our enquiry that their relative chronology is irrelevant), and subsequently jostling in competition. In the case of the N versus the Gt/tG, then, the variation-and-change model can therefore not be applied precisely in the manner in which it is used in contemporary sociolinguistics, that of identifying innovative variants and charting how these fare in competitive variation with more original ones.[336] Rather, certain key components of the model—namely, the notion of variation as a prerequisite of change, and a clearer distinction on what constitutes irreversible change—inform the analysis of the variation between these stems by providing a fresh perspective on how diachronic developments proceed generally.

According to the variation-and-change model, the selection of one of the N or Gt/tG can be considered to have proceeded to the stage of language change proper only once the other has been lost altogether from the language (e.g., Aramaic or Ethiopic, where the N is totally absent, or Hebrew, where the tG/Gt is). Unresolved variation in language is, by definition, dynamic, so variation between these two stems in Arabic dialects that preserve both may shift with time; even if during previous stages of the language the N was highly productive and the Gt restricted, as long as both continue to coexist, this situation can be reserved. It is precisely such shifting of dialects between the two classes that Retsö argues has obscured the geographical distribution between Arabic N and *t* dialects:

[335] Kouwenberg's (2010, §12.6.1) theory of the origin of an N as a light verb is far more convincing than Retsö's (1989, 154–57, 163) suggestion that it was originally a dummy SUBJ in generalised-SUBJ constructions, but in any case refers to a point in the history of the language long before that which is pertinent to the development of IPs.
[336] In the case of IPs, however, since a stage of Semitic before they existed is clear, and they arose to challenge in competitive variation with more original detransitive stems (the *t* and N stems), the analysis may apply the variation-and-change model precisely in its original formulation, contrasting innovative versus original variants.

> It is also likely that one category has superseded the other. Thus evidence exists that in Ḥiğāz there was once a wider use of *t*G forms than today. On the other hand, in the Maghreb we can see how the *t*G forms are expanding even into dialects which have the nG. An extreme case is Cairene, where most verbs can form a PM to the G-stem with both the *t*- and *n*-affix.[337]

This potential for oscillation between situations adds significant complication to a reconstruction using the traditional comparative-historical method. The variation-and-change model, by contrast, allows for language change being preceded by an extended period during which variants coexist in competition before it is resolved one way or the other (if indeed it ever is). As for the motivations guiding the ebb and flow of this competition in Arabic dialects, it is beyond the scope of this work to examine the minutiae of every instance. As a general matter, though, it would be remiss to ignore the probable influence of Classical (and, in turn, Modern Standard) Arabic, which possesses both N and Gt stems. Such would be perfectly in accordance with the expectation held by proponents of the variation-and-change model, for diglossia and the social pressure of prestige language to be key motivations governing variation.

As mentioned, it is often unfeasible to identify social motivations conditioning the selection of variants when dealing with historical data. It therefore makes sense to try and instead identify language-internal influences on this variation. Furthermore, since variation (and ensuing change) in one part of the language is not isolated from the rest of the grammar—and considering the end purpose of describing the detransitive systems of Semitic is to provide a generalised overview from which the investigation into IPs specifically may proceed—it makes sense to focus on motivations that recur in different cases. That is, rather than identifying something that may have influenced one instance of selection of the N instead of tG in a single dialect, for example, it will

[337] Retsö, 1989, 149. Woidich's (2006, 329) description of Cairene—"It [the tG] is also productive for Form I [G] as a passive…*itġasal/yitġisil* 'to be washed'. Forms with (prefixed) *in-* (VII) [N] and (infixed) *-t-* (VIII) [Gt] are limited to particular lexical items such as *inbasaṭ/yinbisiṭ* 'to enjoy oneself', *iftakar/yiftikir* 'to think'"—suggests it has stabilised in using a tG stem as detransitive to the G, and only retains traces of the N in occasional semantic middle use. A shift in favour of the tG variant has conceivably been underway during the quarter-century between Retsö's analysis (first published 1983; cf. Diem, 1982, §34) and that of Woidich.

be more enlightening for an overview of Semitic detransitives generally to find broad trends that are active throughout the system.

The schism between N and *t* languages correlates conspicuously with developments in the Ct. The tendency towards restriction of the Ct in N languages, and conversely its expansion in *t* languages, is not likely coincidental. The fairly straightforward tendency towards languages favouring either the N or tG/Gt having been discussed above, the second dimension of developments in the Ct are examined below. They are understood as belonging to the web of competing motivations in the variation between N and *t* languages, but at the same time are also examples of variation (sometimes leading to change) in their own rights.

The Canaanite branch is the model example of an N language in Semitic. After the earliest stages (Amarna Canaanite and some inscriptional languages) the Gt is totally lost in favour of the N, and the Ct effectively occurs in just one root (√*ḥwy*). In Ugaritic, competitive variation between the Gt and N in the semantic function of SUBJ affectedness is shifting in favour of the N, though unlike in Canaanite this has not reached the stage of language *change*, since the Gt continues to co-exist. The Ugaritic Ct shows a commensurate level of restriction; it is not quite as advanced as in Canaanite, and Ct forms occur in a handful of roots rather than just one.

The reverse side of the coin is a trend towards expansion of the *t* detransitive to the C in languages where the tG/Gt triumphs in its competition with the N. This is how the detransitive systems of Aramaic and Ethiopic develop. In the former, the expansive development of the *t* detransitive to the C is manifest in the development of a neological tC form, *ʔettaqtal* <**ʔit-ʔaqtal*. Since Aramaic prefixes the *t* morpheme in the tG and tD, this creates perfect formal isomorphism (of basic X : detransitive tX) between G : tG :: D : tD :: C : tC.[338]

[338] This prefixing is the case for the strong root; in √1=sibilant, the original PS situation of metathesis between and *t* and R_1 was retained (cf. the Hebrew Dt).

Within the variation-and-change model, the transition from Ct to tC can be characterised as the outcome of competitive variation between different means of marking detransitivity to the C. For a time (overlapping with the earliest recorded stage of Aramaic), the *t* detransitive waned and generalised-SUBJ and periphrastic constructions as the Cp encroached on its territory. With the creation of the tC, the *t* detransitive regained the upper hand and ousted the Cp, though ultimately all *t* stems (including the tC) were lost in Neo-Aramaic when detransitive categories ceased to be marked by finite verbal morphology.[339]

Since the neological tC is understood to have ousted the original Ct, and in accordance with the principle that something, once absent from the language, is irretrievably lost, this analysis demands that for speakers from the transitional period, the formation of a *t* detransitive to the C must have remained grammatical. However, the Ct had ceased to be used (productively, at least) some time before the tC is first attested in the branch, leading to the objection that this kind of formation appears to have died out altogether before being resurrected *ex nihilo*.[340] This, though, does not take into account the fact that an innovative variant may exist in some part(s) of the speech community for an extended period before it enters the written record; in considering the absence of the tC before Official Aramaic (and its slow subsequent increase in attestation), it is relevant that early Aramaic texts are overwhelmingly in formalised, official language. Herein, then, lies an excellent example of the knotty intersection between the textual record of historical

[339] Detransitive marking using means other than derivational verbal morphology is an important consideration throughout Semitic, and one whose role is often not given due consideration. For example, where innovative verbal stems arise and are not in direct competition with existing ones (e.g., the Ethiopic CtD or Omani Arabic ND), they are understood not to mark a category the language could not previously express by any means, but rather as having arisen in variation (and competition) with periphrastic constructions and the like. The variation-and-change model does not require that variants come from the same part of the grammar—cf. variation that between passive verbal stems and generalised-SUBJ constructions in Aramaic; nor is there any difference in its application if they do not.

[340] Butts (2018, 128–34) convincingly demonstrates that the Ct was the original *t* stem counterpart to the C in proto-Aramaic, and that some native forms were preserved as late as Syriac, though only in lexicalised remnants, rather than as a productive verbal stem. Though he does not specifically address the replacement of the Ct by tC, he (129–30) sees the latter, in chronological terms, as "an innovative form that may have started to develop in Achaemenid Aramaic but that was not fully incorporated into the verbal system until later, perhaps even much later".

linguistics and the variation-and-change model of sociolinguistics, the theoretical complications of which have been discussed above.

Ethiopic is the branch of Semitic that is an archetypal *t* language; like Aramaic, it entirely lacks the N. A tG performs all detransitive functions to the G, just as the tD does to the D, and the tL to the L.[341] This selection of the Geʿez as a *t* language is accompanied by the extension of Ct morphology: a combined Ct morpheme *ʔasta*/*āsta* is applied to the D and L to create a CtD *ʔastaqattala* and CtL *ʔastaqātala* that parallel the Ct(G) *ʔastaqtala*. This is also paralleled by extension of the C morpheme *ʔa*/*ā* to the D and L to create new CD and CL stems (*ʔaqattala* and *ʔaqātala*, respectively).

These developments occur within the context of a restructuring of the whole stem inventory whereby the D and L are increasing functionally equivalent to the G rather than derived from it, and which of these stems occurs with a given root is distributed lexically. As a result of their new basic-stem status, the D and L can undergo the same derivational process as the G, namely, the formation of C causatives and Ct causative-detransitives. Clearly, there is no place for an N within this highly ordered inventory of three parallel tiers of basic (X) : detransitive (tX) : causative (CX) : causative-detransitive (CtX)—G : tG : C(G) : Ct(G) :: D : tD : CD : CtD :: L : tL : CL : CtL.

According to the variation-and-change model, similarities and differences between Aramaic and Ethiopic detransitive systems can be accounted for as resulting from complex webs of competing pressures. In both Aramaic and Geʿez, the tG is selected in favour of the N as the detransitive stem to the G. However, another factor, the lexicalisation of the relationship between G, D, and L, is not present in the Aramaic (before the Neo-Aramaic stage, anyway), and prompts

[341] The isomorphism of the detransitive system is even stronger in Geʿez than Aramaic, since each *t* stem simply prefixes *ta-*/*t-* to the unmarked counterpart, while stem variation exists in Aramaic (i.e., contrast of *a* versus *e* < **i* in G *qətal* ~ tG *ʔet-qətel*; D *qattel* ~ tD *ʔet-qattal*).

the creation of innovative variants (the CD, CtD, CL, and CtL) in Geʿez that does not take place in Aramaic. This is analogous to the example given above (in §2.6) for why word-order developments in English do not also occur in Romanian; they possess some competing motivations in common, but not all.

In accordance with the complexities of Arabic dialectology, the situation here is rather less clear cut.[342] Nonetheless, some dialects do behave more or less like the N languages found in NWS, with elimination of the Gt and Ct. Cilician Arabic, for example, possesses unmarked G, D, and L stems, with respective N, tD, and tL detransitive counterparts; the Gt is rare and not productive, and the Ct is attested in just one verb, with no C occurring anywhere in the language (effectively removing the Ct from the detransitive-marking system).[343] The dialects of the Basīs and Farfara oases in Egypt represent an even more extreme instance of the N variant triumphing in the competition with the *t* variant. Not only is the Gt/tG ousted, the N morpheme is extended through the language and applied to the D and L, creating ND and NL stems that replace the tD and tL, respectively.[344]

Elsewhere, larger cities in Tunisia and Morocco possess more-or-less prototypical *t* dialects, although close proximity to, and contact with, N dialects somewhat blurs the boundaries between categories.[345] For example, Tunis Arabic has achieved language change like that of Aramaic and Ethiopic with the total loss of the N, resulting in a neat symmetrical inventory of detransitive stems (G : tG :: D : tD :: L : tL). The normal detransitive to the G is a tG, and though occasional Gt forms are also attested, they are exceptional and non-productive. The Ct occurs, but since the

[342] Among the complicating factors are the highly plausible possibility of a polygenetic origin for the language family; prolonged, extensive contact situations, both internal to Arabic and with other languages; and significant population movements. Some of the dialects mentioned in the following have not been described above (in §3.4) in the description of Arabic dialects because the primary focus there was those possessing IPs.
[343] Procházka, 2006, §2.2.6.1.
[344] This analysis rests on Diem's (1982, 66) identification of interchange between [n] and [l] in these dialects, since the forms in question (e.g., N *ilgaṭaʕ*, ND *ilfaḍḍal*, and NL *ilgābal*) exhibit a lateral rather a dental prefix.
[345] Kaye and Rosenhouse, 1997, 297; Caubet, 2008, §2.2.6.1.2.

C is absent from the language, it is extricated from the detransitive-marking system, and instead expresses the aspectual notion of ingression (as does a "XI" stem *qtāl*).[346]

This example illustrates a trend for *t* dialects to favour formation of the tG over the Gt—conversely, to the extent N dialects possess a *t* detransitive to the G, this is generally a Gt.[347] The increased formal isomorphism with the tD and tL favours selection of the tG variant of the Gt in *t* dialects. In N dialects, though, the functional counterpart to the tD and tL is the N, while the Gt is a moribund form preserved only in remnants, so this motivation to replace the inherited proto-Arabic Gt with the tD is irrelevant.

Apart from these cases, though, there are also Arabic dialects that preserve variation between the N and Gt/tG. This is not at odds with the variation-and-change model in general, since it allows for extended periods of unstable variation without the progression to permanent language change through the loss of a feature. Nor is its occurrence in Arabic specifically hard to explain. On the contrary, of all the Semitic languages, Arabic possesses a very plausible candidate for precisely the kind of sociolinguistic motivator largely understood to govern variation in the variation-and-change model as formulated by sociolinguistics: namely an unparalleled contact situation between languages and dialects variously favouring the N and *t* variants, and diglossia between vernaculars and a prestige dialect (Classical Arabic) that possessed both and was based on the very foundational religious text of the whole Arab-Islamic civilisation, the Quran.

Long-lived though such variation between N and Gt/tG in Arabic dialects may be, it is nonetheless a source of tension. Retsö explicitly identifies systems possessing both stems as unstable and therefore prone to succumb to the pressure towards resolution.[348] This prediction proved correct by the situations of attested Arabic dialects (like those of Semitic languages more

[346] Gibson, 2009, §2.3.7 and table 3.
[347] Diem, 1982, §34.
[348] Retsö, 1989, 149: "It is likely that this is an unstable situation and that a more unitary system will arise".

generally, as this chapter has found), which tend to favour one of these stems at the expense of the other. The Maltese and the Algerian Djidjelli dialects have instead balanced the competing motivations, preserving both the N and Gt while still resolving the instability of the variation between them in an intriguing way, by combining both into an innovative 'Nt' stem that assumed all of their various functions.

Where both variants *are* retained as separate entities, though, one strategy to eliminate the redundancy between them is by functional specification, separating them so they are no longer in competition.[349] In Ḥassāniyya Arabic, for example, the N has lost its semantic middle function and only marks the passive; the Gt, by contrast, is restricted to reflexive and semantic middle, and can be passive only in root types where N cannot be formed (√1=sonorant). Consequently, although both original stems are retained, with the N having lost the semantic-middle function in which they originally overlapped, there no longer exists any variation (that is, competition) between them.[350]

Omani and Najdi Arabic, rather than eliminating one of the N or Gt, instead extend the N morpheme to new contexts—creating the ND in Omani and the NtD and NtL in Najdi. These innovative stems have the same general effect as does the elimination of one of the N or tG/Gt in other Arabic dialects (and throughout Semitic, for that matter), or the creation of the CD, CtD, CL, and CtL stems in Ethiopic: they enhance the symmetry of the stem inventory. In terms of the linguistic theory behind what prompts this development, the transparency principle provides a clear motivation for all these developments; the increased formal isomorphism of detransitive

[349] Newmeyer (2003, 29–30) gives the example of the competing word orders V-OBJ-OBJ_2 and V-OBJ_2-OBJ: "Languages resolve conflict in different ways, some by developing only one of the two orders and some (like English) by developing both". The former (e.g., "I gave the book to him") is retained as the basic word order, while the latter (eg., "I gave him the book") is specified as marking the prominence of the recipient.
[350] Taine-Cheikh, 2007, §2.2.6.1.3.

derivational morphology and the ordered functional arrangement of marked versus unmarked counterparts makes the relationship between form and meaning conceptually more obvious.

The preceding has applied the variation-and-change model developed in the discipline of sociolinguistics to certain elements of the detransitive systems of the Semitic, specifically the bifurcation of the phylum into N languages and *t* languages and developments in the Ct.[351] Some modification of the model has been necessary in accordance to the specific matter at hand. For example, social factors governing variation (and change) can often not be recovered from historical data, so the focus is instead on language-internal features, such as the analogical pressure from other verbal stems, and the tendency towards increased paradigmatic symmetry as guided by the transparency principle. Further, neither of N and Gt/tG is innovative relative to the other, so (in this instance) this dimension of the model has also been relaxed.

The variation-and-change model has the advantage over the comparative-historical method traditionally used in works on comparative Semitics of allowing for various distributions of features not aligning with recognised geographical or genetic divisions. Rather than being explained exclusively as commonly inherited features or areal loans, similarities (and differences) between languages are understood as the result of complex webs of competing motivations affecting speakers' selections between variants. For example, the loss of the N common to both Aramaic and Ethiopic is associated to their vitality of the Ct (or rather tC, in Aramaic); however, Ethiopic develops new CtD and CtL forms, while Aramaic does not, because of the lexicalisation of the opposition of the G, D, and L stems in this language.

Moreover, the model allows extended periods of competition between variants before irreversible language change is achieved through the loss of a feature, including the possibility

[351] It is beyond the scope of this work to address in detail every element of each of the detransitive systems of Semitic. This case study has rather provided a general survey, confirming the basic suitability of the model and providing an illustration of how it can subsequently be applied to the specific subject of this dissertation, IPs

for an innovative variant to arise and then die out without ever displacing the original variant. As such, it is better suited than the comparative-historical method to explain gradual shifts within a context of volatile flux. Ongoing variation between the N and Gt/tG in Arabic dialects, and the dynamic shifting of their relative fortunes, for example, cannot result from a series of neat, punctual genetic bifurcations, even allowing for an amount of areal interference from language contact. Similarly, the ebb and flow between the various means of expressing detransitives of the C in Aramaic—the Ct, the tC, active generalised-SUBJ constructions, and the Cp—fit well within the variation-and-change model; the comparative-historical method, by contrast, struggles to capture this protracted jostling competition between variants.

Considering how well the variation-and-change model deals with the consonantally affixed detransitive stems of Semitic, the next step is to apply it to the data of IPs, to see how the ensuing analysis informs the reconstruction of their development. The remainder of this conclusion lays the groundwork for this undertaking in the following chapter. Key elements of the model—its speaker-rather than language-oriented perspective on language change and the concept of competing motivations—are highlighted, with reference to how these relate to IPs specifically. Also, some instances of variation within the IP paradigm that have caused problems for traditional reconstruction will be flagged, and the starting point of an analysis thereof within the variation-and-change model outlined.

The summary above (in §2.5) of the theoretical-linguistics background of the variation-and-change model points out how speakers' understandings of variants are of central importance in selection between them. Variants must have similar enough semantic content to allow them to be interchangeable in at least some contexts; at the same time there must be *some* difference, otherwise speakers would not be motivated to develop innovations in the first place. Garcia

describes this in terms of perspectival difference, so the innovative form presents the same situation as the original one but frames it from a different standpoint.[352]

Time and time again in the different Semitic languages, a distinctive contrast has been shown to exist between IPs and the consonantally affixed detransitive (N and t) stems in that the former always change the syntactic arrangement of the arguments (reducing the first argument), whereas in the latter no syntactic dimension is necessary, and where present, can be considered secondary to the marking of semantic SUBJ affectedness, which is invariably present. That is, at the nascence of IPs, the G and N (and likewise Dp and tD, or Cp and Ct) may have expressed the same facts but presented them through subtly different lenses. This is thus precisely in accordance with the speaker-oriented criteria on which the creation of innovations depends—and which also conditions the subsequent competition between them and original variants.

Apart from the schism between IPs and consonantally affixed detransitive stems, other developments of passive-marking morphology initially arise from a variant use presenting the same basic situation from a different viewpoint. For example, the neo-Aramaic *qtil-li* PFV originates in a periphrasis using a PASS PTCP; the development of the innovative form transfers the focus onto the aspectual component of the predication rather than the syntactic rearrangement it entails. It also views the participants therein in a different light, such that they undergo a concomitant shift to ERG alignment of arguments.[353] Similarly, in later Canaanite, the aspectual implications of passive morphology come to the fore when finite IPs disappear from the language, and PASS PTCPs are understood primarily in terms of their resultative properties.

[352] Garcia, 1997, 24. This consideration was not particularly relevant to the variation between N and Gt/tG, since that is not a case of an innovative versus an original variant, but rather two forms that have independently converged on the same functional domain. IPs, by contrast, are certainly innovative relative to both those stems, since their creation dates to WS at the earliest (if not to the later stage of CS).
[353] On this construction, see the above section (§3.5) on Aramaic and Coghill, 2016, ch. 6.

Another important part of the variation-and-change model is how it views variations and the selections made from them as the results of complexes of competing motivations. This explains how, although languages may share one influential characteristic, this may not be enough to ensure that they both develop in the same way if the sum effect of their other motivations is not the same. One example of how such an analytical framework can account differences between languages is the case of the tDp stem. The different competing motivations resulting in its productivity in Arabic versus exceptional, marginal status in Canaanite, are presented below—this is an illustrative sketch of how the principle of competing motivations applies to the field of IPs; the rigorous, comprehensive analysis thereof is the work of Chapter 4.

Classical Arabic can form IPs from any active verbal stem (provided it has some kind of transitivity, even if only semantic rather than syntactic) by applying to it the vocalic sequence *u-i* (in the SC) or *u-a* (in the PC). The same can apply to the *t* stems; for example, tD *tajarraʕa* "to swallow (transitive)" forms tDp *tujurriʕa* "to be swallowed". IPs formed from consonantally affixed stems are not limited to Classical Arabic and also occur in dialects with productive IP situations, such as Najdi.[354] Nor is this particularly surprising; the extension of IP morphology to new contexts is a perfectly natural result of analogical pressure from the more basic IP stems.

Intriguingly, a handful of comparable *hoṯqattal* tDp forms occur in the Hebrew Bible—e.g., *huṯṯammɔʔ-ɔ* (Deut 24:4) "is defiled". However, this is not a productive stem, and in the variation-and-change model, represents an innovative form that only arose briefly and failed to establish a stable position for itself and so ultimately died out. The analogical pressure from basic IPs (Gp, Dp, Cp) spurred the initial creation of tDp forms was therefore overridden in Hebrew by an influence (or influences) not present in Arabic. Indeed, when differences between

[354] Abboud (1979, 488) and Ingham (1994, 75) cite *tigīsim* (tLp) "to be shared", *iʕtibir* (Gtp) "to be considered", and *stigbil* (Ctp) "to be welcomed"; though I have encountered no example of a tDp from this dialect, there is no reason to think one could not be formed from a transitive tD.

the overall development of IPs in Canaanite and Arabic are considered, the situation immediately makes good sense.

Regardless whether the Gp was ever a productive stem in Canaanite, it was anyway already rare by Biblical Hebrew, and absent thereafter. In post-Biblical Hebrew, the Mishnaic dialect also lost finite Dp forms and Cp forms became gradually rare; Samaritan Hebrew lost IPs. Unlike Arabic, then, in which IPs of the G, D, L, and C are wholly productive, Canaanite did not possess the same influence(s) favouring the selection of the innovative tDp stem. Though there was enough analogical pressure to result in the initial creation of the innovative variant in at least a few instances this was not sufficient to propagate it through the language to become a stable part of the language, let alone to oust another form and thereby achieve language change proper.

The final matter to be touched upon in this preliminary examination of what the variation-and-change model could bring to the understanding of IPs that the traditional comparative-historical method does not is how it explains some features of the IP system that do not align with genetic or areal classifications of the phylum. At the most basic level, this applies to the very distributions of the verbal stems themselves. For example, of the major CS language families that possess IPs—Arabic, Aramaic, Canaanite, OSA, and Ugaritic—finite Dp forms occur in all but Aramaic. This distribution cuts across genetic lines because Arabic and OSA are not members of the NWS group, while Aramaic, Canaanite, and Ugaritic all are.

Beyond the question of absolute attestation, though, the variation-and-change model better accounts for distributions of *formal* variation of a given IP, relative to the classification of the phylum than does the traditional comparative historical method. That of the Dp PC, for example,

varies between Arabic *yu-qattal* versus Hebrew *yə-quttal*.[355] Semiticists have traditionally considered Hebrew *yə-quttal* a secondary development from **yuqattal* that arose only in Canaanite (if not only in Hebrew).[356]

However, if one broadens the scope of investigation to D PASS PTCPs—and the relationship of PASS PTCPs to finite IPs is a major concern of the analysis Chapter 4—one finds that in Aramaic both *məqattal* and (rarer) *məquttal* forms are attested, with no discernible correspondence between these variants and contact with Hebrew. If one considers a development **yu-qattal* > *yə-quttal* to be a genetic isogloss of Canaanite, then one must concede that a matching change **muqattal* > *məquttal* coincidentally affected at least some Aramaic forms. This hypothesis, dubious at best, becomes even more laboured considering corresponding variation in the Aramaic Cp SC (cf. Biblical Aramaic *huqtal* versus Qumran *ʔaqtal*).

Because the variation-and-change model allows for extended periods of competition between forms, it sidesteps the problem that this formal diversity causes more traditional reconstructions. That is, variation between (Dp PC ~ D PASS PTCP) *yu-qattal ~ muquttal* and *yu-quttal ~ muquttal*—and likewise between (Cp PC ~ C PASS PTCP) *yu-Caqtal ~ muCaqtal* and *yu-Caqtal ~ muCaqtal*—may have arisen in NWS, for example, before Canaanite and Aramaic hived off from this common mother node, and the competition between variant forms may have continued down into the recorded histories of both language families. Strictly speaking, as the variation-and-change model was originally conceived, it presumes that one variant is innovative, relative

[355] The possibility is discussed above (in §§3.61–2) that this distinction may even bisect smaller genetic branches of Semitic, if the Amarna Canaanite Dp is indeed *yu-qattal* like that of Arabic, rather than matching the form *yə-quttal* of its Canaanite sister, Hebrew. Ultimately, the question is left open for want of sufficient certain data.

[356] Among those who adopt this position are, for example, Hetzron (1977, 43n1) and Rainey (1996, 2:12). As far as I am aware, Brockelmann (1908, §258D) is unique in proposing the reverse historical development, **yu-quttal* > **yu-qattal*, arguing that the vowel following R_2 influenced that of R_1. That he does so illustrates the scholarly consensus that the forms are etymologically derived, one from the other, even to the extent that they disagree on directionality.

to the other.[357] Nonetheless, understanding the origins of the variation is not a prerequisite for identifying its existence, nor for recognising it as an instance of how the variation-and-change model may provide a better understand IP development than that hitherto achieved.

To conclude, this chapter has surveyed the detransitive systems of the main branches of Semitic, with a particular focus on those in which IPs are present. Overall, the situation is one of ongoing vacillation between various stems competing for shared functional domains. This is precisely the behaviour of language expected within the variation-and-change model, particularly insofar as it allows for situations of extended variation, including instances that do not ultimately lead to language change but rather revert back to the original situation (or something similar). Furthermore, the idea that selection between variants is conditioned by a complex web of competing motivations is particularly apt to an analysis that views the system as a whole altogether, which has been found throughout the chapter to be of vital importance in understanding Semitic detransitives (and, by extension, IPs, which are part of the larger system).

The applicability of the variation-and-change model to the subject matter of Semitic detransitives was tested by surveying how it could account for variation between N and tG/Gt languages throughout the phylum and for developments in *t* detransitive stems to the C. It well explains these two features in a cohesive way that previous approaches, using traditional comparative historical methodologies are unable to. A preliminary survey of how the model may further inform the understanding of IPs finds it to be a promising theoretical framework for the detailed analysis and reconstruction thereof below (in Chapters 4 and 5).

[357] Trying to describe the specifics of this diachronic development (and others like it) is an important task of the analysis and reconstruction (in Chapters 4 and 5), even if, owing to aforementioned barriers to the application of this model to historical data, this will not necessarily be possible.

Chapter 4. The analysis of IPs

4.1 Methodology and hypothesis

This chapter proposes a cohesive, comprehensive analysis of Semitic IPs, particularly in terms of their relationships to other parts of the language—PASS PTCPs and the N and *t* stems, and the *qtil-li* PFV and *qatl-in* IPFV in Aramaic. This analysis draws on the descriptions of the Semitic detransitive systems above (in Chapter 3), which provide the reconstruction of the WS stage, before which IPs cannot have existed, and which therefore serves as a historical background to their development. An important innovation in the analysis is how it considers this subject-specific data in terms of the variation-and-change model of language diachrony outlined in Chapter 2. It thus deviates significantly from previous scholarship on Semitic IPs insofar as that usually follows more traditional comparative-historical methodology that has, to date, failed to account for IP development.

It is fundamental to the variation-and-change model that the variation may be a situation of free (i.e., unconditioned) competition between variants, which can *but does not necessarily* lead to change. The application of this model then first requires the identification of situations where such variation exists in relation to IPs. This is no straightforward task. Much scholarship of Semitic languages plays down, and sometimes even outright dismisses, the notion of free variation, since the chaotic flux that it presupposes to exist is at odds with traditional comparative historical methodology.[1] Instead, one frequently encounters the ascription of apparent variation between alternatives to dialectal distributions, considerations of register, or phonological influences.

[1] This is most true of genetic family-tree models characterised by neat bifurcations, but also poses some difficulty to less nuanced areal models which conceptualise loaning as punctual, even if in reality it must have occurred in a protracted situation of contact (and therefore variation between the before-loan and after-loan situations).

An illustrative example is the Classical Arabic Gp SC from √3=*y*. Alongside regular *qutiya*, a rarer variant *qutā* is also attested. Retsö argues that the latter arises due to the objectionability of the sequence **iy*, that is, the rarer variant (or at least its creation) is phonologically motivated.[2] Alternatively, Fischer argues that *qutā* forms are poetic, so the variation is governed by register.[3] Rabin instead ascribes the presence of by-forms to an original dialectal distinction; the rarer *qutā* form was native to the Ṭayyiʔ tribe (among others) and adopted as an acceptable poetic variant during the codification of Classical Arabic:

> The only conclusion remaining to us is that right at the very outset of Classical Arabic poetry the Tayyiʾ form had become recognized as a provincial alternative which could be used as poetic license…The sound change itself seems not to have been restricted to Tayyiʾ, however, but to have been common to the northern half of West-Arabic.[4]

Crucially, although all these authors recognise the coexistence of *qutiya* and *qutā* by-forms, none entertains the possibility that they existed in free competitive variation. Instead, based on the assumption that such a redundancy would not occur, they infer that these forms cannnot have overlapped, at least originally, but must have been somehow separated into complementary arenas (e.g., different dialects, registers, or phonological environments). This is of course not to say that *all* by-forms exist in free variation; distribution of variants is often undeniably conditioned.[5] Rather, the intention here is to stress the need to strip away *a priori assumptions against free variation* and allow for such a possibility where no preferable alternative analysis exists. This provides a new lens through which to view the thus far unexplained heterogeneity of Semitic IP forms, even within the same language.

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[2] Retsö, 1989, 177. Since *qutiya* forms are attested, though, Retsö only proposes to explain the *origin* of the *qutā* variant and does nothing to explain the distribution between the forms. Therefore, even if he believes it was created to avoid the *iy* sequence, in the absence of any factor governing its distribution relative to *qutiya*, the two exist (and have done so since their creation) in free variation.
[3] Fischer, 1972, §255.
[4] Rabin, 1951, 196.
[5] It would be untenable to suggest, for example, that Hebrew tD and Dt forms are anything other than allomorphs, with the latter occurring in √1=S (where S =sibilant) as a result of a metathesis **tS* > *St*.

The present case may not be the ideal illustration of scholarship ignoring possible free variation, since Rabin's proposal of original dialectal variation is actually quite plausible. However, it is used as an example because it also highlights difficulties in identifying variation in historical material. One problem is that the context in which material is preserved may not accurately reflect its true historical status. For example, Fischer states that *qutā* forms are poetic, which is accurate at some level, since this is the register of Classical Arabic in which they occur. However, that reflects how *qutā* was incorporated when Classical Arabic was codified rather than its original distribution; grammarians specified that *qutā* could only be used as poetic license in the new koine, but there is no evidence that it was not a normal vernacular form in Ṭayyiʔ Arabic. Further, textual emendation to remove *qutā* shows that historical material is not even necessarily a reliable witness to the situation it purports to record.[6]

Such barriers notwithstanding, considering that no other theory has thus far explained the development of IPs, a new approach is adopted here, one that entertains the possibility of underlying competitive free variation between IPs and other detransitive stems (in the passive function at least). From this background of variation that may continue for prolonged periods, irreversible language change is achieved only when a new variant ousts an older one and replaces it. Alternatively, it may fail to do so and disappear, so the situation reverts back to what it was before the variation arose in the first place, as ultimately turns out to be the fate of IPs in most Semitic languages.[7]

One important nuance in understanding language diachrony as situations of prolonged variation—and this is particularly apt in relation to rare or short-lived forms whose position in

[6] Rabin, 1951, 209n10: "An instructive instance of how the philologists managed to get rid of dialect forms is a line Jamhara, i, 32 in which *suqā* [Gp SC] 'was given to drink' occurs. In Lisān, i, 465 the line is so reconstructed that the active *saqä* [G SC] appears instead".
[7] This distinction between variation and change is described by Lüdtke (1989, 135) and Henry (2003, 272ff).

the overall history of the language is marginal—is the conception of productivity not simply as a binary of present versus absent forms. Language is rife with innovations that are extremely limited in their attestation and disappear without effecting any significant change to the language. These are of a quite different order than those that become established at the expense of another option available to the speaker.

To assess the import of a development and differentiate between the stages of variation that (may) lead to language change, one must recognise the scalar continuum of success of innovative variants. This begins with the first (potentially one-off) creation of a form, moving through stages of increased productivity and establishment within the language, reaching the other end of the spectrum only when the innovative form ousts the original form(s) it arose in competition with.[8]

For example, if the fewer-than-fifteen putative Gp PC forms in the entire Aramaic corpus are indeed correctly identified as such, they are examples of a nonce expression, so rare that they do not come close to resulting in significant variation, let alone change.[9] This is quite different to the Aramaic Cp SC, which coexisted in variation with the Ct/tC for a period, though the latter is ultimately the victor in this competition. Such abortive variation is, in turn, different from that of the Classical Arabic Cp, which replaces the Ct altogether in passive functions, and thus has proceed further along the path to language change proper.[10]

[8] Lüdtke, 1989, 135: "there is so much room for creativity in language that innovations abound; many of them are *hápaks legómena*, nonce expressions. Others may remain for a while until they disappear. Some may enter into serious competition with established rivals and eventually oust them. We should reserve the term 'change' for those phenomena which consist in the *abolition* of something that had been current in a language; such change is much rarer, indeed, than the creation of something new".
[9] For discussion of these see the discussion above (in §3.5); Folmer, 1995, §3.8; Muraoka and Porten, 1998, §30.
[10] Since the Cp only has a passive function, it cannot replace the Ct in its other (reflexive and semantic middle) detransitive functions, so the Ct is not lost altogether, and consequently the final stage of irreversible language change is not achieved.

It is axiomatic of the variation-and-change model of language diachrony that no construction exists and develops in a vacuum, and that parts of the language should therefore be considered in the context of others with which they interact. For example, the attestation and function of the Gp in a given language is often directly related—in an inverse proportionality—to that of the N, precisely because they exist in competitive variation.[11] However, just as the Gp and N cannot be understood properly except in relation to each other, nor can these two be divorced from the broader context of detransitive system as a whole.

The most important way interrelating IPs with other detransitive (N and *t*) stems impacts on the analysis is that it raises questions (and points to answers) about relationships amongst the IP stems themselves. Specifically, it leads to a key element of the reconstruction proposed below (in Chapter 5): A relative chronology between the development of the IP stems—that the Dp and Cp arose before the Gp—follows from an understanding of the functional (a)symmetry of the whole inventory of detransitive stems at different stages.

The Dp and Cp, it is hypothesised, arose to create a second detransitive stem relative to the D and C (apart from the tD/Dt and Ct, respectively), and in so doing fill a paradigmatic slot parallel to that of the N, relative to the G (which also had a detransitive tG/Gt). This development was provoked by a general tendency to create functional symmetry within the inventory of stems, one of several motivations described below that operated together (or sometimes against each other)

[11] Pardee (2003/2004, 254, 256) observes that Ugaritic Gp forms are more reliably identified (and therefore implicitly more common) in prose than poetry because they represent a more archaic form of the language, before the N expanded into passive use (from mediopassive or middle); I would modify this view somewhat to say that for a period, the N was yielding part of its original functional domain to the Gp (i.e., the prototypical passive), but subsequently regained the upper hand in the competitive variation. In Hebrew, Gzella (2009, 314) cites parallels in Samuel and Chronicles as evidence "that Gp-forms in the older texts have at times been replaced by corresponding N-stem forms in the younger ones". The case of the N versus Gp is perhaps a better example of the dangers of rejecting free variation than the aforementioned *qutiya* / *qutā* by-forms. Retsö (1989, 143–45) proposes that the Gp PC *yu-qtal* must have arisen as a weak-root (in √1=*n*, *w*) alternative to the N. This implausible conclusion is born of desperation to identify a phonological distribution of the two stems, refusing to admit they could have simply coexisted in free variation.

to shape the course of IP development. So, apart from exerting a limiting pressure on the Gp once it arose, the presence of the N (and tG/Gt) also accounts for the late development of the Gp.

Several detailed, independent arguments in favour of the relatively late development of the Gp are presented in the analysis and reconstruction; suffice it here to summarise two clues: its general rarity and formal diversity between languages. The Gp is by far the rarest of the Hebrew IP stems, and occurs only in the SC in Aramaic, where its form (*qəṭīl*) has a quite separate origin from those of its counterparts in Hebrew (*quttal*) and Arabic (*qutila*, and dialectal *qitil*). The scarcity of the Gp in NWS is a function of its late formation; it is described above (in §§3.6.2, 3.6.4) as the 'last-in first-out' of the IP stems in Hebrew. Furthermore, the formal heterogeneity of the Gp SC reflects its formation after the different languages had become separate.[12]

The historical precedence of the Dp and Cp over the Gp is just one element of the overall hypothesis for IP development, and raised here by way of example of the novel, holistic understanding of IPs within the broader detransitive context. Equally important as how IPs relate to other detransitive stems, for example, is how they relate to their respective non-finite PASS PTCPs. Ultimately, when all factors are considered, the following development is hypothesised:

stage 0, G PASS PTCPs;

stage 1, D and C PASS PTCPs;

stage 2a, Dp and Cp PCs;

stage 2b, Dp and Cp SCs;

stage 3a, Gp PCs;

stage 3b, Gp SCs;

stage 4, all other IPs (e.g., IPs to *t* stems, and IP-specific INFs).

[12] This admittedly does not account for the Gp PC, which is in fact the most morphologically heterogeneous IP form, appearing as *yu-qtal* in almost all cases; the likelihood that this is a coincidence due to limited options for IP formation relative to active G *ya-qtul* is discussed below (in §§4.9.1, 5.6).

The stages of this proposed reconstruction, it must be stressed, are not just chronologically contiguous, but developmentally interdependent. The details of this hypothesis are outlined below, along with the analytic methodology that has led to its formulation—particularly in contrast to that of previous, less succesful works on IPs—and several arguments subsequently found to support it.

A major reason that scholarship to date has failed to satisfactorily account for IP development is because it has not considered all IPs together, or within the more general detransitive context. In fairness, it is difficult enough to adopt a perspective circumspect broad enough to simultaneously encompass all the data, let alone to achieve on this basis an analysis with enough specificity to remain meaningful. To avoid coming adrift by viewing swathes of forms without some unifying frame of reference, underlying trends must be the starting point of the analysis, from which attention is then turned towards the small schisms within them. For example, whereas previous works look first at the difference between Hebrew *yə-quttal* and Arabic *yu-qattal* and (unsuccesfully) attempt to work backwards towards a common form, the methodology adopted here is to establish first in what regard(s) these forms, and indeed all IPs, are similar. Then, using this general commonality as a background, reasons for the more specific differences will be sought.

When looking at the situation in such an encompassing manner, two features are found that are pervasive enough among IPs to be identified as keys to the history of their development: 1) They are distinguished from their active counterparts by a height contrast (referred to for conenvience as "VMHC", for voice-marking height contrast). No specific height is associated with active or passive, but the height-voice alignment can run in either direction depending on the context. 2) A close morphological relationship exists between IPs and their corresponding

PASS PTCPs. In fact, it is by combining these two that one reaches the realisation that PASS PTCPs, or more preciely their relationship to ACT PTCPs, *are the very origin* of the VMHC.

The most widespread passive-marking verbal form in Semitic—in the looser sense including verbal adjectives as well as finite forms—is the G PASS PTCP; this is an excellent place to begin the analysis moving from general commonalities to specific differences. Semitic G PASS PTCP forms have a long high vowel between R_2 and R_3, but the individual languages diverge between having a front or back vowel in this position; in diachronic terms, they derive from either **qatīl* or **qatūl*. This general commonality may be captured by an analysis of the tripartite vowel system endemic to Semitic—with low **a*, high-front **i*, and high-back **u*—that refers only to a more fundamental diametric height opposition: $V_H \neq V_L$. Compared with the G *ACT* PTCP **qātil*—*qv̄ɪtvʰl* in terms of the more general rubric of height quality—the PASS PTCP *qvɪtv̄ʰl* is distinguished by the height and position of the long vowel.

This contrast in height, or in some cases more precisely in the *positions* within the form of vowels of differing heights, is paralleled in finite IPs—cf. e.g., Classical Arabic D *qattala ~ yu-qattil* ≠ Dp *quttila ~ yu-qattal*, Omani Arabic G *qatal ~ ya-ktib* ≠ Gp *qitil ~ yi-ktab*, Aramaic G *qətal* ≠ Gp *qətīl*, and Hebrew C *haqtīl* ≠ *huqtal*.[13] Though a low ≠ high contrast between the vowels of IPs and their active counterparts is virtually ubiquitous, there is variation in its precise manifestation thereof. This contrast can be *a* ≠ *i* or *a* ≠ *u*, and its alignment may run either active +low ≠ IP +high vowel or the converse, with cases where both occurring in the same form (e.g., in the Hebrew C ≠ Cp). To the extent scholarship has recognised this principle of a voice-

[13] Very rare instances of IPs lacking a VMHC—e.g., Hebrew 2MSG C SC *hiqtal-tɔ* versus Cp *huqtal-tɔ*—are discussed below in a dedicated section but are ultimately all found to result from earlier situations in which VMHC was present during IP formation, but was broken down by subsequent language-specific developments (in this case, the shift **hiqtil-ta* > **hiqtal-ta* in the C through Phillipi's law). Hebrew Cp forms show some variation between *o* and *u*, with the latter occurring especially in doubly-closed syllables—cf. √1=*n huqqal ~ yu-qqal* versus √strong *hoqtal ~ yo-qtal* (Jouön and Muraoka, 1991, §57). However, since the *o* undoubtedly derives from earlier **u*, as (usually) preserved in C PASS PTCPs *muqtɔl* (more commonly than *moqtɔl*), for the sake of transparency in comparison with forms from other languages and parts of the paradigm, these forms are presented with *u*.

marking height contrast (VMHC) in IP morphology, it has largely either analysed *u* as a passive marker—something thoroughly debunked in the analysis below—or ignored altogether. By beginning with the general commonality of the VMHC, the current hypothesis achieves, for the first time, a plausible, unified overview of IP morphology from which to proceed to the specific variation between attested forms.

Another important dimension of this analysis of considering IPs alongside PASS PTCPs is the perspective it affords regarding the derivational relationship(s) amongst them. It is conspicuous that the attestation of a given IP invariably demands that a corresponding PASS PTCP also be attested. Further, formal similarities between some IPs and PASS PTCPs have long been noted, and are, in fact, so self-evident that they can hardly be ignored.[14] For example, Few would deny that Hebrew Dp PC *yə-quttal* is formally related to D PASS PTCP *məquttɔl*, as Arabic *yu-qattal* is likewise to *muqattal*. However, differences in *specifics* of the individual cases impede the integration of the data into a single, all-encompassing theory. Scholars either view the similarity between how Arabic and Hebrew Dp PCs mirror their respective D PASS PTCPs as merely coincidental, or else overreach in proposing an etymological derivation of the forms in one language from forms like those of the other.[15] The trend of formal relation between IPs and corresponding PASS PTCPs must be recognised, and crucially not written off as an irrelevancy, but evaluated as a *common generality* central to IP development as a whole.

Furthermore, to achieve a more focussed (and consequently more useful) understanding of the trend towards relationships between IPs and PASS PTCPs, it must be juxtaposed with the other fundamental of IP morphology: the VMHC. These two are by no means unrelated

[14] The clearest case of all is that of the Aramaic Gp SC and G PASS PTCP, both of which take precisely the same form, *qətīl* (in the strong root, at least).
[15] For an overview of the main theories relating IPs to PASS PTCP forms, including an explicit recognition of the difficulty of fitting the situations of the various languages together, see Retsö, 1989, 165, 168–69, 187ff.

phenomena; on the contrary, the locus from which the VMHC arose was in the PTCP system, specifically between the long, stressed vowels of G ACT *qātil* ≠ PASS *qatv̄ₕl*. However, this was not where height contrast as a (potential) voice marker was *created*, merely where it was first identified.[16] More relevant to IP formation is the subsequent extension of the VMHC from this original context to the D and C ACT PTCPs (already in existence since PS) to create corresponding PASS PTCPs. While many IPs (such as the aforementioned Dp PC forms) can be related directly to the PASS PTCP morphology, those that cannot instead result from the further abstraction of the VMHC and application to active forms without reference to the original PTCP context of the marking.

Thus, the proposed hypothesis for the mechanism(s) of IP formation is that a height contrast originating between PASS and ACT PTCPs was subsequently extended to form finite passives (IPs). This initially occurred in direct relation to PASS PTCPs, and continued to do so where possible, but the VMHC existed as a conceptual abstraction that could also be applied directly to finite active verbs. Using this methodological framework of common generalities accounts for all the data while allowing for differences between attested forms without compromising the integrity of the theory. For example the slight difference between Hebrew *məquttal* and Arabic *muqattal* should not blind us to their overarching commonality of being D PASS PTCPs formed by application of a VMHC to the ACT PTCP *muqattil*.[17] Similarly, to the extent that their respective Dp PCs, *yə-quttal* and *yu-qattal* diverge, this is merely a nuance in the manifestation of the commonality of IP formation being based directly on PASS PTCP morphology.

[16] The analysis below describes how the G PASS PTCP *qatv̄ₕl* arose as a reaction to the repurposing of the patient verbal adjective *qatv̌ₕl* as a finite form (stative G SC), rather than in any direct relationship to the ACT PTCP *qātil*.
[17] Such a recourse to generalisation is particularly apt considering that multiple variants sometimes coexist within a single language—e.g., Aramaic possesses Dp PASS PTCP forms both <**muquttal* and <**muqattal* (discussed below in §§4.7–7, 5.3.

4.2 Competing motivations at work in IP development

Even if IP formation may be boiled down to these two fundamentals, any proper understanding of IPs needs to contextualise them within the broader detransitive system(s). The vast data set of all Semitic detransitives can be synthesised to find a small number of common generalities, just as has been done for the IPs specifically. The descriptions above (in Chapter 3) show the following trends to have been operative throughout the developments of Semitic verbal stems, that is, to have shaped the detransitive systems of the phylum (including IPs). In addition to the aforementioned principles of the VMHC, and relationships between PASS PTCPs and IPs, the analysis and reconstruction will refer to factors relevant to the overall Semitic verbal stem system(s) of which IPs are a part: 1) functional symmetry, 2) formal isomorphism, 3) the semantic-to-syntactic shift, and 4) the fientivisation of verbal adjectives.

1) Functional symmetry means balance within language, such that if it is functionally symmetrical, when a given form has a counterpart performing a specific function, other forms that are equivalent to it also have corresponding derived counterparts. Semitic languages resolve functional asymmetry in their inventories of detransitive verbal stems, creating or strengthening equilibrium therein, by creating new stems, losing existing ones, or reassigning the functions of stems. Functional symmetry is by definition concerned with *relationality* between forms, so it cannot be identified, let alone understood, without looking at the whole paradigm together.

The motivation to create symmetry is well recognised by scholars of historical linguistics as operative in the phonetic, phonological, and morphological domains, but application of the same thinking to the *function*(s) thereof, is less standard.[18] This may be because the analogical

[18] Lyle (1999, 44) states that phonetic chain shifts arise because "sound systems tend to be symmetrical or natural, and those that are not, that is, those which have a 'gap' in the inventory, tend to change to make them symmetrical or natural (to fill in the gap). However, a change which fills one gap may create other gaps elsewhere in the system which then precipitate other changes towards symmetry/naturalness to rectify its effects, thus setting off a chain

processes that create such symmetry (discussed below) are usually considered in terms of their formal dimensions. It would be possible to view developments in Semitic detransitive systems solely in terms of the elimination of morphological irregularity, without reference to how the different stems are used, but that would ignore a crucial dimension of how such developments affect the language, and why they occur in the first place.

One example of functional symmetry that is central to the hypothesised IP development is how the presence of the N as a first-argument reducing counterpart to the G provokes the creation of the Dp and Cp to create functional symmetry between the G, D, and C in this regard.[19] This resolved a functional asymmetry in the existing system, which had both tripartite and bipartite groupings of detransitive relationships: i.e., tripartite G (basic) ~ N (passive) ~ tG/Gt (reflexive) versus bipartite D, C (basic) ~ tD/Dt, Ct (all detransitive). The new Dp and Cp stems levelled the tripartite organisation: D, C (basic) ~ Dp, Cp (passive) ~ tD/Dt, Ct (reflexive).[20]

The strength of the motivation to create functional symmetry is evident in that IP formation is not the only way this particular asymmetry is resolved. Throughout Semitic, the various languages tend, over time, to favour either the tG/Gt (most archetypally, Aramaic and Ethiopic)

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reaction". McMahon (1994, 186) also notes the possibility of extending this thinking beyond the realm pf phonetics: "semantic chainshifts might be subjected to analyses of the sort used in phonology, introducing Structuralist notions like systemic equilibrium".

[19] For example, in the detransitive stems, Omani Arabic (discussed above in §3.4.4) creates an ND stem, resulting in functional symmetry between G ~ N and D ~ ND; in transitivity-*raising* stems, Ethiopic (discussed above in §3.7) creates CD and CL stems, resulting in functional symmetry between the G ~ C, D ~ CD, and L ~ CL.

[20] Of course, no real-life language system is perfect, including in terms of functional symmetry. At the proposal for this dissertation, Pardee (2015, p.c.) observed that Ugaritic contradicts the hypothesised functional symmetry. This is true if one focusses on the data as an isolated synchronic snapshot, but when one steps back to view the diachrony of Semitic detransitives as a whole, the shift towards greater functional symmetry becomes apparent. In Canaanite, the N is ascendent over the tG/Gt, so the latter is only found in the earliest stages of Phoenician and some epigraphic Canaanite texts, and is wholly absent from Biblical Hebrew. The subtle decline in Gt productivity between archaic poetic Ugaritic and newer prose texts—as identified by Tropper, 2000, §74.237.1—should be understood as the very incipient stages of a similar development to what occurs, and progresses much further, in Canaanite.

or the N (most archetypally, Hebrew) at the expense of the other.[21] Moreover, two (independent) cases—Maltese and the Algerian Arabic dialect of Djidjelli—exist of languages combining the N and Gt into what may be formally labelled an "Nt" rather than eliminating one of them. All of these diverse developments (and likewise the creation of the Dp and Cp) are influenced by the same motivation to create functional symmetry between the detransitive stem(s) of the G on the one hand and that/those of the D and C on the other; the differences between the specifics of how this is achieved must not blind us to their overall commonality.

Admittedly, it would be unacceptably circular to use a feature (namely, the resolution of functional asymmetry) of the proposed development of detransitives as the sole evidence confirming why IPs developed as reconstructed. However, other cases exist in the Semitic verbal stem system(s) supporting the notion of a motivation towards functional symmetry. For instance, Ethiopic extends the C morpheme to the D (and L), creating functional symmetry (basic : causative) between G : C(G) :: D : CD :: L : CL. In most Semitic languages the derivational relationship between G ~ D (basic ~ +verbal plurality, including transitivity raising) is transparent, but in Ethiopic it has broken down and they (along with the L) are conceived of as equivalent, basic stems.

This explains why functional symmetry has resulted in this extension of the C here but not elsewhere: Ethiopic basic G has a causative counterpart (CG), so too does basic D need one (CD). Elsewhere, the D is not functionally equivalent to the G in terms of transitivity raising—on the contrary, one of its main function is to raise transitivity. Consequently, it is also not subject to the demands of functional symmetry, relative to the G, in terms of the transitivity-raising, which is why the D does not form a transitivity-raising CD stem outside of Ethiopic.

[21] See Retsö's (1989, 142) generalisation: "Like the Arabic dialects, the whole Semitic family may be divided into *t*-dialects and *n*-dialects, depending on which consonantal affix is used to form passive markers in the G-stem".

2) Formal isomorphism—referred to by McMahon simply as "isomorphism", but modified here by the adjective "formal" to stress the distinction from *functional* symmetry—is the "one-to-one, biunique association of form and meaning, or signifier and signified".[22] At the level of detransitive stems, for example, this means that the functions of the *t* morpheme are the same in the Gt/tG, tD/Dt, and Ct, or that all IPs have the same derivational relationship to their respective unmarked counterparts. With regard to how this may factor into diachronic developments, it may motivate the extension of a morpheme to new contexts, providing new forms in which this has the same function as it does in existing forms, and thereby reinforcing the formal isomorphism within the system.

In the Semitic verbal system, this means that derivational stem morphemes may be extended to new contexts. This happens, for example, with the C and the combined Ct morpheme in Ethiopic, the N in some Arabic dialects like Omani, and most relevantly, the ablaut of IP morphology anywhere IPs other than the Dp and Cp exist. In this respect, formal isomorphism is similar to functional symmetry. The crucial difference is that functional symmetry does not necessarily entail morphological parallels between counterparts (e.g., between the N and Dp), whereas formal isomorphism, by definition, refers to the formal material common between them (e.g., the dental *t-* in the Gt/tG and Dt/tD or the nasal *n* in the N and ND of Omani Arabic). Furthermore, apart from creating new stems, the motivation to increase formal isomorphism can also tighten morphological homogeneity within the system, such as by levelling prefixing of the *t* affix in Ethiopic or its infixing in MSA, for example. Since this need have no effect upon the uses of the forms in question, functional symmetry is not even a factor.

Just because it is not necessarily straightforward to tease out formal isomorphism from functional symmetry, that does not mean that the two principles can or should be conflated. They

[22] McMahon, 1994, 86.

sometimes work in concert to promote the same development—as in the extension of the causative morpheme to create a CD stem in Ethiopic—but this is not necessarily the case; sometimes formal isomorphism and functional symmetry can instead push against each other as competing motivations. Most relevantly, extension of IP morphology from the Dp and Cp to create the Gp increases the formal isomorphism of ablaut marking of passives, but upsets the functional symmetry of the stem system as a whole.[23]

3) The semantic-to-syntactic shift means that there is a change in how the language presents information. Specifically, certain verbs and verbal adjectives that originally only expressed what semantic role a participant plays in a predication came to have syntactic restrictions upon their use(s). The very kernel from which IP development proceeds, the G PASS PTCP, provides an example of this. In Ethiopic, *qətul* is a patient verbal adjective referring to both transitive and intransitive patients, which is the situation reconstructed to WS for its proto-form **qatūl* (and likewise **qatīl*); in the later stage of CS, though, there is a syntactic restriction in that the reflexes of these two patterns are increasingly restricted to transitive patients only.

The semantic-to-syntactic shift also manifests itself in finite verbs. One way this occurs is with a shift in the functions of existing forms. For example, the N originally simply indicated the semantic property of SUBJ affectedness, but throughout the history of the phylum, its use was increasingly restricted to (medio)passive situations that reduced the first argument in syntactic terms.[24] That is, N formation from intransitive G verbs, expressing semantic middle with no syntactic change, was perfectly grammatical in Akkadian, Hebrew, and Ugaritic; in the relatively

[23] The creation of the Dp and Cp levelled a tripartite (basic ~ passive ~ reflexive) organisation of detransitive stems; the subsequent creation of the Gp countervails this, reintroducing an imbalance between a quadripartite arrangement in part of the system (G ~ N ~ tG/Gt ~ Gp) and a tripartite one (D ~ tD/Dt ~ Dp and C ~ Ct ~ Cp) in the rest.
[24] More accurately, its original function was fientivisation of verbal adjectives, which accounts for a scattering of quadriradical N verbs in Akkadian, MSA, and Ethiopic with no detransitive function (whether semantic or syntactic). For our purposes, though, it is only relevant that already by PS, virtually all uses of the N may be accurately analysed as marking the semantic function of SUBJ affectedness.

innovative Classical Arabic, this is so rare to be considered "incorrectly formed" or not recognised at all.[25] Moreover, only in Akkadian could syntactically transitive G verbs form N verbs with no syntactic change—e.g., *labāšum* (G) "to wear (clothes)" versus *nalbušum* (N) "to put on (clothes)".[26] That N formation in this language operated with no regard for syntactic considerations reflects that it lies at the early end of the semantic-to-syntactic shift.

Apart from developments in the functions of existing forms, the semantic-to-syntactic shift is also manifest in the creation of new forms or constructions that explicitly (and invariably) present the predication in syntactic terms. These arise in competitive variation with older forms that marked semantic features as well as syntactic ones and sometimes come to replace them (at least in certain contexts). Most relevantly, IPs are created and subsume the passive function of the N and *t* stems.[27] Other examples of the same principle include the replacement of *t* stems by periphrastic reflexive constructions in contemporary Arabic dialects and elsewhere in Semitic.

4) Fientivisation of verbal adjectives is an extremely common way for finite verbs, including detransitives, to be created.[28] Many independent cases exist in the Semitic phylum, sometimes even occurring repeatedly at different stages from the same morphological source material. For example, the N was formed from the G verbal adjective before PS, but the same source also gave rise to the perfective SC during WS.[29] As noted above (in §4.1), IPs often have close morphological relationships with PASS PTCPs. Looking at the broader context allows us to understand this as part of a general tendency for finite verbs to derive from verbal adjectives.

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[25] Roughly one-fifth of N verbs in these more archaic Semitic languages are based on intransitive G verbs (Jenni, 1973, 63; Kouwenberg, 2010, §12.2.2.2); for the Classical Arabic N, see Fischer, 1972, §169; Wright, 1896, §53.
[26] Kouwenberg, 2010, §§12.2.2.1.
[27] Rather than replacing them outright, though, the reconstruction of IP development shows their history to be characterised by protracted situations of undulating variation ending in decline. The point being highlighted here, though, is the role of the semantic-to-syntactic shift in their initial creation.
[28] Hodge, 1975.
[29] Fientivisation of verbal adjectives is particularly prevalent in Aramaic, where the ACT PTPC **qātil* and PASS PTCP **qatīl* grammaticalise into finite verbs—the *qatl-in* IPFV and *qtil-li* PFV, respectively—as part of a wholescale reorganisation of the conjugational system.

As well as the commonality of deriving from verbal adjectives (or perhaps rather because of it), the developments of both IPs and the SC simultaneously reflect the semantic-to-syntactic shift. However, there is an important difference between these two constructions: IPs do not simply grammaticalise existing predicative constructions into new conjugational parts of the verbal paradigm—in this respect IPs are more comparable to the N than to the SC. Thus, unlike the SC, they are conjugated by the same inflectional morphology (prefixed and suffixed person markers) found throughout the verbal stem paradigm.[30] This is why IPs must be considered within the context of the derivational verbal stem system, although the dimension of the inflectional conjugational system does come into play with the Aramaic Gp SC *qətīl* (which must be considered alongside the *qatl-in* IPFV and the *qtil-li* PFV as discussed above (in §3.5).

Another similarity between IPs and the N, as opposed to the SC or *qtil-li* PFV, is that the detransitive morpheme of both (ablaut or the dental *n*) may be abstracted from its original context and extended to new environments. Specifically, the original link to verbal adjectives is severed, and new stems are formed directly from active finite verbs in other parts of the paradigm to fulfil the motivations towards functional symmetry and/or formal isomorphism. In Bahraini Arabic, the nasal prefix of N *in-qvtal* is extended to the D, creating a new ND *in-* + *qattal* → *inqattal*.[31] Likewise, the analysis of IPs and reconstruction of their development below (in §§4.9, 5.5–8) reveals that while most are derived directly from PASS PTCPs, some have instead extracted the morphological marking of the VMHC from its original PTCP context and applied it directly to active forms.

[30] Apart from a handful of possible Hebrew exceptions, IPs do not form their own INFs, which would be redundant insofar as INFs are neutral with regard to voice. IMP formation was also blocked in IPs, presumably for semantic reasons relating to the category of agency. That is, the adressee of an IP IMP would be its patient, and as such would not be the appropriate participant to order to carry out the action, since they do not have agency in it.

[31] Holes (2016, §4.1.2.6) gives examples and notes that the same occurs in Omani and Najdi Arabic. To the extent that the PS origin of the C may be the application of a derivational causative morpheme **sa-* to a G verbal adjective, then the extension of the C morpheme to the D and L stems in Ethiopic (and elsewhere) would also be an example of this same concept.

4.3 Height as an organisational division of the Semitic vowel system

The hypothesised development of IPs depends on vowel height being a contrastive feature and basic organisational principle in Semitic phonology. This is not a given, since the archetypal phonology of the phylum—reconstructed back to PS and preserved as late as Classical Arabic, for example—has three vowel colours: *$a(:)$, *$i(:)$, and *$u(:)$.[32] That said, some scholars do recognise that the behaviour of vowels aligns somewhat with distinction in their height, even if this is not a mainstream position.[33] This section builds from this starting point, and finds that while purely phonetic properties are certainly important in this, the height distinction also applies to the functional load of the vowels. Put another way, height can be a contrastive feature in the phonology in terms of phonemic contrast, which is a crucial theoretical basis for the proposed VMHC that lies behind IP formation.

Behavioural distinctions between low *a versus high *i and *u can be identified as early as PS, owing to the phonetic properties of the latter, specifically, their relationships with the glide phonemes *y and *w, respectively. In closed syllables, only diphthongs with *a are reconstructed for PS; *aw and *ay occurred, and are preserved in some descendent languages (e.g., Arabic *bayt* "house" and *mawt* "death"). By contrast, as regards diphthongs with high vowels, *iy and *uw monophthongised to *$\bar{\imath}$ and *$\bar{u}$ by PS, while **iw and **uy are impermissible in most Semitic languages (in closed syllables) as they likely were in PS.[34]

Overall, one may generalise that low vowels are more stable in Semitic than high ones.[35] That is to say, $a(:)$ resists lenition in contexts where it affects *$i(:)$ and *$u(:)$, sometimes to the

[32] Even assuming a subdivision of these three vowels, nothing inherently demands that it align with height; a contrastive opposition could equally exist between +front *i* versus -front *a* / *u* or +back *u* versus -back *a* / *i*.
[33] Owens (2006, 48–67), for example, discusses height in Arabic, and finds (60) that "the primary short vowel opposition runs along the low–high axis…Contrastive [i]–[u] on the other hand is of much weaker functionality."
[34] Huehnergard, 2019, §2.2.
[35] This statement is made in relation to Semitic vowels specifically; I am aware of no universal phonetic tendency for high vowels to be less stable than low ones.

extent of total elision. Ethiopic is the prime example of this, since one sound change operative during proto-Ethiopic is an unconditioned lenition *i, *u > $ə$, with further apocopation of word-final schwa and its syncopation in certain other contexts (e.g., /$\check{v}C\_Cv$).[36] Similarly, in many contemporary Arabic dialects—and even in some instances from the earliest recorded stage of this language family—short high vowels *i* and *u* merge to a single central vowel, particularly in open syllables, whose phonetic manifestation is conditioned by consonantal context.[37]

Semitic low and high vowels also differ in their phonotactic behaviour. In line with their general instability, a number of phonological processes operate to change sequences of high vowels.[38] For example, when the Arabic 3MSG suffix follows a high vowel, the impermissible **i-hu is resolved by assimilation: e.g., **li-$kalb$-i-hu > li-$kalb$-i-hi; a low vowel (in either position) undergoes no comparable change: $kalb$-a-hu and li-$kalb$-i-$hā$. Hebrew instead resolves impermissible v_hCv_h sequences with dissimilation, specifically lenition of the first vowel to $ə$, which again does not affect sequences with a low vowel: cf. *$zirōʕ$ > $zərōʕ$ "fore-arm" versus *$šalōm$ > $šɔlōm$ "peace", or $kəlūb$ <*$kilūb$ "cage" versus $qɔtūl$ <*$qatūl$ "killed".[39] Notably, this also affects high vowels deriving from historically low ones—as $ō$ where this results from the Canaanite-specific change *$ā$ > $ō$—which indicates that height was not only a consideration in the proto-language, but remained an important phonetic property in the descendent languages.

Behavioural differences in long vowels, between low $ā$ versus high $ī$ and $ū$, mirror those in their short counterparts. Again, high vowels are generally less stable; *$ī$ and *$ū$ tend to shorten

[36] These rules are familiar to any student of Geʿez with a basic understanding of comparative Semitic linguistics, but see, e.g., Tropper and Lehmann, 2002, §32.
[37] Fischer and Jastrow, 1980, 40, 54. Watson (2002, §2.4.1) provides a comparative overview of Arabic dialects with regard to this specific phenomenon; cf. Owens, 2006, 48–65, especially 51ff. for a response to Fischer and Jastrow, and 57ff. for possible instances of high-vowel mergers in Old Arabic.
[38] This is not to deny that v_lCv_l sequences are immune from all phonological processes. For example, the boundedness morpheme *na dissimilates to ni in Arabic following the dual suffix $ā$: * $kalb$-$ā$-n**a** > $kalb$-$ā$-n**i** "two dogs". Nonetheless, this does not contradict the fundamental distinction between high and low vowels in their phonotactic behaviours, nor the relatively instability of the former in this regard.
[39] For this sound change and these examples, see Jouön and Muraoka, 1991, §§30d, 88Eh.

(to *i* and *u*, respectively) in situations where **ā* does not. One example is before the Arabic energic suffix *-nnv*: cf. 2FSG *ta-qtul-i-nna* <**ta-qtul-ī+nna* and 3MPL *ya-qtul-u-nna* <**ya-qtul-ū+nna* versus 3MDU *ya-qtul-ā-nni* <**ya-qtul-ā+nni*. Preservation of a long vowel in a closed syllable is exceptional in Arabic; the only other instances I am aware of occur with the elision of short vowels between R_2 and R_3 in √2=3, namely in the G ACT PTCP *qāll* < **qālil* and the L SC *qālla* <**qālala*.[40] Notably, only low *ā*, and never high *ī* or *ū*, occurs in the context _CC.

The preceding distinctions between low and high vowels relate to their phonetic articulation. Indeed, Kaye and Rosenhouse explicitly contextualise common developments of high vowels in Semitic like those just described by reference to an abstract concept of their natural phonetic properties.[41] More important though, with regard to the role of vowel height in IP morphology—specifically in the mechanism of the VMHC—is its *phonological* dimension of height. A clear bifurcation exists between the (reflexes of) low and high vowels in terms of their functional loads; **i* and **u* can often stand in either free or lexically-determined variation, relative to each other, while the same is not true for variation between **i* and **a* or **u* and **a*.

For example, there is no semantic contrast between the Classical Arabic stative G SC patterns *qatila* and *qatula*, but together, they are functionally distinct from *qatala*; the forms with high vowels are stative and that with a low vowel is fientive.[42] This is a functional distribution that has become established with the development of the perfective-marking finite SC, itself the

[40] For these features in Arabic, see Wright, 1896, §§13, 25, 97, 124.
[41] Kaye and Rosenhouse, 1997, 278–89: "Elision of the short unstressed vowels *i* and *u* is similar to developments in Hebrew, Aramaic, or Ethiopic, i.e., the 'normal' development one might have expected".
[42] Neither in Quranic Arabic (for which, see Owens, 2006, 58), nor elsewhere in Semitic is the correlation between form (**qatv$_h$la* versus **qatala*) and function perfect; it may be disturbed by the effects of certain root consonants on adjacent vowels, but remains sufficiently robust to be immediately familiar to even the initiate in any WS language. Thus, this distinction holds for Hebrew statives *qɔtel* <**qatila* and *qɔtol* <**qatula* versus fientive *qɔtal* <**qatala.*

key isogloss of WS.[43] In Ethiopic, due to the sound change **u, *i* > *ø*, the reflexes of **qatila* and **qatula* merge to *qatla*, contrasted to fientive *qatala*. Since the two stative SC forms were never *functionally* distinct, this is subtly different from what Classical Arabic grammarians describe where the instances of lenition (and merger) of *i* and *u* in open syllables can obscure their respective case-marking functions (genitive and nominative).[44] Nonetheless, both cases reflect the interplay between purely phonetic behaviour of vowels and their functional load(s), as relates to the property of height.

As with the purely phonetic dimension, the breakdown of the functional distinction between **ī* and**ū* (or their reflexes) is more subtle than that in short vowels, but some cases may still be identified.[45] Nominal suffixes *-īt* and *-ūt* form abstract nouns throughout Semitic, particularly in NWS (e.g., Hebrew and Aramaic *malk̲-ūt̲* "kingship" and *ʔaḥăr-īt̲* "end").[46] Apart from performing the same function, *-īt* and *-ūt* also share the morphological behaviour of apocopation of the final *t* in the Aramaic absolute state. The equivalency of *ī* and *ū* in this context is reflected in synonymous doublets like Hebrew *bək̲īt̲* (Gen 50:4) and *bək̲ūt̲* (Gen 35:8), both "crying"; Aramaic *nəwəlī* (Dan 2:5) and *nəwəlū* (Ezr 6:11), both "refuse-heap"; and the *qərē-kət̲īb* pair in

[43] Akkadian stative verbal adjectives, which are more similar to the PS source etymology "regularly have the inflectional stem PaRiS [*qatil*], at least in Babylonian. Assyrian shows more variation: apart from PaRiS, there are two other (marginal) patterns: PaRaS [*qatal*] and PuRuS" [*qatul*] (Kouwenberg, 2010, §7.2).
[44] Owens, 2006, 60: "Sibawaih recognized a realization of nominative-u and genitive-i before an object suffix, i.e. not in pausal position, in which the vowel contrast was neutralized."
[45] One of the most important examples is in G PASS PTCP forms <**qatīl* and **qatūl*. However, since these are precisely one of the features on which the hypothesised VMHC is based, it would be unacceptably circular to cite these forms here as an example of the relationship between the vowels **ī* and **ū*.
[46] For Semitic languages generally, see Lipiński, 1997, §§29.48–49; for Aramaic, Cantineau, 1978, 90 and Rosenthal, 1995, §§56, 57; and for Hebrew, Jouön and Muraoka, 1991 §88Mj. Abstract nouns ending in *-āt* are admittedly occasionally also attested (e.g., Geʿez **qəds-āt* "holiness") but are far rarer. More importantly, they have a quite distinct etymological origin (likely deriving from the FPL nominal suffix) and do not partake in the similarities described for *-ūt* and *-īt* (e.g., the loss of *t* in the Aramaic absolute state).

Ezra 7:26, where the consonantal text {*šršw*} supposes *ū*, but the reading tradition is *šərošī* "corporal punishment".[47]

This section is not intended as an exhaustive description of how height factors into the Semitic vowel system, but rather a survey of some illustrative examples where it does.[48] Nonetheless, it demonstrates that, while the Semitic vowel system is, at its core, tripartite, it may further be bisected by height. This does not only mean that the *formal* behaviours of high vowels align together against those of low ones, but also that height is a factor in the distribution of their functional loads. Though **a*, **i*, and **u* were all phonemically distinct in PS, and their reflexes remained so in some descendent languages, throughout the history of the phylum, functional distinctions between the first vowel and the latter pair were are far greater than those *within* the latter pair. This is the theoretical background against which the notion of a VMHC, and the hypothesised development of IPs generally, is to be understood.

4.4 G ACT and PASS PTCPs

The most widespread and homogenous case throughout Semitic of a voice contrast marked by distinction in vocalic patterning of forms—i.e., rather than by consonantal affixes—is that of the G ACT versus PASS PTCP. Every major branch of the phylum except Ethiopic and MSA possesses a reflex of **qātil* serving as an ACT PTCP; though cognates thereof exist in Ethiopic

[47] Jastrow's (1903, s.v. √*nwl*) gloss "offensiveness" for *nəwɔlī*/*nəwɔlū* better captures the abstract nuance. The last example, *šərošī*/*šərošū*, does not even possess a genuine Semitic abstract suffix, but is rather a Persian word ending in *ī* that has been reinterpreted as such (Rosenthal, 1995, §57).

[48] Other distributional contrasts between low and high vowels include the Barth-Ginsberg distribution of prefix and theme vowels (for which, see Hasselbach, 2004), whereby the former was high if the latter was low, and vice versa (**ya-qtul* and **ya-qtil* versus **yi-qtal*), and the assimilation $*a > v_I / \_CC\bar{v}_I$ [v_1 +high] that Fox (2003, 267n1, 271n6) identifies as operative in some Arabic dialects, Hebrew, and Ugaritic.

and MSA, their functions are not restricted in the same way as elsewhere.[49] G PASS PTCPs deriving from a common rubric **qatv̄ₕl* are found throughout CS, but only there. Again, reflexes of the forms per se occur in Ethiopic (and hardly at all in Akkadian), but their functionality is not restricted as it is in CS. The following analysis of the development of these two forms, and specifically their interrelation, is fundamental to the whole hypothesis of IP development.

As early as PS, **qātil* served as a G ACT PTCP, being productively formed for any root with agentive semantics. In the reconstruction of PS, as in most of the descendent languages, it is fairly exclusive in this use, both in the sense that this is all the pattern **qātil* expresses, and in that it faces little competition in doing so.[50] Thus, in Akkadian, Arabic, and Hebrew, reflexes of **qātil* are restricted to fientive, agentive verbs and cannot be formed from stative verbs with a sole patient argument. For example, Arabic permits *rākiḍ* "runner/running" but not ***sāmin* "being fat"; similarly, Hebrew permits *ʔōḵel* <**ʔākil* "eater/eating" but not ***kōḇeḏ* <**kābid* "being heavy"; and Akkadian permits *nādin* "giver/giving" but not ***rāpiš* "being wide".

Aramaic *qātel* (<**qātil*) can refer to intransitive patients or similar arguments, such as experiencers (e.g., *dāḥel* "being afraid"). This is a secondary expansion in its scope related to another major development of the Aramaic verbal system. Namely, (the reflexes of) **qātil* and **qatīl* are in transition from being non-finite adjectives (albeit ones linked to the verbal paradigm) whose primary functional load relates to the semantic roles agent and patient, respectively, to being finite verbal forms whose primary reference is to the aspectual dimension

[49] On ACT PTCP forms <**qātil* throughout Semitic, see Fox, 2003, 237–43; In MSA, **qātil* has been supplanted by a form **qatl-ān* in the ACT PTCP function, ultimately developing into a future tense (for which, see Rubin, 2007); the Ethiopic *qātəl* reflex of **qātil* is discussed here below.

[50] Fox (2003, ch. 29) devotes a chapter of his monograph on Semitic noun patters to **qātil* and provides a full but concise summary of the situation. He (246–48) notes that while some patterns with gemination of R_2 are associated with agentive semantics, they do so neither with the same productivity as **qātil*, nor with the same exclusivity of role, since they also primarily express notions of durativity only secondarily present in **qātil*, if at all.

of the action; specifically, the erstwhile ACT PTCP **qātil* develops into the *qatl-in* IPFV.[51] This accounts for how *qātel* has expanded beyond its original restriction to agentive verbs. Because it now expresses imperfectivity, the semantic role of the sole participant is no longer an important feature.[52]

Apart from causing the expansion beyond reference to agents, the development of **qātil* into the finite *qatl-in* IPFV also plausibly explains the Aramaic-specific development of a form *qātol*. The terminology *nomen agentis* used for this construction gives a fair impression of its functional scope: a nominal pattern referring to an agent, doing so with less relation to a specific verbal predication than does *qātel*.[53] Though the precise origin of *qātol* is uncertain, Fox is adamant, and correct, that some link to **qātil* is undeniable, and I propose a relationship between them whereby, with the shift of the latter towards finite verbal status, the new *qātol* form has been drafted in to take over its erstwhile functional domain of agentive verbal adjective.[54]

However the Aramaic *nomen agentis* arose, in the synchronic analysis of Syriac, the parallelism both in formal and functional terms between *qātel* and *qātol* is undeniable; both are agent-aligned verbal adjectives falling under the height rubric *qātv$_h$l*.[55] This does not require that

[51] The development of the *qatl-in* IPFV is described in detail above (in §3.5), but to summarise again briefly, it arises through the grammaticalisation of a predication combining the ACT PTCP and an enclitic pronoun (i.e., the 1SG **qātil ʔanā* > *qatl-in*). The terminology *qatl-in* reflects the endpoint of this process in NENA, though a formulation more familiar to many scholars of Semitic languages would be Syriac *qātel-nā*.

[52] Similarly, once the erstwhile PASS PTCP **qatīl* develops into the *qtil-li* PFV, some dialects of NENA even extend its use back to intransitive patients, for which see Coghill, 1999, §3.3; 2016, §7.6. (e.g., *dmix-li* "I slept", with further development from perfective > preterite).

[53] For the Syriac *nomen agentis*, see Muraoka, 2005, §51. Its relation to the ACT PTCP is even more apparent in the derived stems, where it is created simply by the addition of a suffix *-ān*. Cf. e.g., D ACT PTCP *məqabbel* "one who receives/is receiving" versus D *nomen agentis məqabbəlān* "receiver"; the former contains reference to a specific instance of receipt (i.e., verbal predication), whereas the latter is used in more general, substantive terms.

[54] Fox, 2003, 242–43. The *nomen agentis* is variously argued to derive from the ACT PTCP of √3=*w*, insertion of the theme vowel *o* (<**u*) of the PC into the ACT PTCP, or least plausibly of all, a **qatūl* agentive verbal adjective

[55] Crucially, reference to height is made here not in terms of contextless, *phonetic* values, but of *contrasting oppositions within phonological systems*. For example, Western Syriac has backed **ā* > *ō* and broken down the length distinction in high vowels, so the height contrast is between "low" *a* and *ō* versus "high" *u* and *i*. Forms cited here are from Eastern Syriac, which has a more archaic system (albeit still with lowering **u* to *o* and **i* to *e*). These caveats notwithstanding, the basic principle—that the VMHC bifurcates the phonological system into two groups of vowels based along (and often preserving) historical phonetic lines—is the same here as throughout Semitic.

qātol derives from a proto-form <**qātul* in diachronic terms. In fact, the irreducibility of *o* argues against this, and on balance, it seems more plausible that as *qātel* verbalised into the *qatl-in* IPFV, a new form was created to take over its former functional territory by substitution of *o* for the *e* in *qātel*.[56] What is relevant to the proposed identification of a VMHC between the G ACT and PASS PTCPs, though, is that the Syriac *nomen agentis* serves as another point of reference confirming the identification of the height-based template *qv̄ₗtvₕl* as relating to agentive verbal adjectives (contrasted to *qvₗtv̄ₕl* for patient verbal adjectives).

Apart from MSA (treated separately, Chapter 6), Ethiopic is the only branch of Semitic where the role of a G *ACT* PTCP <**qātil* is not entrenched. Geʿez *qātəl* is not restricted to agents and is a more general verbal adjective that may also refer to intransitive patients. Fox claims *qātəl* is a productive G ACT PTCP in Tigre, and should therefore be reconstructed as such to proto-Ethiopic regardless of the Geʿez situation.[57] Even there, though, uses like *šāyəb* "white-haired" and *wāqi* "useful" relate to (intransitive) patients, and the pattern also forms a number of primitive nouns (e.g., *ʔānəf* "nose" and *gādəm* "plain").[58] Both of these characteristics of Tigre *qātel* differ significantly from the situation throughout CS—notwithstanding the Aramaic developments just discussed. A loss of the fairly rigid restriction to agentive verbal adjective (i.e. ACT PTCP) use of the reflex of **qātil*, as reconstructed back to PS, may therefore be reconstructed as an isogloss of the Ethiopic group.[59]

[56] Pardee (2020, p.c.) observes the irreducibility of **u* in Hebrew reflexes of **qatul* (e.g., **gadul* > *gɔḏōl* "big"), but these are more likely preserved under the analogy of reflexes of **qatāl* > *qɔtōl* (as per Fox, 2003, 175–76), which is not a possibility in Aramaic, where **ā* is preserved as such, or at least does not merge with **u*.
[57] Fox, 2003, 239–40.
[58] Raz, 1983, §§3.2.3.1, 3.4.2.
[59] Though it is beyond the scope of the current dissertation to investigate further why the ACT PTCP loses its place in the Ethiopian Semitic verbal paradigm (in the looser sense, including related verbal adjectives), it seems very likely that this—and likewise the failure of this branch to develop PASS PTCPs, as discussed below—is related to the widespread use of relative clauses with finite verbs.

The most important consideration regarding **qātil* in a discussion of IP development is the presence of a direct counterpart **qatv̄ₕl*, that refers not to the agent of the action, but rather its patient.[60] The forms **qatīl* and **qatūl* themselves are reconstructible to PS, since they occur in Akkadian as well as WS. However, they are rare in ES (particularly **qatūl*), and, where they do occur, are primarily substantives. It is more precisely their *rise to prominence as verbal adjective patterns* that dates to the WS stage, plausibly to replace the erstwhile verbal adjective patterns par excellence (**qatil* and **qatul*), as these developed into finite verbal forms (stative G SC **qatila* and **qatula*) in a key isogloss of WS, the development of the perfective-marking SC.[61]

While **qatīl* and **qatūl* started out in WS as patient verbal adjectives in a non-restrictive sense, referring to both transitive verbs and intransitive patients, further down the Semitic family tree, in CS, their reflexes usually became increasingly exclusive in referring to transitive patients. This development cemented the diametric opposition of *qātil* versus *qatv̄ₕl*. A verb with a transitive patient referred to by a PASS PTCP <**qatv̄ₕl* presupposes a corresponding ACT PTCP <**qātil* referring to its transitive agent; the same is not true where **qatv̄ₕl* can refer to an intransitive patient, since this is then sole argument of the verb, and there is no agent for an ACT PTCP to reference.

The unique Arabic situation really underscores the process of syntactic specialisation from patient verbal adjective to PASS PTCP proper. Unlike Aramaic *qətīl* or Hebrew *qɔtūl*, its G

[60] Fox's (2003, 187–202) monograph on Semitic noun patterns devotes a chapter to each of **qatīl* and **qatūl*, describing the behaviour of their reflexes in the Semitic languages, and reconstructing their developments through the phylum. The following proposal relies heavily on his findings.

[61] Fox, 2003, 187–88, 197. Pardee (2020, p.c.) objects that Hebrew reflexes of **qatul* and especially **qatil* "remain quite firmly in place in BH as stative verbal adjectives". This is admittedly true, though what is noteworthy is the comparison between their reduced productivity in Hebrew versus Akkadian. In the former, the possibility of *qɔtel/qɔtol* formation is determined lexically; in the latter (as likewise reconstructed for PS), every verbal root can form a *qatvl* verbal adjective (the second vowel of which is lexically specified). On balance, Pardee's comment really serves to highlight that the replacement of *qatvₕl* by *qatv̄ₕl* is not as advanced in Hebrew as in Arabic or Aramaic, for example. Even still, Fox (176–77) explicitly claims that "[i]n Hebrew, as in the rest of West Semitic, the **qatv̆l* adjectives are largely replaced with **qatīl* and **qatūl* adjectives".

PASS PTCP *maqtūl* cannot be derived directly from **qatv̄ₕl* simply by ordinary sound changes. Instead, it adds a prefix *ma-* to *qatūl*, probably extended from other (derived) PASS PTCPs, with consequent syncopation of the vowel following R_1.[62] This neological form relates exclusively to transitive patients, while original *qatīl* and *qatūl* are increasingly restricted to intransitive ones (e.g., *marīḍ* "ill" from *mariḍa* "to be ill" and *jahūl* "ignorant" from *jahila* "to be ignorant").[63] Where remnant transitive-patient uses for *qatūl* do occur, there is a clear distinction from *maqtūl* insofar as the former pattern tends toward substantive use while the latter stands in closer adjectival relation to the verbal predication—cf. e.g., *rakūb* "riding animal, mount" versus *markūb* "ridden" and *jazūr* "camel for slaughter" versus *majzūr* "slaughtered".[64]

Apart from the development of *maqtūl*, another feature of the functional reorganisation of forms derived from **qatv̄ₕl* in Arabic is the extension of the *qatūl* verbal adjective to refer even to *agents* (including transitive ones), such as *ʔakūl* "gluttonous". Classical Arabic grammarians call such cases an intensive counterpart ("*al-ṣīğat al-mubālağat*") to the ACT PTCP *qātil*, which, in terms of contemporary linguistic theory, reflects their understanding of the iterative nuance expressed. Fox identifies this development as an instance of Kuryłowicz's fourth law of analogy, whereby a neological form (*maqtūl*) takes on an original function (i.e., patient verbal adjective) of an original form (i.e., *qatūl*), which is then repurposed in a specialised secondary usage (iterative verbal adjective).[65]

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[62] Other non-finite nominal forms may be at play. In any case, I do not find Fleisch's proposal, cited by Fox (2003, 198) that the prefix originates from a relative pronoun—i.e., **mā qatūl* "that which is X-ed"—convincing.
[63] Wright, 1896, §232. The term "second-argument patients" is used here rather than "transitive patients" as elsewhere because of the Arabic-specific development of impersonal passives (including PASS PTCPs) using patients that do not fulfil the grammatical relation OBJ, but rather an OBL slot. Even though the verb is not syntactically transitive, crucially, such patients are secondary arguments relative to the agent =SUBJ argument.
[64] Fox, 2003, 189, 199; Wright, 1896, §232. The same principle applies between *qatīl* "a casualty", a substantive focussing on the individual killed, versus *maqtūl* "killed", which functions adjectivally framing the description in terms of the action of the killing itself, though transitive *qatīl* patients appear more common than *qatūl* ones, and the functional contrast from *maqtūl* is less stark (perhaps on account of the formal distinction).
[65] Fox, 2003, 199.

The Hebrew pattern *qɔtūl* (<**qatūl*) is sometimes stative (e.g., *ʕɔṣūm* "great"), but is productively associated with *transitive* patients, and tightly enough tied to this syntactic function to be identified as a G PASS PTCP, rather than a more general verbal adjective.[66] By contrast, *qɔtīl* (<**qatīl*) is more often related to intransitive patients (e.g., *ḥɔsīd* "pious"), though, the functional distribution is not perfect, since transitive *qɔtīl* patients also occur (e.g., *śɔḵīr* "hired"). Substantives derived from **qatīl* are common in Hebrew, including a disproportionate number of terms from the specific semantic field of agriculture.[67] The Hebrew pattern *qɔtīl* (derived from **qatīl*) is also represented by several terms for political offices or social roles (e.g., *nɔḇī* "prophet", *nɔgīḏ* "leader", and *nɔśī*(*ʔ*) "prince"). I find it unproblematic to identify these as relating to patient roles of associated verbal roots, whether transitive or intransitive.[68] Furthermore, the conspicuous phonetic similarities between many of these terms—cf. also *nɔzīr* "Nazirite" and *nəṣīḇ* "prefect"—speaks to the strength of the process of semantic analogy at work; the pattern *qɔtīl* may have become bound tightly enough to the idea of social or political office that no link to a verbal root was necessary. Apart from its normal development into *qɔtīl*, **qatīl* sometimes has a reflex *qətīl* with unusual lenition of pretonic **a* to *ə*. Such cases are overwhelmingly substantives, and frequently have no clear relationship to a verbal root—e.g., *kəpīr* "young lion" is in no way derived from the verbal root √*kpr* "to cover, to forgive".[69]

[66] Fox, 2003, 201. Substantive uses occur, but they are far rarer than adjectival ones. In abstract *qətūlɔʰ* <**qatūl-at* nouns, or nouns of action (e.g., *qəḇūrɔʰ* "burial" or *məlūḵɔʰ* "kingship") it is not necessarily the case that **qatūl* per se is being used in a substantive sense. Instead, the FEM suffix likely has some semantic load (e.g., abstract) of its own, other than marking gender; cf. the L FEM PASS PTCP *muqātal-at* serving as the INF pattern for the Arabic L.
[67] For Hebrew reflexes of **qatīl* and **qatūl*, see Jouön and Muraoka, 1991, §88Eb–c, g–h. This use is not an inherited feature, but rather a Hebrew-specific semantic specification.
[68] I agree with Fox (2003, 192–93) that these should be parsed as "one called upon (by God) from √*nbʔ* "to call", "one raised up" from √*nśy* "to raise up", and "one in front" √*ngd* "to be in front", of which only the last is an intransitive patient (to an admittedly unattested G verb that is reconstructed on the basis of other stems and cognates from other languages).
[69] Jouön and Muraoka (1991, §88Eg) suspect such cases are Aramaic loans, contra Fox (2003, 194).

Overall, the various Hebrew reflexes of *$qatv̄_hl$ behave quite differently from each other. That of *$qatūl$ is highly productive, morphologically stable, and, with few exceptions, holds firm to the domain of patient verbal adjective reconstructed for WS, tightening its functional load to syntactically transitive patients. By contrast, *$qatīl$ gives rise to morphologically varied forms, used in functions well beyond the original scope of patient verbal adjective. Its reflexes (especially the $qətīl$ variant) are frequently substantives, there is extensive breakdown of the derivational relationship with the verbal paradigm, and associations with narrow semantic fields (agricultural terms and political offices) have developed. In terms of the variation-and-change model, *$qatūl$ has gained dominance and solidified its functional scope, becoming a productive PASS PTCP, whereas its competitor variant *$qatīl$ is unstable, declining in productivity, and edged out of its original functional territory, only surviving by taking on new uses.

Aramaic, for all its geographic and genetic proximity to Hebrew, behaves quite differently in terms of reflexes of *$qatv̄_hl$. The pattern $qətūl$ (<*$qatūl$) is extremely rare. Very occasionally it forms transitive patient verbal adjectives (e.g., $rəḥūm$ "loved" and $sənūʔ$ "hated"), but most of the very few attested cases of $qətūl$ are either primitive nouns (e.g., $ʕbwr$ "grain") or substantivised (e.g., $gəḏūl$ "plait" < "plaited").[70] With $qətūl$ virtually absent, $qətīl$ (<*$qatīl$) stands unchallenged in Aramaic as the manifestation of the height rubric *$qatv̄_hl$, developing into an extremely productive form, both in terms of absolute attestation and of the various constructions to which it gives rise.

One important consideration regarding the development of *$qatīl$ in Aramaic is the simultaneous attestation of another verbal adjective form $qattīl$, with gemination of R_1. Allowing for a less than perfect distribution of functions, including dialectal variation, it is fair to simplify that $qattīl$ usually refers to intransitive patients (e.g., $ṣaddīq$ "righteous"), while $qətīl$ is rather a

[70] For Aramaic reflexes of *$qatūl$ see Fox, 2003, 202; Muraoka, 2005, §35; Muraoka and Porten, 1998, §19b.

PASS PTCP proper (e.g., *qəṭīl* "killed") restricted to transitive patients.[71] Though reflexes of **qət(t)v̄ₕl* forms with back vowels are scarce, to the extent they do occur, a comparable distribution between *qatūl* and *qattūl* obtains.[72]

Of course, in a study of IPs, the most important consideration regarding **qatv̄ₕl* in Aramaic is its development into a finite *qtil-li* PFV. From Official and through Middle Aramaic, *qətīl* could be conjugated with inflectional suffixes of the SC to form the Gp SC, a development unique to this branch of Semitic.[73] In the above section (§3.5) on Aramaic, these developments of the G PASS PTCP has been demonstrated to have occurred in reaction to developments in the *ACT* PTCP. They are summarised here as part of the description of G PASS PTCP development in WS, but addressed further below (in §§4.8, 5.7) with more specific reference to the role that the motivation towards functional symmetry plays.

One may well question the extent to which the Aramaic Gp SC *qətīl* is an IP, properly speaking. Certainly, its function is the syntactic rearrangement of arguments into a passive clause. However, the relationship between *qətīl* and its unmarked active counterpart *qətal* is not one of ablaut in the same way as between Arabic G *qatala* and Gp *qutila* or Hebrew D *yə-qattel* and Dp *yə-quttal*.[74] Nonetheless, it is an illuminating example of how a finite passive verbal form other than the N and *t* stems has developed in Semitic, particularly in that, as a further step in the development from general patient verbal adjective to PASS PTCP (referring to transitive patients

[71] Fox, 2003, 269, see also 195; Muraoka, 2005, §§34, 36, 50. For comparative evidence, see Fox, 2003, ch. 34. Hebrew and Arabic reflexes of *qattīl* have extended to uses referencing agents, even including those of transitive verbs, and the common semantic territory between the various attested forms seems to be a notion of "intensiveness" reflecting durative or habitual actions.
[72] Fox, 2003, 272.
[73] Blake's (1901, 51–52) proposal that the Arabic Gp SC *qīla* from √2=*w/y* is a verbalised PASS PTCP is not convincing. Given that the proto-triphthong **uwī* contracts > *ī*—e.g., **ta-dʕuw-ī-na* > *ta-dʕī-na* "you [FSG] call" (for which, see Fischer, 1979, §35)—*qīla* could just as well derive from regular **quwila/*quyila*.
[74] If an ablaut relationship exists between *qətīl* and another form, it is with the ACT PTCP *qātel*.

only), the Aramaic Gp SC represents the most extreme example of the semantic-to-syntactic shift having operated on a reflex of *$qatv̄_hl$.

The final development of *$qatīl$ in Aramaic to be considered here is the *qtil-li* PFV. Like the Gp SC (and indeed the WS SC *per se*), this was a finite verb derived from a verbal adjective. The key difference between them, though—apart from the fact that the Gp SC was passive and the *qtil-li* was active—was that, whereas the Gp SC was an abortive form that died out, the *qtil-li* PFV developed all the way to the stage of irreversible language change, replacing the SC *qəṭal* throughout NENA in the perfective function. In the variation-and-change model, from the variation in terms of the optional inclusion of the agent in *qəṭīl* (*lī*) "was killed (by me)", its inclusion triumphed over its omission, to the point that it came to be analysed as an obligatory SUBJ marker in *qṭil-li* "I killed", and was consequently even extended to intransitive patient SUBJs in some dialects (e.g., *dmix-li* "I slept").[75]

The final branch of Semitic to be considered in relation to (reflexes of) *$qatv̄_hl$ is Ethiopic. Here, *qatil* (<*$qatīl$) serves for "a relatively small but important group of adjectives", primarily related to intransitive patients (e.g., *baliḫ* "sharp" and *ṭabib* "wise").[76] A far more productive use of this source morphology (in the accusative case and bearing possessive suffixes) is the perfective participle *qatil-o*.[77] This use plainly reflects the semantic-to-syntactic shift insofar as WS *$qatīl$ was related to the semantic role patient, whereas the Ethiopic *qatil-o* construction refers to the SUBJ of the associated verbal predication, regardless of its semantic role. Thus, in

[75] Coghill, 2016, §§6.10–11, 7.2. More precisely, the construction originated not with agents, but with the agent-like semantic role experiencer (and to a lesser extent, beneficiary), which were then reinterpreted as agents. Regardless of the origins of the *lī* element, what matter here is the possibility of variation between *qəṭīl* and *qəṭīl lī* expressing the same semantic content, but varying in overt reference to agency.
[76] Lambdin, 1978, §18.1. A counterpart *qattil*, associated with the D, is also attested (e.g., *ḥaddis* "new").
[77] Fox, 2003, 190–91; Lambdin, 1978, §31.1; Tropper, 2002, §43.32; Weninger (2001, §3.4) favours the terminology "Konverb", but "perfective participle" is used here for its convenience and familiarity. Markers of the derived stems (gemination, long vowel *ā* between R_1 and R_2, and prefixes *ʔa-* and *ta-*) can be combined with this construction to create the respective counterparts of these stems (e.g., D *qattil-o*, L *qātil-o*, etc).

(G) *qatil-o* “having killed”, the referent is the SUBJ agent; in *wadiḳ-o* “having fallen” it refers to the SUBJ intransitive patient; and in (tG) *ta-qatil-o* “having been killed” it refers to the SUBJ transitive patient. Finally, *qatil* serves as the productive INF pattern in Geʿez. This is a very unusual function for a form derived from **qatīl*, something Fox explicitly identifies as a secondary development from the (Ethiopic-specific) perfective participle function, by way of “semantic transfer from actant noun to action noun”.[78]

Compared with *qatil*, Ethiopic *qətul* (<**qatūl*) better preserves the original patient verbal adjective function of the rubric **qatv̄ₕl*.[79] Its key distinction from its CS cognate forms is that it is not limited in referring to patients, less still to only transitive patients.[80] Raz analyses Tigre *qətul* (and likewise its D *qəttul* and L *qutul* counterparts) as a PASS PTCP.[81] However, not a few of his examples relate to intransitive patients (e.g., G *bəzuḥ* “numerous” or D *gərrum* “beautiful”). While *qətul* may be undergoing a process of functional restriction to transitive syntactic contexts, this has not reached completion; it has not become a PASS PTCP as reflexes of **qatv̄ₕl* have done in CS, but retains the general patient verbal adjective status of its WS origin. Furthermore, *qətul* is not fully productive—i.e., it cannot be formed from any verb—which is a prime indicator that it has not progressed far from its lexical, adjectival origin towards a position more embedded within the verbal system.[82]

Considering this functional distinction between Ethiopic *qatil* and *qətul* adjectives versus CS reflexes of **qatv̄ₕl*, it is conspicuous that apart from MSA (dealt with separately in Chapter 5), Ethiopic is the only branch of Semitic where the role of the reflex of **qātil* is not entrenched as

[78] Fox, 2003, 191.
[79] Lambdin (1978, §17.1) mentions it as the most common adjectival form in Geʿez. Markers of the D and L can further be applied to it, resulting in the respective verbal adjectives *qəttul* and *qutul*.
[80] Tropper, 2002, §44.342. With intransitive verbs, *qətul* refers to the sole participant in the action—whether agent, patient, or other—in terms of the result of the action upon him/her: e.g., *nəbur* “sitting” from *nabara* “to sit” or *ḍəruf* “blasphemous, abusive” from *ḍarafa* “to blaspheme, abuse” (Leslau, 1991, s.v.).
[81] Raz, 1983, §3.4.3.
[82] Weninger, 2001, 43.

ACT PTCP. As mentioned above, *qātəl* can refer to intransitive patients in both Geʿez and Tigre, a situation quite different from that of the CS reflexes of **qātil*, which are far more restricted to agentive referents.[83] The correlation between the restriction of **qātil* to agents and **qatv̄ₕl* to transitive patients is no coincidence. The functional restriction of the PASS PTCPs in CS relies on, and mirrors, the preservation of a corresponding ACT PTCP form. The development of the **qatv̄ₕl* patient verbal adjective into a PASS PTCP will now be charted, particularly in terms of its diametric opposition to the ACT PTCP, and most importantly of all, the identification of a VMHC between the two that provides the foundation for all subsequent IP development.

Forms subsumed by the height rubric *qatv̄ₕl* arose as the pattern par excellence for patient verbal adjectives during WS when (and because) "the close relation between the **qatv̆l* verbal adjective and the suffixal conjugation formed with it was broken, and the **qatv̆l-* came to be understood as the base of the suffixal perfective only".[84] Even if this is a plausible explanation of why *qatīl* and *qatūl* replaced *qatil* and *qatul*, it gives no idea of *how* this change occurred. Gai argues for a stress-lengthening process, though his proposal should be rejected as excessively vague and lacking parallels consistent with Semitic phonology.[85] Huehnergard instead believes the short vowel was reanalysed as a reduced long vowel in feminine forms (i.e., **qatv̆l-t* was interpreted as ←***qatv̄l-t*) to avoid the impermissible sequence ***v̄CC*.[86] This argument relies exclusively on the feminine suffix *-t*, ignoring its more common allomorph *-at* which is expected to occur in this context. In the absence of parallel examples in Semitic where the FEM suffix *-t* reduces a long vowel in a verbal adjective, it is therefore unconvincing.

[83] The exceptional development of Aramaic *qātel* to refer to sole argument patients has been accounted for as a side-effect of the overall reorganisation of the verbal conjugations from PC ~ SC to *qatl-in* IPFV ~ *qtil-li* PFV.
[84] Gai, paraphrased by Fox, 2003, 123. The fact that only **qatīl* and **qatūl* took part in this process is unsurprising; though a PS **qatal* verbal adjective likewise became a SC in WS, the corresponding form with a long vowel (i.e., **qatāl*) already had a well established function, serving as an INF or action noun.
[85] Fox, 2003, 123.
[86] Huehnergard, 2006, §B.1.3.

It is again through considering first the common generalities of the forms in question, and moving from there to their differences, that one may reach an alternative understanding of their development. All of the forms *qātil*, *qatil* and *qatul*, and *qatīl* and *qatūl* are conspicuously homogeneous in their vocalism, having in common the sequence *a*-v_h (or, expressed solely in terms of height, v_l-v_h). The only difference among them is in *length* of their vowels, such that the ACT PTCP and (forms that develop into) the PASS PTCP have long vowels, whereas the older verbal adjective patterns do not. Thus, insofar as *qatīl* and *qatūl* differ from *qatil* and *qatul* only by length of the second vowel, they may have been (partly) motivated by the symmetry between *qātil* versus *qatv̄$_h$l*, which are diametrically contrasted in terms of which vowel of the sequence v_l-v_h was long and which short.

This situation, in combination with the syntactic specification of *qatv̄$_h$l* forms as PASS PTCPs, created a neat vowel-height contrast that aligned directly with a voice opposition in a way that had never existed before. The height of the long, stressed vowel—or more precisely the difference thereof between the ACT and PASS PTCPs—could thus be analysed as a marker: the VMHC.[87] In an impressionistic sense, the importance of this as a contrastive morphological feature of **qātil* versus **qatv̄$_h$l* can be seen in that it is preserved all the way through to Neo-Aramaic, where the reflexes thereof (*q**a**tl-in* IPFV and *qt**i**l-li* PFV, respectively) preserve it, even though they have undergone extensive functional change (becoming finite verbs). Another Aramaic development that further suggests that speakers conceived of height as a central marking feature of the ACT PTCP *qātel*—and by extension, of its contrast with the PASS PTCP

[87] Such a reconstruction of WS and CS stress is not a crucial point, since Semitic stress is not phonemic, but merely a phonetic by-product of syllable structure. Though speculative, the presence of essentially similar stress situations in Akkadian and Classical Arabic—on the right-most, non-final long syllable; and if none exists, then the first syllable—are fair evidence that the same applied in PS and through to CS (Huehnergard, 2019, §2.3).

qətīl—is the Syriac *nomen agentis qātol*, which matches it in both formal terms (sharing the height rubric *qv̄ₗtvₕl*), and functional ones (serving as an agentive verbal adjective).

Apart from consideration of the PASS PTCP, the various developments of **qatv̄ₕl* outlined above have an important feature in common: they represent the syntactic-to-semantic shift. This is not just the case with its increased specification into PASS PTCP use, but also with other uses of this morphology, such as the Ethiopic *qatil-o* perfective participle, Arabic repurposing of *qatūl* as a habitual-agentive adjective, or the Aramaic perfective *qtil-li* PFV. In all these cases the forms in question move from the domain of lexical material into derivational (and even in the case of the Aramaic *qtil-li* PFV, inflectional) morphology. Another dimension shared by the various developments of **qatv̄ₕl* is that erstwhile functions lost during this process tend to be taken over or redistributed to other morphology. For example, Aramaic uses *qattīl* for intransitive patient verbal adjectives; Hebrew, by contrast, redistributes *qɔtūl* for transitive patients versus *qɔtīl*/*qətīl* for intransitive ones (broadly speaking).

The variation-and-change model neatly fits this situation. Coexistence of **qatīl* and **qatūl*, as variant manifestations of the height rubric **qatv̄ₕl*, endured for an extended period. Ultimately, though, the competition between the two patterns was resolved in most WS languages with the triumph of one at the expense of the other, as well as with various kinds of functional redistributions (as outlined above). This was a gradual process, occurring over an extended period, at different rates and in different manners in the various languages.

The situation regarding the G PASS PTCP is less clear for languages like OSA, Phoenician, and Ugaritic, whose orthography is often insufficient to determine vocalism, which is why they have not been addressed in this section[88]. It is noteworthy, though, that Tropper allows for a

[88] The question of the precise G PASS PTCP forms in these languages, and the related concept of specificity of G PASS PTCP form, is revisited below (in §5.2) during the reconstruction of stage 0.

situation where neither of *qatīl* and *qatūl* has ousted the other as the sole G PASS PTCP form in Ugaritic, and argues instead that the competitive variation between the two (and possibly other forms besides) endured into the language, with distribution thereof perhaps being governed by root type, for example.[89] While I find it more likely that one has prevailed over the other by this stage, this is mainly an intuition based on how other CS languages behave. That is, I do not consider it a requirement of Ugaritic's genetic chronology; I do not assume that the selection of a single G PASS PTCP form is a necessary feature of NWS language.

Crucially, the selection of one or the other *qatv̄ₕl* variant, as in the matter of the restriction of said form to transitive patients (i.e., as a PASS PTCP in the restrictive sense), must be understood as a matter of degree. Pardee is quite firm in his conviction that only *one* of *qatv̄ₕl* pattern—on balance, he favours *qatūl*—must have been selected as the productive Ugaritic G PASS PTCP, but he nonetheless allows for "accidental" *qatīl* verbal adjectives, noting the similarity of such a situation to that of Hebrew.[90] The crux of the issue is that individual WS languages differ in which *qatv̄ₕl* variant they selected—cf. Aramaic *qəṭīl* versus Hebrew *qɔṭūl*—and a given language may exhibit ongoing attestation of *both* forms to some degree or another.

The preceding shows that variation between **qatīl* and **qatūl* in proto-WS continued to exist down through the CS node, and even further down into NWS and then the individual languages thereof. Such *inherited variation* is precisely what a variation-and-change model allows for and predicts to occur in language diachrony, which is one reason it is able to account for the attested situation(s) better than is a more rigid comparative-historical model. Apart from how it applies to

[89] Tropper, 2000, §73.422: "Es ist im übrigen denkbar, daß sowohl {*qatīl*} als auch {*qatūl*} (und daneben möglw. noch weitere MphTT) Verwendung finden und daß die Wahl des MphT von den zugrundeliegenden WzKK abhängig ist".

[90] Pardee, 2003/2004, 237. In response to this characterisation, he (2020, p.c.) reiterates "I agree, as noted above, that the uncertainty exists, but the forms cited for a true /qaṭīl/ PassPart are, to my mind, of dubious value—hence the data appear to show a system similar to Hebrew: a productive /qatūl/ PassPart and lexical /qatīl/s with various semantic functions".

the matter at hand of the G PASS PTCP, the analysis and reconstruction below (in §§4.6–8, 5.3–5) finds that the notion of inherited variation—between alternative manifestations of a height rubric or application of the VMHC—is a key consideration in IP development generally.

4.5 PASS PTPCs of the derived stems in relation to the G PASS PTCP

The next parts of the detransitive system to be considered are the D and C PASS PTCPs. For the sake of conciseness, the discussion ignores the L PASS PTCP, since any observation made about those of the D PASS PTCP holds true—to the extent that the L is part of a given language—with the simple proviso that the characteristic marker of the D (gemination of R_2) be replaced by that of the L (a long vowel between R_1 and R_2).[91] Arabic PASS PTCPs of detransitive derived stems—e.g., Gt *muqtatal* or Ct *mustaqtal*—are also addressed separately, in the reconstruction of stage 4 (in §5.8), since they belong to quite a different order than those of the D and C, having been formed in an innovation specific to this branch.

Before discussing D and C *PASS* PTCPs, their ACT counterparts must be surveyed (precisely as was done above for the G). The reconstruction of a D ACT PTCP **muqattil* and C ACT PTCP **musaqtil* back as far as PS is beyond doubt. In the case of the D, Akkadian, Ugaritic, and Arabic perfectly preserve the original form *muqattil*, while derivation of the Aramaic and Hebrew reflex *məqattel* is also very straightforward. Lenition of the causative morpheme along a chain *s* > *h* > *ʔ* > *ø* in WS languages, and the attendant effects on the segment between the prefix *m-* and R_1, causes significant formal heterogeneity in the reflexes of the C ACT PTPC—cf. e.g., Arabic *mu-qtil*, Hebrew *ma-qtīl*, and later Aramaic *maqtel*—that somewhat obscures their relationship to the

[91] Cf. the respective Arabic D and L ACT (and PASS) PTCPs *muqattil* (*muqattal*) and *muqātil* (*muqātal*), whose syllable structures are analogous insofar as the sequences *CaC* and *Cā* are both heavy syllables. This is not to imply anything about the historical relationship between the D and L, but merely to observe their formal equivalency.

proto-form.[92] Nonetheless, the original proto-form is faithfully preserved on both sides of the primary bifurcation of Semitic, in Akkadian as *mušaqtil*, and in earlier Aramaic as *mə-haqtel* (albeit with lenition of the prefix vowel and lowering **i* > *e*).

Formal relationships between the D and C ACT PTCPs and some other parts of the verbal paradigm are entirely transparent. In relation to the D and C PCs, for example, the person-marking conjugational prefixes *yv-*, *tv-*, *ʔv-* and *nv-* are simply replaced with *mv-*, a common prefix in Semitic nominal forms. The link between the Hebrew D PC *yə-qattel* and D ACT PTCP *məqattel*, or Arabic C PC *yu-qtil* and C ACT PTCP *muqtil* is undeniable, and the tightness of the relation is evident in that it holds fast even to the extent formal variation exists in the PC. Thus, lenition of the causative morpheme is in process during Biblical Aramaic, and just as the text of Daniel contains C ACT PTCPs both with *h* and without it—or, in other words, with a *ø* causative morpheme—so too do corresponding PC forms match them in this regard.[93]

The reflexes of PS **muqattil* and **musaqtil* are functionally simple and uniform throughout Semitic, with the proviso that Ethiopic diverges significantly from other branches of the phylum (as discussed below). These forms serve as verbal adjectives referring to agents (or similar semantic roles, such as experiencers) of the associated action; that is, they are ACT PTCPs, in the restrictive sense, to the D and C, a function which can be confidently reconstructed back to PS. Furthermore, because of the inherent transitivity-raising properties of the D and C, these agents are frequently transitive, even if logically speaking, this is not necessarily the case. In any

[92] The extent of the lenition varies between individual languages and even parts of the paradigm, and is addressed in detail in the discussion below of the C PASS PTCP and Cp forms.
[93] Cf. e.g., *yə-hɔqīm* (Dan 5:21, 6:16) versus *yə-qīm* (Dan 2:24, 4:14), from √*qwm*; and *məhōdeʔ* (Dan 2:23) versus *mōdeʔ* (Dan 6:11) from √*ydy* (Rosenthal, 1995, §§109, 130, 141). Ethiopic is unusual in that the length of the prefix vowel of C SBJV *yā-qtəl* <**yu-ʔaqtil* preserves a token of the causative morpheme, whereas the C *nomen agentis* *maqtəl* < ACT PTCP **mu-ʔaqtil* does not.

case, even when the D and C verbs are syntactically intransitive, there remains a broad tendency towards a semantic restriction against their SUBJs being patients.[94]

This has two important ramifications that differentiate D and C PTCPs from those of the G. Firstly, an ACT PTCP is grammatical in virtually every verb from the D and C because they almost invariably have an agent type argument; this is not always the case with G verbs, many of which have a patient as their sole argument, and cannot therefore form an ACT PTCP. Secondly, because of the high proportion of syntactically transitive D and C verbs, formation of a PASS PTCP is overwhelmingly possible. It is likely that these factors would facilitated the creation of D and C PASS PTCPs, which, as discussed below, are created in direct relation to ACT PTCPs—unlike G PASS PTCPs, which, as discussed above (in §4.4) are instead repurposed pre-existing patient verbal adjective forms.

Only Ethiopic D and C ACT PTCPs diverge from those in the rest of Semitic. This branch does preserve reflexes of PS **muqattil* and **musaqtil*, namely *maqattəl* and *maqtəl*, respectively.[95] However, they are not ACT PTCPs in the sense of a productive form closely linked to the verbal paradigm, but rather lexical *nomen agentis* patterns.[96] This is an Ethiopic-specific development resulting from the prevalence in this branch of relative clauses containing finite verbs; that is to say, verbal adjectives in general are less common and less productive than elsewhere in Semitic, and concomitantly less tightly linked to the verbal system.[97]

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[94] Since the primary function of the C is transitivity raising, intransitive C verbs are, as a general matter, very rare. When the D is intransitive, it marks verbal plurality, which may entail "(1) temporal repetition; (2) spatial dispersion; (3) action by many; (4) action on many" (Greenberg, 1991, 577). Actions with these notions have natural inherent semantic properties that are largely incompatible with stativity (i.e., an intransitive patient SUBJ).

[95] The *a* of *maqattəl* is an unexpected Ethiopic reflex of **u*, and may have been levelled from the C *maqtəl*—where it arose from an impermissible sequence ***ə-a **mə-aqtəl* < **mə-ʔaqtəl*—though this is hardly germane here.

[96] Lambdin, 1978, §47.2; Tropper, 2002, §44.353.

[97] Lambdin, 1978, §35.1; Weninger, 2001, 43–44. For example, D *nomen agentis magaśśəṣ* means "a chastiser" or "a teacher" in a substantive sense, whereas *za-gaśśaṣa* "who chastised" with the SC or *za-yə-gēśśəṣ* "who chastises" with the IPFV refer to a specific action of teaching or chastising.

The Semitic D and C ACT PTCPs, then, basically match the G ACT PTCP in some important regards. Attested forms are all reflexes of common proto-forms (G **qātil*, D **muqattil*, and C **musaqtil*) and preserve the simple, homogeneous function of agentive verbal adjective (i.e., ACT PTCP) reconstructible all the way back to PS. In this regard, the *PASS* PTCPs are altogether different, both in terms of the morphology of the forms and of their uses. The description below of the D and C PASS PTCPs, with particular reference to how they differ from that of the G, gives illuminating insight into the relative chronologies thereof, and, by extension, that of Semitic IPs.

Formally, the D and C PASS PTCPs of the attested languages cannot be confidently reconstructed to common respective proto-forms. For example, no plausible derivation of the proto-Hebrew D PASS PTCP **muquttal* from earlier **muqattal* (like Arabic), or vice versa, exists. Barring an explanation of how the forms relate etymologically (in terms of sound changes), all that remains is the circular argument that they must be because they share a function; "[i]f they are genetically related, this must be shown by other arguments than simply claiming this to be true".[98] This assessment of the situation is not meant to deny that formal divergences in attested forms may result from phonological (or analogical) processes operating on a common proto-form, but rather to reject the *a priori* assertion that this must be the case.[99]

The formal diversity between the D PASS PTCPs of different languages is quite different to the situation of the G PASS PTCPs, insofar as the latter may uniformly be ascribed to a proto-pattern **qatv̄ₕl* (albeit with variation in the specific manifestation of the long high vowel). Apart

[98] Retsö, 1989, 187. One example of the weakness of proposals linking these two forms is Hetzron's (1977, 43n1) claim that **u* is copied onto R_1 from the prefix in order to preserve it (when the prefix vowel undergoes lenition **u* > *ə*). Rainey (1996, 2:12) asserts that the Hebrew form is "evidently secondary", without deigning to justify this.
[99] For example, Arabic *muqtal* and Aramaic *maqtal* (C PASS PTPCs) both derive from **muCaqtal*, where C represents the causative morpheme the elision of which resulted in a sequence ***ua*, resolved differently in each language. Conversely, even though Arabic *muqtal* and Hebrew *moqtɔl* are fundamentally similar in form, the analysis below finds that the former is a reflex of **muCaqtal* and the latter of **muCuqtal*.

from this dimension of morphological heterogeneity, the genetic distribution of D and C PASS PTCPs is also different to that of forms derived from **qatv̄ₕl*. The latter are attested in Ethiopic (and even very occasionally in Akkadian), and simply have not specialised into restrictive PASS PTCP; *muCvCCaC* D and C PASS PTCPs, by contrast, are restricted to CS.[100] These genetic distributions speak to the relative chronology of G PASS PTCP development preceding that of the D and C PASS PTCPs.

Most telling of all the differences between the D and C PASS PTCPs versus the G PASS PTCP is that of their functions. Namely, the former are exclusively used with transitive patient reference, whereas the latter usually have some uses referring to intransitive "stative" patients, however marginal. This difference reflects their relative chronologies in terms of the semantic-to-syntactic shift; the D and C PASS PTCPs were formed later than the G PASS PTCP and reflect a more advanced stage of the syntactical restriction on the use of verbal adjective forms.

G PASS PTCPs reflect a specialisation in the use of existing patient verbal adjective morphology (**qatv̄ₕl*) in a shift that began in WS but retains traces of the earlier situation through to the descendant languages. By the CS stage, their restriction to transitive patients had proceeded to the point that D and C PASS PTCPs, hitherto absent from the language, could be created according to the proportional analogy G ACT PTCP : G PASS PTCP :: D ACT PTCP : *X* :: C ACT PTCP : *X*. In accordance with the functional basis of their creation, these new forms *never* referred to intransitive patients.[101]

Arabic G PASS PTCP *maqtūl* is fascinating in regard to the question of syntactic restriction on the G PASS PTCP. Rather than being an inherited **qatv̄ₕl* patient verbal adjective dating back

[100] Ethiopic *qəttul* (D) and *qutul* (L), discussed briefly below in relation to the functional dimension PASS PTCPs, are patient verbal adjectives formed directly in relation to that of the G (*qətul* < **qatūl*) rather than with any formal connection to the D *maqattəl* and C *maqtəl* ACT PTCPs (preserved in this branch as *nomen agentis* patterns). In this regard, they are quite different from the CS **muCvCCaC* PASS (≠ **muCaCCiC* ACT) PTCPs examined here.
[101] The mechanics of their formation, including possible morphological variation from the outset, is discussed below.

to WS, this is an Arabic-specific neologism. It is wholly unsurprising that, along with the formal extension of the *mv-* prefix from *muqattal* and *muqtal*, the new G PASS PTCP form also took on their functional restriction to transitive patients. This process may be perceived as a backwash from the aforementioned development of D and C PASS PTCPs, whereby their syntactic restriction extended back to the G, eliminating traces of intransitive patient reference that the earlier *qatūl* verbal adjective had possessed.

The only exception, where D or C PASS PTCPs can apply to patients of syntactically intransitive verbs, is found in Arabic impersonal-passive use.[102] Like finite IPs in Arabic, a PASS PTCP may refer to a patient (or similar argument like recipient or instrument) not linked to the grammatical relationship OBJ, but rather to an OBL slot (surfacing as a PP). For example, the intransitive verb *baḥḥara* "to go to sea" may grammatically form *mubaḥḥar bi-hi* "that with which is gone to sea" (i.e., a boat). Crucially, the patient is not the sole argument, but secondary to a more central participant in the action, the agent. In terms of the inventory of morphological forms, this reflects the fact that a prerequisite of PASS PTCP formation is the existence of an ACT PTCP counterpart (in this case, *mubaḥḥir* "one going to sea"). This is unlike intransitive-patient *qatv̄ₕl* forms (e.g., *marīḍ* "ill"), which cannot form an ACT PTCP (***māriḍ*).

The Ethiopic situation, and specifically how this differs from CS, cements the proposal that the D and C PASS PTCPs are secondary to, and conceptually based on, the G PASS PTCP. As mentioned, erstwhile ACT PTCPs **qātil* (G), **muqattil* (D), and **musaqtil* (C) have lost their foothold in the language, functioning as lexical *nomina agentium* rather than productive parts of the verbal paradigm. In the absence of a robust Ethiopic G ACT PTCP form, **qatv̄ₕl* has not undergone restriction to transitive-patient reference in this branch to create a corresponding G

[102] Hebrew may very occasionally form impersonal passives (as discussed above in §3.6.2), but these are restricted to finite IPs; I have encountered no reference to cases of Hebrew D or C PASS PTCPs referring to intransitive patients, as in the Arabic construction under discussion here.

PASS PTCP. Consequently, when *qəttul* (D) and *qutul* (L) verbal adjectives are created for other stems on the morphological basis of *qətul* (<**qatūl*), they inherit this functionality, and may refer to (stative) intransitive patients—e.g., *śənnuy* "lovely" and *ḥubur* "(multi-)coloured".[103]

The fundamental divergence of Ethiopic from CS in terms of PTCPs, and specifically their absence in the former, shows the causal chain in the developments (or lack thereof) of the various formations under question. 1) ACT PTCPs become *nomina agentium* in Geʿez, which means that 2) the pattern **qatv̄ₕl* does not become restricted to the PASS PTCP function, and based on both of these points, 3) D and C PASS PTCPs cannot develop as they do in CS by the extension of a voice contrast existing between the G ACT versus PASS PTCP to the D and C ACT PTCPs (which, due to the first stage, do not exist in any case). The ultimate ramification of this chain of (non-)developments, and most relevant to this current dissertation, is that unlike CS, Ethiopic 4) never develops IPs on the basis of the preceding steps.

Apart from the derivation of D and C PASS PTCPs from G PASS PTCPs, another facet of how they fit into the detransitive system is their relationship to the tD/Dt and Ct PTCPs, respectively. According to the variation-and-change model, they initially arose as a variant to this more original detransitive PTCP to the D. Over a protracted period, the D and C PASS PTCPs secured their position in CS languages, though only in NENA did they develop all the way to the state of irreversible language change resulting in the loss of the tD/Dt and tC PTCPs.[104] In some dialects of Arabic (amongst them, Classical Arabic), the D and C PASS

[103] Leslau, 1991, s.vv. √*ḥbr* and √*śny*. Raz (1983, §3.4.3) calls these forms "passive participles" in Tigre. Such forms do indeed appear to be more productive here than in Geʿez, as evidenced by the extension of formation of counterparts of *qətul* to all derived stems (CG *ʔəqtul*, tG *ʔətqətul*, tL *ʔətqutul*, etc.). If they also exhibit a tighter restriction to transitive patients, then it may be that they are progressing towards the status of PASS PTCPs proper, in which regard it is noteworthy that Tigre seems to have preserved ACT PTCPs somewhat better than has Geʿez (at least as per Fox, 2003, 240, following Raz, 1983, §3.4.2).

[104] Strictly speaking, the forms in question, derived from D **muquttal*/**muqattal* and C **muqtal*/**maqtal*, are no longer primarily functioning as D and C PASS PTCPs, but have grammaticalised into the D and C *qtil-li* PFV, although depending on the specific dialect, some PASS PTCP are retained (discussed below in §4.6).

PTCP replace those of the tD and Ct in passive use, though the latter forms continue to exist in the language (for reflexive and middle uses).[105] It is entirely conceivable that, with time, the situation could revert to its status before the innovative D and C PASS PTCPs were created.[106]

Such a protracted stage of flux—with forms, struggling to establish themselves over many centuries, and sometimes ultimately failing and disappearing—neatly captures the attested diachronic development of D and C PASS PTCPs (not to mention other developments in Semitic detransitive systems, most relevantly, IPs). This can really be appreciated when considering the long-term diachrony leading up to the situation in some Arabic dialects where D PASS PTCPs disappear and the tD PTCP takes back over the passive function it had temporarily lost (discussed below).

A D PASS PTCP *muqattal* should be reconstructed as a feature of proto-Arabic but was not retained in all its descendent dialects. In some North African Arabic dialects, a merger of all short vowels to *ə* removes the only contrastive feature between **muqattil* ≠ **muqattal*, causing a merger > *m*(*ə*)*qəttəl* (e.g., *ṃṇəḍḍəf* "cleaner" or "cleaned", depending on context).[107] In other dialects, vowels are redistributed according to their consonantal environments in a way that obscures the original, functionally contrastive role. In Cairene Arabic *a* occurs in √2/3=[+back],

[105] The functional distinction between the two is that the D PASS PTCP highlights the agentive nature of the predication, whereas the tD PTCP instead has a perspective focusing on its SUBJ affectedness. This explains why only the latter can be used to express the *medio*passive: cf. Arabic D PASS PTCP *muʕallaq* "hung, attached (by someone)" versus *mutaʕalliq* tD PTCP "attached, related (in of itself, with no one having done the attaching).
[106] Insofar as Modern Standard Arabic exists in an artificial state of arrested development, based on Classical Arabic, any such development must be counted highly unlikely. Ugaritic represented much the same situation, but since the language itself died out when Ugarit was destroyed, we will know how the variation between D PASS PTCP and tD PTCP (amongst other variations) would ultimately have been resolved in this language.
[107] Sumikazu, 2005, §§1.2.11, 2.2.1.1.2. Similar cases occur outside of Arabic, and do not necessarily affect all forms. For instance, the Aramaic sound rule **i* > *a* / _*G*, _*r* means that the D ACT is *məqattal* in √3=*G, r*, which is thus identical with the PASS PTCP in this root type (e.g., *məšaddar* "sender" or "sent" depending on context).

and *i* occurs elsewhere, so *məqattil* and *məqattal* are distributed according to root type, and each may be either a D ACT or PASS PTCP.[108]

The results of both these situations are that the D PASS PTCP is no longer able to mark a voice contrast to the D ACT PTCP. Rather than such ambiguity enduring, since the D PASS PTCP arose and continued to exist in competitive variation with the tD PTCP, this situation tipped the balance back in favour of the latter form. Thus, as Sumikazu explains, Libyan *mqəlləq* from the verb *qelleq* "to bore" can only function as an ACT PTCP "borer, boring", since the tD PTCP *məčqəlləq* (<**mutaqalliq*) is readily available to express its passive.[109] The marking of passive to the D has reverted back to its original situation, before the D PASS PTCP developed, in an examples of abortive variation that never led to change proper.

Quite the opposite of this situation is found in the NENA branch of Aramaic, where the D and C PASS PTCPs flourished, albeit with significant functional change. Just as with aforementioned Arabic dialects that lose the D PASS PTCP, the relationship to the corresponding *t* stems is integral to the development. However, the language change afforded by the success of the D and C PASS PTCPs in Aramaic is not only manifest in the corresponding loss of the tD and tC, but also in the wholescale reorganisation of the conjugational parts verbal system. The *t* stems are retained only in a few frozen remnants. At the same time, the SC is also completely replaced by the *qtil-li* PFV; D SC *qattel* is replaced by *mqutal-li* (<*D PASS PTCP) and C SC *ʔaqtel* by *muqtəl-li* (<*C PASS PTCP).[110]

The fact that these factors are not coincidental can be seen in that they interrelate in other Neo-Aramaic dialects in precisely the converse manner than in NENA. In Neo-Mandaic, the

[108] Cf. e.g., *məkamm**i**l* "completing (active)", *məlabb**i**s* "dressed (passive)", *məṣadd**a**q* "believing true (active)", and *məsaṭṭ**a**ḥ* "spread out (passive)" (Spitta-Bey, 1880, §98c).
[109] Sumikazu, 2005, 144.
[110] Coghill, 1999, §§1.5.

qtil-li PFV has not developed to replace the SC and *t* stems remain a productive part of the verbal system.[111] In WNA, the other branch of Neo-Aramaic where the *qtil-li* PFV has not arisen, *t* stems likewise remain productive detransitive markers.[112] In both Neo-Mandaic and WNA, the D and C PASS PTCP are rare at best, in which regard—apart from the direct relationship with the absence of the *qtil-li* PFV and the preservation of the *t* stems—the extensive use of generalised-SUBJ constructions and periphrases to express the passive is certainly a factor.[113]

4.6 The derivation of D PASS PTCPs

The relationship between Hebrew *məquttəl* (<**muquttal*) on the one hand and Arabic *muqattal* on the other is naturally an important consideration in any theory of PASS PTCP development. One common error of previous scholarship is to propose ad hoc sound changes based on a priori assumptions about IP development. For example, Hetzron suggests a vowel *u* was transferred from the prefix to R_1 in Hebrew "because a short vowel in that position was doomed to be reduced to a šwa, but the functional value of the *u* rescued it by making it appear in the next syllable".[114] However, asserting that **u* is an indispensable passive marker without offering any supporting arguments other than its presence in IPs, and then attempting to account for this presence, is unacceptably circular. Nonetheless, one must also avoid the precisely opposite pitfall

[111] Häberl, 2009, §5.1.1.3.
[112] For the WNA verbal system, see Arnold, 1990, §§3–4, for the D specifically, §§3.2.1, 4.1.2.
[113] Häberl (2009, §5.4.3) finds just one D PASS PTCP in his Neo-Mandaic corpus: *əmšabbā* "praised" and one C PASS PTCP *maḥbā* "kept". Arnold, 1990, §7.4) says that in WNA *m-* prefixed adjectives "werden besonders von jüngeren Sprechern bevorzugt verwendet", and his cited examples—*masmūʕ* "audible", *maftūḥ* "open", *malʕūn* "cursed", *mtallal* "inhabited", *mlawwan* "coloured"—are conspicuously Arabic-looking. Their foreign origin is further supported by the presence of a **qattīl* variant for the last, which is a verbal adjective pattern more familiar (and, it is understood, more native) to Aramaic: (MSG ~ FSG) *lawwen ~ lawwīnā*.
[114] Hetzron's (1977, 44n1) statement is actually about the Dp PC *yə-quttal*, but, owing to the precise morphological correlation with the D PASS PTCP, equally holds here. It ignores the fact that even without such a process, the resulting forms would nonetheless remain distinct in the vowel between R_2 and R_3—precisely as attested in Najdi Arabic D ACT *məqattil* ≠ PASS *məqattal* and Aramaic ACT *məqattel* ≠ PASS *məqattal*.

of ignoring the relationships between the Arabic and Hebrew forms, which are counterparts in terms of systematic organisation of the verbal paradigm, even if etymological cognates.[115]

The proposed derivation—that D PASS PTCPs were created by extension of a voice-marking height contrast (VMHC) identified between *qātil* ≠ *qatv̄ₕl* to the D ACT PTCP *muqattil*—carefully navigates the middle ground between these two methodological errors. Specifically, the general commonality in the formation process accounts for both vocalic patterns **a-a* and **u-a* in unified fashion, cogently explaining the divergence between them without denying the formal diversity of the proto-forms. Other theories, by contrast, are obliged to either separate them entirely, or to assume an unmotivated development from one to the other. Further, the proposal advanced here contextualises these forms in the overall situation of a CS development of verbal adjectives > PASS PTCPs > IPs.

An oppositional relationship **i* ≠ **a* /R_2_R_3 is the sole difference between Arabic D ACT PTCP *muqattil* ≠ PASS PTCP *muqattal*, and likewise Aramaic *məqattel* ≠ *məqattal*. Naturally, scholars have identified this as a contrastive marker, and even sometimes tried to account for its origin in terms of earlier forms of voice marking. For example, Retsö suggests that originally, the theme-vowel of the tD was governed by root type, with **a* in √3=*w*/*y* but **i* in the strong root (i.e., **yi-t-qattay* versus **yi-t-qattil*). Since the tD was the original passive counterpart to the D, he argues that in languages where the **a* variant was levelled—some Arabic dialects (including Classical Arabic) and Aramaic, but *not* Hebrew—voice marking in the D PTCPs by a distinction

[115] Retsö (1989, 166–69, 193) is a prime example of someone who goes to the extreme of starkly separating the etymological origins of Hebrew *məquttal* and Arabic *muqattal*. He believes that the former derives from a nominal pattern **quttal* associated with patient semantics; the latter he attributes to the extension of an *Aktionsart* contrast between **i* and **a* (in the theme vowel of fientive versus stative PC forms) to the ACT PTCP *muqattil.*

between ACT *i* and PASS *a* had its origin in the contrast between (ACT) D *yu-qattil* versus (PASS) tD *ya-t-qattal*.[116]

There is much to object to in this theory. For one thing, Retsö implies that the occurrence in the *yi-qtal* stative G PC facilitates its identification as a passive marker in the tD. This belies a fundamental misunderstanding of the relationship between the distinct concepts of *in*transitivity and *de*transitivity.[117] Further, his theory entails the troubling reconstruction of a poly-genetic Arabic of which some parts never possessed D PASS PTCPs at all, and indeed, one which does not correspond neatly to some attested situations, which he therefore presumes to explain away as the result of interdialectal contact.[118] Most relevantly to IP development, Retsö's proposal relates **muqattal* D PASS PTCPs only to the tD and to the Arabic Dp PC *yu-qattal*; otherwise, its relation to other detransitive forms—such as Hebrew forms, the Arabic Dp SC, or IP forms from stems other than the Dp—is not considered at all.

Herein lies one of the main advantages of the novel VMHC hypothesis: it understands the contrast between *muqattil* ≠ *muqattal* in such a way as to contextualise these forms within the paradigm. Thus, the first instance of a height contrast aligning with a voice distinction was that in the long vowel of G ACT *qātil* versus PASS *qatv̄ₕl* PTCPs. From here, it was analysed as a voice marker (the VMHC) and applied to new contexts. Apart from *muqattal*, this can equally and simultaneously account for all other derived PASS PTCPs—namely, the C PASS PTCP, as

[116] Retsö, 1989, 187–94. This supposed original distribution runs directly contrary to that attested in Syriac and Yemeni Arabic. For Syriac √3=y *ne-ṯ-bakke* (<**ni-t-bakki*) versus √strong *ne-ṯ-kattaḇ* see Muraoka, 2005, 105, 108; for Yemeni Arabic √3=y *yi-t-ġaddi* (alongside *yi-t-ġadda*) versus √strong *yi-t-kallam*, see Retsö, 1989, 191 table 32.
[117] Retsö, 1989, 193: "[T]he *a* in the imperfect G-stem is, at a certain stage, connected with the stative/intransitive categories [i.e., stative *yi-qtal*], which has led to its employment in PC [passive constructions, namely *yu-qtal*]. Now the *t*D-stems are clearly an intransitivization of the basically transitive D-stem. The instransitivity of the *t*D-stems [sic] has led to its employment in the PC". The passive is not, as Retsö believes, simply equivalent to *in*transitive, but is rather a specific type of *de*transitive, namely that which syntactically reduces the first argument.
[118] Retsö (1989, 192) ascribes the presence of D PASS PTCPs in Sūsa Arabic to contact with Bedouin dialects. Talmoudi (1980, 56–58, 98–99) instead shows that it preserved them because its phonology lacks the merger **a*, **i* > *ə* widespread throughout the region; cf. Sumikazu's (2005, 144) description of a Libyan dialect: "In the derived forms active and passive are not distinguished formally because the opposition of CA [Classical Arabic] short vowel *i : a* with which they were distinguished is in TJ [Tripoli Jewish] reduced into one phoneme *ə*".

well as Hebrew *məquttɔl* D PASS PTCPs. Most importantly, the holistic understanding extends to serve as the basis of a robust, comprehensive theory of all IP development (as discussed below in §§4.8. 5.4–5).

Because the VMHC is less immediately apparent in Hebrew *məqattel* ≠ *məquttɔl* (<**muqattil* ≠ **muquttal*) than Arabic *muqattil* ≠ *muqattal*, scholarship to date has not identified, or sought to explain the marking between them in this way. This does not reflect a shortcoming of the VMHC hypothesis, but rather the restrictively tight perspective adopted, which only allows discreet consideration of forms in terms of the precise vowels, blinkering scholars to the common generalities of a height contrast marking voice, as well as the interrelatedness of all the PASS PTCPs (and IPs).[119] The reigning theory (if it may indeed be called such) on the origin of *məquttɔl* is briefly discussed below, first with a view to its various internal shortcomings, and then in reference to the comparative advantages of the VMHC hypothesis.

Apart from those who derive the Hebrew D PASS PTCP *məquttɔl* from **muqattal*—doing so, as mentioned, without any basis other than the laudable, albeit misplaced, desire to unify the various forms under consideration—the main proposal for its etymological origin is as the grammaticalisation of nominal patterns with the vocalic pattern *u-a*(*:*) and supposedly resultative semantics.[120] Leaving aside for a moment the specifics of attested situations (as discussed below), the very basis of this theory is suspect insofar as evidence from the nominal paradigm does not support the proposed development. First of all, Fox finds that all noun patterns with *u-a* vocalic templates are rare, to begin with, and he queries the degree to which these may be

[119] Ironically, when D ACT ≠ PASS PTCPs are understood in terms of the VMHC, it transpires that voice marking is more pronounced in Hebrew than in Arabic, since it occurs in two positions rather than just one.
[120] A main proponent of this theory, on whose work much of the following summary of it is based, is Retsö (1989, 166–72); for a more even-handed presentation of the data for the alleged source(s) of *məquttɔl*, which ultimately undermine the theory, see Fox, 2003, 219–21 on *qutal*, 229–35 on *qutāl*, and 279–80 on *quttal* and *quttāl*.

reconstructed to PS or other stages of Semitic preceding the attested languages.[121] Where the patterns in question *are* attested, their uses are overwhelmingly substantival, whereas the development of a PASS PTCP from a nominal source would be far more plausible if this were a verbal adjective. Of the rare *qut*(*t*)*a*(*:*)*l* verbal adjectives, many have highly specific semantic values that suggest they have arisen in language-specific cases of semantic analogy.[122] Further, such verbal adjective uses relate exclusively to *intransitive* "stative" patients, whereas PASS PTCPs, by definition, refer to transitive patients.

Bearing in mind these objections, the best evidence for Semitic adjectives with *u-a* vocalism comes from Arabic, a language with a particularly extensive vocabulary, and one rife with lexico-semantic innovations. This is doubtless why a major feature of Retsö's overall argument is the claim that North African Arabic SC verbs in the form *qtāl* are part of the posited grammaticalisation of resultative *u-a* nominal forms.[123] These are only marginally productive and most relevantly, are never passive, but invariably adjectival (often inchoative), having intransitive patient arguments.[124] Even if the Hebrew D PASS PTCP *məquttəl* derives from a resultative nominal pattern **quttal*—which is found below to not be the case—North African *qtāl* is certainly not, but is rather cognate to Classical Arabic stem XI (*ʔi*)*qtālla*—like the similar

[121] Fox, 2003, 219, 229, 279.
[122] In Syriac, for example, a number of adjectives *qtāl* adjectives occur (e.g., *qrāḥ* and *gḇāh* both "bald", *sʕār* "hairy", and *šnāy* and *dwād*) with highly specific semantics (un)hairiness and mental (un)soundness not covered by reflexes of **qutāl* in other languages and therefore presumably a Syriac-specific innovation. The same holds for Arabic adjectives with *u-a* vocalism that relate to the semantic fields of qualities of milk and water and the abstract concept of beauty (Fox, 2003, 231, 235, 279–80).
[123] Retsö, 1989, 171–72, 194. These are the descendants of precisely that part ("group I") of his poly-genetic proto-Arabic that he believes never developed a *muqattal* D PASS PTCP, and hence instead created *u-a* passives.
[124] Examples are Moroccan *smān* "to become fat" (Caubet, 2008, §2.2.6.1.2), Tunisian *ḥmār* "to be(come) red" (Talmoudi, 1980, 107–7), Ḥassāniyya *gṣār* "become short" (Taine-Cheikh, 2007, §2.2.6.1.3); and Libyan *ṣfar* "become yellow" (Sumikazu, 2005, §2.2.4.1.9).

stem IX (*ʔi*)*qtalla*, this expresses colours, defects, and inchoate changes of state, with the proviso that the former is more common in Western dialects of Arabic and the latter in Eastern ones.[125]

Far more relevant to the development of IPs is the application of this proposed development from resultative *u-a* nouns to Hebrew D PASS PTCP *məquttɔl* (and, by extension to the Dp SC *quttal* ~ PC *yə-quttal*, as discussed below in §§4.8, 5.4–5). Even if *qutāl* were linked to resultative semantics which develop into passive uses (which is anyway doubtful), underlying the Hebrew forms in question must be **quttal*, not **qutāl*.[126] One cannot simply ignore the distinction between *qutal*, *qutāl*, *quttal*, and *quttāl* and assume their interchangeability as data points.[127] Just because *u-a* nominal forms are scarce, this does not justify the indiscriminate weaving together of data—often of questionable value as evidence to begin with—from disparate forms and asserting that they tessellate coherently.

The weakest aspect of the proposal that *məquttɔl* derives from a resultative *qut*(*t*)*a*(*ː*)*l* noun is the relations (or lack thereof) this entails between various parts of the paradigm. It would mean that *məquttɔl* relates to the D *ACT* PTCP *məqattel* only insofar as the prefix *mv-* was analogically extended to **quttal* after it became established as the D PASS PTCP. That is, the vocalic sequences of the two forms would have no diachronic relation, only finding themselves in opposition at the synchronic level, from which it follows that the proportional similarity between D *məqattel ~ məquttɔl* and C *maqtīl ~ muqtɔl* would have to be a mere coincidence. Further, the theory contains no allowance for any developmental link between *məquttɔl* and the G PASS

[125] Fischer and Jastrow, 1980, §12.4.6.1; Lipiński, 1997, §41.39. Traces of stem IX (*ʔi*)*qtalla* are reconstructed by Huehnergard (2019. §3.5.5) as far back as PS. Stem XI At some level can be considered an Arabic-specific development thereof—cf. Classical Arabic by-forms (*ʔi*)*ʕwajja* / (*ʔi*)*ʕwājja* "be(come) crooked", the latter being cognate to Sūsa Arabic *ʕwēj* (Talmoudi, 1980, 106–7; Wright, 1896, §§58–59)

[126] In fact, **quttal* is an extremely rare pattern in Hebrew, as throughout Semitic; Jouön and Muraoka (1991, §88Hd) provide just two examples, both substantives: *sulləm* "ladder" and *qubbáʕat* (<**qubbaʕ-t*) "chalice" with no trace of resultative semantics.

[127] To illustrate the problems with such an approach, **qatil*, **qātil*, **qatīl*, and **qattīl* all share *a-i* vocalism, but have quite distinct functions, and in fact, not infrequently stand in diametrically oppositional distributions.

PTCP *qɔtūl*. At the risk of labouring the point, avoiding such a divorcing of forms from their broader paradigmatic context is precisely a major strength of the VMHC hypothesis.

The general understanding of D PASS PTCPs among Semiticists is basically that forms derived from **muqattal* occur in Arabic and Aramaic, and those from **muquttal* in Canaanite.[128] This bifurcation, though, is a convenient simplification, and not entirely accurate. Some dialects of Aramaic possess a D PASS PTCP—or rather, D *qtil-li* PFV, which is what the D PASS PTCP becomes in NENA—that is a reflex of **muquttal*, rather than **muqattal*, as is more standard in this branch of Semitic. In Jewish Palestinian Aramaic (of the Palestinian Talmud and Midrashim), Yemenite reading traditions of Biblical Aramaic, and the Jewish Neo-Aramaic of Challah, Hebrew influence is likely; however, in the Christian Neo-Aramaic dialects of Alqosh, Barwar, and Peshabur, this is not possible.[129]

Neo-Aramaic, then, possesses reflexes of both **muquttal* and **muqattal*—cf. e.g., Barwar Aramaic *mšuləx-li* <**məšullaḥ lī* "I stripped (it)" versus Ṭuroyo *mḥalaq-li* <**məḥallaq lī* "I threw (it)".[130] In view of the presence of *muqattal* in Arabic versus *muquttal* in Hebrew, and in the absence of any explanation for how or why *some* Aramaic dialects might have developed one form from the other, one must entertain the possibility that the coexistence of two variant forms was inherited into Aramaic from an earlier stage. Such a reconstruction is at odds with traditional historical linguistics methodologies, which understand genetically inherited situations to be static. Areal models may dispense with the problem of this isogloss cutting across the genetic

[128] I favour caution regarding Ugaritic and OSA, reserving judgment in the absence of sufficient decisive evidence.
[129] For examples, see Coghill, 2003, §§6.3.2, 6.3.3, 6.6; Coghill, 2013, §2.6; Cook, 2010, 7–10; Fassberg, 2010, §4.4.18; Khan, 2008, §8.3.3; and Stevenson, 1962, §21.
[130] For these Neo-Aramaic examples, see Khan, 2008, §8.3.3; Jastrow, 1992, §10.4. Khan notes that in the D perfective *mqutəl-li*, *ə* has replaced the original *a* between R_2 and R_3 by analogy to the D *qatl-in* IPFV base, *mqatəl-* (<*D ACT PTCP **muqattil*). I reject Jastrow's (1997, 362) inference that the *u* was a subsequent development to preserve a distinction between the tenses. He proposes no source for this *u*, and the *qtil-li* and *qatl-in* conjugations are in any case distinguished by their suffixes.

branch of Aramaic but cannot account for why variation between **muqattal* and **muquttal* endured for such a long time.

The variation-and-change model, by contrast, expects precisely such ongoing formal divergence. The grammar has allowed for multiple simultaneous applications of the VMHC to the D ACT PTCP **muqattil.* In accordance with the variation-and-change model, I propose it is possible that formal heterogeneity of the D PASS PTCP existed at CS, was preserved through the NWS node, and passed down into Aramaic. In Arabic and Hebrew, by contrast, the competition between **muquttal* and **muqattal* was resolved, with each language ultimately favouring a different variant. Importantly, this proposal does not logically *deny* a possible derivational relationship between these two variants. Instead, it merely observes that regardless of the origins of the variation, both variants conform neatly to the principles of the VMHC.

It is found below (in §4.9) that this situation of variant D PASS PTCP forms that conform to the VMHC principle also occurs several times in finite IPs. That is, formal variation, including instances that lead to change, exists among IP forms, even including within individual languages, but crucially, all variants have in common the distinction from their active counterparts a contrast in vowel height (in at least one position). For example, Najdi Arabic G PC *ya-qtil* ≠ Gp *yi-qtal* derives from earlier G **ya-qtul* ≠ Gp **yu-qtal*, and the latter pair can appear as variants in this dialect depending on characteristics of the root consonants (e.g., Gp PC *yū-ḵaḏ* "it is taken" not ***yī-ḵaḏ* from √1=ʔ).[131] Leaving aside the diachronic development (discussed below, in

[131] Abboud, 1979, 476; Ingham, 1994, 28. Hasselbach (p.c., 2021) rejects the idea that these pairs of forms exhibit height contrasts, seeing the contrast in terms of *position* of vowels. I disagree, and argue that since the Gp PC can be created by inverting the height of each vowel—precisely as occurs in the SC, where the process cannot be framed in terms of inversion of *position*—these are exemplary cases of the VMHC in IP formation.

§§4.9.1, 5.6), at the synchronic level, both stages are compatible with VMHC as a principle of IP formation, as are both Gp SC variants in Yemeni Arabic (G qatal ≠ Gp *qutil / qitil*).[132]

Though the basics of the VMHC hypothesis alone cannot account for the diachronic origins of the variation between **muqattal* and **muquttal*, it does go beyond previous theories of IPs in providing a unified framework to understand their synchronic existence.[133] Moreover, it does so in a way that relates them to other parts of the language such as the tD, the G PTCPs, the D *ACT* PTCP, and finite Dp forms. Instead of fixating in what has *not* yet be established about D PASS PTCPs, let us focus on what the novel theory of IP development proposed here *does* allow us to say about them: 1) D PASS PTCPs represent a secondary stage in the semantic-to-syntactic shift compared to the creation of G PASS PTCPs; 2) both **muqattal* and **muquttal* are created by extension of the VMHC to the D ACT PTCP **muqattil*; and 3) their extended coexistence in the language endured genetic bifurcation of nodes into descendent branches.

4.7 The derivation of C PASS PTCPs

When considering C PASS PTCPs, much of the above (in §4.6) discussion regarding D PASS PTCPs holds true, with the proviso that the lenition of the causative morpheme have sometimes obscured the parallels.[134] This bears on the analysis because the segment between the PTCP

[132] Watson, 1989, §4.2.1. These variants are dialectally distributed, though the latter is a later reflex of the former, as discussed in detail below (in §§4.9.2, 5.7).

[133] Ultimately, the current work is no more successful than previous ones in accounting for the origin of the variation between **muqattal* and **muquttal*; indeed, by rejecting several existing proposals, it raises questions rather than provides answers. However, I do not think that this small gap in explanation detracts from the validity of the overall thesis. Moreover, it is of course possible that a solution to the issue may be found in future, and the VMHC hypothesis might even provide a fresh conceptual starting point that makes this possible. One caveat to the preceding is that in Samaritan Hebrew, a sound change **u* > *a*, and further > *ɔ*/_*C#, ɔ̄*/_*Cv* (Ben-Hayyim, 2000, §2.13.5, with amended transcription using *ɔ* instead of *å*). As a result, the D PASS PTCP **məquttɔl* has shifted > *m*(*ə*)*qattɔ*(*ː*)*l*—cf. e.g., Samaritan *a-mšaqqɔ̄d-əm* with the Tiberian reading tradition *məšuqqɔ̤d-īm* (Exod 25:33). However, this is a development specific to this language and does not bear on the historical relationship between **muquttal* and **muqattal* in Semitic more generally, such as at the CS or NWS stages.

[134] Cf. e.g., Classical Arabic C SC *ʔaqtala*, C PC *yu*-(*ø*)-*qtil*, and Ct SC (*ʔi*)*staqtala*, with respective causative morphemes, *ʔ*, *ø*, and *s*. In at least two dialects of Arabic (Ḥassāniyya Arabic in Mauritania and the dialect of Ibb in

prefix *m-* and R_1 following lenition of the causative morpheme is precisely one of the loci of the VMHC (e.g., between in *a* versus *u* in Hebrew C PTCPs, ACT *maqtīl* ≠ PASS *muqtal*).[135] When the causative morpheme (represented as "C") was elided in the proto-form of the C ACT PTCP **muCaqtil*, the prefix vowel and that of the causative morpheme adjoined. The impermissible sequence ***muaqtil* was resolved differently from one language to another, resulting in divergent reflexes of the same proto-form. In Arabic *muqtil*, the prefix vowel *u* was retained; Aramaic *maqtel* instead preserved the vowel *a* from the causative morpheme.[136] Represented in a visually immediate format, albeit one that does not conform to norms of linguistic representation, the Arabic C ACT PTCP is *mu~~C~~aqtil*, whereas Aramaic is *m~~u~~~~C~~aqtil*.

Ordinarily, outlining the historical reconstruction of the C would be unnecessary since it is a matter of general consensus among scholars of Semitic languages.[137] However, it bears clarification here precisely because this issue has (mis)led a key contributor to the discussion on IPs to gravely misunderstand the ablaut relationship in forms from the C, and as a result, to reach confused and outlandish conclusions about the development of IPs generally.

Retsö denies that forms with no overt causative morpheme belong to the C stem, in derivational terms; he does not consider Arabic *yu-qtil*, Aramaic *ya-qtel*, and Hebrew *ya-qtīl* 'apothematic causatives' derived from **yu-saqtil*, but believes they have developed from G *ya-qtil*.[138] In the context of his theory of IP development, 'apothematic causatives' are equivalent

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Yemen) C forms *saqtal* are back-formed from the Ct using the archaic sibilant allomorph. A single language may also attest variation in lenition, reflecting different historical stages—cf. Biblical Aramaic C ACT PTCPs *məhōdeʔ* (Dan 2:23) versus *mōdeʔ* (Dan 6:11).

[135] Below (in §§4.8, 4.9.1, 5.4, 5.6) it is illustrated that the same consideration is even more relevant to the C(p) PC, especially in terms of its relationship to the Gp PC *yu-qtal*.

[136] In Biblical Aramaic *məhaqtel* the prefix vowel has reduced to *ə* (cf. the D ACT PTPC *məqattel* <**muqattil*) but the causative morpheme has not yet been elided. In Arabic, an exceptional archaic form of the C from √*ryq* preserves the causative morpheme as *h*. Its variant C ACT PTCP forms *muharīq* and *muhrīq* (Fischer, 1970, §249) suggest a development **muhaqtil* > **muhəqtil* > ***muhqtil* → *muqtil*, precisely converse to that of Aramaic.

[137] See Huehnergard, 2019, §2.1 for an uncontroversial summary.

[138] Retsö, 1989, esp. ch 4.

and related to the functional repurposing of stative/intransitive G *yi-qtal* that he believes lies behind the Gp **yu-qtal*. From here, Retsö's final inference is that Cp PC *yu-qtal* is etymologically identical with Gp PC.[139]

This position is of course completely untenable when one recognises that even if C(p) forms and the related PTCPs lack an overt causative morpheme, this is simply the result of its elision. The C PASS PTCP is instead derived from the C ACT PTCP by application of the VMHC, precisely mirroring the process described above (in §4.6) for the D PASS PTCP. This includes the ongoing process of formation matching differences between diachronic different stages, genetic branches, or geographical areas of Semitic in terms of the form of the causative morpheme.

Thus, earlier/archaic Aramaic C ACT PTCP *məhaqtel* yielded a PASS PTCP *məhaqtal*, whereas later/innovative Aramaic *maqtel* gave *maqtal* and Arabic *muqtil* resulted in *muqtal*. It is theoretically impossible to determine based on internal data alone whether Arabic *muqtal* was based on *muqtil* after the causative morpheme had already been elided, or rather derived from **muCaqtal* and subsequently underwent lenition. This must be established on a comparative basis, the best evidence coming from Aramaic, where the diachronic development between earlier (or archaic) forms with a causative morpheme and later (or innovative) ones without is clear—cf. e.g., *məhēman* (<**məhayman*) "trustworthy" (Dan 2:45, 6:5) and *məhaḥăṯ-īn* (Ezr 6:1) "deposited" versus *maṣlaḥ* "done successfully" (Ezr 5:8).

Given this proviso about the elision of the causative morpheme, morphological parallels between the C and D, are neat; they share common syllabic templates SC *CaCCaC* ~ PC

[139] Retsö, 1989, 140: "*If yaqtil is diachronically an original G-stem reemployed as CCj, the same must hold for yuqtal.* The conclusion must be that the two terms *yaqtil : yuqtal* originally belong with the GG-stem and have been reemployed in the new apothematic causative conjugation. The morphological identity in BH [Biblical Hebrew] and HA [Classical Arabic] between G [sic. In reference to Gp] *yuqtal* and CCj [sic, in reference to Cp] *yuqtal* is not a coincidence, not the result of a development neutralizing morphological opposition between two originally different forms. They look the same because historically they are the same".

yu-CaCCiC ~ ACT PTCP *muCaCCiC*.[140] This is important in reconstructing the chronology of the Hebrew C PASS PTCP. Theoretically, its form *muqtɔl* could derive from **muhaqtal* with the syncope of the sequence **ha* (cf. Arabic *muqtal*). However, the C *ACT* PTCP *maqtīl* has a vowel *a* between prefix *m-* and R_1. Since this doubtless derives from **muhaqtil*, the inference is unavoidable that the historical prefix vowel has been lost, and that of the causative morpheme retained. Barring any reason to think that the ACT and PASS PTCPs diverged in this regard, Hebrew *muqtɔl* must derive from **muhuqtal*—judging from the parallel D PASS PTCP *məquttɔl*, ostensibly with an intermediate stage **məhuqtal* prior to the lenition **h* > *ø*. The same holds for the C *qtil-li* PFV (<*C PASS PTCP) in NENA. Thus, Khan explicitly identifies the historical origin of Barwar Aramaic *mupləx-li* "I used" as **muqtal* rather than *maqtal*, which is the more usual C PASS PTPC form in the Aramaic branch.[141]

Observations made above (in §4.6) regarding the formal diversity of the *D* PASS PTCP, specifically the relationship between Arabic *muqattal* versus Hebrew *məquttɔl*, likewise hold for the C PASS PTCP. That is, no plausible proposal has ever been presented for a diachronic development *muCuqtal* <**muCaqtal* (or the converse).[142] One hypothesis that I am somewhat surprised at never having encountered in the literature is one of trans-laryngeal assimilation **uCa* > *uCu* (where C =*h* or *ʔ*), since this is a fairly natural phonetic process widespread through

[140] This is only true of the Cp PC and C PASS PTCP where the causative morpheme is preserved as a consonant *š* or *h* (or theoretically *ʔ*, though this does not occur in practice) as in OSA, Ugaritic, and some earlier Aramaic. Further obscuring this pattern is the unfortunate accident of attestation that only in the last of these languages are fully vocalised forms present; the vowels of OSA and Ugaritic forms are reconstructed, undermining their value as support of this proposal.

[141] Khan, 2008, §8.3.4.

[142] This statement is made regarding the relationship between the forms in broad historical terms. As mentioned above (§4.6n725) in relation to the D PASS PTCP, sound changes in Samaritan Hebrew have caused the historical Hebrew C PASS PTCP **muqtal* to become *maqtɔ(ː)l* (Ben-Hayyim, 2000, §2.13.5, with amended transcription using *ɔ* instead of *å*). However, this is very much a development specific to this langauge, and should not be allowed to confuse the understanding of the overall situation.

Semitic.[143] However, there is simply no supporting evidence to suggest that it is at play here, nor any reason why this would occur only in Hebrew and some dialects of Aramaic. Furthermore, this would only account for *C* PASS PTCPs, so the D counterpart *muquttal* would have to have arisen by analogy.[144]

Another basically intuitive explanation of **muqtal* is that the vocalic sequence *u-a* was applied to the consonantal template of the C ACT PTCP *mvqtvl* following the loss of the causative morpheme. This may also be rejected. If the sequence came from the D PASS PTCP **muquttal*, this would not help to clarify the origin of the morphology; the D PASS PTCP results from application of the VMHC to the D ACT PTCP, an explanation that holds equally well for the C ACT ≠ PASS PTCP (regardless, in fact, of the status of the causative morpheme). The *u-a* vocalisation of **muqtal* anyway cannot originate in the Gp PC **yu-qtal*, since this is extremely poorly attested in Hebrew (basically absent in Aramaic), not to mention demonstrably dating to a later stage of the language than the C PASS PTCP (as discussed below in §§4.9.1, 5.6).[145]

Precisely as argued above in relation to D PASS PTCPs, two independent variant forms of the C PASS PTCP (**muhaqtal* and **muhuqtal*) coexisted as early as NWS, if not already in CS. Reflexes of the former occur in Arabic and most of Aramaic; those of the latter in Canaanite and at least part of Aramaic. The key difference from the D PASS PTCPs is that, with the elision of the causative morpheme, both proto-forms of the C PASS PTCP ultimately merge to **muqtal*.

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[143] Examples of trans-laryngeal assimilation include Arabic pronominal suffixes before front vowels (**kalb-i-hu* > *kalbi-i-hi*), and the epenthesis in Hebrew verbs √*I=ʔ* (**ya-ʕmud* > **yaʕəmod* > *yaʕămoḏ*). Elsewhere Hayward, Hayward, and al-Tabūki (1988, 246) identify a case in Jibbāli verbs: "vowels on either side of a guttural consonant agree in quality". These developments are part of a universal phenomenon arising from the phonetic "transparency" of certain consonants (for which, see Van der Hulst and Mous, 1992).

[144] I find the objections to such a proposal outweigh the potential benefit of accounting for D PASS PTCP variants **muqattal* and **muquttal* and have mentioned it here largely for the sake of comprehensive coverage and to pre-empt the suggestion; Hasselbach (2020, p.c.) is less opposed to it, and at least entertains it as a possibility.

[145] This (im)possibility is mentioned here because of the flawed theories of Praetorius (1923–1924), Blake (1901), Hetzron (1977) and Retsö (1989, ch. 3 and 6), addressed below (in §4.9.1), that the *u* vowel *per se* serves as a passive marker, and that it first occurred in Gp PC whence it spread to other contexts, as per

Failure to grasp this historical background to the development of C PASS PTCPs obscures how it parallels with the D PASS PTCP, and in turn, how both belong together, as the first level of the extension of the VMHC from its original context (in the long vowel of G ACT versus PASS PTCPs *$qātil$ ≠ *$qatv̄ʰl$). In an accident of attestation, the orthographies of the CS languages that best preserve the causative morpheme—Ugaritic, where it appears as *š*, and (Sabaic) OSA, as *h*—cannot provide information about the vocalisation(s) of the C PASS PTCP {*mCqtl*}. However, this is not a problem with the argument itself so much as a deficiency in the data to confirm it. The comparison of D and C PASS PTCPs along with their active counterparts, and those of the G, bolsters the hypothesis, and the development of finite IP forms proceeding from this basis (discussed below in §4.8) confirms it beyond doubt.

4.8 Finite IPs derived directly from PASS PTCPs

The hypothesis of this dissertation sets forth that all Semitic IPs may be derived from PASS PTCPs whose development has just been described, whether directly from the forms—G *$qatv̄ʰl$, D **muqvttal**, and C **mu*(*Cv*)*qtal*—themselves, or indirectly, through the application of the VMHC to finite active forms. The first class of IPs formed directly from PASS PTCPs includes all Dp and Cp PCs, as well as the SCs of these stems in Hebrew and Ḥassāniyya Arabic, and the Aramaic Gp SC; the latter are class of indirectly formed IPs includes Arabic IP SCs (except those of Ḥassāniyya), the Hebrew Gp SC, and all Gp PCs throughout Semitic. As the stage-by-stage reconstruction in Chapter 5 shows, this distribution aligns with a general chronological pattern, insofar as IPs based directly on PASS PTCPs are mainly formed earlier than indirectly formed ones, which came into play only where direct formation was not feasible.

For all the flaws of Retsö's theories regarding D PASS PTCPs, one important strength is his recognition of the relationship with finite Dp forms. He believes that Hebrew *məquttəl* (more precisely, according to him, originally **quttal*) is the basis of the Hebrew Dp SC *quttal* and PC *yə-quttal*, and Arabic *muqattal* that of the Dp PC *yu-qattal*. This is despite seeing *məquttəl* and *muqattal* as having fundamentally distinct etymological origins.[146] Since the VMHC finds a way of linking not just these D PASS PTCP variants, but also both of them with the attested C PASS PTCPs (and indeed with G PASS PTCPs, albeit in a fundamentally different way), the expansion of this idea goes a long way to explaining the development of much of the Semitic IP paradigm.

Before outlining the mechanics of the creation of finite IPs from PASS PTCPs—which is in any case both morphologically and conceptually simple—it is worthwhile to observe their relative attestations. Jenni estimates that as many as two-fifths of Biblical Hebrew Dp forms are (D PASS) PTCPS (compared with half that proportion for the N); in post-Biblical Hebrew, finite Dp are lost altogether and only the D PASS PTCP remains, with the same happening later with the Cp.[147] The Phoenician data are disputed but largely conform to the same overall pattern.[148] It may not even be possible to strictly separate Canaanite dialects in which finite Dp forms are wholly absent from those where they are simply less common than the D PASS PTCP, or prudent to attempt to do so.[149] A scalar conception of productivity, though, makes such a distinction unimportant and allows them to be appreciated as belonging to different stages in the

[146] Retsö, 1989, 194.
[147] For Biblical Hebrew, see Jenni, 1973, 66; for Mishnaic, Fassberg, 2001, 249–50; for Samaritan, Ben-Ḥayyim, 2000, §2/10; and for Qumran, Qimron, 1986, §310.16: "The outstanding feature of the system of conjugations is the reduction of the internal passive (except *puʿʿal* participle)".
[148] Krahmalkov (2001,168, 198) and Segert (1976, §54.35) accept the existence of a Phoenician Dp, and any scarcity relative to the D PASS PTCP can only be inferred through comparison of forms cited. Amadasi Guzzo (1999, §§145, 158) by contrast, rejects it, but does cite a D PASS PTCP: {*myll*} "mourned" (KAI 161:2).
[149] Segal (1927, 63n2) states that the Dp is wholly absent from "Joshua, I Samuel, Micah, Jonah, Habakkuk, Chronicles, Nehemiah, and Daniel, and occur only once or twice in Judges, 2 Samuel, Amos, Lamentations, Canticles, and Ecclesiastes". Without commenting on the dialectal or generic distinction(s) within the Biblical Hebrew corpus that this distribution might reflect, it seems at least possible that the Dp was, if not altogether absent from the language, certainly closer to this than to full productivity for some Biblical Hebrew speakers.

historical arc of the Dp in Canaanite, and particularly the end thereof as it disappears from languages in this branch.

An interesting parallel to this situation can be found elsewhere, in Omani Arabic. Here finite IPs are increasingly restricted to certain fixed expressions and weak root types while PASS PTCPs are fully productive.[150] This dissertation hypothesises (and confirms) that the formal similarities between the PASS PTCP *məquttəl* and Dp SC *quttal* ~ PC *yə-quttal* in Hebrew and likewise between the D PASS PTCP *məqattal* and Dp PC *yə-qattal* in Omani Arabic reflects derivational relationships. In terms of the directionality of this derivation, in both Hebrew and Omani Arabic D PASS PTCPs are well attested whereas finite Dp forms become increasingly rare with time; this pre-eminence of the D PASS PTCPs speaks strongly to their being the source from which finite Dp forms were created rather than the converse.

Apart from the micro-situations within individual languages and dialects, the same principle applies at the macro level of CS as a whole. That is, all languages with a Dp PC derived from **yu-qattal*—e.g., Classical and some Central and Eastern Arabian dialects of Arabic—invariably possess D PASS PTCPs derived from *muqattal*.[151] However, the vast majority of languages with D PASS PTCPs—Aramaic, most Arabic dialects, and perhaps some Canaanite languages like Phoenician—do not possess finite Dp forms based on this. The inference is clear: CS developed D PASS PTCPs that were inherited by all its descended languages, but only a few of these languages subsequently went on the develop finite Dp forms from the D PASS PTCPs.[152]

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[150] Holes (1998) has shown that Omani IPs used to be more widespread, so, technically, these data alone do not confirm the *historical* pre-eminence PASS PTCPs. Nonetheless, as part of the whole picture, they very much support such a conclusion and may anyway confidently be identified as more central at least in *synchronic* terms.
[151] Given the uncertainty about Ugaritic and OSA the same situation here can only be assumed and not confirmed. That is, reading Ugaritic {*tlakn*} as a *yu-qattal* Dp PC /*tu-laʔʔak-ā-ni*/ "they [DU] were sent" presupposes that forms like {*maṯr*} /*muʔaṯṯar*/ "rear" are *muqattal* D PASS PTCPs. Unfortunately, more certain D PASS PTCPs (for which, see Tropper, 2000, §§74.422, 74.424) lack *ʔalif* signs, and therefore provide no information about vocalisation.
[152] As demonstrated below, the same observation holds true of the C PASS PTCPs and Cp forms, precisely because of the equivalency of these forms in terms of paradigmatic position as well as formational etymology.

Furthermore, even in those languages that did, finite Dp forms were more apt to be lost than their source PASS PTCPs since they were newer, and less well established, precisely as has just been described for post-Biblical Hebrew and Omani Arabic, for example.

The mechanics of how IP PCs are created based on PASS PTCPs are remarkably straightforward. The PTCP prefix *mv* <**mu*- is simply replaced by the person marking prefixes of the PC (namely, *yv*-, *tu*-, *ʔv*-, and *nv*-). Thus, Hebrew D PASS PTCP *məquttɔl* yields *yə-quttal*, Classical Arabic *muqattal* yields *yu-qattal*, and Najdi Arabic *məqattal* yields *yə-qattal*.[153]

The same is true for the creation of Cp PCs from C PASS PTCPs, including with regard to whether the causative morpheme is present or not.[154] Thus, in Classical Arabic, where it is absent, C PASS PTCP *muqtal* is the basis for Cp PC *yu-qtal*; in Ugaritic, by contrast, **mšqtl* gives rise to *y-šqtl*, with an overt causative morpheme *š*.[155] As mentioned above (in §4.7), the formation of the Hebrew C PASS PTCP *muqtɔl* must derive from **muCuqtal*, before elision of the causative morpheme; however the next step from PASS PTCP to Cp PC could equally have occurred before (**məCuqtal* → **yə-Cuqtal* > *yu-qtal*) or after (**məCuqtal* > *muqtɔl* → *yu-qtal*).

The preceding explains the formation of Dp and Cp PCs from the D and C PASS PTCPs. However, some IP *SC*s are also based directly on PASS PTCPs. These include the Dp and Cp SCs in Hebrew, and the latter in Aramaic; the Aramaic Gp SC; and all IP SCs in the Ḥassāniyya dialect of Arabic. These are discussed in turn as follows, with particular attention paid to how

[153] Divergence between *ɔ* in the PTCP and *a* in the PC simply reflects historical **a* developing differently in Hebrew in nominal (the PTCP) and verbal (the Dp PC) forms. Precisely the same distribution occurs elsewhere (cf. e.g., the N PTCP *niqtɔl* versus N SC *niqtal*, both <**niqtal*).

[154] Aramaic would potentially be illuminating in this regard, since the C PASS PTCP occurs both with and without a causative morpheme, even in the same dialect: e.g., Biblical Aramaic *məhēman* "trustworthy" (Dan 2:45, 6:5) versus *maṣlaḥ* "done successfully" (Ezr 5:8). Unfortunately, this language possesses no Cp *PC* forms exist to test the prediction of expected respective corresponding ***yə-hēman* and ***ya-ṣlaḥ*.

[155] As Pardee (2020, p.c.) points out, vowels of these Ugaritic forms are reconstructed, which is why forms here have been cited solely in terms of their orthography (reflecting the consonantal skeleton). That said, I am aware of no reconstruction of Ugaritic in which the vocalisation of the C ACT PTCP and C PC (and likewise the corresponding forms from the D, for that matter) did not share the same vocalisation. Considering the weight of comparative evidence against such a situation, I would be most surprised to encounter such a proposal.

they relate to IPs that are not derived directly from PASS PTCPs, and to other features of the language that bear on the creation and subsequent development of the IP forms in question.

IP formation and development did not occur in a vacuum, and the rest of the language system was at the same time undergoing other potentially interrelated developments, for example, sound changes that affect the formal relationships between IPs and their unmarked counterparts. For example, the Hebrew Dp SC *quttal* was based on the D PASS PTCP **muquttal* (by simply removing the PTCP prefix *mə-*) at a time when the active D SC **qattil* and ACT PTCP **muqattil* exhibited formal parallelism. However, a subsequent change attenuating **qattil* to **qittil* affected the D SC and somewhat eroded the erstwhile VMHC. As a result, the attested D versus Dp SC forms (*qittel* ≠ *quttal*) possess a height contrast only between R_2 and R_3, compared to the original forms **qattil* ≠ **quttal*—based on D ACT versus PASS PTCPs **məqattil* ≠ **məquttal*—which have a VHMC in both vowels.[156]

It is proposed that, because proto-NWS exhibited isomorphism between its D SC, PC, and ACT PTCP stems (all sharing a base **qattil*), this explains the form of the Hebrew Dp, whose PC and SC both have the **quttal* base of the D PASS PTCP *məquttəl*. However, not everyone subscribes to such a reconstruction. Pardee, for example, believes the proto-NWS D SC was **qattala*, becoming **qattila* only in the Aramaic branch, with Ugaritic and Hebrew having undergone, to various degrees, further development to **qittala* and then **qittil*. He deems {*ihb*} (RS 94.2168) for /*ʔihhvba*/ "he loved" a more reliable testament to the vocalisation of the Ugaritic D SC than syllabic {*ša-li-ma*} and {*ša-al-li-ma*} (for /*šallima*/) "he paid".[157] Pardee

[156] Muraoka (Jouön and Muraoka, 1991, §52a) explicitly notes that changes to the D SC (**qattal* > NWS **qattil* > Hebrew **qittil* > *qittel*) have given rise to "a clear opposition between the perfect and the rest of the paradigm". A comparable situation obtains in the C(p), and here the C SC also undergoes lengthening of the vowel between R_2 and R_3, somewhat further undermining the directness of the contrast with the Cp—based on the ACT versus PASS PTCPs **maqtil* ≠ **muqtal* the C versus Cp SCs **haqtil* ≠ **huqtal* are formed, that then develop into *hiqtīl* ≠ *huqtal*.
[157] Pardee, 2003/2004, 276–77, contra Huehnergard, 2008, 182. Ultimately, how one reconstructs the proto-NWS > Aramaic, Canaanite, and Ugaritic D SC is a question of what data one weighs more heavily. On balance I do not

further suggests that Hebrew *qittel* / *qittal* D SC variants reflect that the Massoretic vocalisation tradition became fixed at a stage when a variation between the last two stages of the development was still a feature of the language.[158]

With regard to how this affects the VMHC hypothesis of IP formation, it must first be recognised that whichever reconstruction one adopts, the D and C SC syllabic templates (*qvttvla* and *Cvqtvla*, respectively) are understood to share a common vocalisation.[159] Thus, in Pardee's reconstruction, for example, the first step of **qattala* > **qittala* is ascribed to a dissimilation **aCCa* > **iCCa* also supposed to have affected the C SC (not to mention the prefix of the Gt and presumably the N SC): proto-NWS **Caqtala* > **Ciqtala* > **Ciqtila*.[160] The following observations made about the D(p) SC therefore likewise relate to the C(p) SC.

By relaxing the parameters of this proposed dissimilation to comprise just its height component (**v$_l$CCv$_l$* > *v$_h$CCv$_l$*), one could even derive the Hebrew D and C PASS PTCP from a proto-forms with **a-a* vocalism (i.e.,**muquttal* <**muqattal*).[161] In this case, the Dp SC **quttala* would have been created from the D PASS PTCP once the D SC was **qittala*, that is, after **qattala* had undergone the same dissimilation. Although this would constitute an exceptional violation of the VMHC principle at the stage of IP formation, it would explain the origin of NWS

find Ugaritic {*ihb*} as compelling evidence for *qittala* or *qittila* as does Pardee, since this is just a single form, and one with root consonants (R_1=*ʔ*, R_2=*h*) which exhibit peculiarities in various Semitic languages. As for Hebrew *qittal* D SC variants, the other major datum in this issue, I concur with Huehnergard (1992, 212–14, 219) that **i* lowered to *a* in first- and second-person forms by the regular operation of Philippi's law, and this was then analogically extended to some third-person forms, particularly where conjunctive accents or suffixes create phonological conditions similar to the first- and second-person forms; cf. the C SC *hiqtīl*, where lengthening **i* > *ī* impedes an equivalent paradigmatic levelling. For other, less plausible explanations, such as analogy to the vowel of the G *qɔtal* or N *niqtal*, see Jouön and Muraoka, 1991, §62c.

[158] Though ultimately I do not follow Pardee's (2003/2004, 276–77) proposal, such synchronic vacillation between archaic and innovative variants is precisely what the variation-and-change model of language predicts to occur.

[159] Isomorphism between proto-forms of the D and C SC is assumed in the most far-fetched reconstructions, such as that of Retsö (1989, 186), who derives them from **quttul* and **huqtul*. The difference between the second vowels of *qittel* and *hiqtīl* is not germane since the latter results from a Hebrew-specific lengthening of earlier **hiqtil*.

[160] Pardee (2003/2004, 264, 290) likens, or even relates, this dissimilation to that underlying the Barth-Ginsberg distribution of G PC forms (i.e., **ya-qtal* > **yi-qtal*). The Canaanite C SC, he argues has demonstrably reached the final stage in the development, while in Ugaritic, as in the DC, evidence for the vowel between R_2 and R_3 is lacking.

[161] I do not subscribe to this reconstruction, and the following is presented here mainly in order to pre-empt its being presented as an objection to the VMHC, and for the sake of comprehensive discussion of the various possibilities.

**muCuCCaC* D and C PASS PTCPs, and thence the NWS formation of Dp and Cp SCs directly from them.

As for why **aCCa* would dissimilate to **uCCa* (rather than to **iCCa*) only in **muCaCCaC* PASS PTCPs, Hasselbach queries whether prefix **mu-* may have been an influencing factor.[162] I admit this is a possibility, particularly in the C, where the causative morpheme might be prone to trans-laryngeal assimilation. However, on balance, I find such a proposal far too speculative and uncertain to confidently base my analysis upon it (particularly considering I do not subscribe to Pardee's proposed dissimilation **aCCa* > **iCCa*).

Even if Pardee's reconstruction of the proto-NWS D SCs as **qattala* is correct, the VMHC hypothesis can stand, but only if Dp SC formation preceded the dissimilation of the proto-Hebrew/Ugaritic D SC into *qittala*. That is to say, relative to D SC *qattala*, Dp SC *quttala* still possesses a voice-marking height contrast (in its first vowel). Considering the presence of the Aramaic Cp SC *huqtal*, dating the formation of *CuCCaCa* IP SCs to proto-NWS is quite unproblematic. The main problem with such an explanation—already noted as an issue with the thesis, though not one that contradicts it or detracts irredeemably from its advantages over previous scholarship—is that it does not provide an origin for the **muCuCCaC* PASS PTCPs (in contrast to **muCaCCaC* ones) on which these IP SC forms would be based.

Having addressed the ramifications of alternative reconstructions of the proto-NWS D and C SC forms for the VMHC hypothesis—which ultimately do not detract significantly from it—the next issue to be addressed is that of the mechanics of how IP SCs are formed in NWS based on the corresponding PASS PTCPs. In the case of the Hebrew Dp SC *quttal*, the PTCP prefix *mv-* is simply removed from the D PASS PTCP **məquttal*. However, in the Cp SC the causative morpheme occurs in word-initial position in contrast to its intervocalic context in the C PASS

[162] Hasselbach, 2020, p.c.

PTCP. As a result, it is not elided, but is retained as *h* (or *ʔ* with the more advanced lenition in later Aramaic), so the syllabic structure of the Cp SC *huqtal* is not the same as the *-qtɔl* base of the C PC and C PASS PTCP once their respective (*yu-/tu/nu-/ʔu-* and *mu-*, respectively) are removed.

The Hebrew data on their own are ambiguous as to whether the Cp SC *huqtal* was formed before elision of the causative morpheme simply by removal of *mə-* from **məhuqtal*, or after it, by transposition of the underlying vocalic sequence *u-a* of *muqtɔl* onto the C SC syllabic template *hvqtvl*. However, evidence from Aramaic, which also possesses a Cp SC, nudges the balance in favour of an earlier derivation. Specifically, while ten of the twelve Biblical Hebrew Cp SC forms attested follow the Hebrew pattern *huqtal*, the remaining pair instead represent a Cp SC *haqtal*.[163] Cook has also demonstrated that Qumran Aramaic had a Cp SC *ʔaqtal* with *a-a* vocalisation.[164]

This variation can only be understood in the broader context of the detransitive paradigm, and specifically, the C PASS PTCP. The standard Aramaic form for this is *m*(*əh*)*aqtal*, with the elision of the causative morpheme clearly visible between earlier (or archaic) and later (or innovative) forms, but a rarer variant *muqtal* is also attested (in Targumic Aramaic, and as the proto-form of the NENA C *qtil-li* PFV). This cannot derive from **muhaqtal* (by elision of the sequence *ha*) but must instead be a reflex of **muhuqtal*.[165] The presence of both *huqtal* and *haqtal* Cp SC forms can be attributed to variation in the underlying C PASS PTCP forms (**muhuqtal* / **muhaqtal*) on which they are based.

[163] The Biblical Aramaic *haqtal* are 3MPL *hēṯāy-ū* (Dan 3.13) "were brought" and 3FSG *hēṯāy-iṯ* (Dan 6:18) "was brought", both from √*ʔty*, and with a common base **haytay*, whose diphthongs developed into *ē* and *āy*.
[164] Cook, 2010, 7–9.
[165] The only way I can imagine *maqtal* and *muqtal* both deriving <**muhaqtal* would be as a result of two different in stress patterns—i.e., **muháqtal* > *məhaqtal* > *maqtal* versus ***múhaqtal* > ***muhəqtal* > *muqtal*. The latter seems to be what happened in Arabic, but there is absolutely no reason to believe such a situation ever existed in Aramaic.

It has been described above (in §4.6) how variation between **muqattal* and **muquttal* D PASS PTCPs was inherited from proto-NWS (if not earlier) into Aramaic. Just so, comparable variation between C PASS PTCPs **muhuqtal* and **muhaqtal* existed and continued through the stage where Cp SCs were created on their basis. The ongoing coexistence of both types of C PASS PTCP and Cp SC in Aramaic, sometimes even mixing between the two categories in a single dialect—e.g., Biblical Aramaic has *m*(*əh*)*aqtal* C PASS PTPCs but (mainly) *huqtal* Cp SCs—is unpalatable according to traditional comparative historical methodology, but considerably less so within the variation-and-change model.

The overall situation for the Cp SC, like that of the D and C PASS PTCPs, reflects a general tendency in IPs towards instability and variation. The distinction between passive forms with vocalisations *u-a* versus *a-a* is not, as has traditionally been proposed, an isogloss between Canaanite versus Aramaic and Arabic, respectively.[166] Instead, to account for the coexistence of both kinds in NWS—and in the absence of a convincing derivation of one from the other—it is proposed that a VMHC was applied to the D and C ACT PTCPs to create PASS PTCP counterparts during CS in two different ways. Variation between the resulting PASS PTCP forms continued through the stage where Dp and Cp forms were created from them, and judging from attested *qtil-li* PFV forms in Neo-Aramaic, has continued up until the present. Over time, one or the other variant usually became favoured in a given language or dialect, which has given rise to genetic isoglosses (albeit imperfect ones, with exceptions) between *u-a* and *a-a* forms, and hence the misconception that the forms were originally distributed in this way since their creation.

The next finite IP directly derived from a PASS PTCP to be considered is the Aramaic Gp SC *qətīl*. In terms of the relationships between different parts of the paradigm, this stands apart

[166] Though Arabic C PASS PTCP *muqtal* formally resembles Hebrew *muqtɔl*, it aligns etymologically with Aramaic *maqtal*, since both derive from **muhaqtal*, whereas Hebrew *muqtɔl* derives from **muhuqtal*; cf. the D PASS PTCPs in Arabic (*muqattal*) and Aramaic (*məqattal*) versus Hebrew (*məquttɔl*).

from all other IPs in some sense. As for the IP SCs just described, Dp *quttal* and *yə-quttal* / *yu-qattal* forms are directly based on the D PASS PTCP *məquttɔl* / *muqattal*, just as Cp *huqtal* and *yu-qtal* are on the C PASS PTCP *muqtal*. Indeed, these two sets of IPs cannot be divorced from each other insofar as they are parallel instances of the same derivation process in different parts of the paradigm.[167]

Even other IPs (discussed in detail below in §§49, 5.5–7) with no direct derivational relationship to PASS PTCPs nonetheless fit closely together. It would be unreasonable to consider the perfect isomorphism of Arabic IP SCs—whether Najdi (Gp ~ Dp ~ Cp) *qitil* ~ *qittil* ~ *ʔiqtil* or Classical *qutila* ~ *quttila* ~ *ʔuqtila*—as reflecting anything other than interrelated elements within a single phenomenon.[168] Once one understands that these are related to those IP forms derived directly from PASS PTCPs by means of the abstraction of the VMHC out from the specific context of PTCP morphology, and its application directly to *finite* active forms, it becomes clear that all IPs fit together in some way apart from the Aramaic Gp SC *qətīl*, which stands in isolation.

It is entirely straightforward to derive the Aramic Gp SC from the G PASS PTCP of this language. The SC person-marking suffixes (e.g., 3MSG -*ø*, 3FSG -*at* > -*ā*, 2MSG -*tā* > -*t*, 2FSG -*tī*, etc.) are simply added to the stem *qətīl*. Where consonant-initial suffixes create closed syllables (e.g., 2MSG *qətīl-tā*), the long vowel *ī* is preserved. Such ***CvīC* sequences are permissible in Aramaic but were not earlier in the history of Semitic (i.e., in proto-NWS and or any prior stage). However, this on its own does not incontrovertibly confirm that the Gp SC was an Aramaic-specific formation, since elsewhere this language reintroduces *CvīC* syllables to

[167] The developmental parallels—which may be formulated in a simplistic way as ACT PTCP + VMHC → PASS PTCP; PASS PTCP - prefix *mv-* + inflectional conjugation → finite IP—is more when one compares D(p) forms to the etymological proto-forms of the C(p) that retain the causative morpheme.

[168] This is supported by neological Arabic-specific IP stems (discussed below in §5.8) such as the Gtp and tLP—e.g., Najdi *ʔiqtitil* ~ *tiqītil* and Classical *ʔuqtutila* ~ *tuqūtila*—conforming neatly to this isomorphism.

replace earlier **CvC*.[169] Instead, it is one piece of evidence among others, not least of which are the unique paradigmatic situation of the Aramaic verbal system and the absence of cognate forms elsewhere.[170]

A key methodological principle of this dissertation, absent from previous scholarship, is a perspective viewing IPs as interactive elements within the broader context of the detransitive system. In this regard, it is noteworthy that the Aramaic IP paradigm is extremely fragmentary, containing only Gp SC and Cp SC forms.[171] These two Aramaic IPs have no clear etymological relationship, and apart from their functional similarity (of marking the prototypical passive), the only link between them is one of a loose synchronicity during the earlier stages of the branch; the Cp SC and Gp SC are first attested in the written record of Aramaic during the Official period—though may have been present in the vernacular during earlier stages—and are absent after the Middle period. Thus, instead of looking at the very scarce Aramaic IPs, the paradigmatic context within which the Gp SC *qətīl* is to be understood must be sought elsewhere.

A major development of the Aramaic verbal system is the replacement of the PC and SC by the neological *qatl-in* IPFV and *qtil-li* PFV conjugations, respectively. The first of these is a grammaticalisation of a predicative construction of ACT PTCP + PRON already well underway

[169] That is, one might theoretical argue that the long vowel occurring in open syllables has been levelled throughout the paradigm after *CvC* sequences became permissible in Aramaic, precisely as occurred in verbs √*2=w/y*; cf. proto-NWS (3FSG ~ 2FSG) **qāl-at* ~ **qul-tǐ* versus Aramaic *qāl-at* ~ *qāl-tī*, which levels the long vowel; Hebrew *qɔl-ɔ* ~ *qɔl-t*, which levels the short vowel; and Arabic *qāl-at* ~ *qul-ti*, which preserves the difference.

[170] Rendsburg (2006, 167), considers *gənuḇ-tī* (Gen 31:39 x2) an exceptional Hebrew case of the G PASS PTCP conjugated with the 1SG person-marking suffix: "I was robbed". However, the OBJ of this verb relates to the theme (thing stolen) rather than the source (person robbed), confirming the interpretation of Gesenius, Kautzsch, and Cowley (1910, §90l) and Jouön and Muraoka (1991, §93o) that this is a G PASS PTCP with a FEM suffix *-t* and a paragogic vowel *-ī*, in construct to the following word: "stolen of [i.e., by] day/night". Even if Rensdburg's analysis were correct, this would still only represent a nonce coining that never come close to establishing itself as a stable variant (let alone effecting irreversible language change), and would therefore be insignificant to the analysis, save perhaps as an example of the naturalness of the development of conjugating the G PASS PTCP.

[171] As discussed above (in §3.5), the entire written record of Aramaic contains just fourteen possible cases of a Gp PC, of which six are a single form, being restricted to two Old Aramaic inscriptions, and a handful of Official Aramaic texts. As such, if a Gp PC ever truly occurred in Aramaic—of which I am doubtful—its place in the analysis must be as a marginal anomaly, rather than a core, decisive datum.

by the Official Aramaic stage.[172] The latter takes an optional OBL agent marker (PREP *l-* + PRON) occurring with the erstwhile PASS PTCP *qətīl*, and turns this into an obligatory SUBJ marker. This developed later than the *qatl-in* IPFV, but by Late Aramaic (e.g., Syriac and Babylonian Jewish Aramaic) reference to the patient in the syntagm *qətīl-lī* is already somewhat compromised and that to the agent increasingly central, meaning significant grammaticalisation towards finite-verb status had already occurred.[173]

Though the *qtil-li* PFV has in common with the Gp SC the expression of perfective aspect, their functions are otherwise quite at odds: the Gp SC is passive, with an obligatory patient SUBJ; *qtil-li* PFV is active, with an obligatory agent SUBJ. Moreover, in terms of their paradigmatic positions, whereas the Gp as a construction occupies a position within the detransitive system equivalent to consonantally affixed verbal stems (the G, D, tG, etc.), the *qtil-li* PFV is a conjugation, replacing the SC (in a neat reflection of how *qatl-in* IPFV does the PC). As a corollary of this, is possesses fully productive counterparts from the D and C—*mqutəl-li* and *muqtəl-li*, respectively—whereas there was no Dp SC, and the Cp SC is only attested during the Official and Middle Aramaic stages.

In the broad diachronic scope of Aramaic, the Gp SC never replaced existing means of expressing the perfective passive to the G. Within the variation-and-change model, it did not reach the stage of language change proper but was instead a variant available to speakers for several centuries, before ultimately dropping out of use. Though the competing motivations at

[172] Li (2009, 57) outlines this process in the Aramaic of Daniel, showing the expanding scope of the *qatl-in* IPFV from progressive into imperfective use. This construction (or its progenitor) coexisted with the PC for many centuries in a constantly evolving competitive relationship. Both remain present in WNA with redefined respective functional scopes of indicative and subjunctive (Arnold, 1990, §§3.1, 4.1.1.2, 4.1.1.4). In NENA the *qatl-in* IPFV replaced the PC first in the unmarked imperfective, then spread to the subjunctive (Coghill, 1999, §2.4.1.1).
[173] The shift from PASS PTCP with optional agent reference to finite active *qtil-li* PFV is reflected by the loss of agreement with the patient, its ability to take a patient occurring with the OBJ marker, and, at later stages, the boundedness of agent (*-li*) to verb (*qtil-*), with ensuing assimilation between them (see Coghill, 1999, §3.4.2; 2016, §§5.3.2, 7.4).

play in its deselection are presumably complex, among them may be the lack of a corresponding Gp PC. This cannot have helped the cause of the GP SC in its competition against the other variants for the function of marking the passive to the G, namely, the tG and generalised-SUBJ constructions, both of which could be conjugated in the PC.[174] By viewing Aramaic IPs in terms of their position in the broader detransitive context, and specifically appreciating their relatively fragmentary status compared to other, better integrated verbal forms, one can gain a better understanding of their overall development (or rather, the failure thereof).

Another dimension of the paradigmatic position of the Gp SC that conditioned its deselection was the development of the *qtil-li* PFV. This slightly post-dated that of the Gp SC and used the same source morphology, putting a strain on the language. Though these two were not competing for the same domain—indeed they were functionally opposites, in terms of voice at least—the Aramaic Gp SC nonetheless died out at the expense of the *qtil-li* PFV. The latter fared better in the competition because it better complemented the *qatl-in* IPFV in terms of function (both being active), form (both bearing suffixes referring to agents), and paradigmatic position within the verbal system as a whole (both are conjugations with counterparts from the D and C stems). As such, even though the specific factors at play in the fate of the Aramaic Gp SC are quite different from those affecting other variations in which Semitic IPs partake, they nonetheless reflect the same motivation to create or strengthen functional symmetry and formal isomorphism, as well as the semantic-to-syntactic shift and fientivisation of verbal adjectives.

The preceding illustrates the straightforward derivation of the majority of IPs—specifically, the Classical Arabic Dp and Cp PCs, all Hebrew Dp and Cp forms, and all Aramaic IP forms—

[174] In NENA, *t* stems ultimately gave way to analytic passive constructions. It is beyond the current scope to confirm whether a direct causal relationship exists between this development and the flourishing of the *qtil-li* construction in NENA—however, cf. WNA, which did not develop the *qtil-li* construction and also retained *t* stems.

from corresponding PASS PTCPs.[175] Of these, the Aramaic Gp SC is a singular development in the straightforward conjugation of a (G) PASS PCTP with the verbal suffixes (the SC suffixes). The remainder belong together to a general tendency expanding the VMHC as means of creating new forms, extending it from the G ACT ≠ PASS PTCPs to create D and C PASS PTCPs, which are then subject to the pressure to create finite forms from verbal adjectives. While the resulting forms differ formally between branches of Semitic—cf. e.g., Hebrew *məquttɔl ~ yə-quttal* versus Arabic *muqattal ~ yu-qattal*—the commonality of the overall derivational process is striking.

To the extent that individual languages exhibit formal heterogeneity in the vocalisations of their IPs and PASS PTCPs, the possibility of inherited variation is an important feature of the analysis. Namely, two forms for a single element (e.g., **muqattal* and **muquttal* for the D PASS PTCP) could have coexisted for long enough to be inherited together, from proto-NWS (if not earlier) into Aramaic, for instance. This idea of inherited variation is central to the variation-and-change model and accounts for the jumbled situation in the attested languages where more traditional comparative historical methodologies (whether genetic or areal, or some combination thereof) have failed to do so.

The final case of IPs based directly on PASS PTCPs, the IP SCs of Ḥassāniyya Arabic, provides data that support this identification of a durable, general trend of the same rough development, characterised by diversity in the specific instances of its realisation. Its PASS PTCP and IP PC forms (e.g., D PASS PTCP *muqattal* ~ Dp PC *yu-qattal*) are identical to those

[175] Haspelmath (1990, 31) lists sound replacement as a means of passive marking, providing a Singhalese example of ablaut passives: *bala-* "see" versus *bäle-* "be seen", *hūra-* "scratch" versus *hīre-* "be scratched". He (32, 40) also acknowledges that PASS PTCPs often form the basis of finite passives (albeit only mentioning this in the context of periphrases using AUXs). I am not aware of precise typological parallels for finite passives being created by conjugation of PASS PTCPs with inflectional verbal affixes, though in synchronic terms, this is what one would expect a VP to develop into during a late stage in the grammaticalisation of an AUX.

of Classical Arabic, and there is no reason to doubt they are reflexes of the same proto-Arabic forms.[176]

IP SC forms in this dialect, by contrast, have no discernible etymological relation to those of Classical Arabic: cf. Ḥassāniyya pD SC *uqattal* versus Classical Dp SC *quttila* (discussed below, in §§4.9.2, 5.5, 5.7).[177] Instead, they are based directly on the PASS PTCP by removal of the PTCP prefix (or at least its consonantal element *m*-). Even though this is the same mechanism as that used to create the Hebrew Dp and Cp SCs, there is no doubt that these forms are an independent, Ḥassāniyya-specific development.

Many centuries and a mass migration of Arabic speakers from the Arabian homeland to North Africa separate the stages of the development of Dp PC *yu-qattal* and pD SC *uqattal*, as do several intermediate nodes on the genetic family tree of Arabic. This speaks directly to the long-lasting nature of IP formation as a process; they were not simply created at one point in a punctual manner, but rather continued to be (re)generated time and time again throughout the phylum, sometimes multiple times within individual branches. Further, the Ḥassāniyya IP SC points to the tendency to derive IPs from PASS PTCPs, itself a sub-category of the universal tendency towards derivation of finite verbs from verbal adjectives.[178]

The motivation to create formal isomorphism was a major factor in the unique creation of Ḥassāniyya IP SCs, which can be best appreciated by contrasting the Classical and Ḥassāniyya dialects with regard to the isomorphism of their verbal paradigms. In the former, the Gp is the only IP where PASS PTCP and IP PC lack formal parallelism: cf. G PASS PTCP *maqtūl* ~ Gp

[176] These illustrative forms are from the Dp, but those from the Lp or Cp could serve the same purpose. Indeed, since Ḥassāniyya levels the causative morpheme *s* from the Ct to the C(p), parallelism between the syllabic structures of the D(p) and C(p)—cf. *muqattal ~ yu-qattal* versus *musaqtal ~ yu-saqtal*—is stronger than in Classical Arabic.
[177] The terminology "pD" is used rather than "Dp" to reflect that the contrastive voice marking occurs *before* the stem, a highly unusual situation within IPs: cf. pD SC *uqattal* versus D SC *qattal*.
[178] The Ḥassāniyya-specific factors that allowed this to occur where it had not been possible in Classical Arabic are discussed in detail below (in §§4.9.3, 5.5).

PC *yu-qtal* versus D(p) *muqattal ~ yu-qattal*, Ct(p) *mustaqtal ~ yu-staqtal*, etc.; Ḥassāniyya Arabic, however, lacks the Gp stem altogether.[179] Moreover, Ḥassāniyya Arabic analogically extended the *a* between R_2 and R_3 of the SC into the PC and ACT PTPC of active derived stems (D, L, and C), creating a formal isomorphism that had not previously existed (cf. Ḥassāniyya D *qattal ~ yə-qattal ~məqattal* versus Classical *qattala ~ yu-qattil ~ muqattil*).

With the loss of these two deviations from perfect formal isomorphism, IP SCs were under great pressure to use the same stem as their corresponding PC and PTCP forms, which was identical to all corresponding verbal forms from the same stem, active and passive alike. That is, *qattal* was the base of the D and Dp SC, PC, and PTCPs (both ACT and PASS alike), with voice being distinguished solely in prefixes; similarly, *qātal* was the base of all L(p) forms, and *saqtal* of all C(p) forms. Changes in the Ḥassāniyya verbal system, among them the creation of innovative IP SC forms, thus made its the formal isomorphism perfect in a way that was not true of the more archaic Classical Arabic.

4.9 Finite IPs not derived directly from PASS PTCPs

The remaining IPs to be considered are those for which such a derivation based directly on PASS PTCPs cannot be identified. These forms, for which the term "indirectly formed IPs" will be used, include Arabic IP SCs (except those of the Ḥassāniyya dialect), the Gp PC wherever it appears, and the Hebrew Gp SC. The current section first outlines the broad ramifications of the VMHC hypothesis with regard to indirectly formed IPs altogether, specifically in contrast to the various existing theories and their relative shortcomings. Then, the specific analysis of the development of each specific case is addressed.

[179] As explained above (in §§1.6, 3.4.3), the absence of the Gp from Ḥassāniyya is a result of how the motivation towards functional symmetry has affected its inventory of the detransitive stems.

Saying that there is no direct link to PASS PTCP morphology is not meant to deny any relationship altogether. It is counter-intuitive that the various IPs performing the same function and bearing the same morphological marking would share no etymological similarities; the goal must be to present a plausible account thereof (if indeed one exists). The analysis finds that such indirectly formed IP forms do indeed all fit very much within a single developmental trend: the application of a VMHC to the respective finite *active* forms of which they are IP counterparts.

Fundamental to understanding how indirectly formed IPs interrelate within the whole detransitive system, rather than standing alone as discreet coincidences, are universal characteristics shared by them all, even those that seem at first blush to be only vague similarities. Beyond the simple fact that IPs (by definition) differ from their active counterparts in terms of their vowels, it is notable that the nature of this voice marking alteration tends towards height distinction—i.e., between $^{(*)}i$ and $^{(*)}u$ versus $^{(*)}a$. Ingham's description of Najdi Arabic IPs holds true for Semitic IPs generally, and is crucially the only plausible explanation for those not directly derived from PASS PTCPs (and holds true even for them, with the exception of the Aramaic Gp SC and the Ḥassāniyya IP SCs): "It is basically an ablaut system changing open vowels to close and vice versa with attendant and sometimes consequent syllabic change".[180]

The following representative selection (SC ~ PC) of active forms and corresponding indirectly formed IPs illustrates the contrasts between them: Classical Arabic G *qatala ~ ya-qtul* versus Gp *qutila ~ yu-qtal*, D *qattala* versus Dp *quttila*, and C ʔ*aqtala* versus *ʔuqtila*; Najdi Arabic G *qital ~ ya-qtil* versus *qitil ~ yi-qtal*, D *qattal* versus Dp *qittil*, and *ʔaqtal* verses *ʔiqtil*; and Hebrew G *qɔtal ~ yi-qtol* versus Gp *quttal ~ yu-qtal* (the question of geminations in the

[180] Ingham, 1994, 75; the terminology "open" versus "close" vowels corresponds to "low" and "high" as used here.

Hebrew Gp is discussed below).[181] In all but one case, every contrast between an IP and the corresponding active form is one of a height distinction between its vowels. Even in the sole exception—the prefix vowel of the Hebrew G(p)—an earlier height contrast, subsequently lost due to development specific to that language, may be reconstructed.[182]

I am baffled as to how height has not hitherto been recognised, let alone championed, as the central feature of IP morphology, and consequently, as the key to mapping their development. Perhaps, since the historical Semitic vowel system has just three qualities—two high (front **i* and back **u*) and one low (**a*)—one might be forgiven for considering height as a ubiquitous contrastive voice feature in IP morphology to be coincidental. This is indeed the only logical conclusion if one traces different IP forms to divergent etymological sources through unrelated derivational processes. However, even where the literature does attribute a common phonological or morphological background to IPs, rather than finding height as a contrastive property to be their core voice marker, focus is on the presence of the vowel *u* specifically.[183]

Identifying a single vowel (*u*) as a (or the) fundamental IP marker is certainly more specific—and consequently, its proponents might suggest, more precise and accurate—a formulation than the VMHC hypothesis. However, it falls prey to several shortcomings. For one thing, it seeks primarily to explain the IPs of Hebrew and Classical Arabic and cannot account for less canonical forms like Najdi Arabic Gp *qitil ~ yi-qtal*, in which no *u* vowel is present.

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[181] Where reference is made to the G this is to the reflex of **qatala ~ *ya-qtul* form of the G, since the former is primarily associated with fientive, transitive verbs, it is that from which the Gp is generally formed, and with which it possesses the most basic oppositional relationship. The *qatila ~ yi-qtal* variant, by contrast, has a strong restriction to intransitive and even more specifically stative verbs, and as such does not occupy the same oppositional contrast relative to the Gp in paradigmatic terms. The derivation of Najdi *qital ~ ya-qtil* from earlier **qatala ~ *ya-qtul* is discussed below (in §4.9.1).

[182] In Hebrew, the prefix *yi-* is levelled throughout the G from an earlier distribution **ya-qtul* / **ya-qtil* / **yi-qtal*, but the original **a* of **ya-qtul* is preserved in some root types (Hasselbach, 2004, 24). This, and the very few other exceptions to the VMHC in IP morphology are discussed in detail below (in §4.10).

[183] Among those who explicitly identify this as a (or even *the*) central feature of IPs include Blake, 1901, 45, 54; Hetzron, 1977, 42–43; Praetorius, 1923–1924, 134; and Vycichl, 1959, 78.

Furthermore, even when *u* does occur in an IP, it is not necessarily a distinctive voice marker, and may also occur in the corresponding active form. For example, in Classical Arabic D *yu-qattil* versus Dp *yu-qattal* the sole locus of contrast is not the prefix vowel *u*, but *i* ≠ *a* between R_2 and R_3.[184]

Theories in which (*)*u* is the core of IP morphology are also required to justify its origin, and subsequent appearance in—or, as they would have it, transfer to—different positions. Hetzron, for example, derives an IP marker **u* < copula **wn*, proposing it originally appeared in between prefix and stem of the (stative) PC: **yi-u-qtal* > *yu-qtal*. For the Hebrew Dp PC, he therefore reconstructs **yu-qattal* > *yə-quttal*, arguing that "a short vowel in that position [in the prefix] was doomed to be reduced to a šwa, but the functional value of the *u* rescued it by making it appear in the next syllable".[185] Blake instead believes that a passive-marker (*)*u* originated in a G PC *yu-qtal*, which he considers a rarer variant of *yi-qtal*, so he is consequently required to see its presence in IP SC forms (e.g., Arabic *qutila*, Hebrew *quttal*) as a secondary extension thereof.[186]

Equivalent developments elsewhere in the language that serve as independent corroborative evidence for such a copying or shifting of vowels in the IP paradigm are lacking. Though instances of analogical extension of a vowel from one part of the paradigm to another do occur, their purpose is not to preserve the functional load of a given vowel.[187] The proposals of Blake

[184] Retsö (1989, 9–14) criticises the identification of *u* as the IP marker par excellence, recognising (9) that "the *i*- and *a*- phonemes have an equally weighty role in the morphology of the PM". However, he fails (or rather, does not even attempt) to propose an alternative generalisation, applicable to all IPs. This is a function of his his fractured approach to the question, ascribing as he does a bewilderingly wide range of unrelated origins to different IP forms.
[185] Hetzron, 1977, 46–47, for quotation, see 43n1. It is most ironic that he (43n2) criticises Bergsträsser's proposals (discussed in their own right below) on the basis that "[t]he assumption of shuttling of the *u* is rather forced".
[186] Blake (1901, 50, 54) suggests that the Gp SC *qutila*, for example, results from a proportional analogy to the newly specialised Gp PC form (*qatila : yi-qtal :: X : yu-qtal*) and further *u-a* vocalism in the Dp PC as secondary to the Gp. Retsö (1989, 27) also endorses a stative origin for Gp PC *yu-qtal* but explicitly criticises attempts to link this to other IPs as "procrustean" (with the proviso that he considers the Cp and Gp PC etymologically identical).
[187] For example, the *i* is copied from the D PC/PTCP to the SC in NWS: **qattala* > **qattila* under the influence of **yu-qattil* ~ **muqattil*; in Pardee's (2003/2004, 276–77) reconstruction, this would instead have happened at in the second step of his proposed Canaanite/Ugaritic development **qattala* > **qittala* > **qittil*. If one instead believes that the Arabic and Ethiopic D *qattala* derive from **qattila* under the influence of G *qatala*, this would still be a case

and Hetzron are hardly elegant analogies that one might plausibly imagine would occur naturally; they are cumbersome and highly motivated by specific reference to IP morphology, and in particular to (their analyses of) its functional load. As a result, their reconstructions risk circularity, and give every impression of the proposed origins of the IP marker having been reverse-engineered to fit its identification as *u.

The formulation that IPs differ from their active unmarked counterparts by a height contrast in (at least one of) their vowels is admittedly less precise than the notion of $^{(*)}u$ as a passive marker per se, but it is nevertheless more accurate.[188] A voice-marking height contrast is synchronically present in almost all attested IPs. In the very few instances where one is not—discussed below (in §4.10)—a VMHC may be reconstructed to the underlying proto-forms, and its loss attributed to historical sound changes affecting this result in the attested form. Such height contrasts, it must be noted, do not necessarily involve *u* (though they can be identified in positions where other scholars have seen *u to be a passive marker). In several parts of the paradigm like the D(p) and C(p) PC, the VMHC is instead between *$a \neq$ *i.

Another dimension of the VMHC hypothesis is that it does not simply integrate all the IP forms, but relates them to the same voice marking in PTCPs. Precisely this universality, is one of its main advantage over previous proposals for IP development. These are often rather piecemeal, with individual theories often dealing only with a limited part of the attested data. There is an inherent simplicity and elegance to a single explanation for the development of a whole system, provided that it adequately accounts for the attested data.

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of the reproduction of a vowel in a new position, albeit in the opposite direction. In Ḥassāniyya Arabic, the vowel is copied from D SC to PC and PTCP rather than the converse: *yə-qattal* < **yə-qattil* ~ *mə-qattal* < **mə-qattil* under the influence of *qattal*.

[188] The proviso bears repeating that the VMHC hypothesis refers to *phonological oppositions within vowel systems*, rather than phonetic values in absolute terms (while still identifying a clear link between these two levels). Thus, following shifts in the Hebrew vowel system, the phonetic distance between "low" *ɔ* and *a* versus "high" *u* and *o* is less than Arabic *a* versus *i* and *u*, but these vowels nonetheless exist in a phonologically contrastive relationship.

4.9.1 The Gp PC

Having summarised the general application of the VMHC hypothesis in relation to indirectly formed IPs, we turn now to the specifics of each individual case. The first indirect formed IP addressed is the Gp PC. This is remarkably homogeneous throughout the Semitic languages as *yu-qtal* (or a reflex thereof), though it is also attested as *yi-qtal* in some Arabic dialects, a data point which actually contributes significantly to the analysis. Specifically, the formal identity of the Gp PC *yi-qtal* with the stative G PC form has impacted greatly on theories regarding this part of the IP paradigm, particularly those that ascribe to it a stative/intransitive origin.[189]

The intrantitive/stative-origin theory is, by definition, anchored upon *yi-qtal*, proposing a situation of original variation with *yu-qtal* (originally restricted to weak root types), and subsequent functional specification in most languages, with *yi-qtal* retaining the original intransitive and especially stative uses, and *yu-qtal* shifting to agentive passivity. It is precisely because of the *yi-qtal* Gp PCs of Najdi and similar dialects, and especially their relationship with *yu-qtal* (if any) and what that means for IP formation more generally, that the stative/intransitive-origin theory of IP development must now be examined more closely.

A large class of stative *yi-qtal* verbs may be reconstructed all the way back to the earliest stage of Semitic.[190] At this time, the pattern already possessed a neatly defined syntactic scope of intransitive verbs, with some though not total semantic restriction to stative (rather than fientive) use, that is, with patient rather than agent SUBJs. This was already the case in PS, long before CS, which is the earliest stage at which IPs can have developed.[191] It is precisely these uses of

[189] For stative/intransitive-origin theories of IPs, discussed above (in §1.4.2), see Blake (1901) and especially Retsö (ch. 3 and 6). The Gp PC form *yi-qtal* also bears on the copula-origin theory discussed in §1.4.3, albeit less directly, since the separation between the different kinds of theories is not perfect. Hetzron (1977, 44), for example, believes the copula element *u* was applied to a stative base with an *a* vowels: *yu-qtal* ← **yi-u-qtal*.
[190] Huehnergard, 2019, §3.5.2.
[191] Pardee (2020, p.c.) queries whether the specification of *yi-qtal* to stative (rather than just intransitive) is a characteristic of CS. Impressionistically speaking, this seems possible, though it would be beyond the scope of the

yi-qtal that the stative/intransitive-origin theory argues lies behind the development of passive *yu-qtal* and *yi-qtal* Gp PC forms. Simply asserting a derivational relationship between the categories intransitive, stative, and passive in this way without a robust supporting theoretical framework is methodologically unsound.

An understanding of that these functions are (or were originally) linked in *yi-qtal* may be compared to how Kouwenberg relates the (medio)passive, ingressive, and natural-reflexive functions of the Akkadian N. He does so with reference to a semantic property (SUBJ affectedness) common to all of these, and to natural relationships between syntactic and TAM categories (passive and resultative), illustrating his arguments with examples from Semitic and other languages, so they are thoroughly convincing.[192]

By contrast, theories deriving passive *yi-qtal* and *yu-qtal* from earlier stative and intransitive functions offer nothing by way of a theoretical framework explaining how or why this happened, nor examples of other instances where it has. They simply assert that these categories are basically conceptually similar (and therefore somewhat interchangeable), for example because both passives have patient SUBJs like statives, or because they have just one argument like fientive intransitives. However, although a passive only has one argument (the patient) present in the surface structure, another (the agent) is semantically implied; its absence from the syntax is precisely the result of detransitivisation. In this regard, passives fundamentally differ from stative and intransitive verbs.

This misunderstanding of the fundamental distinction between *in*transitives and *de*transitives is emblematic of deeper problems with how the stative/intransitive-origin theory of IPs views the

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current work to establish, particularly since the distinction between intransitive and stative functions are irrelevant to IP development. Suffice it here to define *yi-qtal* as overwhelmingly intransitive, and often stative.

[192] I consider Kouwenberg's (2010, ch. 12) reconstruction of the ultimate origin of the N morpheme as a light verb to be excessively speculative. However, that is not particularly relevant here; at issue instead is the argumentation regarding the functions of the stem once it has been created, and its formation from a resultative verbal adjective + N morpheme (whatever the ultimate origin thereof).

interactions between different parts of the language. Retsö stresses the link between the Gp PC—and likewise Cp PC, which he believes is etymologically identical—and his "apothematic causative": it is "an indisputable fact that the existence of an apothematic CCj is a prerequisite for the rise of a productive yuqtal/yiqtal PM system".[193] That is, he argues that it is precisely because some Arabic dialects did not functionally restrict *ya-qtil* to transitivity *raising* in contrast to merely transitive *ya-qtul*, that they likewise never separated off *yu-qtal* as transitivity *lowering* (i.e., detransitives) passives, versus merely intransitive *yi-qtal*.[194]

For one thing, the implication that the absence of the C in some (most, actually) Arabic dialects is an archaism is deeply troubling.[195] More relevant to the specific issue of IPs is the explicit assertion that Arabic dialects without a C should also not possess a productive IP system. One need not look far to find data directly contradicting this position; in Omani Arabic "form IV [C] scarcely exists…" but "…the internal passive is a common dialect feature".[196] The idea of some kind of intrinsic relationship between the causatives and ablaut marking of passive voice in Semitic is as ungrounded as the premise that the C PC in Arabic, Aramaic, and Hebrew is originally derived from a sub-category of G with theme vowel *i*.

It is technically irrelevant to the VHMC hypothesis whether Gp PC forms *yi-qtal* and *yu-qtal* are etymologically related, since in either case—and if they are, regardless of the directionality of derivation—the application of voice-contrast to the active G PC *ya-qtul* explains both equally well. That said, a major strength of the hypothesis is how it accounts for IP formation in a holistic fashion, so treating numerous IP forms together is entirely appropriate regardless of their

[193] Retsö, 1989, 147. The "apothematic causative" is, apart from IPs, a major subject of Retsö's (ch. 4) *Diathesis in the Semitic Languages*, and refers to C PC forms (Arabic) *yu-qtil*, and (Aramaic) *ya-qtel*, (Hebrew) *ya-qtīl*, all of which he thinks derive from a G PC variant **ya-qtil* rather than a C PC **yu-saqtil* (with lenition **s* > **h* > **ʔ* > *ø*).
[194] This, at least, is as close to an understanding of Retsö's (1989, 160) theories about the relationship between *yi-qtal*, *yu-qtal*, *ya-qtil*, and *ya-qtul* as I can reach.
[195] Though this does not relate inherently to IPs, it does reflect Retsö's (1989, 196–205) overall view of Arabic polygenesis, and indeed his areal model of Semitic, which informs his understanding of IP development.
[196] Edzard, 2008, 488.

etymological relationship (if any).[197] In fact, the detailed analysis of the relationship between the two actually supports the notion that height is an important organisational alignment of the phonological system and a key feature in the process(es) of IP formation.

The *yi-qtal* Gp PC forms occur in a small group of geographically contiguous Arabic dialects from Central and Eastern Arabia; *yu-qtal* is the more common Gp PC in Semitic, and occurs throughout CS.[198] If these two forms had separate etymological origins, it follows that either 1) they co-existed in a polygenetic proto-Arabic, 2) proto-Arabic **yu-qtal* was replaced in these dialects by an unrelated *yi-qtal*, or 3) there was no Gp PC in proto-Arabic, and later some dialects developed *yu-qtal* and a few others *yi-qtal*, with the absence of IPs in most dialects perhaps reflecting that they never developed them at all. These possibilities are, in order, decreasingly plausible; even the first, reconstructing variation in proto-Arabic, has little merit if the attested situation can otherwise be accounted for by a diachronic development.

Assuming that one of the Gp PC forms *yu-qtal* and *yi-qtal* developed into the other, the distribution thereof strongly argues in favour of the former being the source of the latter. Abboud argues precisely this in relation to Najdi Arabic, where he claims that the original **u* prefix vowel is preserved (and lengthened with the loss of R_1) in the weak root types √1=*w*, *ʔ* (e.g., *yū-mar* <**yu-ʔmar* "is commanded" from √*ʔmr* and *yū-zan* < **yu-wzan* "is weighed" from

[197] This is not to mention the suspicious closeness of these two, though of course assuming a common etymology of forms based on formal similarity is not the same as presenting a specific argument explaining *how* they relate in terms of methodological rigour.
[198] Chapter 6 demonstrates that **yu-qtal* is the proto-form of the Gp SBJV in MSA and explains its relationship to the CS (and especially Arabic) forms in question.

√*wzn*).[199] The same shift **u* > *i* occurs in the PTCP prefixes of derive stem PTCPs (ACT and PASS alike), which is *mi-* in this dialect, but certainly derives from earlier **mu-*.[200]

Other parts of the verbal paradigm grant an interesting insight into the proposed shift **yu-qtal* > *yi-qtal*. The Barth-Ginsberg distribution of prefix vowels has been preserved, to varying degrees, in Bahraini and Najdi Arabic. The standard fientive (including transitive) G form is *ya-qtil*, in contradistinction to intransitive (and often stative) *yi-qtal*, which is also the form of the Gp PC; some *ya-qtul* G forms occur, but are restricted to phonologically motivated contexts (e.g., with labial environments, as in *ya-ṣbur*).[201] The original Semitic situation, whereby *ya-qtil* is a rarer, lexically specified variant of *ya-qtul*, has shifted in these dialects, so that *ya-qtul* is instead the rarer variant, and the distribution of the two is phonologically rather than lexically governed.[202]

I propose that this development was mirrored by a rearrangement of stative/intransitive *yi-qtal* versus passive *yu-qtal* along phonological lines, such that the former became the primary form for both functions, and while the latter was restricted to certain contexts (e.g., √1= *w*). That is, just as *ya-qtil* dislodged *ya-qtul*, so too did *yi-qtal* edge out *yu-qtal*, taking over the Gp PC function from it in most contexts (as well as retaining its originally intransitive and stative functions).[203] This is precisely the converse of the stative-origin theory; instead of allomorphs of

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[199] Abboud, 1979, 486–86. Theoretically *yū-zan* could reflect an assimilation **i* > *u*/_*w* affecting **yi-qtal*, to avoid an impermissible sequence ***iw*. However, this cannot lie behind the √1=*ʔ* form since there is no restriction against the sequence **iʔ* (> *ī*/_*C*, as in the G IPFV *ʔīmir* <**ʔi-ʔmir*).

[200] Abboud, 1979, §2.5; cf. Watson's (2002, §6.5.7.3 incl. n30) description of a shift in progress from *mu-* to *mi-* in Yemeni Arabic, with "the realization often depending on the identity of the first consonant of the stem", mirroring the hypothesis of √1=*w*, *ʔ* having blocked **yu-qtal* > *yi-qtal* in Najdi.

[201] For Bahraini, see Johnstone, 1967, 93; Owens, 2006, §2.1.1.2.2, §2.2.6.1.1. For Najdi, see Ingham, 1994 20–30; 2008, §2.2.4.1. The heterogeneity between A and B types of Bahraini Arabic (standing for 'Arab' and 'Baḥārna', respectively) is ignored here, though B Bahraini has levelled the prefix vowel *i* throughout the G; Abboud's (1989, 270) forms seem to show a converse levelling of prefix vowel *a* in some Najdi (contra Ingham).

[202] This original distribution (for which, see Huehnergard, 2019, §3.5.2) is preserved in Classical Arabic. Aramaic, Hebrew, and Ugaritic reflexes of **ya-qtil* are rare and restricted to weak root types.

[203] The second part of this proposed corollary is clearest in Najdi, where IPs are widespread enough that their phonological variation can be confidently mapped. In Bahraini, they are significantly less common; but *yu-qtal* Gp

a single multi-functional form becoming specified everywhere except in this cluster of dialects, phonological developments blurred the distinction between two originally separate forms only within these dialects.

The main weakness of this proposal is that SUBJs of the Gp PC *yu-qtal* were originally exclusively transitive patients, while those of instransitive/stative G PC *yi-qtal* were frequently intransitive patients (where its use was stative), but also sometimes intransitive agents (where it was merely fientive intransitive). Consequently, the proposed redistribution would have disrupted the semantic and syntactic domains of *yi-qtal* / *yu-qtal* in a way that did not apply with *ya-qtil* / *ya-qtul*, which originally had the same basic (fientive, and especially transitive) function.[204] Nonetheless, the proposed replacement of the Gp PC **yu-qtal* with *yi-qtal* in some Central and East Arabian Arabic as a parallel to developments in the corresponding active form, while tentative, is more plausible than the Gp PC *yi-qtal* being etymologically related to the stative/intransitive G PC, and/or than it having a distinct origin from the Gp PC *yu-qtal*.

There remain additional reasons why a Gp PC form *yu-qtal* is more anticipated than *yi-qtal*, and consequently more common, and likelier the original of the two forms. For one thing, the sequence *u-a* is well attested in IPs—e.g. Classical Arabic Dp PC *yu-qattal* and Hebrew Cp SC *huqtal*; indeed, it is ubiquitous in Hebrew IPs. In the reconstruction of the development of the IP paradigm as a whole proposed below (in Chapter 5), the Dp and Cp chronologically precede the Gp. It makes good sense when the VMHC was applied to the G PC *ya-qtul* to create a Gp PC, the sequence *u-a* already present in other IPs would be used (that is, rather than *i-a*).

PCs are attested alongside the normal *yi-qtal*, sometimes with no clear phonological justification: e.g., in *yu-mdağ* "is eaten" *u* precedes a labial, but in *tu-dbaḥ* "are slaughtered" no clear conditioning environment exists (Holes, 2016, §4.2).

[204] A proposal of phonological developments erasing a lexical distribution in this way is unobjectionable.

Furthermore, in the Hebrew and Arabic Cp PC elision of the causative morpheme yielded *yu-qtal* (<**yu-Cuqtal* in Hebrew, and <**yu-Caqtal* in Arabic), so it was not just the vocalic sequence *u-a* that was available for the formation of the Gp PC, but the very form itself. Confusion regarding Gp / Cp PC syncretism has driven Retsö so far as to deny the Cp is a derived stem at all; on the contrary, if the two share a common etymology, this must imply the extension of a Cp PC form to the Gp, rather than the converse.

One final consideration regarding the Gp PC *yu-qtal* is the notion of reflective parallelism (between *ya-qtul* ≠ *yu-qtal*). The concept is hardly novel; nearly a century ago, Bergsträsser wrote of "polarer Differenzierung" between the Hebrew G PASS PTCP *qatūl* (or more accurately, the SC form **qatula* he believes to derive from it) and the Gp PC *yu-qtal*.[205] More recent and relevant is Petráček's "Polaritätsgegensatz" between transitive *ya-qtul* and stative/passive *yu-qtal* (as he saw it, being a proponent of the stative-origin theory), which he supposed was the reason for a restriction of the latter to passive use.[206] Unlike these authors, I am certainly not suggesting that this is a fundamental basis for Gp PC formation; that is instead the application of a VMHC to the corresponding finite active verb, *ya-qtul* (precisely as for all IPs not directly derived from PASS PTCPs). If such formal parallelism has a bearing on the process, it is only a contributory motivation—one amongst others, including the pre-existence of *u-a* IP forms—in the selection of one possible result of this process (*yu-qtal*) over another (*yi-qtal*).

Apart from explaining why Semitic generally selects *yu-qtal* over *yi-qtal* as the Gp PC, these two factors also account for the shift to *yi-qtal* in some Central and Eastern Arabian dialects of Arabic, including why this occurs there specifically. It is precisely in Arabic dialects like Najdi, Bahraini, and Omani that the primary fientive, transitive G PC form becomes *ya-qtil* (rather than

[205] Bergsträsser, 1929, §15c.
[206] Petraček, 1963, 597–98.

ya-qtul) and the motivation of a parallelism *ya-qtul* ≠ *yu-qtal* was lost and replaced by a corresponding parallelism *ya-qtil* ≠ *yi-qtal*. Furthermore, the sequence *u-a* is conspicuously absent elsewhere in their IP systems (cf. e.g., Bahraini Dp PC *qittil* ~ *yi-qattal* versus Classical *quttila* ~ *yu-qattal*).[207]

Notably, the corresponding *active* D PC form *yi-qattil* also has a prefix vowel *i* despite certainly deriving from *yu-qattil*, showing that the shift **u* > *i* is not a phenomenon specific to IPs.[208] Instead, the Gp PC *yi-qtal*, the G PC *ya-qtil*, and shift **mu-* > *mi-* in the prefix vowel of PTCPs from the derived stems all reflect the same gradual erosion of phonemic distinction between short high vowels and their redistribution according to phonetic context.[209] This phonological breakdown has certainly impacted the IP system, but has not derailed it; on the contrary, it has brought into sharper focus the height contrast that is the underlying principle in this kind of voice marking. That is, examination of the dialects in which *yi-qtal* occurs shows that, just as one would rightly expect, this form is not divorced from the rest of the language but conditioned by motivating factors operative in other parts of the paradigm.

Omani Arabic provides some insight into the diachronic effects of the merger between historical *yi-qtal* and *yi-qtal* that derives from earlier **yu-qtal*. In this dialect, *yi-qtal* is used in both stative (and sometimes intransitive in a less restrictive sense) and passive functions, but the latter use is increasingly performed by the N or active G verbs in generalised-SUBJ constructions. The Gp PC (like other IPs) is retained especially with weak roots, in which

[207] Holes (2016, §4.2) cites *yi-šarraʕ* "will be brought" and *ti-laggaḥ* "is pollinated".
[208] Holes (2016, §4.4.2.1.1n132) cites *yi-ʕarrif* "he makes known". For the same in Najdi—e.g., D PC *y-qattil* ~ Dp *y-qattal* ~ C *yi-qtil* ~ Cp *yi-qtal*—albeit with elision of the prefix vowel in the D(p), see Abboud, 1979, §3.1.
[209] Ingham (2008, §2.1.2) identifies this loss of phonemic distinction between short high vowels in Najdi (especially in open syllables), without specifying the conditioning environments governing their distribution. However, his examples and Holes' (2006, §2.1.1.2; 2016, §§2.2.1.1.2, 2.2.1) descriptions of the same phenomenon in Bahraini Arabic confirm that they adhere to universal phonetic tendencies (e.g., *u* appears in labial contexts). Overall, this behaviour harks back to and reflects the general bifurcation of the Semitic vowel system into low versus high vowels with which this chapter opened, and which underpins the entire theory of IPs presented in this thesis.

context greater formal distinction from the active counterpart obtains. Holes sensibly infers from this that the decline of *yi-qtal* is a function of increased syncretism with active verbal forms.[210] This example of a language change in process affecting the IP system argues strongly in favour of the conclusions reached above: if the gradual disappearance of Omani Gp PC *yi-qtal* results from its syncretism with the stative/intransitive *yi-qtal*, at an earlier stage, during its earlier, more stable stage(s), it must have had another form; the only viable candidate is **yu-qtal*.[211]

The chronology of the Gp PC form must be considered in evaluating the possible relationship between *yu-qtal* and *yi-qtal* forms. The earliest stage of Semitic at which this form can have been created is CS (since it is not attested outside of this branch). In this case, it follows that the original form was *yu-qtal*, which developed into *yi-qtal* in some Arabic dialects (for the reasons outlined above). However, there is nothing that inherently demands that the Gp PC dates this far back; it could instead represent a parallel development that occurred—by the application of the VMHC to the G PC **ya-qtul*—independently in Arabic, Hebrew, OSA, and Ugaritic. In a system with three vowels (*i*, *u*, and *a*), there are only two potential manifestations of the abstraction *yv$_h$-qtv$_l$l*. It would hardly be a surprising coincidence for different languages to have separately reached the same outcome (*yu-qtal*) in this regard, particularly in view of factors like the reflective parallelism with **ya-qtul* and the pre-existing presence of the sequence *u-a* elsewhere in the IP paradigm that favoured its selection of *yi-qtal*.[212]

Interestingly, this again raises the question, already evaluated critically above, whether the dialectal Arabic Gp PC *yi-qtal* does indeed derive from **yu-qtal*. That is, if the Gp PC emerged

[210] Holes, 1998, 353.
[211] If stative/intransitive and passive uses of *yi-qtal* were etymologically one and the same, and coexisted since their incipience (e.g., in proto-Arabic, or even earlier in proto-CS), the question remains why Omani Arabic is only now losing its passive use, not to mention why *yi-qtal* is such a rare Gp PC form throughout Semitic.
[212] Cf. Huehnergard's (2005, 169) comments about levelling of the variation between *-k* and *-t* suffixes in the WS SC. Given only two possibilities, it would be foolhardy to attribute alignments between different languages perforce to genetic subgroupings; parallel independent developments are entirely realistic, particularly if the languages share (some of) the same motivating factors.

separately in Arabic and Hebrew (not to mention OSA and Ugaritic), it could theoretically also have arisen in Arabic after this broke up into different proto-dialects, with most developing *yu-qtal*, and only the precursor of a Central/East Arabian dialect group instead forming *yi-qtal*. This question actually relates less to IPs per se than it does to Arabic dialectology generally. My reconstruction of the Gp PC *yi-qtal* <**yu-qtal*—the same *yu-qtal* as preserved in Classical Arabic—is largely a function of how I understand the history of this language family in general. I consider most of the major features of Classical Arabic, and certainly one this well developed and central to the verbal system, to have been present in a fairly homogeneous proto-Arabic.[213]

In any case, even if this specific aspect of the analysis is incorrect, and the *yi-qtal* and *yu-qtal* Gp PCs are etymologically unrelated, this detracts not at all from the proposal that the VMHC lies behind their formation. The two could theoretically have arisen separately, but would nonetheless both manifest the basic principle that, like all IPs not based directly on PASS PTCP morphology, they are marked by a height contrast relative to the corresponding active verb. That is, Classical Arabic *ya-qtul* ≠ *yu-qtal* and Najdi Arabic *ya-qtil* ≠ *yi-qtal* both represent the same height rubric G yv_{l}-$qtv_{h}l$ ≠ Gp yv_{h}-$qtv_{l}l$. Indeed, one might even argue that the independent occurrence of two alternatives, both adheringly perfectly to the principle of VMHC, supports the hypothesis rather than contradicts it.

4.9.2 Indirectly formed IP SCs

Apart from the Gp PC, the remaining IP forms not based directly on PASS PTCP morphology are SC forms, namely, Classical Arabic Gp *qutila*, Dp *quttila*, Cp *ʔuqtila*, etc.; Central/Eastern

[213] I have a hard time believing that the absence of a D PASS PTCP *muqattal* is a retention of an archaic situation in some dialects, just as I am uncomfortable with a proto-Arabic so fractured that parts of it possessed an IP system, while others did not. This position admittedly puts me at odds Jan Retsö (1989, ch. 8), who is undoubtedly far better versed in Arabic dialectology than am I, but I simply cannot accept his general understanding of Semitic diachrony.

Arabian dialecta; Arabic Gp *qitil*, Dp *qittil*, Cp *ʔiqtil*; and the Hebrew Gp SC *quttal*. It bears noting that a major stumbling block for previous works on IPs, and one that particularly confused understandings of IP SC forms, has been the a priori assumption that counterparts of the different languages are necessarily etymologically cognate (rather than simply equivalents in terms of functions and positions in the paradigm).[214] Much of the value of the VMHC hypothesis resides specifically in how it is able to address IPs together *regardless of their etymological relationship* (if any). That is to say, it does not matter whether Classical Arabic *qutila* and Hebrew *quttal* are formally cognate—in fact, the reconstruction below (in §5.7) finds them to have developed independently after these became separate languages; they nonetheless represent the same overall development whereby the VHMC was applied to active finite forms, in conjunction with the isomorphic pressure from their respective pre-existing Dp and Cp SC counterparts.

With this in mind, when Classical Arabic IP SC forms with the sequence *u-i* are compared to those of Central/Eastern Arabian dialects with the sequence *i-i*, an interesting parallel is found to the situation of the respective Gp PC forms, as discussed above (in §4.9.1). On the one hand, just as between *yu-qtal* and *yi-qtal*, any etymological relationship between the *qutila ~ quttila ~ ʔuqtila* series of IP SCs and the *qitil ~ qittil ~ ʔiqtil* series has no logical impact on the workability of the VMHC hypothesis, since both conform equally well to it. On the other hand, the diachronic development of the Classical Arabic forms into the dialectal ones below gives support to the notion of vocalic height as a contrastive alignment in the language, and as a key feature in the formation of this part of the paradigm.

Widespread among the theories for the origins of Classical Arabic *u-i* IP SCs in the literature is the idea that a passive marker *u* was applied to the stative G SC *qatila* (with the resulting

[214] At the most extreme are proposals like Brockelmann's (1908, §257I), who for example derives the Aramaic Gp SC *qətīl* <**qutila* (as preserved in Classical Arabic).

vocalism subsequently extended to form *quttila* ~ *ʔuqtila* etc.). Such is proposed both by those who derive this *u* from a variant *yu-qtal* for the stative G PC *yi-qtal* and those who reconstruct it back to a copula originally prefixed to the verb (**u-qatila* > *qutila*).[215] General objections have been raised above (in §4.9.1) to the notion of *u* being a passive marker in the context of the Gp PC. Further, in the Classical Arabic IP SC sequence *u-i* specifically, no justification in terms of linguistic theory is forthcoming for why such passive marker—even if it were a plausible reality—would be applied to the stative G SC.[216]

Apart from theories that see *u* as a passive marker *per se*, the main proposal for the origin of the sequence *u-i* in Arabic IP SCs is that of Retsö, who derives it from earlier **u-u*, which he maintains occurred in some kind of verbal noun pattern, albeit one whose functional load he fails to define—he speaks of verbal nouns related to finite actions but linked to no specific participant in them.[217] Various supposed examples are cited in support of a tendency for the sequence **u-u* to dissimilate in Semitic, most often to *i-u* but otherwise to *i-i*.[218] In √3=*y* however, Retsö argues that dissimilation to *i-u* was blocked by the impermissibility of the sequence ***uy*, so the result was instead a sequence *u-i*, which was then levelled to all root types throughout the Arabic IP SC paradigm.

Retsö's proposal is highly speculative, and the evidence in its support, such as it exists, is circumstantial at best and frankly sometimes downright unconvincing. Beyond such general

[215] For these theories, see Blake (1901) and Hetztron (1977, 44), respectively.
[216] As mentioned above (in §4.9.1) in relation to the Gp PC, it has been mentioned how the stative/intransitive origin theory is based on a flawed conflation of fundamentally distinct concepts of *in*transitivity versus *de*transitivity. Nonetheless, the possibility of Arabic Gp SC being a hybrid based partly on the stative *qatila* maintains a fair amount of popularity, and is entertained by some eminent contemporary scholars (e.g. Pardee, 2003/2004, 261).
[217] Retsö, 1989, 172–78.
[218] For example, Retsö (1989, 176) adheres to the outdated reconstruction of the Aramaic 3MSG POSS suffix on plural nouns with reduplication in the proto-form (*-awhī* < **-a-hu-hi* <**a-hu-hu*); it is far more sensible to analyse this this as assimilation of the PL suffix *ay* to the *u* of the pronominal suffix (**ay-hu* > **aw-hu*) followed by dissimilation of the vowel of the latter (**aw-hu* > *aw-hī*; see Garr, 1985, 107). He further suggests that Syriac stative *qəreḇ* "be near" arises from**qurub* because its Arabic cognate is *qaruba*. These are simply by-forms from two stative G SC patterns **qatila* and **qatula*, illustrating the low functional load of the opposition between high vowels **i* and **u* that is central to the VHMC hypothesis.

(though quite fair) criticism, several more focussed, concrete objections may be advanced. To begin with, his theory requires that the syllabic structure *CuCCuC* was on the one hand impermissible enough in WS that it routinely underwent dissimilation; conversely, on the other, it must at some time have possessed close functional links to the verbal system in order to have developed into the various finite verbal forms he proposes.[219] In fact, the attested data contradict both of these dimensions of Retsö's theory, which themselves are rather mutually contradictory.

Remnants of **CuCCuC* nouns are scarce, but not entirely absent from Semitic—for example, the word for "hedgehog", whose various reflexes (Arabic *qunfuḏ*, Aramaic *quppaḏ*, Geʿez *qʷənfəz*, Hebrew *qippod*) allow reconstruction back to a common WS proto-form **qunpuḏ*.[220] Arguably even more problematic than the apparent permissibility (though rare attestation) of the pattern *CuCCuC* in WS is the notion of a close link to the verbal system, as supposedly reflected by the Akkadian verbal adjectives (D *quttul* and C *šuqtul*), Amarna Canaanite SC forms (D *quttil* and C *šuqtil*), and the Hebrew G infinitive construct *qətol*/*qotl* <**qutul*.[221] The analysis of Amarna Canaanite *quttil* and *šuqtil* forms is quite controversial; apart from the possibility of hybrid Akkadian-Canaanite morphology, the functional transition from stative verbal adjective to perfective SC complicates the relation of these forms to other WS verbs.[222] Nor do the Akkadian D *quttul* and C *šuqtul* forms support a link between the pattern *CuCCuC* and the verbal system; it

[219] At immediate issue here are the Arabic Gp SC forms *quttila* / *qittil* ~ *ʔuqtila* / *ʔiqtil*, though ultimately, as discussed below, the theory likewise ascribes the same etymological origin to the Hebrew D SC *qittel*, not to mention Akkadian and Amarna Canaanite stative forms.

[220] For this and a handful of other *CuCCuC* nouns, see Fox, 2003, 276–77. Hebrew exhibits the dissimilation **u*-*u* > **i*-*u* that Retsö suggests is so common, but the other languages do not—labialisation in Geʿez *qʷənfəz* points to underlying **u*, though the vowel has subsequently merged with **i* to *ə*. If the dissimilation of *u*-*u* is to serve as a crucial point in the reconstructed development of an entire section of the verbal system, the restrictions against such a sequence would ideally be far more robust.

[221] Retsö, 1989, 174, 176, 178.

[222] Retsö (1989, 176) asserts that *quttil* and *šuqtil* are genuine Canaanite, dissimilated from earlier **CuCCuC*; contra Rainey, 1996, 2:310–11 on the relationship between these forms and the Hebrew Dp and Cp SC: "it seems impossible to explain the relationship as diachronic, i.e. that *qittil* developed from *quttil*".

is not these Babylonian forms, but rather their respective Assyrian cognates *qattul* and *šaqtul*, that should be reconstructed as the proto-Akkadian form of the D and C verbal adjectives.[223]

This last point may be what drives Retsö to broaden his proposal to include *qattul* / *šaqtul*, by recognising that many of his **u-u* sequences derive from earlier **a-u*.[224] Rather than strengthening his position, this actually weakens it by watering down the claimed etymological relationship so that it covers verbal adjectives with the vocalic sequence *a-u*, a relatively small number with *u-u*, and quite a few finite verbal forms with *u-i* and *i-i*.[225] A loose theory about the sequence *u-u* (and its antecedents and reflexes) is a wholly insufficient basis on which to lump *qat*(*t*)*ul*, *qut*(*t*)*ul*, *qittil*, and *quttil* together, in etymological terms. The functional diversity of some of the forms covered by Retsö's theory further strongly undermines it. In order to justify why a single verbal adjective proto-form (**quttul*) could develop into both active and passive verbs—cf. e.g., active Amarna stative *quttil* and Hebrew D SC *qittel* <**qittil* versus Classical Arabic *quttila* and dialectal *qittil* Dp SCs—Retsö must assert that it was originally neutral with regard to reference to patient or agent.[226]

Despite attributing a common source to Arabic IP SC forms and a bewildering array of non-IP forms, Retsö's work largely does not relate these to other parts of the IP paradigm. The one

[223]Kouwenberg, 2010, §11.2.

[224] Retsö (1989, 175, 176n52) mentions Jewish Aramaic *šuršipā* "sandal" (sic., for *šurṣipā̄*; perhaps confused with *šaršipā* "footstool", for which see Jastrow, 1903, s.v.) <**šaršup*; Syriac *tešboḥtā* "praise" <**ta-šbuḥ-t*; Hebrew *qursel* "ankle" <**qursul* (his cited form is not found in the lexica; but Jastrow, 1903, s.vv. gives *qarsull-* / *qarsol* with the underlying *CaCCuC* pattern, while the Syriac cognate *qurṣul* represents *CuCCuC*). Besides the functional consideration that these examples have only very tenuous relationships (if any) to the verbal system, they are also quite problematic in terms of the formal dimension of the argument.

[225] In this regard, Retsö (1989, 178) confusingly cites the origin of Arabic and Hebrew G PASS PTCPs as *qatul*, not *qatūl* (with two short vowels rather than a long vowel between R_2 and R_3). Pardee (2010, p.c.) queries whether this might relate to the stative-origin hypothesis, since **qatula* is indeed a stative G SC form; I suspect a typographical error, since Retsö does not make reference to the stative (rather than passive) use of this source morphology.

[226] This is quite different from the active NENA *qtil-li* PFV, whose development from the PASS PTCP is easily traceable. Where semantic reference to a transitive patient is absent, this results from the extension of the construction to syntactically intransitive clauses, which is related to the shifting (NOM-ACC to ABS-ERG, and further split-S) alignment of the language (Coghill, 2016, ch. 7). Retsö's (1989, 174–75) suggestion that **quttul* developed into both passive and active verbs because it never had any inherent semantic value in terms of the arguments of the predication to begin with is something else altogether.

instance in which he does is in his claim that, in some cases, instead of a dissimilation of **u-u*, IP SCs were formed using a different strategy, namely, the deployment of a nominal pattern **qut*(*t*)*a*(*ː*)*l*. He does not consider the resulting Arabic √3=*y* Gp SC variant *qutā* to be *etymologically* related to Classical Arabic *qutila*, but instead believes these two forms represent alternative strategies to avoid an impermissible ***uy* sequence when the *quttul* pattern occurred in √3=*y*.[227] Rabin, though, has long since demonstrated that *qutā* results from a sound change **iya* > *ā* affecting **qutiya*—and, as one would expect of any regular sound change, operative in other parts of the paradigm—in the Arabic of the Ṭayyiʔ tribe.[228] Their dialect forms gained status as acceptable poetic license, and their use as secondary variants in Classical Arabic reflect its complex background of dialect mixing and koine adstrate influence.

In general, Retsö's explanation of IPs with the vocalic sequences *u-i* and *i-i* (i.e, the Arabic IP SCs) is wholly unsatisfactory. On the one hand, it is overinclusive, and covers so many functionally and formally diverse forms that it loses definition and coherence. [229] On the other, it is restrictive in terms of IPs specifically, and does not tie in what few forms it does address to the broader context of detransitive morphology. On the rare occasion where it attempts to include links to other parts of the paradigm, it relies on misinterpretation of the data.

One saving grace of Retsö's theory, though, is its implications for the relative chronology of different IP stems. Specifically, since most examples of the sequence *u-u* occur in the syllabic structure *CvCCvC*, he argues that it dissimilated initially in the Dp *quttila* and Cp *ʔuqtila*, on

[227] Retsö (1989, 173–74, 177–78) supposes that the same occurred in Hebrew (i.e., that the Dp SC *quttal* first occurred in √3=*y*). However, he proposes that when the *u-a* variant was subsequently levelled throughout the Hebrew paradigm, this erased any traces of *u-i* IPs in this language.
[228] Rabin, 1951, 196–97.
[229] It is beyond the scope of this study, but a further noteworthy weakness of Retsö's "**u-u* theory" is the troubling implication that Hebrew D SC *qittel* is etymologically distinct from its Arabic cognate *qattala*.

which basis the Gp *qutila* was secondarily formed.[230] Retsö makes no mention in relation to this historical distribution of the relative scarcity of the Gp among Hebrew IPs, even to note it as a possible coincidence. However, the reconstruction proposed below (in Chapter 5) finds the diachronic precedence of the Dp and Cp over the Gp to be a central feature of the IP paradigm, inextricably linked to how and why it developed as it did. As such, though Retsö's proposals on IPs with the vocalic sequences *u-i* and *i-i* are to be rejected, he has unwittingly stumbled across an important observation about the interrelations between different IP stems in general.

Considering the formal similarity between Classical Arabic *qutila ~ quttila ~ ʔuqtila* and dialectal *qitil ~ qittil ~ ʔiqtil*, and the perfect identity in their functions, one may be forgiven for intuitively assuming an etymological relationship between them. The main difference between Retsö's position and the consensus opinion in this regard is that whereas he analyses Classical and dialectal Arabic forms as reflexes of a (separate) common proto-form, most other scholars derive one from the other (specifically, **qutila* > *qitil*). In this, parallels with the Arabic Gp PC forms are crisp: Retsö overreaches to contextualise Classical and dialect forms in a grand theory stretching deep into the Semitic phylum but lacking a solid theoretical basis; others instead focus inwards on data from the Arabic branch, and do not venture beyond it to propose an ultimate etymological origin or to address the relationship (if any) to other Semitic IPs.

As for the specifics of the development of dialect *qitil ~ qittil ~ ʔiqtil* IP SCs, Abboud points to irregularities in IP SC forms from √1=*w*, *ʔ*—e.g., Gp SC *wmir* "was ordered" from √*ʔmr* and *wzin* "was weighed" from √*wzn*—as evidence that an earlier sequence **u-i* vocalic has become *i-*

[230] Precisely the same holds of dialectal Arabic *qittil* and *ʔiqtil* versus *qitil* since he likewise derives these from **CuCCuC* via (a different) dissimilation: "both *qutil* and *qitil* forms are ultimately based on the same form *qŭtŭl* and represent two different developments of it. This nicely explains the fact that these forms as PM [passive marker] seem to belong to the derived stems: the D-stem and the laryngeal augmented CCj [C]" (Retsö, 1989, 177, 186).

i except in these phonologically motivated contexts.[231] He does not provide specific mechanics for how this happened, but presumably envisions something like underlying **ʔutil / wutil* > **ūtil* > *wtil*). However, since the 3MPL Gp SC from √1=*ʔ* has initial *w*, which suggests assimilation of the √1=*ʔ* paradigm to that of √1=*w* (cf. e.g., *wimr-aw* "they were commanded" from √1=*ʔ* and regular *qitl-aw*). In this case, 3MSG *wtil* could be underlyingly regular **witil* with the normal deletion of a high vowel in an open syllable.[232]

More convincing support of a proto-vocalic sequence **u-i* is the Cp (rather than Gp) SC of the same root type (e.g., *ʔūḏi* "was harmed" from √*ʔḏy*). Here, **u* would have preceded R_1 and undergone compensatory lengthening due to the elision thereof (**uʔ* > *ū*/_*C*), as occurs elsewhere in the language. Thus, unlike in the Gp SC, there is no possibility of underlying **i* in this position, since that would have yielded a form ***ītil* (or in the example cited, ***īḏi*).[233]

Also highly compelling is the attestation of remnants of precisely the situation of variation between *u-i* and *i-i* out of which the change from one to the other arose. The Ctp SC from √1=*ʔ* usually has *ū*, but by-forms with *ī* also occur—cf. e.g., *stūmin* <*(*ʔu*)*stuʔmina* "is believed" from √*ʔmn* versus *stīnis* <*(*ʔi*)*stiʔnis* "is enjoyed" from √*ʔns*, which occurs alongside *stūnis*.[234] It is noteworthy in this regard that the Ctp—resulting from the extension of IP morphology to a new context (the Ct), as discussed below (in §5.8)—is an Arabic neologism. It is not particularly surprising to find that despite √1=*ʔ* blocking the change **u* > *i* elsewhere, in the older, core of

[231] Abboud, 1979, 485–86.

[232] Abboud, 1979, 476: "The paradigms suggest that the canonical shape of the passive of form I is *CiCiC.* (It will be shown later that at some level we have to assume it is *CuCiC*). The vowel in the open syllable deletes by High Vowel Deletion, giving /ktil, ktilt/ (instead of */kitil/ and */kitilt/). The form /kitlaw/ (instead of */kitilaw/) suggests that High Vowel Deletion first applies to the first vowel from the left (leaving the second vowel in closed syllable and thus not subject to deletion), then presumably to others in a left to right direction."; he also (487) gives examples of assimilation of √1=*ʔ* forms to the √1=*w* pattern elsewhere in the paradigm.

[233] Cf. e.g., C SC *ʔāḏa* <**ʔaʔḏa* and Cp SC *ʔūḏi* <**ʔuʔḏi*; the same applies to G PC *yā-mir* <**ya-ʔmir*, Gp PC *yū-ʔmar* <**yu-ʔmar*, C PC *yū-ḏi* <**yu-ʔḏi*, and Cp PC *yū-ḏa* <**yu-ʔḏa* (Abboud, 1979, 485–87).

[234] It is surprising to me that Abboud (1979, 487) does not highlight this more as evidence of the diachronic development **u* > *i* in Najdi IPs generally.

the IP paradigm, this novel IP stem may sometimes be based on regular IPs (i.e., those with *i-i* vocalism) rather than the morphology specific to √1=*ʔ* (i.e., with *u-i*).

Precisely the same arguments have been presented above (in §4.9.1) regarding the Gp PC *yū-tal* (<**yu-ʔtal*); that is, a shift **u* > *i* explains the regular Gp PC form *yi-qtal* in this dialect but is blocked in the root type √1=*ʔ*. Admittedly, the similarity of the two conjugations in this regard is not a strict logical necessity; that is, a shift of **yu-qtal* to *yi-qtal* does not automatically require an analogous change **qutila* > *qitil*, nor vice versa.[235] Rather, a relationship between them is inferred based on the expectation of formal similarity between the constituent parts of a well integrated system.[236]

The same basic phonological motivation lies behind these shifts in the Central/Eastern Arabian Arabic IP SCs and Gp PC (not to mention selection of *ya-qtil* over *ya-qtul* as the active G PC): a breakdown in phonemic opposition between short high vowels. This is reflected in the contrast between the Bahraini Gp SC forms (*ə*)*wlid-t* "I was born" and *biny-at* "it was built" versus *ruwy-at* "it was irrigated". These forms all represent underlying **qitil*—perhaps, in view of precisely the alteration with *u* under consideration here, better formulated as **qvʰtvʰl*—but the high vowel *u* of the last is conditioned by the labial environment /_*w*. That said, the variant forms *əḥlik-t* and *ḥluk-t* (both "I was born") share the same phonological contexts, and thus

[235] In the Yemeni Arabic of Ṣanʕāʔ, for example, a *qitil* variant for the normal Gp SC *qutil* is attested, but the PC appears only as *yu-qtal*, and not ***yi-qtal* (Watson, 2002, §6.5); cf. the reconstruction below (in §6.5) of the proto-MSA Gp (SC ~ IPFV ~ SUBJ): **qitil* ~ **yu-qattal* ~**yu-qtal*, with *u* appearing only in the prefix conjugations (distinguishing it from the *i* stative G or "Gb" **yi-qtal* ~ **yi-qattal*).

[236] Pardee (2003/2004, 261) criticises Tropper for having "no apparent concern for system" in that he reconstructs the Ugaritic Dp SC as *qutt**i**la* but the Cp as *šuqt**a**la* (with *u-i* and *u-a* sequences, respectively). Isomorphism between different IP stems is admittedly a different phenomenon from the relationship between the conjugational parts of a single stem—cf. e.g., Arabic Dp SC *q**u**tt**i**la* versus PC *yu-q**a**tt**a**l*—but the same underlying principle is at work.

perhaps represent free variation between the short high vowels, if not dialectal variation (between type A and type B dialects, respectively). [237]

As with the Gp PC *yi-qtal*, the dialectal distribution of the *qitil ~ qittil ~ ʔiqtil* IP SC series, which are restricted to a small group of geographically contiguous dialects in Central and Eastern Arabia, suggests that they derive from forms like those of Classical Arabic.[238] Furthermore, isoglosses between *qutil* and *qitil* (and the equivalent Dp and Cp forms) sometimes cut through dialects in a manner suggestive of a spreading development from one into another rather than the opposition of two historically separate constructions. For example, in the "k-dialects" subgroup of Yemeni Arabic, Hubayšī uses *qitil* for the Gp SC, while its sister dialects Kusmī and Gabīnī (like most other Yemeni) instead use *qutil*.[239] Further, Watson identifies some instances of the sequence *i-i* occurring alongside normal *u-i* in Ṣanʕāni, suggesting a (potential) change in process, much as is also happening with the shift of the PTCP prefix *mu-* to *-mi-*.[240]

Classical Arabic *qutila ~ quttila ~ ʔuqtila* and dialectal *qitil ~ qittil ~ ʔiqtil* having been identified as the result of application of the VMHC their respective active counterparts, it remains to be established why IP SCs occur in these forms, but not ***qittul(a)* or **quttul(a)*, the other possible manifestations of the height rubric *qvₕttvₕl*. In the first instance, Classical Arabic prohibits the sequence *i-u*, which never occurs within lexemes, and even when it arises by normal processes of combining morphemes, may be resolved. Thus where the sequence *i-u*

[237] These examples are cited by Holes, 2006, 2.2.6.1.3; 2016, §4.2. The elision of a short high vowel in open syllables—i.e., **wilid-t* > *wlid-t* (> *əwlid-t*)—is normal Bahraini phonology (2016, §2.2), but is sometimes blocked (e.g., *ʕidim-at* "it was destroyed").

[238] Distinction is made between genuine syntactically *passive* use of *qitil* in Nadji, Bahraini, and Omani at discussion here—mirroring the aforementioned derivational distinction between *yi-qtal* as a Gp versus stative G—and disparate stative uses of *qitil* throughout the Arabic dialects deriving from **qatila*. Retsö (1989, 180–83) correctly identifies this as a consideration in the discussion but erroneously extrapolates from it that the MSA proto-Gp SC **qitil* derives further from the stative G **qatila*.

[239] Watson, 1989, §4.2.1 for the IP forms, and §0.1.1ff for the dialectography of the "k-dialects".

[240] Watson, 2002, §6.5. Ṣanʕānī behaviour confirms to predictions based on what motivations have been identified as operative in dialects like Najdi and Bahraini: the basic fientive Ṣanʕānī G PC form *ya-qtul* (actually *yu-qtul*) is not replaced by ***ya-qtil*; as predicted, nor is there a polar-symmetrical shift in the Gp PC *yu-qtal* > ***yi-qtal.*

bridges a transparent consonant like the laryngeal *h* of the 3MSG suffix, it undergoes progressive assimilation (e.g., *li-bayt-i-hi* <**li-bayt-i-hu* "to his house" or *yu-ʔaddi-hi* <**yu-ʔaddi-hu* "he will repay it").[241] One might wonder whether this argument holds better for ruling out a Gp SC **qitul* than Dp **qittul* or Cp **ʔiqtul*, in which the sequence is broken up by a geminated consonant or two consonants. However, the absence of **CiCCuC* nominal forms confirms impermissibility of the sequence ***iCCu* lexeme internally, and Rabin notes that in Rabīʕa dialects, it was even resolved across morpheme boundaries (i.e., *min-him* <**min-hum*).[242]

As for why productive *u-u* IPs do not occur in Arabic, an alternative explanation—in fact, precisely the opposite—is proposed.[243] That is, surveying the language as a whole, it is noted that sequences of two high, back *u* vowels are very common, particularly if one ignores the dimension of vocalic length. The pattern *qutul* occurs in primitive nouns (e.g, *ʔuḏun* "ear") and as a broken plural for the patterns *qatīl(at)* and *qatāl*.[244] Quadriradical *CuCCuC* forms are not difficult to find, nor are *CuCCūC* forms, these two not infrequently coexisting as by-forms.[245] In *u-u* forms with a long second vowel, *qutūl* is an extremely common pattern in Arabic, used as a verbal noun and a broken pattern plural for *qvtl* singulars (especially *qatl*).[246]

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[241] Owens, 2006, 59. Rabin (1951, 99) notes that this assimilation varies amongst the dialects, such that in that of Hijāz it did not occur, whereas in that of Rabīʕa it even occurred across the velar consonant of second-person suffixes or where the morpheme boundary has two consonants.
[242] Rabin, 1951, 99.
[243] The caveat "productive" is meant to allow for sporadic *qtul* Gp SC forms in Iraqi, Algerian, and Moroccan, and *qutul* in Egyptian and Nigerian Arabic (Kaye and Rosenhouse (1997, 297–98). It is important in this regard that these are poorly attested exceptions, rather than bases of productive IP systems.
[244] Fox, 2003, 204; see Wehr, 1961, s.vv. for examples *mudun* "towns", *sufun* "ships", and *ʔusus* "foundations".
[245] See Wehr, 1961, s.vv. for *ʔusrub* "lead", *ʕurqūb* "hamstring", *ʕusluj*/*ʕuslūj* "sprig", *ʕuṣfur* "safflower", *ʕṣfūr* "bird", *ʕuṯnūn* "beard", *bulbul* "nightingale" (possibly onomatopoeic), *bunduq* hazel, *bundūq* "bastard", *bulʕum/bulʕūm* "esophagus" (related to the root √*blʕ* "to swallow"), *fustuq* "pistachio", *juljul* "bell" (onomatopoeic), *jumhūr* "crowd", *ṣurṣur*/*ṣurṣūr* "cockroach", and *ẓunbūb* "shinbone". The preponderance of examples from √1=ʕ and relating to biology or zoology may not be a coincidence, but this does not impact significantly on the analysis.
[246] Fox, 2003, 209–10; See Wehr, 1961, s.vv. for examples of verbal nouns *duḵūl* "entrance" and *ḵurūj* "exit", and *qulūb* "hearts", *jusūr* "bridges", and *burūj* "towers". To *qutūl* may be added the secondary pattern *ʔuqtūl(at)*, formed by epenthesis and loss of the vowel following R_1—e.g., *ʔuḍḥūkat* "laughter, *ʔuḍlūlat* "error", and *ʔusṭūrat* "legend".

By comparison, forms with two high front vowels are very rare in Classical Arabic, a situation which may be compared to Fox's statement regarding PS that "**qutūl* and **qutul* are the only two reconstructible patterns with a sequence of two high vowels".[247] Careful perusal of the lexicon yields no *qitil* forms only a handful of few quadriradical *CiCCiC* ones.[248] Forms with high front vowels and a long second vowel are slightly less rare—usually occurring in the pattern *ʔiqtīl*—though still do not come close to the productivity of those with two high *back* vowels.[249]

Similarly, although the vocalic sequence *u-i* is not prohibited, nor is it widely used.[250] It occurs regularly only in the C ACT PTCP *muqtil* ~ PC *yu-qtil* where it derives from earlier an earlier sequence **u-a-i* (i.e. *muCaqtil*), as mirrored in the PTCPs of other stems (e.g., D *muqattil*, N *munqatil*, Ct *mustaqtil*). Otherwise, Fox notes that the √3=*y* reflex of *qutūl* has the sequence *u-i*—*qutīy* <***qutūy*, occurring alongside an assimilated by-form *qitīy* (e.g., *ʔuwiy / ʔiwīy* <***ʔuwūy* "refuge")—but that the pattern "*qutīy* is not otherwise found in Arabic".[251] This summary of the formal inventory of Arabic, then, sheds light on the reason the application of the VMHC to *a-a* only results in Arabic IP SCs with vocalic sequences *u-i* and *i-i*: on the one hand these are permissible sequences of two high vowels (unlike *i-u*), and on the other they are not already widely in use in the language (unlike *u-u*).

Apart from the Gp PC and the Arabic IP SCs just discussed, the only place in Semitic where an IP cannot be based directly on a corresponding PASS PTCP is the (Biblical) Hebrew Gp SC

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[247] Fox, 2003, 209.
[248] See Wehr, 1961, s.vv. for *binṣir* "ring-finger", *ṭimirr* "race-horse" (deriving, I suspect, from underlying **ṭimrir*), *ʔiṯmid* "antimony", and *ḍifdiʕ* "frog" (alongside more common *ḍifdiʕ*), and *ṭinfiṣat* "" (alongside *ṭunfusat* and *ṭunfusat*), which are all the examples I have found.
[249] See Wehr, 1961, s.vv., *ʔiblīs* "Devil", *ʔiblīz* "Nile silt", *ʔibrīq* "jug", *ʔibrīz* "pure gold", *ʔibzīm* "buckle", *ʔifšīn* "litany", *ʔikšīr* "eliksir", *ʔinbīq* "alembic", *ʔinjīl* "gospel", *ʔirrīs* "peasant", *ʔisfīn* "wedge", *ʔisqīl* "sea-onion", *ʔišbīn* "god-father", *ʔiqlīd* "key", *ʔiqlīm* "climate", *ʔizmīl* "chisel", *ʕifrīt* "demon", *ʕirnīn* "bridge of the nose", and *kibrīt* "sulphur", *ṣihrīj* "cistern" which are all the examples I have found. Some phonetic commonalities (such as R_1=*b* or sibilant and R_2 =liquid) and semantic fields (such as the domain of chemistry) are conspicuous, but I cannot propose an analysis thereof here, though the possibility of loanwords should not be ruled out (in certain cases at least).
[250] Owens, 2006, 60: "The u-i sequence (16) is considered by Sibawaih to be very marked, and he notes that the passive verb is the only sequence in the language where *u-i* is found within a lexeme".
[251] Fox, 2003, 209–10.

quttal.[252] This is the final IP that remains to be analysed before the historical reconstruction of the IP paradigm is presented below (in Chapter 5) by synthesising the analysis of the current chapter and the descriptions of the detransitive systems of Semitic in Chapter 3 in a single, cohesive diachronic overview.[253] The Hebrew Gp SC *quttal* is distinguished from its active counterpart *qɔtal* in its first vowel, but also by gemination of R_2. Since ablaut is present in all IPs—indeed, it is the definitional characteristic of the morphology—this will be addressed first, before the issue of the gemination.[254]

The height contrast between G *qɔtal* versus Gp *quttal* is admittedly not as pronounced as the contrasts between Classical Arabic G *qatala* versus Gp *qutila* or B-type Bahraini G *qatal* versus Gp *qitil*. This is for two reasons: 1) in Hebrew the contrast occurs only in one locus since both forms have *a* in the second syllable; 2) the distance in phonetic terms and difference in articulatory ones between its contrasted vowels (mid-low *ɔ* ≠ high *u*) is less than that in the Arabic forms. With regard to the first point, it is important to note that the Hebrew Gp is by no means a unique instance of the voice-marking height distinction occurring in a single locus in an IP SC (cf. e.g., Aramaic G *qətal* versus Gp *qətīl* or Arabic D *yu-qattil* versus Dp *yu-qattal*). With regard to the point, it is beyond dispute that the Hebrew G SC *qɔtal* derives from a proto-form **qatala*, from which */*a*/ retains its status of canonical low vowel [a] in the second syllable but backs and raises to [ɔ] in the first.[255] Thus, depending on the historical stage at which the Gp SC

[252] For conciseness, the term "Hebrew" is used hereafter, without the qualifier "Biblical", though it is important to note that the Gp is absent from post-Biblical Hebrew, nor is its presence elsewhere in the Canaanite branch certain. This distribution is an important consideration in the reconstruction below (in §§5.6–7) of its development.
[253] Two other elements of the analysis need to be addressed before the reconstruction, namely, the relationship of directly and indirectly formed IPs and how this bears on the reconstruction generally, and an account of possible exceptions that appear to contradict the VHMC hypothesis.
[254] Consensus opinion maintains that *quttal* derives from earlier **qutal*, and that gemination is a secondary feature introduced by Masoretic scribes (Williams, 1970, 50; Pardee, 2020, p.c.). This position will be assumed until the discussion of an alternative is raised below, in specific relation to the gemination.
[255] It can, of course, be difficult to specify precise phonetic values for a historical language (the Tiberian vocalisation of Biblical Hebrew), and even more so a reconstructed one (proto-Canaanite or any of the stages in between this and

arose—i.e., if it arose before this shift—this may be an instance of phonological developments having (somewhat) obscured an original distinction, a phenomenon entirely familiar to any scholar of historical linguistics.[256]

There is no evidence for an etymological relationship between Hebrew *quttal* and its Arabic or Aramaic counterparts, nor am I aware of any proposals of such. The ostensibly separate origins for all Gp SCs in Semitic suggests they arose independently in each of these languages after they split off from their mother nodes.[257] The Gp SC *quttal* may therefore be best considered first in relation to other parts of the Hebrew IP paradigm rather than the broader Semitic situation. In view of the relative chronology of the development of the different IP stems—i.e., that the Gp followed the Dp and Cp—one might assume that a Gp SC was created simply by the application of the *u-a* vocalism of the pre-existing Dp *quttal* and Cp *huqtal* SCs to the consonantal framework *qvtvl* of the G SC. This would create an isomorphic triad of IP SC forms: Gp **qutal* ~ Dp *quttal* ~ Cp *huqtal*.

However, the attested Hebrew Gp SC form is not ***qutal* but *quttal*, with gemination of R_2. Generally, this is considered a secondary strategy deployed to preserve the contrastive vowel *u*, which would otherwise have undergone lenition to *ə* or lowering to *ɔ*, depending on the stress situation.[258] Part of the thinking behind this notion is that the Gp had ceased to be part of the vernacular before this sound change affected it and thus became frozen in its archaic form—cf.

Hebrew as it is attested). However, Jouön offers a concise summary of the Tiberian vocalisation, including some helpful notes about the historical background thereof (Jouön and Muraoka, 1991, §6).

[256] Cf. the first syllable of A-type Bahraini G SC *qital* <**qatal* versus Gp SC *qitil* (Holes, 2016, §4.1.1.1). Instances where historical developments have obscured historical VMHCs are discussed below (in §4.9.3).

[257] Even allowing for an amount of variation between competing forms inherited from one stage of the language to another, it is inconceivable that these three Gp SC forms co-existed in CS, only to become perfectly distributed between its descendent languages with no traces of the earlier stage of variation between them retained.

[258] Williams, 1970, 50. Pardee (2020, p.c.) assumes ultima stress **qutál* as is found in the Massoretic vocalisation of the G SC, and the expected reflex of unstressed **u* is *ə* in an open syllable (cf. e.g., IPFV *qətol* <**qutúl*). Hasselbach (2020, p.c.) observes that if stress still fell on the first syllable of words with no heavy syllable—as Huehnergard (2019, §2.3) reconstructs for the PS, and as preserved in Classical Arabic—when the vowels underlying the Massoretic vocalisation tradition arose, then the expected reflex of Gp SC **qútal* would indeed be ***qɔtal*.

the bisyllabic pronunciation of "blessed" in some register-governed contexts in English.[259] This position seems rather post-hoc justification of the data, and I am not wholly comfortable with the presumption that isomorphism must have been a feature in such a marginal part of the paradigm as the Hebrew Gp SC.

Alternatively, I tentatively advance the novel proposal that perhaps the relationship of the Hebrew Gp SC to the Dp SC is not just one of systemic symmetry (whereby the later Gp SC is created to fill a slot in the paradigm corresponding to the Dp), but may also comprise a derivational dimension in a more immediate sense. That is, given the extreme scarcity of *quttal* relating to active G (rather than D) verbs, perhaps there never existed a Hebrew *Gp* SC in the strict morphological sense. Instead, I wonder whether these very few cases may instead represent repurposing of the *Dp* SC to another paradigmatic slot. Such would be similar to the Syriac use of the tG or tD as a passive to the C, owing to the rarity of the tC, which would otherwise normally perform this function.[260]

Hasselbach firmly rejects this as far less plausible than the consensus opinion of a secondary vocalisation of a historical Gp SC **qutal*, among her reasons for which is the notion that the use of a derived form in the context of the most basic part of the paradigm is unlikely.[261] In general terms, this is certainly a valid criticism of the proposal just advanced, but I would temper it by noting that if a derived form were extended to a basic context anywhere, one would not expect

[259] For this view, see, e.g., Fassberg, 2001, 252–54; Gzella, 2009, 312n50; Jouön and Muraoka, 1991, §58; and Williams, 1970, 50: "normal phonetic development of Hebrew would eventually have produced a form /*kōt̲aḇ/, but such an evolution was arrested when the form ceased to be a living one and was fossilised at some period before the lengthening of pretonic vowels. The original short /u/ was retained by the Masoretes, as was the short /a/ of the *waw*-consecutive, in the only possible way, viz. by doubling the following consonant to produce /*kuttab/."
[260] Muraoka, 2005, §§49, 65c. In Syriac, use of the tG as passive to the C occurs as a regular paradigmatic relationship only in the weak root type √2=*w*/*y*; elsewhere it is common though not exceptionless.
[261] This, Hasselbach (2020, p.c.) notes, is quite different to the extension of the use of Gp (IP to the basic stem) morphology to express the passive to the (derived) D/L and C stems as occurs in MSA (for which, see Chapter 6).

this to occur except in the most marginal and rare instances. In this regard, perhaps it bears considering that Williams counts just thirty-two *quttal* Gp SCs in the whole Hebrew Bible.[262]

Pardee objects to the identification of gemination in *quttal* as original on the basis that plene orthography in forms with {*w*} between R_1 and R_2 necessarily reflect a Gp **qutala* rather than a Dp **quttala*. [263] In fact, "short *o* or *u* is fairly frequently indicated by means of *w* before a geminated consonant" in the Masoretic vocalisation, and increasingly so in the Hebrew of the Dead Sea Scrolls.[264] I see the presence of such in a handful of Gp forms as no objection to the analysis of the underlying Gp SC form as **quttal* (rather than **qutal*), precisely as I have no doubt that {*kwlm*} "all of them" (Jer 31:4) is to be analysed as *kull-ɔm*.

It would be remiss not to examine the rest of Canaanite to establish if there exists data from elsewhere than Biblical Hebrew that bear on the origin of the Gp SC in this branch. Amarna Canaanite provides no helpful data on this point, since no IP SC forms are attested in the corpus, which, insofar as this dialect represents an early stage in the grammaticalisation of the WS SC, is unsurprising.[265] The Gp is also absent from most post-Biblical dialects of Hebrew, and quite possibly also from Phoenician—scholars disagree on this point, but even those who identify a Gp

[262] Willams, 1970.
[263] Pardee, 2020, p.c.; Williams (1970) lists {*zwnh*} for *zunnɔ* (Ezek 16:34) and {*ywld*} for *yullaḏ* (Jdg 18:29, Job 5:7) from the SC and {*ywšd*} for *yu-ššaḏ* (Hos 10:14) and likewise {*twšd*} for *tu-ššaḏ* (Isa 33:1) from the PC.
[264] Jouön and Muraoka, 1991, §7 explicitly cites Gp SC {*ywld*} for *yullaḏ* as an example of such. In the Hebrew of the Dead Sea Scrolls, {*w*} is normal orthography for /*u*/, though finite IPs are in any case very rare in this dialect (Qimron, 1986, §100.2, 310.16); cf. the same feature in Qumran Aramaic, where absence of {*w*} between R_1 and R_2 suggests a Cp SC *haqtal* (rather than *huqtal*, for which {*hwqtl*} would be expected (Cook, 2010, 8).
[265] Passive uses of *qatil* should be considered resultative stative verbal adjectives, like those of Akkadian and PS, rather than finite verbs marked for passive voice by ablaut relative to perfective active counterparts (Baranowski, 2014, 129). Gemination is not necessarily represented in Amarna orthography, so even if a form like {*qu-ta-al*} were attested, this would not be decisive, since it could represent either /*quttal*/ or /*qutal*/; a form like {*qut-ta-al*}, by contrast, would confirm that gemination was present already at this stage. In any case, in the absence of any such forms, such observations are moot.

in it provide nothing that would weigh one way or the other on whether the SC thereof derived from original **qutal* or **quttal*.[266]

The final piece of possible evidence on the original form of the Canaanite Gp SC comes from the Samaritan Hebrew reading tradition of the Hebrew Bible, in which five Gp SCs occur that derive from **qutal*.[267] However, due to the sound change **u* > **a* (further > *ɔ/ɔ̄*) in this dialect, a full merger obtains between the reflexes of Gp SC **qutal* and G SC **qatal*, both becoming *qɔ̄tɔl*. This G(p) syncretism, and the need for formal contrast between finite passives and their active counterparts may well explain why Samaritan reading tradition largely abandons this Gp SC form, and instead the remainder of the twenty Gp SCs attested derive directly from a PASS PTCP form **qatīl*.

In view of the preceding objections, the position that **qutal* never existed in Canaanite, and instead the Gp SC was from the outset a repurposed Dp SC **quttal*, cannot be maintained. Nonetheless, I remain uncomfortable with the idea that the development **qutal* > *quttal* was solely motivated by a desire to preserve the formal contrast between G SC and Gp SC, and that such a rare form would be able to preserve a frozen pronunciation.[268] Put in another way, I cannot believe the resulting syncretism between Gp and Dp SC is coincidental, since the latter is such a productive form and the former limited to fewer than three dozen attestation in Biblical Hebrew, and is absent from much of the rest of Canaanite.

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[266] Harris (1936, 42) and Amadasi Guzzo (1999, 131) do not identify Gp forms in Phoenician; Krahmalkov (2001, 166) does, but his proposed forms Gp SC *gunebti* and *lpp* may or may not possess gemination of R_2—on gemination in the different kinds of Phoenician orthography, see Amadasi Guzzo, 1999,§97.

[267] Note that the Samaritan Hebrew vernacular itself has lost not only the Gp, but all IPs (i.e., the Dp and Cp are also absent). What very few cases occur are in the Samaritan reading tradition of the Hebrew Bible, in instances where IPs from the consonantal text could not be reinterpreted as active generalised-SUBJ constructions or other stems (i.e., the N or tD). On Samaritan Hebrew IPs generally, see Ben-Hayyim, 2000, §2.10.3; on the Gp forms cited and their analysis, §2.10.6; and on the Samaritan Hebrew G PASS PTCP, §2.13.4.

[268] This statement is made with the recognition that in the Samaritan Hebrew situation just described and elsewhere—cf. e.g., Holes' (1998) analysis of the loss of IPs in Omani Arabic—formal distinctiveness is a vital characteristic of IPs, without which they are apt to disappear from the language, precisely as predicted by the cross-linguistic restriction against active-passive syncretism in finite VPs (Haspelmath, 1990, 27; Keenan, 1985, 255).

Therefore, the above proposal on the origin of the Canaanite Gp SC may be modified as follows. Though its form was apparently originally **qutal*, very few traces of this are retained, and it seems likely this form never became significantly established in the language. Gemination must have been introduced early, and the influence of the Dp should be considered a significant factor in this process. Fassberg attributes the loss of the Gp in post-Biblical Hebrew to the breakdown of the derivational relationship between G and D, which increasingly become lexically specified basic stems.[269] Though the gemination of R_2 in the Gp SC must have occurred at a much earlier stage, it is possible that the incipience of this process may have facilitated the gemination of R_2 in the Gp SC, whereby the form became identical to the Dp SC.

Previous views of the Hebrew Gp have tended to see it as moribund but formally productive. This proposal is instead framed within an understanding that it is the "last-in–first-out" of the Hebrew IPs, all of which charted a rise, and ultimate fall in this branch. That is, the Dp (and Cp) arose earlier than the Gp, died out (much) later. At some point during the tenure of the Dp SC *quttal*—and presumably during the apex of its productivity—it influenced the morphology of the Gp, though this latter stem was ultimately lost without ever becoming well established.

The variation-and-change model predicts precisely this: some short-lived variants never become stable but disappear without ever effecting actual *change* in the language. The extremely marginal nature of the Hebrew Gp can only be truly appreciated in the broader context of the verbal system as a whole. This, for example, is an important factor facilitating its own morphology (i.e., an original SC form without gemination of R_2) to be influenced by another, more established IP stem (the Dp). Moreover, the role of the N, highly productive in Canaanite, was important in the suppression of the Gp in this branch, as discussed in the reconstruction below (in Chapter 5).

[269] Fassberg, 2001, 251ff.

4.9.3 The relation of directly formed to indirectly formed IPs[270]

PASS PTCPs are certainly central in IP development, and often the source of their morphology. However, those IPs just discussed—the Gp PC, Arabic IP SCs, and the Hebrew Gp—are not based directly on PASS PTCPs. In these cases, the mechanism of their formation is instead the application of a VMHC to a finite active counterpart, which may be formulated as follows: IP $=V_{ACT}$ + VMHC. However, crucial in understanding how all IPs fit together is the appreciation of seeing such indirectly formed IPs as a separate phenomenon from the direct derivation of IPs from PASS PTCPs, but rather the extension of the defining characteristic feature of PASS PTCP morphology itself.

The ordering of the reconstruction of IP development (below in Chapter 5), with the Dp and Cp preceding the Gp, and PCs of a given IP stem preceding SCs, mean that indirectly formed IPs tend to post-date directly formed ones. However, this is not a logical *causal* relationship between when and how IPs are created; cf. the Aramaic Gp SC and Ḥassāniyya Arabic IP SCs, all of which are very late creations within the IP paradigm but based directly on PASS PTCPs.[271] Instead, there is a correlative relationship between chronology and mechanism of formation owing to an overall developmental trend in IP formation generally: the increasingly abstract nature of the concept of voice-marking by means of a height contrast (the VMHC).

Vowel height was not even a feature contributing towards the juxtaposition of G ACT PTCP *qātil* ≠ PASS *qatīl*/*qatūl* at the first stage on the path towards creation of IP systems. It was instead analysed as a key marker in the contrast between them once their oppositional relationship was already established. Once a VMHC had thus been identified, it was extended to

[270] The term "indirectly formed" IPs refers to the indirectness of the abstraction of the VMHC from its original context and application to finite active forms. One might counter that these IPs are directly formed from active finite verbs, which is true. This is true of course, but the terminology chosen here reflects the primacy of PASS PTCPs in the whole development of the IP paradigm.

[271] Ḥassāniyya Arabic, for example, creates neological IPs that far post-date those of Classical Arabic, but it forms these directly from PASS PTCP morphology (e.g., Cp PASS PTCP *musaqtal* → neological pC SC *u-saqtal*).

D and C ACT PTCPs to create corresponding PASS PTCPs. As described, the Dp and Cp PCs (and in Hebrew and Ḥassāniyya Arabic, SCs) were created by removal of the PTCP prefix or its replacement with those of the PC (e.g., Hebrew D PASS PTCP **məquttal* → Dp SC *quttal* ~ PC *yə-quttal* or Ḥassāniyya Arabic L PASS PTCP *m-u-qātal* → pL SC *u-qātal* ~ PC *y-u-qātal*).[272] Due to the tight formal relationship between D ACT PTCPs and D and C finite verbs, the VMHC between ACT ≠ PASS PTCP was carried over with the formation of IPs, so that the analysis IP = V_{ACT} + VMHC still holds for these directly formed IPs at the synchronic level.

In the final layer of the abstraction of the VMHC, the very idea of a height contrast was perceived as a marker in its own right, entirely independently from its PTCP origins. This meant that it could thus be applied to finite active forms, where needed, resulting in indirectly derived IPs. For example, in Arabic, D and C SC *qattala* and *ʔaqtala* + VHMC → Classical Dp *quttila* and Cp *ʔuqtila* and Central/East Arabian dialectal Dp *qittil* and Cp *ʔiqtil*, with the same process subsequently also resulting in corresponding Gp forms *qutila* and *qitil*. In Hebrew, the Dp and Cp SC forms are already based directly on their respective PASS PTCPs, but in the Gp SC, their *u-a* vocalism is secondarily extended to the consonantal sequence of the G *qvtvl* to result in Gp SC **qutal*.[273] Throughout Semitic G PC *ya-qtul* + VHMC → Gp *yu-qtal*, apart from in some Central/East Arabian dialects of Arabic with a G PC *ya-qtil*, where the same process yielded Gp PC *yi-qtal*.

Thus, the Gp is not only historically later than the Dp and Cp—as the Arabic Dp SC likewise is to the Dp PC, for example—it is also *derivationally* secondary, insofar as it belongs to a subsequent stage in the development of the very mechanism of IP formation. However, as

[272] If this occurred after the elision of the *causative* morpheme, the synchronic mechanism could also be analysed as the transfer of the vocalic sequence *u-a* from the C PASS PTCP onto the syllabic structure of the active C SC (e.g., Hebrew C PASS PTCP **muqtal* → Cp SC *huqtal*), though the derivation of IP from PASS PTCP remains direct.
[273] This is more likely than a proto-form **quttal* (with gemination), but note that even if the Hebrew Gp SC was indeed simply a repurposed Dp SC, this would nonetheless represent secondary extension of the VHMC—since at the synchronic level *quttal* may be analysed as *qətal* + VMHC—away from its original PTCP context.

mentioned, not all directly formed IPs date to early stages in the diachrony. Both the Aramaic Gp SC *qətīl* and Ḥassāniyya Arabic IP SC series (pD *u-qattal* ~ pL *u-qātal* ~ pC *u-saqtal*) are based directly on PASS PTCPs. The former must have arisen after Aramaic hived off from NWS, at which time previously impermissible *CV̄CC* sequences became possible. The latter cannot date to earlier than proto-Ḥassāniyya, since rule ordering places the creation of these forms squarely after certain developments that are certainly innovations of this dialect.[274]

The VMHC hypothesis can well account for the distribution of directly versus indirectly formed IPs in different languages and parts of the paradigm. PASS PTCP forms not only lie at the historical origin of the VMHC but are also intimately connected with the category of IPs in general. This is part of a broader tendency for finite verbs to develop from verbal adjectives, common throughout Semitic and elsewhere. The fundamental principle at issue is that if a given IP may be based directly on a PASS PTCP, then it is; only when this is not a possibility is the VMHC abstracted and the IP created indirectly, by its application to a finite active form. The specific characteristics that permit or prohibit direct formation of the individual IP forms is now addressed to confirm this analysis.

One important division between directly and indirectly formed IPs is that between the Arabic Dp and Cp SCs versus those of Hebrew, Aramaic, and Ḥassāniyya Arabic. The former are indirectly formed; the latter are all based directly on their corresponding PASS PTCPs. The Hebrew Dp SC *quttal* was created by the deletion of the PTCP prefix *mv-* from D PASS PTCP **muquttal* (> *məquttɔl*). Assuming this occurred at the proto-NWS stage, then the VMHC from active **qattila* would have been perfect: D SC *qvɪttvʰla* ≠ Dp SC *qvʰttvɪla*. Pardee instead reconstructs a proto-NWS D SC **qattala*, from which the Dp SC **quttala* would still possess a

[274] Specifically at issue are the levelling of *a* from the D/L/C SC to the corresponding PC and ACT PTCP forms, and the levelling of the causative morpheme *s* from the Ct to the C, as discussed in detail above (in §3.4.3).

VMHC, albeit only between R_1 and R_2 rather than in both vowels.[275] Even if creation of the Hebrew Dp SC post-dated the Canaanite attenuation **qattila* > **qittil*—or **qattala* > **qittala* > **qittil* according to Pardee's reconstruction—a VMHC would nonetheless occur in the second syllable (D $qv_httv_hl \neq$ Dp qv_httv_ll).

The Arabic Dp SC, by contrast, cannot been created in the same manner. Removal of the PTCP prefix from D PASS PTCP *muqattal* would result in a Dp SC ***qattala* that was identical to the active D SC. Instead, the principle of the VMHC manifested here by replacing both low vowels of the stem with contrasting high vowels, specifically *u*-*i*, to create a two-fold VMHC D $qv_lttv_ll \neq$ Dp qv_httv_hl.[276] In Ḥassāniyya Arabic, developments in the D ACT PTCP and PC—namely the transfer of *a* to replace **i* between R_2 and R_3—have established a new formal parallelism with the SC comparable to that found in Hebrew: D PC *yə-qattal* ~ SC *qattal* ~ ACT PTCP *məqattal*. Finite Dp forms can thus be based directly on the D PASS PTCP, and specifically its contrastive marking relative to the ACT PTCP (in the vowel of the prefix): D ACT PTCP *məqattal* ≠ PASS PTCP *muqattal* → Dp PC *yu-qattal* ~ pD *u-qattal*.

These claims made of the Dp likewise hold for Cp: Arabic Cp SC *ʔuqtila* (and likewise dialectal *ʔiqtil*) was created by direct application of VMHC to the C SC *ʔaqtala*, rather than being derived from the C PASS PTCP. Unlike the C PASS PTCP and Cp PCs, which are ambiguous regarding the relative chronology of IP development and that of the causative morpheme, the Cp *SC* perhaps suggests (albeit only with a vague hint) that the Arabic Cp arose before the causative morpheme was elided. A Cp SC derived from the attested C PASS PTCP

[275] Pardee, 2020, p.c.: "Everything works better in both languages [Hebrew and Ugaritic] if you posit that the proto-Canaanite/Ugaritic form was qattala and that the Dp developed at that stage…Whether this goes back the proto-NWS stage or not depends on what one does with the Aramaic data". Ultimately, I date Dp SC development back to proto-NWS (with parallel developments in proto-Arabic and proto-OSA), for which stage I reconstruct D SC form **qattila*, but the fact that the VMHC hypothesis works almost as well with Pardee's reconstruction of NWS speaks to its strength as a theory of IP development.

[276] At the risk of labouring the point, exactly the same observation regarding the VMHC dimension of IP formation holds for dialectal Arabic *qittil* Dp SC forms (regardless of their relationship to Classical *quttila*, or lack thereof).

mu-qtal would presumably be ***ʔuqtala*—cf. Hebrew (**muhuqtal* >) *muqtɔl ~ huqtal*)—which is found nowhere in Arabic. If attested *ʔuqtila* / *ʔiqtil* result from application of a VMHC to the finite form in order to avoid active-passive syncretism with the C SC *ʔaqtala*, it follows that the PASS PTCP rejected as source morphology must have been **mu-ʔaqtal* (i.e., from a stage before elision of the causative morpheme).[277]

For much the same reason the Gp PC is indirectly formed. That is, unlike the Hebrew D PASS PTCP *məquttal* giving rise to the Dp PC *yə-quttal*, a Gp PC based on the G PASS PTCP *qɔtūl* (<**qatūl*), if possible at all, would not be contrasted to the G PC *yi-qtol* by a VMHC. Indeed, one might well imagine that **a* in an open syllable would be elided and **ū* shortened to *u* in a closed syllable and subsequently lowered to *o* according to normal Hebrew phonology, so that a theoretical ***yv-qatūl* might well yield ***yv-qtol*, a form substantially similar to the active G PC. Another important consideration in the indirect formation of the Gp PC is the way it fits into (or rather, does not) the network of formal relationships between PTCPs and PC forms. That is, the (Arabic) G ACT PTPC : PC :: PASS PTCP *qātil : ya-qtul :: maqtūl* do not provide a context conducive to Gp PC formation in the same way as those of the D do the Dp PC (*muqattil* : *yu-qattil* :: *muqattal* : *X*). It is thus precisely because a Gp PC could not be based on the PASS PTCP that it was instead created by abstraction of the VMHC and its secondary extension to the finite active G PC.[278]

[277] This tentative proposal is made with the admission that it is troublingly circular to infer *when* the Cp SC was formed from a hypothesis about *how* it was formed, as well as with due recognition that the elision of the causative morpheme cannot be simply reconstructed to one genetic node or historical point in Semitic diachrony. It is best understood as part of a lenition *s* > *h* > *ʔ* > *ø* occurring either as a general areal trend in WS or more likely as independent parallel developments in the individual languages.

[278] In terms of how this process usually yielded *yu-qtal* rather than *yi-qtal*—which was more 'advantageous' to use Ringe and Eska's (2013, 54) terminology—syncretism with the Cp PC (following the elision of the causative morpheme) may have played a role. Some Arabic dialects with a primary G PC *ya-qtil* (rather than *ya-qtul*) and a Gp *yi-qtal* (rather than *yu-qtal*) suggest that 'polar symmetry' is another possible motivating factor.

The final instance where the relationship between directly and indirectly formed IPs must be considered is that of the Gp SC. Arabic *qutila* and Hebrew *quttal* (likely deriving from earlier **qutal*) are not based on their respective G PASS PTCPs; Aramaic *qəṭīl*, by contrast is at once both the Gp SC and G PASS PTCP form. Since the SC is conjugated by person-marking suffixes, and those of the first and second persons begin with consonants—e.g., 1SG *-tu* (Arabic) or *-tī* (Hebrew), 2MSG *-ta* (Arabic) or *-t* (Hebrew)—if a Gp SC was based one Arabic *maqtūl* or Hebrew *qɔṭūl*, this would result in an impermissible ***CvCC* sequence. That is, theoretical Gp SC forms like Arabic ***maqtūl-tu* or Hebrew ***qɔṭūl-tī* "I was killed" would be phonologically impossible, not to mention exhibiting a troubling lack of isomorphism with the pre-existing Dp and Cp SC forms (Arabic *quttila ~ ʔuqtila* and Hebrew *quttal ~ huqtal*).

Aramaic, though, has no such restriction against the sequence CvCC; *qəṭīl-t* "I/you was/were killed" is both phonetically possible, and indeed the attested form for the 1SG/2MSG Gp SC (although "kill" is formed with the root √*qṭl* rather than √*qtl* in Aramaic). Moreover, isomorphic pressure from the Dp and Cp SCs that affects Gp SC formation in Arabic and Hebrew—indeed in Hebrew this results in identical Gp and Dp SC forms—is not present in Aramaic. It possesses no Dp, and though a Cp SC does occur, this is somewhat formally unstable; vacillation between Aramaic *Cuqtal* and *Caqtal* Cp SC variants might account for the lack of formal isomorphism with the Gp SC in this language. A final relevant consideration is the rise of the new *qatl-in* IPFV in Aramaic. If Gp SC formation based directly on the PASS PTCP requires anything other than this being a morphological possibility—and there is no reason to believe that it necessarily does—then this parallel development of the ACT PTCP into a finite verb in Aramaic would presumably have worked in favour of the same occurring with the PASS PTCP.

To summarise the situation of the relationships between directly and indirectly formed IPs, the VHMC, as a form of morphological marking, occurred initially in PTCPs, from which it was carried over into directly formed IPs. Then, the VMHC was abstracted out of this context and became a mechanism for IP formation by simply being applied to finite active verbs with no reference to PASS PTCPs. Nonetheless, PASS PTCPs are the origin of the VMHC and remain central to the whole phenomenon of IP formation. However, in some cases, a PASS PTCP is not a viable source for morphology of IPs, either because the resulting form would not possess the necessary VMHC from its active counterpart, or would otherwise not have the requisite formal distinctiveness from it, or because the resulting form would be impermissible in the morphology of the language or dialect in question. Only in such contexts, where direct formation of IPs is precluded, can the secondary process of their indirect formation take place.

4.10 Possible exceptions to VMHC as the distinctive feature of IPs

The final point of the analysis before the reconstruction of the whole IP paradigm—and relatedly, the detransitive system more generally—is to address any possible exceptions to the VMHC hypothesis. While both possible distinctions between high and low vowels ($a \neq u$ and $a \neq i$) are well attested in Semitic IPs, a contrast between the two high (proto-)vowels $u \neq i$ as a voice marker is extremely rare, occurring in just three contexts: the Hebrew D(p) and C(p) SC, and a very few Hebrew G(p) PCs.[279] Further, a highly exceptional case of total passive-active syncretism obtains in some IPs in Arabic dialects from Central and Eastern Arabia.

The discussion below finds all of these apparent exceptions to the VMHC hypothesis to be not only very marginal cases, but more importantly, invariably derived from earlier stages where

[279] Since this statement applies at once to attested forms (e.g., in Arabic) and to reconstructed proto-forms (e.g., in Hebrew), a more accurate formulation would be (*)*a*, (*)*i*, and (*)*u*; the asterisk in parentheses is omitted here for the sake of simple notation at the cost of technical precision.

a VMHC did exist and was lost due to other subsequent developments. Apart from being the historical origin of IP formation, the VMHC has maintained its status as a (indeed *the*) key feature of IP morphology in synchronic terms up to the present day. It is so fundamental a voice marker, that when it becomes obscured by phonological and morphological processes, this undermines the very productivity of IPs as a formation, as illustrated by the examples cited below from Central/Eastern Arabian Arabic.

In the Hebrew D(p) and C(p) SC, the vowel of the first syllable is *i* in active forms and *u* in passive ones: D *qittel* ≠ Dp *quttal* and C *hiqtīl* ≠ Cp *huqtal*.[280] A VMHC occurs in the second syllable between active *e* or *ī* (both <**i*) and passive *a*. However, the proto-NWS D and C SC both had **a* between R_1 and R_2—cf. Aramaic *qattel* ~ *haqtel* and Ugaritic *qattila* (confirmed in syllabic orthography)—which attenuated to **i* in a Canaanite-specific development.[281] Thus, if Hebrew Dp and Cp SC are reflexes of forms developed at the proto-NWS stage—as the presence of a Aramaic cognate Cp SC *huqtal* suggests—then the VMHC between D **qattila* ~ C **saqtila* versus passive Dp **quttala* ~ Cp **suqtala* would have been total, occurring in both vowels of the stem: active Cv_lCCv_hC ≠ passive Cv_hCCv_lC.

The second seeming exception to the VMHC in IP morphology occurs where the Gp PC *yu-qtal* relates to (a reflex of) an active G PC *yi-qtal* rather than *ya-qtul*. The sole voice-marking distinction is in the prefix vowel between active *i* and passive *u*, both of which are high, and thus, although contrastive, do not constitute a VMHC. The situation of G *yi-qtal* ≠ Gp *yu-qtal* is mainly a theoretical issue though, and its actual attestation in the Semitic languages is extremely

[280] The Cp SC usually lowers the first vowel, giving the normal form *hoqtal*. However, *u* is maintained in certain weak root types (e.g., √*l*=*n*) and sometimes even in strong roots, and a proto-vowel **u* is unanimously reconstructed, so representing the form as *huqtal* is a convenience that does not affect the analysis at hand.

[281] Huehnergard (1992) opines that **qattila* > **qittila* resulted from a regressive assimilation *a > v_1 /#C_́$C_1C_1v_1$, with a consequent analogical change **haqtila* > **hiqtila* affecting the C. It is irrelevant that I do not follow his further reconstruction of this *a-i* vocalism back to proto-CS (or even proto-WS)—I instead subscribe to **CaCCaCa* > **CaCCiCa* as a NWS development, while I see Arabic, Ethiopic, and proto-MSA (for which, see Dufour, 2017) as retaining the original WS SC forms for these stems.

rare, verging on non-existent. One reason for this relates precisely to how the vocalic patterns of verbs relate to their syntactic specifications, namely, that the G PC *yi-qtal* is at its basis, a pattern used for intransitive (especially stative) verbs, which are not a viable source for IP formation. The only language that permits IP formation from syntactically intransitive active verbs is Arabic, which has anyway levelled the prefix vowel *a* throughout the G, so that even when formed from an intransitive G <**yi-qtal*, a VMHC still occurs in the prefix vowel: G *ya-rkan* (<**yi-rkan*) *ʔilay-hi* "he leant on it" ≠ Gp *yu-rkan ʔilay-hi* "it was leant on".[282]

Transitive *yi-qtal* forms, from which Gp formation *would* be grammatical, are decidedly rare. They are found mainly—virtually exclusively in Hebrew, according to Aro's survey—in roots √2/3=*G* (*G* =pharyngeal), where they occur as a function of phonological processes, specifically, vowel lowering in a pharyngeal context, with subsequent conditioning of the prefix vowel to the Barth-Ginsberg distribution (a height opposition between prefix and theme vowel):**ya-qtuG* / *ya-qGul* > ***ya-qtaG* / *ya-qGal* → *yi-qtaG* / *yi-qGal*.[283] Just as with intransitive verbs deriving from **yi-qtal*, Classical Arabic levels the theme vowel *a* throughout the G PC, so again a VMHC occurs in the prefix vowel even where phonological factors neutralise it in the theme vowel: cf. e.g., G *ya-ftaḥ* "he opens (transitive)" ≠ Gp *yu-ftaḥ* "it is opened" .

Hebrew preserves (indeed levels) the prefix vowel *i*, so an exception to the VMHC in IP morphology could theoretically obtain between G *yi-qtal* ≠ Gp *yu-qtal*.[284] A careful search of the data does indeed yield a few cases, like Hebrew *yi-qqaḥ* "take" ≠ Gp *yu-qqaḥ* "be taken", from

[282] On Semitic theme-vowels, see Aro, 1964. Arabic impersonal passives are permissible only if the verb is *semantically* specified for a patient, occupying an OBL slot and appearing as a PP (here *ʔilay-hi* "upon it").
[283] Aro, 1964, ch. 5 on Hebrew theme-vowel classes, esp. 113–14 for the specification of transitive *yi-qtal* as the domain of √*2/3=G*; he (143–44) notes that transitive *yi-qtal* verbs become increasingly rare in Aramaic, with a shift through time to the normal transitive theme vowel **u*, or its reflex *o*: cf. e.g., Biblical and Targumic *yi-pṯaḥ* versus Syriac *ne-pṯoḥ* "open (transitive)", though *ne-ptaḥ* still occurs as a rarer variant. Huehnergard's (2019, §3.5.2) classification of theme-vowel classes reflects that this lowering was operative already at the PS stage.
[284] The prefix *yi-* is levelled throughout the Hebrew G PC, replacing **ya-qtul* with **yi-qtul* > *yi-qtol*, but in √*1=G* a reflex of **ya-* is preserved and the original VMHC between G **ya-* ≠ Gp **yu-* can be discerned: cf. e.g. G *yɔ-ḥon* <**ya-ḥunn* (Deut 28:50) "shows grace" versus Gp *yū-ḥan* <**yu-ḥann* "is shown grace" (Isa 26:10, Prov 21:10).

√*lqḥ*. However, the Gp is hardly productive to begin with in Hebrew (particularly in the PC). When this limited attestation is layered on top of the general rarity of transitive *yi-qtal* G PC forms, actual occurrences of this situation are almost non-existent and pose no challenge to the VMHC hypothesis.[285]

A subcategory of the opposition between *yi-qtal* and *yu-qtal*—and the key to understanding its significance for the overall analysis of IPs—is what occurs in some Central/Eastern Arabian dialects of Arabic. This is the only place in CS where the breakdown of the VMHC dimension of IP morphology has a significant effect on their development.[286] In dialects like Bahraini, Najdi, and Omani Arabic, *ya-qtil* is selected over *ya-qtul* as the standard transitive G PC, and the Gp PC *yi-qtal* (<**yu-qtal*) also exhibits a concomitant, symmetrical shift in its prefix vowel. Crucially, the Barth-Ginsberg distribution of prefix and theme vowels is maintained in these dialects (to varying extents), such that they have a fientive (including transitive) G PC *ya-qtil* and intransitive (often stative) G PC *yi-qtal*.[287]

Thus, where a Gp PC is formed from an active *yi-qtal* form, the G and Gp PC are identical. Examples from the literature mentioned with specific reference to voice ambiguity include Najdi *ni-ṭʕan* "we strike/we are struck" (from √*ṭʕn*), and Omani *yi-dfaʕ* "presents/is presented" (from √*dfʕ*) and *yi-ṭbaḥ* "cooks (transitive)/is cooked" (from √*ṭbḥ*).[288] This represents a significant number of cases *yi-qtal* is used for transitive G PC forms in roots √2/3=*G* (as in the examples

[285] Apart from the example cited from √*lqḥ*, a comparison of Williams' (1970, 46–47) list of Hebrew Gp forms the lexicon yields just one other example: Gp *yū-ṣar* "be formed" versus G *yī-ṣɛr* <**yi-yṣar* (Gen 2:7); note, however, that the normal G PC for this root (√*yṣr*) is *yi-ṣṣor* with theme vowel *o* <**u* (Jouön and Muraoka, 1991, §77).
[286] I specify CS, because precisely the same phenomenon occurs in the geographically contiguous MSA language, Mehri. The conclusion reached in Chapter 6 is that this is not coincidental, but reflects a shared areal phenomenon.
[287] The qualification "to varying extents" reflects the proviso that in this complex dialect situation, some breakdown of the Barth-Ginsberg distribution has occurred. For example, type B Bahraini levels the prefix vowel *i* throughout the G, giving *yi-qtil* / *yi-qtal* (Holes, 2006, §2.2.6.1.1); in Najdi, Abboud (1989, 270) indicates levelling of the prefix vowel *a*, but Ingham (1994, 20; 2008, tables 1, 2) gives forms *ya-qtil* / *yi-qtal*, as expected; and Omani has some levelling of prefix vowel *i* (and even *u*) depending on the root type, but the underlying trend (belying the historical origin of the system) is alignment with the Barth-Ginsberg distribution (Holes, 2008, §2.2.6.1.1).
[288] Ingham, 1994, 28; Holes, 1998, 353.

cited). Furthermore, formation of the Gp relative to active *yi-qtal* is not restricted to such syntactically transitive active verbs from √2/3=G where the theme vowel *a* results from the pharyngeal environment, since Arabic (including these dialects) also permits impersonal-passive IP use, from syntactically intransitive *yi-qtal* G PC forms—e.g., G *yi-ṭlaʕ* (*min X*) "he goes out (from)" is identical to Gp *yi-ṭlaʕ min X* "X is gone out of".

This exceptional absence of a VMHC in the IP system has an interesting correlation with how IPs fare in the competition with other constructions that can perform the same function. In Omani and Bahraini Arabic, the passive is increasingly expressed by the N and *t* stems or by syntactically active generalised-SUBJ constructions. Holes explicitly proposes a direct causal relationship between (the decrease in) the formal distinctiveness of IPs and their (waning) productivity, citing in support of this claim the disproportionate attestation of Omani IPs in weak root types, whose long vowels afford a greater contrast with their active counterparts.[289]

The G and Gp PC forms of Central/Eastern Arabian dialects of Arabic are governed by 1) the preservation of the Barth-Ginsberg distribution and therefore a G PC *yi-qtal* form, 2) a breakdown in the phonemic distinction between high vowels *i* and *u*, and especially the consequent replacement of **yu-qtal* by *yi-qtal* as the standard form of the Gp PC, and 3) the widespread use of transitive G PC *yi-qtal* forms from certain root types (√2/3=*G*). These factors have worked together to obscure the formal distinction between the G and Gp PCs, eliminating it altogether in a large number of verbs, and resulting in a syncretism between an IP and its active

[289] Holes, 1998, 353; 2008, §2.2.6.1.1. Cf. (G ≠ Gp) *yú-ktub* ≠ *yú-ktab* from √strong, with VMHC only in a short, unaccented vowel, versus *yi-bíʕ* ≠ *yi-bấʕ* from √*2=y*, *yi-ḥúz* ≠ *yi-ḥấz* from √*1=ʔ*, and *yi-mší* ≠ *yi-mšấ* from √3=*y*, all of which have a VMHC in long, stressed vowels. Levelling of high prefix vowels through the G has also contributed to the erosion of the formal distinctiveness of the Gp PC: e.g., *yu-ktub* < **ya-ktub* ≠ Gp *yu-ktab* (a variant of *yi-ktab*, given some interchangeability between *i* and *u*). Apart from the phonological dimension, Holes (1998, 360–61) also identifies a sociolinguistic motivation towards the loss of IPs, namely the homogenisation towards a prestige Gulf Arabic koine based on the dialects of economically influential coastal urban centres (e.g., Kuwait and the United Arab Emirates), which lack IPs.

counterpart that is unique within Semitic.[290] The lack of formal distinction makes the Gp PC an undesirable means to express the passive voice, and so other variants (i.e., the N or generalised-SUBJ constructions) are selected at its expense.[291]

To frame this within the broader analysis of Semitic IPs, these data do not contradict the hypothesis advanced here, since they do not relate to an *original* lack of a VMHC when IPs were created, but to its loss through developments specific to this group of dialects. Indeed, the syncretism of G and Gp PCs as *yi-qtal* is detrimental to the productivity of the latter category in Central/Eastern Arabian dialects of Arabic. This situation illustrates how, the VHMC, apart from being at the origin of the formation of the various IP forms—during the proto-NWS and proto-Arabic stages, if not earlier during proto-CS—has remained a crucial characteristic of their morphology up until the present day, and a prerequisite (now increasingly lacking in these dialects) for their survival.

The final possible exception to height contrast in IPs has not been raised above since teasing out the precise attested situation(s) and ramifications thereof requires a mastery of the subtleties of Bahraini Arabic dialectology greater than I possess. Suffice it to quote (at some length) Holes, a leading specialist in Gulf Arabic. He describes active-passive syncretism as not only having affected the G(p) *PC*, but also the SC in some type A and urban type B Bahraini, because there the general Gulf Arabic Gp SC pattern *qitil* has shifted to *qital*, which is also the reflex of the fientive G SC <**qatala*. That is, the Gp SC

> is similar morpho-phonologically to the 'stative' or 'middle agentive' stem, i.e. it has the *i-i* or *i-a* vowel pattern, but this pattern is applied to stems which normally have, in the active voice, *a-a*, so that there is a contrast between, e.g. *xalag-* 'to create', and *xilik-* (BV) *xilag-* (A and BU) 'to be created'. The fact that, as we saw earlier, for speakers of A dialects *i-a* is a vowel pattern used in many active pattern I [G] stems as a result of a general phonological rule means that the use of *i-a*

[290] Chapter 6 finds that developments in MSA, especially Omani Mehri, are to be subsumed as part of the same phenomenon under discussion here.
[291] This conforms perfectly to expectations arising from the universal restriction of languages against zero-marked finite passive forms (Haspelmath, 1990, 26–27).

> as a passive vowel pattern might lead to ambiguity. This may be one reason why the alternatives, especially the *in-* passivising prefix, has become so dominant.[292]

Apart from the aforementioned Gp PC *yi-qtal*, this represents another case of an original VMHC breaking down due to language-internal processes, which has a deleterious effect on the distinction between an IP and its corresponding active form consequently also on the productivity of the IP form in question.

This section has examined the very few incidences which appear to contradict the hypothesis that (passive) voice marking by a contrast in vowel height relative to active forms is fundamental to IP morphology. These exceptional IPs with no such voice-marking height contrast (VMHC) all derive from earlier stages at which a VMHC was originally present and was subsequently lost by one or more developments specific to that language or dialect. In two instances—the G(p) PC *yi-qtal* and in some Central/Eastern Arabian dialects of Arabic, and the G(p) SC *qital* in a much smaller subset of these—this has resulted in full active-passive syncretism and as result, IPs are conspicuously in the process of disappearing.

4.11 Conclusion

In the preceding chapter, by focusing on common generalities of the data presented in the descriptions of Chapter 3, a number of features of the theory underpinning the analysis of IPs are identified. Two concepts specific to IP formation—the idea of a voice-marking height contrast (or VMHC) and the formal relationship(s) to PASS PTCPs—are identified alongside four general trends that apply to the Semitic detransitive system(s) generally: functional symmetry,

[292] The rule Holes (2016, §4.2) is referring to is "that /i/ occurs to the exclusion of /a/ in open, non-final syllables" (§4.1.1.1) except with certain pharyngeal and liquid consonants, resulting in the change **qatal* > *qital*. He does not specify how the Gp SC *qital* developed from **qitil* (more likely, I suspect, than directly from **qutila*) in these cases, and constraints of space and specialism preclude answering this question. It seems possible, at least, that some causal relationship with the syncretism in the Gp *PC yi-qtal* exists, namely, that the Gp SC could take the form of the G Sbecause the two stems had already lost much of their distinction elsewhere the paradigm.

formal isomorphism, the semantic-to-syntactic shift, and the fientivisation of verbal adjectives. While the various Semitic languages differ in the *specifics* of their detransitive (including IP) developments, they nonetheless retain significant general similarities resulting from these common features.

If this small number of kinds of pressure on Semitic detransitive development provide a good framework to propose a general overview unifying them, then the specific differences between the languages, in particular as regards IPs, remain to be accounted for. As discussed above (in §3.9), Newmeyer summarises the principle that the reasons languages differ because they are subject to complex networks of competing motivations.[293] The current case of IPs is no exception. Apart from providing detail for the common schema of Semitic detransitive development sketched above, the analysis in this chapter has noted the individual situations of competing motivations (including, crucially, different kinds of interplay between those main ones enumerated above) and thereby accounted for how and why they give rise to a certain attested situation. It is naturally not possible to address all the minutiae of every dialect, but all IP forms at least have been addressed.[294] Most importantly, despite the comprehensive perspective of the study, nowhere is any evidence found for an attested situation that cannot be situated within the broader general current of general Semitic detransitives, with the precise manifestation depending on the specifics of the circumstances in which it occurs.

The scope for height contrast in a three-vowel system with two high vowels and one low is admittedly broad. Of the three possible pairings—$a \neq i$, $a \neq u$, and $i \neq u$—(the first) two fall under this category. Nonetheless, considering that a VMHC is both ubiquitous and exclusive in

[293] Newmeyer, 2003, 29–30. If this understanding has not been adopted as widely as it might have in the study of the Semitic languages, this is because it makes for rather messy, complex descriptions, rather than the neat, simplistic reconstructions favoured by many working with the traditional comparative-historical methodology.
[294] Apart from the simple fact of the scope of the data—covering every stage of every Semitic language—because of the historical nature of much of the material, the various competing motivations at play may no longer be knowable, even with the high degree of specialism in any given language/dialect that teasing them out would require.

IPs from all Semitic languages in which they occur, it is beyond the realms of possibility that this feature is coincidental to the morphology. The diachronic durability of the VMHC is another indication of its fundamental: just as it was prerequisite in IP formation at the earliest stages of reconstructed proto-languages, so it remains in contemporary Arabic dialects; where the VMHC is lost, so too are IPs themselves.

The etymological origin of the VMHC in IPs has been identified as that which marks voice distinction in non-finite parts of the paradigm, namely between the D and C PTCPs (ACT **muCaCCiC* ≠ PASS **muCaCCaC*/*muCuCCaC*). IPs are either based directly on these PASS PTCPs—and in the Aramaic Gp SC on the G PASSS PTCP—or, where this is not feasible, the VMHC is applied in a more abstract way to finite active verbal forms. The VMHC contrast between the D and C ACT ≠ PASS PTCPs itself went back to the earliest form of voice marking in Semitic apart from that of the N and *t* stems, namely the distinction between the height of the long vowel in G ACT versus PASS PTCPs (**qātil* ≠ **qatv̄ₕl*). This opposition was incipient in WS but really flourished from CS onwards. Thus, for what the hypothesis of VMHC loses in specificity, it makes up in elegance, universality of application, and clear links between different parts of the paradigm whose derivations have otherwise defied understanding in relation to each other.

Chapter 5. The Historical Reconstruction of the Development of IPs

5.1 Introduction

The following reconstruction represents the culmination of the current work. It synthesises the conclusions of Chapter 4 regarding IPs specifically and the descriptions in Chapter 3 of Semitic verbal systems more generally. An ordered historical development of the IP system is achieved by contextualising the preceding analyses of individual IP and PASS PTCP forms and framing them within the broader context of Semitic detransitives. Overall, the different levels and stages of attestation of the IPs and PASS PTCPs complement those of the N and *t* stems in a way that confirms they can only be properly understood together, as parts of a system.

The data are understood, and accounted for, in terms of the variation-and-change model of language diachrony, whose application to Semitic detransitives is outlined above (in §3.9). This theoretical framework recognises the coexistence of different stems, competing for the same function(s) for extended periods, including the possibility that the variation between them can be inherited from one stage of the language to another. Furthermore, and most relevantly in relation to IPs specifically, the variation-and-change model allows for an innovative variant to have arisen and then subsequently disappeared without having effected any lasting change within the language. With regard to the competing motivations that govern the variation (and change) in the detransitive systems of Semitic languages, the following four key factors, discussed in detail above (in §4.2), are identified: 1) functional symmetry, 2) formal isomorphism, 3) the semantic-to-syntactic shift, and 4) the fientivisation of verbal adjectives.

The reconstruction seeks to modify or replace existing understandings of IPs for the better, in large part owing to the benefits of adopting this theoretical linguistic model that matches the

behaviour and development of real-world language more closely than do the more rigid family-tree or areal-wave models commonplace in historical reconstructions of Semitic languages. On the one hand, this is precisely what allows it to overcome difficulties that have proved intractable in previous works.[1] On the other hand, it inherently entails a less simple reconstruction, including formal heterogeneity and extended periods of volatile situations of flux.

This complex, non-linear picture, along with the sheer volume of disparate data under consideration, is what requires a methodology that begins with shared commonalities of all IPs (and indeed other detransitives) and, from there, moves to specific differences between them. The development of the IP system as a whole is thus formulated initially in terms of stages referring more to general formational processes than to precise concrete instances thereof. The attested situations of the individual languages are superimposed upon this abstract schema—and ultimately are found to correspond to it without significant deviations. The stages in the reconstruction of the historical development of Semitic IPs are:

stage 0, G PASS PTCPs;

stage 1, D and C PASS PTCPs;

stage 2a, Dp and Cp PCs;

stage 2b, Dp and Cp SCs;

stage 3a, Gp PCs;

stage 3b, Gp SCs;

stage 4, all other IPs (i.e., IPs to *t* stems, and IP-specific INFs).

[1] For example, appreciating that **muquttal* and **muqattal* are two variant results of the basic same process of D PASS PTCP formation, and allowing for the variation between them to be inherited from CS into its descendent branches (and further), makes sense of their coexistence without either deriving one from the other or refusing any etymological relationship between them.

5.2 Stage 0: The G PASS PTCP

The starting point of IP development, indeed the very first instance in Semitic where a detransitive category is marked by an alternation in a vocalisation rather than the affixing of consonantal morphemes (i.e., the N and *t* stems) is the G PASS PTCP. The verbal adjective patterns **qatīl* and **qatūl*—subsumed together under the height rubric **qatv̄ₕl*—hereby increasingly become restricted to transitive-patient reference (rather than just to patients more generally). In this function the PASS PTCP was juxtaposed with the G ACT PTPC **qātil*, a verbal adjective exclusively linked to agents (including those of transitive verbs with corresponding **qatv̄ₕl* PASS PTCPs). Although Ethiopic and MSA possess some reflexes of **qatv̄ₕl* patterns, they are neither productive, nor anywhere close to exclusively linked to transitive patients. Consequently, the consolidation of **qatv̄ₕl* as the G PASS PTCP is reconstructed to the CS stage.

Like all language change, this development occurred not as a point-in-time switch, but rather as a gradual evolution. Even if the development towards full productivity of **qatv̄ₕl*—the ramifications of there being two **qatv̄ₕl* patterns are addressed below—and its restriction to transitive patients had begun in proto-CS, it had not yet reached fruition. As discussed above (in §4.4), the daughter languages thereof progressed along this process to different degrees, using alternative strategies to strip away the erstwhile function as verbal adjective referring *intransitive* patients from whichever **qatv̄ₕl* pattern was selected with increasing restriction as the G PASS PTCP. For example, Arabic *maqtūl* (<**ma + qatūl*) is entirely productive as G PASS PTCP and wholly exclusive in this function; intransitive-patient verbal-adjective functions are largely relegated to *qatīl* and *qatūl*.[2] Aramaic *qətīl* (<**qatīl*), by contrast, is not infrequently linked to

[2] This is strictly speaking, not a **qatv̄ₕl* pattern, but a neologism based on one (**qatūl*, by addition of a prefix *ma-*, with elision of the vowel between R_1 and R_2). Nonetheless, it provides a valuable illustration of developments in

intransitive patients, though there exists a marked tendency to bifurcate between *qətīl* for transitive patients versus *qattīl* for intransitive ones.

The morphological origin of the patterns **qatīl* and **qatūl* is as a derivative of the erstwhile patient verbal adjective patterns **qatil* and **qatul*, respectively. New patterns were needed to replace these original **qatv$_h$l* forms when they grammaticalised in WS into the finite stative SC (**qatila* and **qatula*). Thus, a formal distinction from the ACT PTCP **qātil* was not the basis for the formation of the PASS PTCP **qatv̄$_h$l*, but once they achieved an oppositional relationship, the difference between their respective long vowels in terms of height came to be identified as a contrastive marker between them. This lay the groundwork for the next step in IP development, the creation of D and C PASS PTCPs by application of a VMHC to the respective ACT PTCPs.

There is a fundamental difference between the contrastive marking of ACT *qātil* versus PASS *qatv̄$_h$l* in the G on the one hand, and ACT *muCaCCiC* versus PASS *muCaCCaC / muCuCCaC* in the D and C on the other. Hasselbach observes that in the former, the *position* of the low and high vowels within the stem does not change—both have the vocalic sequence *V$_L$-V$_h$*—but they differ in which of these vowels is long (and therefore stressed); in the latter, there is a change (or changes) in the height of a vowel in a given position in the stem.[3] If the contrast *qātil* ≠ *qatv̄$_h$l* is to be identified as one of vocalic length rather than height, this implies that a better parallel to D *muqattil* ≠ *muqattal*, and therefore a more plausible origin for the creation of its VMHC, would have been something like *qātil* ≠ ***qātal* in the G.

From PS through CS, there existed a restriction against ***Cv̄C* syllables, and stress was assigned according to syllabic structure, to the left-most non-final heavy syllable (or in the

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marking functions that are lost from the pattern which specialises as a G PASS PTCP. Arabic *qatīl* and *qatūl* retain some transitive-patient verbal-adjective reference, but in these cases tend towards substantive use, whereas *maqtūl* is more adjectival and has a closer relation to the predication as such. Further, *qatūl* sometimes exhibits a shift towards marking repetitive-durative meanings, including even the extension to habitual behaviour of agents.

[3] Hasselbach, 2020, p.c.

absence thereof, to the first syllable). Because stress is assigned according to syllable structure, it is essentially an irrelevant consideration in the D and C PTCPs; that is, it was not possible to change the position of the stress from D and C ACT PTCPs (*muCáCCiC*) to create PASS PTCPs (e.g., ***muCaCCíC*) in a way that directly matched the contrast between G ACT **qa̋til* versus PASS **qatv̋ₕl*.[4] Rather than the *position* of stressed vowels, it was the *difference in their heights* per se that was used as a basis for the formation of D and C PASS PTCPs. This contrast occurred in stressed, and therefore prominent vowels, which allows it to be identified as a (or rather, the) salient distinguishing feature between *qa̋til* versus**qatū̋l/qatī̋l*, and perceived as an abstract quality divorced from the particulars of its position, which was thus extended to D and C **muCaCCiC* ACT PTCPs to yield **muCaCCaC* and **muCuCCaC* PASS PTCP counterparts.[5]

The development of the G PASS PTCP out of a less precise verbal adjective occurred over a protracted period and entailed ongoing variation between the patterns **qatīl* and **qatūl*. Even where one of the patterns consolidated its position as G PASS PTCP, verbal-adjective uses of the other still occurred (sometimes frequently), including with reference to patients of transitive verbs.[6] This situation of functional commonality facilitated the identification of the fundamental formal similarity between them that both fell under the height rubric *qvₗtv̄ₕl*.

Phoenician provides interesting data with regard to this variation. Owing to the less-than-perfect information that the orthography provides about vocalisation, there is some disagreement as to whether it uses a reflex of the **qatīl* or **qatūl* as the G PASS PTCP, between which I find

[4] Huehnergard, 2019, §2.3.
[5] Hasselbach (p.c., 2020) has expressed skepticism that the contrast between G ACT and PASS PTCPs is the true origin of the VMHC running through the whole IP system, even if she accepts the subsequent steps of the theory.
[6] In Hebrew, for example, *qɔtūl* (<**qatūl*) is fully productive as a G PASS PTCP, and quite restricted to this function. However, the pattern *qɔtīl* (<**qatīl*) is still "very common for stative or passive actant nouns, mostly adjectives, but also with secondary substantive meaning, especially for the passive ones" (Fox, 2003, 192).

the former more plausible.[7] Within the variation-and-change model, where the two can coexist in competition even for protracted periods, it does not seem impossible that the language had not entirely stabilised in selecting one over the other. Tropper entertains just such a possibility for Ugaritic.[8] If Phoenician indeed used a G PASS PTCP derived from **qatīl*, this implies a degree of variation still active at the proto-Canaanite stage since the Hebrew PASS PTCP derived from **qatūl*. At the least, even if all Canaanite forms used G PASS PTCPs from **qatūl* in contrast to Aramaic ones from **qatīl*, then, to the extent specification to PASS PTCP use had obtained by proto-NWS, one may say that some variation still existed between the two possible manifestations of **qatv̄ₕl* at that stage.

It is precisely because of the gradual nature of the process of selecting between **qatīl* or **qatūl* and the potential for inherited variation between them that the specifics of when one or the other was selected, and came to be productive in and restricted to the G PASS PTCP function, cannot be reconstructed with certainty for every language. However, what is clear is that for some period from proto-CS onwards the pairing of the functional and morphological distinction between the G ACT PTCP **qātil* versus G PASS PTCP **qvₗtv̄ₕl* came to be perceived; the concept of a voice-marking height contrast was born. This conflation of **qatīl* and **qatūl* and the analysis of their common height rubric as (one half of) the foundation of the origin of the concept of the VMHC, is neither vague, nor irrelevant. Although the height features of the G PASS PTCP were not the key to its etymology, this situation was what allowed the next (and indeed every subsequent) stage in IP development to occur.

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[7] Krahmalkov (2001, 201) argues for a G PASS PTCP from **qatūl*, but cites only one form, Neo-Punic {*sebuim*} for *zəbū*(*ḥ*)*-īm* "slaughtered"; Amadasi Guzzo (1999, §§140b, 156) instead opts for **qatīl*. The supporting evidence comes mainly from the onomasticon, which is not always the most reliable witness of language, but I find the orthography of several forms in which *ī* is variously represented by {*y*}, {*i*}, and {*e*} convincing enough.

[8] Tropper, 2002, §73.422; contra Pardee (2003/2004, 237), who favours *qatūl* on the basis of {*lu̇k*} for *laʕūk* "sent" (KTU 2.17:4), which he (2020, p.c.) identifies as "the one clear Ugaritic datum".

5.3 Stage 1: The D and C PASS PTCPs [9]

From the starting point of stage 0, the first step in IP development was the extension of the initial VMHC to the D and C ACT PTCPs to create corresponding PASS PTCPs. This section will reconstruct the (relative) chronology of this stage, particularly in relation to the starting point of. The role of the motivation towards functional symmetry in the creation of D and C PASS PTCPs will be described, as will how the semantic-to-syntactic shift features in this situation. Finally, the formal manifestation of the attested forms of the languages will be examined, with a view to reconstructing their development, in relation to each other and to their proto-forms. In this last point, the novel variation-and-change model proves particularly useful at solving a riddle of their etymology that has puzzled Semitic scholars to date.

Stage 1 of the schema may be dated no earlier than CS period, since all CS languages possess D and C PASS PTCPs, while the other branches of WS (namely, Ethiopic and MSA) do not, and nor does Akkadian (as the representative of ES). Stage 0 has also been dated to CS for due to the analogous absence of a productive, functionally restricted G PASS PTCP outside of CS, but the two stages may still be confidently ordered in relative terms at least. It is central to the VMHC hypothesis of Semitic IP development that D and C PASS PTCP formation is based on the original opposition between G ACT and PASS PTCPs, but asserting this in support of the chronological ordering of these two parts of the languages would of course be unacceptably circular. Instead, arguments external to the VHMC hypothesis itself—namely, the distribution of

[9] In Semitic languages with a productive L stem (i.e., Arabic and Ethiopic), observations made regarding the D and C apply to it. This is because the D, L, and (proto-)C all begin with a heavy syllable—R_1vR_2 in the case of the D, $R_1\bar{v}$ in the case of the L, and CvR_1 in the case of the C—resulting in close morphological parallels. For the sake of simplicity, the L(p) is not addressed, though note that the data would in no way contradict the findings. Indeed, inasmuch as the L represents an additional part of the language that could potentially influence it by exerting analogical pressure, playing into the motivations towards functional symmetry and/or formal isomorphy, and so forth, it supports the hypothesis in the same way that data from the D and C do.

the source morphology from which these forms derive, and differences in their syntactic restrictions—must be marshalled in support of the reconstruction.

Ethiopic *qətul* (<**qatūl*) has not specialised into a PASS PTCP (relating only transitive patients) to anywhere near the extent that some reflexes of **qatv̄ₕl* have in CS but is nonetheless a very common patient verbal adjective pattern. The fact that it serves as the basis for the analogical formation of counterparts from the D (*qəttul*) and L (*qutul*) is one indication of how well established a part of the language it is.[10] Forms cognate to the D and C PASS PTCPs attested in the CS languages, though, are totally absent from Ethiopic; one finds no trace of PASS PTCP forms ***məqvttal* or ***mvqtal*, for example. This is hardly surprising, since the active counterparts *məqattəl* (D) and *maqtəl* (C) from which they would theoretically be derived are not even really ACT PTPCs tied to specific verbal predication. Rather, like the G counterpart *qātəl* <**qātil*, these are *nomina agenti*—and secondary ones, at that—expressing a notion of habitual action.[11]

The Ethiopic situation therefore speaks to the chronological precedence of the G over the D and C PASS PTCPs. Even if the syntactic specification of **qatv̄ₕl* into an exclusively PASS PTCP function has not advanced in this language family, the morphological material that would make this possible is at least present—cf. the development of **qatīl* into the Ethiopic *qatil-o* perfective participle construction discussed above (in §4.4). Moreover, even though *formal* reflexes of PS (G) **qātil* ~ (D) **muqattil* ~ (C) **musaqtil* are attested in Ethiopic, these have lost their primacy in the language and their functional restriction as ACT PTCPs. As such, the functional prerequisite for D and C PASS PTCP formation according to the VMHC hypothesis is

[10] Raz (1983, 3.4.3) calls these forms PASS PTCPs, though his examples suggest this label is not entirely accurate. Even if Tigre is further along the path of syntactic specialisation than is Classical Ethiopic (for which see Tropper, 2002, §44.34)—and this would make good sense considering that it is several centuries younger in terms of pure chronology—*qətul* and the other patient verbal adjectives are far from restricted to transitive patients.
[11] Tropper, 2002, §44.35. The main *nomen agentis* patterns are *qattāli* (D) and *ʔaqtāli* (C), derived from *qatāli* (G).

absent; no *voice-marking* height contrast can be applied to source morphology for which *voice* is not a primary marked feature.

Apart from this evidence of the distribution of forms, differences between the G versus the D and C PASS PTCPs in terms of the semantic-to-syntactic shift also bolster the proposed chronological ordering of stage 0 preceding stage 1. The Semitic trend for detransitive verbal forms to increasingly mark syntactic features of the verbal predication rather than semantic ones is a major factor in the rise of the G PASS PTCP.[12] However, it is even more pronounced and advanced in the creation of the D and C PASS PTCPs, in keeping with this dating to a later stage in the language. Traces of the origin of the G PASS PTCP as a patient verbal adjective *without syntactic specification* can be seen in instances of Hebrew *qɔtūl* and Aramaic *qətīl* relating to patients of intransitive verbs (e.g., *ʕɔṣūm* "great" and *ḥəṯīr* "proud", respectively).[13] D and C PASS PTCPs, by contrast, are entirely restricted to transitive patient reference; that is, they can occur only depending on the syntactic specification of the predication.[14]

Relatively scarce instances of intransitive verbs from the D and (even rarer) the C are illuminating in this regard.[15] In Hebrew, ACT PTCPs referring to the sole (agent) argument of such verbs are attested, but PASS PTCPs are not permissible since they would have no potential (patient) referent—e.g., *hilleḵ* (D) "to go about" forms an ACT PTCP *məhalleḵ* "one who goes about" (Prov 6:11, Ps 104:3, Ecc 4:15) but no PASS PTCP ***məhullək*. In Arabic, the impersonal passive construction found with IPs is also grammatical with PASS PTCPs, including those from the D and C—e.g., (*al-ḥadīqat*) *al-muṭawwaf* (D PASS PTCP) *bi-hā* "the (garden)

[12] Another relevant context in which the semantic-to-syntactic shift is operative is the replacement of the N and *t* stems by IPs (not to mention the earlier shift in the uses of the N itself).
[13] The syntactic specification of the G PASS PTCP achieves completion in Arabic, where **qatūl* is replaced by a neological form *maqtūl* (<**ma+qatūl*) which is *never* related to an intransitive patient.
[14] CS D and C PASS PTCPs differ from Ethiopic D *qəttul* and C *ʔaqtul* patient verbal adjectives in this regard, insofar as the latter can relate to any patient, regardless of its syntactic specification within the predication.
[15] As far as possible, the following discussion uses semantically similar examples of intransitive D verbs from Arabic, Aramaic, and Hebrew (relating to motion with verbal plurality), in order to facilitate comparison.

wandered around in" corresponds to finite *ṭuwwifa* (Dp SC) *bi-hā* "it was wandered around in" and active *ṭawwafa* (D SC) *bi-hā* "he walked around in it".

Such impersonal-passive use, though, is an Arabic-specific development that is exceptional within Semitic. In any case, to the extent that Arabic passives can be formed from syntactically intransitive active counterparts, these must still be two-argument predications, of which one is a patient, or similar (albeit occurring in an OBL slot rather than as an OBJ); one-argument active *ṭawwafa* (D) "he wandered around" cannot form a PASS PTCP ***al-muṭawwaf* (or indeed a finite Dp) since it has no (patient) referent. The syntactic constraints are thus still greater than those on the earlier **qatvʰl* G patient verbal adjective, which may even occur in relation to single-argument patients (e.g., *marīḍ* "ill").

In Aramaic the PASS PTCP situation is complicated by the development of the *qtil-li* PFV, and particularly its extension to intransitive verbs. This finite verb reaches full productivity in NENA, but is incipient already in Late Aramaic—e.g., Syriac *məhallaḵ l-ī* "I have gone about" (lit. "it has been gone about PREP-me").[16] Crucially, in this context, *məhallaḵ* is no longer a D PASS PTCP and instead has grammaticalised into a finite verb, the D *qtil-li* PFV. As such, even with transitive verbs, reference is not to the patient argument of the predication, but to its aspectual perfectivity; as Coghill puts it, "the participle [*qtil*] is no longer felt to be an attribute of the patient but has been reanalysized [*sic*] as a component in a compound verb".[17]

The *qtil-li* PFV is active, and the *qtil* element becomes bound to the SUBJ suffix (1SG *-li*, 3MSG *-lu*, 2MSG *-lux* etc.) including possible phonetic assimilation between R_3 and the *l* of this

[16] Coghill (1999, §3.4.2.3; 2016, §§6.8, 6.10–11, 7.2) describes the analogical extension of the *qtil-li* perfect verb from its origin with transitive verbs only—and first of all those specified for semantic roles like experiencer, beneficiary, and maleficiary before being extended to agents properly spealing—to intransitive ones.
[17] Coghill, 1999, §3.4.2; and, for more recent work on the same topic, 2016, §§5.3.2, 7.4. Grammaticalisation of *qtil-li* is reflected, for example, by boundedness to the agent; loss of agreement with patient; and separate expression of the patient as an OBJ, external to the verbal form.

suffix: e.g., *mir-ri* <*ʔmir-li* "I said" and *ṭxin-nox* <*ṭxin-lox* "you ground".[18] This shift to active voice and loss of specific reference to the semantic role patient is precisely what facilitated the extension of the *qtil-li* perfective to intransitive verbs. The SUBJ of *qtil-li* may be an agent or patient; a semantic restriction to patient, as found in the referent of its origin, the G patient verbal adjective **qatīl*, is no longer present. The extent to which the *qtil-li* perfective is removed from its origin as a PASS PTCP, and is really just a finite verb, is evident in its use with intransitive patient SUBJs: *dmix-li* "I slept".[19]

Despite these unique developments in Aramaic, PASS PTCPs and their reflexes still conform to the trend that marking of semantic features gives way to marking of syntactic ones (in this instance with the addition of TAM values). As described above, the rise of *qtil-li* perfective has somewhat obscured a reality far more apparent in Arabic and Hebrew: the relative lateness of the D and C PASS PTCPs compared to that of the G is reflected by their relative positions along the development from the marking of semantic to syntactic features. This notwithstanding, as the VMHC hypothesis predicts, prior to the grammaticalisation of the *qtil-li* PFV, when *məqvttal* and *mvqtal* functioned as PASS PTCPs in Aramaic, these referred exclusively to transitive patients. The G PASS PTCP *qətīl*, by contrast, not infrequently retains traces of its earlier semantic specification, referring to patients, regardless of the syntactic transitivity of the predication.

Apart from how the semantic-to-syntactic shift layers upon the situation, the motivation towards functional symmetry is also an important consideration in the relationship between the G PASS PTCP and those of the D and C. Indeed, central in the creation of the latter was the correspondence between detransitive PTPCs to the G on the one hand, and those to the D and C on the other. Some imbalance existed in the PS system, maintained through WS, in that the G

[18] Coghill, 1999, §1.5.3.1; 2016, table 4.2n1.
[19] For functional restriction of intransitive *qtil-li* PFVs, specifically to preterite or past perfective uses (in contrast to present perfective uses of *qtil-in* or *qatil-in* forms), see Coghill, 1999, §3.3.4.4; 2016, §7.6, summarised in §7.6.6.

had two detransitive participles (i.e., N PTCP and tG/Gt PTCP), whereas the D and C each had only one (i.e., tD/Dt PTCP and Ct PTCP, respectively). However, when *$qatv̄_hl$ solidified in the function of G PASS PTCP this asymmetry of the system was exacerbated; there was a shift in the inventory of the syntactic detransitive PTCPs of the G : D : C from a 2 : 1 : 1 to 3 : 1 : 1. The new D and C PASS PTCPs paralleled the G PASS PTCP and tipped the system back towards equilibrium with a 3 : 2 : 2 arrangement (G PASS PTCP : N PTCP : tG/Gt PTCP :: D PASS PTCP : tD/Dt PTCP :: C PASS PTCP : Ct PTCP).

The distribution of forms (especially in Ethiopic) establishes the development of D and C PASS PTCPs as a CS development at the earliest. The considerations of functional symmetry and the semantic-to-syntactic shift further place the relative timeframe as following that of G PASS PTCP development during stage 0 (dated early in the history of CS). If CS is the *terminus a quo* of stage 1, then the concrete manifestations of D and C PASS PTCP development are what pins down its *terminus ad quem*. That is, the specific forms attested in the individual languages confirm that they represent a common inheritance from a mother node, albeit one passed down from stage to stage with some variation, and that the development of D and C PASS PTCPs must therefore have been completed by the time CS broke up into its constituent branches.

Theoretically, the same process of application of the VMHC to ACT PTCPs could have occurred independently in Arabic; OSA; and Aramaic, Hebrew, and Ugaritic (once NWS had divided into these last three), to form the various D and C PASS PTCPs attested in each of these languages. Formal isoglosses, though, argue strongly against this. All D and C PASS PTCPs may be derived from proto-forms with two syllabic templates: **muCaCCaC* and **muCuCCaC*. To simplify this further (and problems with the simplification are addressed below), the former

developed into (D ~ C) Arabic *muqattal ~ muqtal* and Aramaic *məqattal ~ maqtal*, the latter into Hebrew *məquttɔl ~ muqtɔl*.[20]

If these forms were indeed independent parallel developments, **muCaCCaC* would need to have arisen separately in Arabic and Aramaic. That may not seem particularly unlikely—there are, after all, only a limited number of outcomes from applying a VMHC to the ACT PTCP template **muCaCCiC*—but divergence between the Aramaic and Hebrew forms is more troubling. The formation of distinct proto-forms **muCaCCaC* and **muCuCCaC* would have to post-date the split of the NWS branch into Aramaic, Canaanite, and Ugaritic. Moreover, the simplification of the isogloss situation between the two templates is not entirely accurate; some variation between them within individual Semitic languages has been identified. That is, Aramaic certainly has some reflexes of **muquttal ~ *muhuqtal* PASS PTCPs, alongside the more widespread forms derived from **muqattal ~ *muhaqtal*.[21]

The distribution of **muCaCCaC* and **muCuCCaC* PASS PTCP forms cuts across the genetic family tree of CS in a manner that cannot be explained by contact phenomena. In view of this, and without a convincing derivation of one from the other, the logical remaining conclusion is that both were formulated at the CS stage and were inherited into the daughter node of NWS with this variation ongoing.[22] In fact, this variation must have continued through NWS and down into Aramaic. Such a reconstruction is at odds with traditional comparative historical linguistic reconstructions, that reconstruct inheritance of static, homogenous situations. In the variation-

[20] OSA and Ugaritic forms are left out of this discussion owing to uncertainty about their vocalisation, though they are strongly presumed to have followed one of these two possibilities. At the risk of speculation, my admittedly rather Arabo-centric intuition finds *muCaCCaC* more likely, particularly in OSA. As mentioned above (in §3.8.1), the presence of R_1=*w* in the orthography of the (3FSG) Cp PC {*thwkb*} (Stein, 2003, ex. 355) suggests a preceding *a*. Given a Cp PC *tu-haqtal*, the corresponding PASS PTCP must be *muhaqtal*.
[21] Aramaic reflexes of **muCuCCaC* D and C PASS PTCPs are discussed above (in §§4.6–7).
[22] If the variation was inherited into proto-Arabic—which can neither be confirmed or falsified—no trace of **muCuCCaC* remains in that branch.

and-change model adopted here, though, ongoing, inherited coexistence of variants is entirely acceptable, and indeed expected.

The main weakness of this hypothesis is that it accounts for the formation of PASS PTCPs derived from **muqattal ~ *muCaqtal* with less effort than for derived from **muquttal ~ *muCuqtal*. The creation of the first set by application of a VMHC to the existing ACT PTCPs **muqattil* and **muCaqtil* is fairly straightforward; it simply replaces the high vowel following R_2 with the only low vowel the language possessed, **a*. Less clear is why a variant arose that also raised the first **a* to **u*.[23] However, the failure to explain here precisely why **muCuCCaC* variants arose may reflect limitations of historical linguistics in reconstructing the precise network of competing motivations leading to the attested situation, rather than a problem with the VMHC hypothesis per se. At least, unlike previous scholarship, it accounts for these forms in a manner that fits the attested data and integrates these parts of the language into a consistent, comprehensive understanding of Semitic detransitives.

5.4 Stage 2a: Dp and Cp PC [24]

In the next stage of the reconstruction of IP development, Dp and Cp PC forms were created based directly on the D and C PASS PTCPs from stage 1. This was the first instance of finite IP morphology to exist in Semitic. The formal derivation was exceedingly simple: the PTCP prefix

[23] In mitigation of this criticism, the *u-a* vocalism of Hebrew has been a major stumbling block of scholarship on IPs to date, and has given rise to a bewildering number of theories—some deriving **muquttal* from **muqattal*, others seeking entirely separate origins for the two forms—none of which stand up to close scrutiny. Pardee (2020, p.c.) queries whether the *ū* of the G PASS PTCP could have influenced the D PASS PTCP. I adamantly reject such a proposal. As explained above, there is no support for such reproduction of a vowel from one context to another like this, which *would* be tantamount to the identification of *u* as a passive marker *per se* (Pardee's claims to the contrary notwithstanding). Moreover, that could only account for Hebrew **muquttal* and not reflexes thereof in Aramaic (which has a G PASS PTCP from **qatīl*). I am sympathetic to the desire to explain this central part of the morphology, but it is preferable to advance no proposal than to hazard one that is certainly incorrect.

[24] As stated above (in §5.3n8) in relation to L PASS PTCPs, Lp forms are not included in this discussion. The data set is already sufficiently burdensome without introducing further data that add nothing to the discussion other than to mirror the findings already clear from elsewhere in the paradigm.

(**mu-*) of the PASS PTCP was simply replaced with the person-marking prefixes (**yu-*, **tu-*, **ʔu-*, **nu-*) of the PC, and nominal inflectional suffixes with verbal conjugational ones. The following discussion therefore focusses on the question of the relative chronology between the Dp and Cp PC versus counterparts from other conjugational parts of the paradigm (the Dp and Cp *SC*) on the one hand, and versus that from the other IP stem (the Gp PC) on the other. The developments of stage 2a, like that of all IPs (and Semitic detransitives generally, actually) is understood primarily in terms of the four main competing motivations outlined above in the analysis (in §4.2): functional symmetry, formal isomorphism, the semantic-to-syntactic shift, and the fientivisation of verbal adjectives.

In the broadest terms, the reason stage 2a is identified as following stage 1 is because whereas languages with Dp and Cp PC forms are only a subset of those with D and C PASS PTCPs (i.e., CS as a whole), where the former do occur they invariably conform to the vocalisation of the latter. Furthermore, Cp PC forms always match the C PASS PTCPs on which they are understood to be based—or indeed, the active C forms—with regard to the (absence or presence) of the causative morpheme. Thus, while Classical Arabic and Hebrew have *ø* causative morphemes in these forms, Ḥassāniyya Arabic has *s* (analogically extended from the Ct to the C/Cp), and OSA and Ugaritic likewise preserve a consonantal causative morpheme (*h* and *š*, respectively) in their C(p) forms; Aramaic has earlier C PC, and (both ACT and PASS) PTCP forms with a consonantal causative morpheme *h* and later forms without, but does not possess corresponding Cp PCs.[25] Such isomorphism is entirely expected of counterparts that relate functionally to each other in an integrated verbal stem system.

[25] See the descriptions of these languages above (in Ch. 3). This gives lie to Retsö's (1989, 146ff.) untenable theory that the C(p) PC in Arabic, Aramaic, and Hebrew never possessed a causative morpheme.

Stage 1 of the reconstruction occurred during the CS period, and the D and C PASS PTCPs during it are, by-and-large, durable; they are lost only in Retsö's 'group C' Arabic dialects (mainly in North Africa).[26] Stage 2a by contrast, is a later development, and one that achieves a significantly less robust establishment. Therefore, one encounters quite a few CS languages that do not possess Dp and Cp PC forms despite possessing the prerequisite PASS PTCPs on which these would be based. These include Aramaic, Retsö's 'groups A and B' Arabic dialects and post-Biblical Hebrew, especially in its later stages.[27]

It is discussed below whether these languages without Dp and Cp PCs descend from progenitors that did possess them, and they were subsequently lost, or whether some descendent branches of CS never progressed to stage 2 at all. It is important to note from the outset, though, that within the variation-and-change model, when these forms first appeared, they would have been marginal innovative variants susceptible to disappearing from the language. The absence of the Dp PC from attested stages of Aramaic, for example, does not preclude them having been occasionally formed during CS, inherited with this limited attestation into proto-Aramaic but ultimately abandoned before the written record of the branch began. Ultimately, with IPs, as indeed with language development generally, we must allow for a protracted pulsating situation of ebb and flow in productivity according to the shifting motivations at work, which is precisely what the variation-and-change model predicts.[28]

It has been straightforward to establish that stage 2a must have begun after the creation of D and C PASS PTCPs; less clear cut is the question of what developments it preceded. With regard to the rest of the IP paradigm, this can be divided into two main considerations: on the one hand

[26] For the division of Arabic into type A, B, and C dialects, according to their D PASS PTCPs, Dp PC forms, and other related features, see Retsö, 1989, 10–11.
[27] The absence of finite Cp and especially Dp forms in post-Biblical Hebrew is discussed in detail above (in §3.6.4).
[28] This is precisely what Newmeyer (2003, 29) is talking about when he speaks of a "lack of stasis" due to the "push–pull of competing forces"; cf., e.g., discussion of the Aramaic Cp below.

is the division between conjugational parts (i.e., IP PCs versus SC), and on the other, that between the different stems (i.e., the Dp and Cp versus the Gp). These are addressed in turn, though ultimately the same overall considerations—the relative frequency of attestation of different parts of the language and levels of homogeneity in the morphology (or at least in formational process) between forms of different languages—confirm that creation of the Dp and Cp PC precedes that of their SC counterparts, as it does that of the Gp.

There exists a tendency—subtle, though discernible when one compares the data from throughout Semitic—for the PC to predominate over the SC in the IP stems.[29] The importance of a distinction between these two conjugational parts has not escaped the attention of scholars working on IPs, hence Retsö's accusation that "treatments of the Semitic verbal system seem to suffer from 'perfect-fixation'".[30] Based on the premise that the PC conjugation is in general an older construction within Semitic than the SC—these date to PS (if not earlier) and WS, respectively—he deduces that so too must IP PC forms (specifically the Gp PC) pre-date their SC counterparts. This argument, admittedly only implicitly expressed, is objectionable. The PC and SC were already fully integrated with each other in the verbal paradigm by the earliest stage at which IPs can have arisen (CS), so the much earlier chronology of the original developments of these conjugations in the original verbal of Semitic stems is not relevant to the formation of IPs specifically.[31]

[29] Watson (2000, §6.5n7) notes this distribution in Yemeni Arabic, and Holes (1998, 349) in Omani Arabic. In Amarna Canaanite, what few IP forms are attested all occur in the PC (for which, see §3.6.1). In Hebrew, Williams (1970, 49) notes that *identifiable* Gp SC forms are more common than those from the PC, but observes that this is only because many of the latter have been revocalised as N forms—both sharing the orthography {*yqtl*} for *yu-qtal* in the Gp versus *yi-qqɔtel* in the N—which is not possible with Gp *SC* forms.

[30] Retsö, 1989, 29.

[31] I am not rejecting Retsö's (1989, 29) finding the Gp PC to be older than the Gp SC per se—the reconstruction below (in §§5.6–7) finds this to be correct—but rather his use of the general antiquity of the PC within Semitic as argument supporting this conclusion.

Whether the more common attestation of IP PC forms is, on its own, sufficient evidence of the historical precedence is debatable, particularly in view of situations directly contradicting this trend. For example, all Aramaic IPs forms are SCs.[32] As with all language development, this must be understood in terms of the network of competing motivations. One feature at play in suppressing Aramaic IP PCs is the *qatl-in* IPFV, which completely replaces all PC forms in ENA. The demise of the PC could go some way towards accounting for the absence of IP PCs in Aramaic, even if not by providing a direct causal explanation, since the relative timings are not perfectly in sync (as discussed below). However, it may be understood as one among several factors at play in the absence of Aramaic IP PCs, among which the vitality of the Aramaic *t* stems is also vitally important.[33]

Further evidence that stage 2a (the development of Dp and Cp PCs) precedes stage 2b (that of Dp and Cp SCs), other than the relative distributions of PC and SC forms, is thus needed. Another important indication is the homogeneity of these PC forms, compared to their SC counterparts. At issue is the basic expectation that if feature A was created before the division of a proto-language (e.g., proto-CS) into its descendent branches, and feature B thereafter, then A is expected to exhibit greater formal—or more accurately "formational", as discussed below—homogeneity among languages than does B.[34] At the same time, the picture can be obscured by the countervailing promotion of morphological homogeneity over time (particularly by

[32] Predominance of the SC over PC in Phoenician IPs cannot be judged to have the same importance as the same situation in Aramaic because the data from the former are simply too limited to afford any significant analysis in this regard.

[33] The rise of the *qatl-in* IPFV at the expense of the PC also underpins other important developments in Aramaic PASS PTCPs and IPs, such as the fientivisation of **qatīl* into the moribund Gp SC and also into the *qtil-li* PFV, discussed in detail above (in §3.5) and again below (in §5.7) in the specific context of IP development.

[34] Petraček (1963, 601) makes this observation regarding the homogeneity of Gp PC forms compared to those of the Gp SC. However, in that context, formal homogeneity is actually a red herring; the reconstruction below (in §5.6) finds that *yu-qtal* developed independently in the different languages as a contingency of the fact that this was the only possible result of grafting the vocalism of the Dp ~ Cp PC forms—whether (Arabic) *yu-qattal ~ yu-qtal* or (Hebrew) *yu-quttal ~ yu-qtal*—onto the syllabic skeleton *yv-qtvl* of the G. This said, the formal (and *formational*) diversity of Gp SC forms, does reflect their late position in the diachrony of IP formation.

analogical levelling and extension), not to mention the possibility that the same development can occur in different languages after they branch of from the mother node.[35]

In fact, the keystone to the proposed chronological ordering of stage 2a as the first finite IP development is not the manifestation of the forms themselves, but rather *the mechanism*(*s*) *used in their creation*. Initially, during stage 2a, IPs (i.e., Dp and Cp PC forms) were derived directly from PASS PTCPs. Only later, from stage 2b on, was the VMHC abstracted and secondarily applied to finite active forms—e.g., to create Arabic Dp and Cp SC forms, the Gp PC, and Gp SC forms except for that of Aramaic.[36] The terminology "formational" rather than "formal" homogeneity is preferred for the IPs of stage 2a, because, despite formal differences between Arabic *yu-qattal* and Hebrew *yə-quttal* (Dp PCs), both were created by the same replacement of the PTCP prefix *mu-* with the person-marking prefixes of the PC. Their *formal heterogeneity* simply reflects the same in their source material—i.e., a D PASS PTCP with **muqattal* and **muquttal* variants at the CS stage—but does not detract from their *formational homogeneity*.

The IP SC forms created during stage 2b do not exhibit the same formational heterogeneity; the Hebrew Dp SC is based directly on the D PASS PTCP, whereas that of Arabic cannot be. This is addressed in detail below (in §5.5) as the reconstruction of stage 2b, but suffice it here to note that the key consideration in the difference between the forms is that proto-NWS *could* form an Dp SC straight from a D PASS PTCP and maintain a distinction from the active counterpart, whereas proto-Arabic could not. In Hebrew D PASS PTPC **muquttal* could give rise to Dp SC *quttal* ≠ D SC *qittel*; removing the PTPC prefix from (proto-)Arabic D PASS PTCP *muqattal* in

[35] Hetzron (1976) addresses both of these possibilities, the first of which he terms the "principle of archaic heterogeneity" (92).
[36] Actually, this is how *all* Arabic IP SC forms are created, but the discussion at hand is concerned with the Dp and Cp, so let us leave the Gp for now.

the same manner would yield a Dp SC ****qattal*, that would be identical to the active D SC, and therefore impermissible according to the restriction against zero-marked finite passive verbs.

The statement that (Classical) Arabic abstracted the VMHC as a new strategy for IP formation because the original mechanism first giving rise to the Dp and Gp PC was no longer feasible to create SC counterparts is admittedly a quite speculative proposal. However, support is found in Ḥassāniyya Arabic, whose verbal morphology, and consequently IP formation, differs significantly from Classical Arabic. Developments specific to this dialect, discussed above (in §3.4.3), have made possible the formation of IP SCs based directly on PASS PTCPs, and as a result, the inherited proto-Arabic Dp, Lp, and Cp SC forms retained in Classical Arabic are replaced with neological ones based on the D, L, and C PASS PTCPs respectively.

Overall, the higher productivity of the IP PC forms over those from the SC and their relative formational homogeneity, as well as the specific mechanisms of IP formation—which in turn explain the relative formational homogeneity of PCs over SCs—combine to support the reconstruction of stage 2a preceding stage 2b. Hebrew and Ḥassāniyya Arabic IP SCs circumstantially support the notion that Classical Arabic abstracted the VMHC precisely because it was not possible to base IP SCs directly on PASS PTCPs. Since this is a secondary means of IP formation, it implicitly positions Dp and Cp PC formation (stage 2a) before that of Dp and Cp SCs (stage 2b) in chronological terms.

With regard to this ordering, Keenan's fourth generalisation about passives warrants consideration: "if a language has any passives it has ones which can be used to cover the perfective range of meaning".[37] Insofar as the PC is marked for imperfectivity and the SC for perfectivity, this might, at first blush, seem to contradict the proposed reconstruction; creation of the Dp and Cp PC before the corresponding SCs would result in a situation with specifically

[37] Keenan, 1985, 267.

passive-marking imperfective forms but no perfective ones. However, one must bear in mind that PASS PTCPs logically possess a resultative value, since they express the patient in the state of having experienced the action. Resultativity as a category is closely linked to perfectivity, which is why Semitic PASS PTCPs were understood to inherently cover perfective aspect.[38] Thus, even though PASS PTCPs were not finite verbs, they fulfilled the prerequisite first stage of Keenan's generalisation, so the development of IP PCs before SCs does not contradict it.[39]

Stage 2a of the abstract schema clearly reflects all four of the main motivations proposed as governing Semitic detransitive development. In some cases, this is so self-evident as to almost go without saying. For example, it is entirely clear that Dp and Cp PCs result from fientivisations of verbal adjectives, simply by replacing the PTCP prefix *mu-* with the person-marking affixes of the PC and nominal inflectional endings with verbal conjugational ones. The motivation towards formal isomorphism is also patent in the formational process operative in stage 2a. With the creation of the new IP PC forms, the PASS PTCP ~ PC matches ACT PTCP ~ PC, which may expressed simply in terms of proportional analogy—D(p) *muqattil* : *yu-qattil* :: *muqattal* / *muquttal* : *X* and C(p) *muCaqtil* : *yu-Caqtil* :: *muCaqtal* / *muCuqtal* : *X*.[40]

The semantic-to-syntactic shift is also clear in the developments of stage 2a. The Dp and Cp replace the tD/Dt and Ct, respectively, in syntactic passive contexts (i.e., those with promotion of

[38] The link between the resultative and perfective dimensions of Semitic PASS PTCPs is reflected in their becoming the finite *qtil-li* PFV in Aramaic. Further, Meehan (1991, 112) states that in Mishnaic Hebrew, D and C PASS PTCPs are primarily marked for resultative aspect, rather than the syntactic reorganisation (as passive) of the arguments of a verbal predication.

[39] This is one factor that motivated the labelling of the development of D and C PASS PTCPs as stage 1 of the schema of IP development. They are not *finite* IPs but are nonetheless the first exclusively passive forms marked by ablaut—G PASS PTCPs <*$qat\bar{v}_{h}l$ are neither exclusively passive nor formed by ablaut—and are centrally important in the overall development thereof.

[40] Development of the Cp PC is reconstructed to CS, before elision of the causative morpheme in Arabic and Hebrew; OSA and Ugaritic C PASS PTCPs and Cp PCs possess overt causative morphemes, *h* and *š*, respectively (though presumably would do so even if they had been created after these languages had separated off from their mother nodes, in order to match their active C counterparts that certainly preserved historically inherited causative morphemes). In a less ambiguous case of formal isomorphism exerting an ongoing influence on IP formation until the present day, the Ḥassāniyya Arabic Cp PC *yu-saqtal* has a causative morpheme *s* extended from the Ct to the C, and thence the Cp, as a neologism of this dialect.

the patient OBJ to the SUBJ slot). However, in addition to the syntactically detransitive uses, the tD/Dt and Ct can occur without any change to the syntactic arrangement of the clause, solely marking the predication's *semantic* feature of SUBJ affectedness.[41] Since the Dp and Cp only ever mark a syntactic feature, and replace (in some contexts) stems (tD/Dt and Ct) that mark both syntactic and semantic features, their creation at least reflects increasing separation of semantic and syntactic marking, and arguably reflects the overall semantic-to-syntactic shift.

Perhaps the most interesting and nuanced of the competing motivations at work in stage 2 (both 2a and 2b) is the tendency towards functional symmetry. As mentioned above (in §5.3), imbalance between the detransitive PTCPs of the G (three, following the development of the G PASS PTCP) versus those of the D and C (just one each) was instrumental in the development of D and C PASS PTCPs during stage 1. Just so, in a verbal system with finite-stem counterparts to the G (i.e., the N and tG/Gt) versus just one each to the D and C (the tD/Dt and Ct, respectively), pressure to symmetrise the system by creating a second detransitive stem to the D and C resulted in the creation of finite Dp and Cp forms.[42]

The systematic imbalance present at the beginning of stage 1 (and prompting the developments thereof) was greater than that leading to stage 2; the inventory of detransitive PTCPs had a 3 : 1 : 1 arrangement, compared with the 2 : 1 : 1 arrangement of the finite parts of detransitive stems. This is further circumstantial evidence, if such be needed, that D and C PASS PTCPs were created before finite Dp and Cp forms. A stronger trigger for the motivation towards functional symmetry occurred in detransitive PTCPs than in finite detransitive stems, and at an earlier stage (i.e., with the creation of the G PASS PTCP).

[41] Such cases conform to a number of related semantic classes such as verbs of motion, cognition, emotional responses, and speech, which are cross-linguistically common as semantic-middle verbs bearing morphology typically associated with reflexivity but which do not possess the syntactic reorganisation of reflexivity.
[42] This imbalance was indeed an initial avenue of investigation since the outset of this study and one subsequently found to be highly fruitful in providing a description and explanation of IP development.

In must be noted, too, that the imbalance between the G : N : tG/Gt versus D : tD/Dt and C : Ct had existed since PS and endured when it bifurcated into in Akkadian (ES) and WS. It was only after the development of D and C PASS PTCPs that finite IPs arose to create equilibrium between finite parts of the detransitive verbal system. This suggests that stage 1, more than simply being a chronologically precursor to stage 2, was a developmental prerequisite for it. This is particularly the case considering that the first finite IPs (the Dp and Cp PCs) were based directly on these D and C PASS PTCPs. That is, imbalance between having two finite detransitives to the G versus one to each of the D and C was tolerable only before verbal adjective sources (the D and C PASS PTCPs) suitable for fientivisation into new finite detransitive forms were created.

The assertion that the tendency towards functional symmetry was a key motivation behind Dp and Cp development during stage 2 is not meant to suggest for a moment that this was the sole strategy (or even the most common one) for resolving imbalance between verbal stems. The descriptions in Chapter 3 devote significant attention to the trend for WS languages to eliminate either the N or tG/Gt, so that the G, just like the D and C, possesses just one detransitive counterpart. The most clear-cut case is Ethiopic, which loses the N entirely and never develops IPs (or indeed even the PASS PTCPs on which they would rely). While the N and tG/Gt are undoubtedly crucial in the broader context of Semitic detransitives, they are addressed below only insofar as they interact directly with the matter at hand of IP development.

Another of the four main competing motivations governing Semitic detransitive development, the tendency towards formal isomorphism, explains why IP development created equilibrium between stems by creating a passive stem paralleling the N rather than a reflexive stem paralleling the tG/Gt. The D and C already possessed *t* stem detransitive counterparts, and

all of the tG/Gt, tD/Dt, and Ct are formally parallel, each representing the sum of [basic active stem + detransitive *t* morpheme]. The D and C did not, however, possess any formal parallel to the N, which gaps in the system were precisely what the new Dp and Cp filled.[43]

Prior to stage 2, the tD/Dt and Ct performed all detransitive functions to the D and C, respectively. The creation of the new Cp and Dp stems gave the motivation towards functional symmetry a new impetus. The system now tolerated the demand that the tD/Dt and Ct mirror the tG/Gt *in use* as well as in form, being restricted to reducing second arguments in terms of syntactic detransitive uses. That is, to the extent that the Dp and Cp are attested in a given language, the tD/Dt and Ct no longer have to—and more than that, are no longer able to—express the passive.[44] Stage 2 of the reconstruction is therefore an example of how two competing motivations, those towards functional symmetry and towards formal isomorphism, interact and play off each other in Semitic detransitive development.

An interesting imperfection in the functional symmetry of the system following the developments of stage 2 comes as a side effect of yet another of the competing motivations: the semantic-to-syntactic shift. IPs create prototypical passive clauses that promote the OBJ to the SUBJ slot, but since they affect only syntactic arrangement and not semantic specification, cannot express *medio*passives, which entail the removal of the agent from the meaning of the predication. As such, even in languages with the Dp, mediopassive function may be retained by the tD/Dt and Ct—cf. e.g., Arabic D *bayyana* "to clarify", tD *tabayyana* "to become clear" (with no semantic agent), and Dp *buyyina* "to be clarified" (by an agent). This constitutes a flaw in the functional symmetry of the stem inventory—between basic (G/D/C) ~ detransitive 1 (N/IP) ~

[43] Even more direct a reaction to this imbalance between G ~ N versus D ~ Ø was the extension of the N morpheme to create an ND in Bahraini Arabic, discussed above (in §3.4.4), but not immediately relevant here).
[44] Space constraints prohibit comprehensive coverage of examples of this functional distribution, which has already been presented in Chapter 3. Tropper's (2000, §74.646) comparison of Ugaritic and Akkadian Ct is underpinned by the understanding of this basic principle: "Eine passivische Funktion—nach Vorbild des akk. Št-Stamms—ist auch nicht zu erwarten, da diese im Ug. vom Šp-Stamm abgedeckt wird".

detransitive 2 (*t* stem)—since the mediopassive relative to the G is not among the functions of the tG/Gt, being the exclusive domain of the N.[45]

This is a textbook example of competing motivations interacting to create a more nuanced situation than would be anticipated based on a simpler understanding of the factors effecting and affecting language change. Because the reconstruction seeks to explain the situation as resulting from the dynamic interweaving of multiple factors, it results in a rather tangled reconstruction, but this should in fact be considered a strength, albeit perhaps an uncomfortable one. There is no reason at all to think that historical languages were any less messy and complex than those attested today, and any reconstruction that does not reflect this reality is apt to fail to account for the data fully and properly.[46] Indeed, it is precisely such an excessively "clean", simplified understanding of language development that is to blame for many of the shortcomings of scholarship on IPs to date.

Aramaic is the language whose data are most problematic for the reconstruction of stage 2. No finite Dp verbs are attested, and no IP PCs, only the Gp and Cp SC. Further, the N was entirely eliminated in proto-Aramaic, resulting in a fully symmetrical detransitive stem system of G : tG :: D : tD :: C : tC. This situation thus seems to contradict the proposal that the Dp and Cp PC developed prior to their SC counterparts, and the more general notion that the Dp and Cp arose before the Gp in order to eliminate functional asymmetry between the G ~ N ~ Gt/tG versus D ~ tD/Dt and C ~ Ct. Here, as elsewhere, it is only by considering the various competing

[45] Wright's (1896, §57) handful of examples of mediopassive Gt forms in Classical Arabic (from √*ʔfk*, √*mlʔ*, √*nṣr*, and √*rdʕ*) are restricted to the root type √1=sonorant, where formation of the N is impermissible—e.g., G *malaʔa* "to fill" (trans.) forms Gt (*ʔi*)*mtalaʔa* "to fill up" (mediopassive) and Gp *muliʔa* "to be filled up" (passive), but not N **(*ʔi*)*nmalaʔa*. The only possible case of a mediopassive Gt in Ugaritic—*ytši* "(the burnt sacrifice) rises up"—is quite anomalous and has been discussed in detail above (in §3.8.2).

[46] The very sound notion that, barring any specific reason to the contrary, historical languages behaved the same as contemporary ones do is known as the 'uniformitarian principle' (for which, see Ringe and Eska, 2013, 3ff.).

motivations—in particular those specific to Aramaic, which steered the development of its PASS PTCPs and IPs along a unique course—that one can properly understand the data.

Firstly, the attestation of the Cp but not the Dp must be understood in the context of the corresponding *t* stems. The tD is entirely productive at every dialect and stage of Aramaic except NENA (which loses all *t* stems); the Ct, by contrast, is already in marked decline during Old Aramaic, and is subsequently resuscitated as the neological tC, which does not reach the height of its productivity until Late Aramaic (e.g., Syriac). It is precisely in Official and Middle Aramaic, during the ebb between the waning of the Ct and the waxing of the tC, that Aramaic Cp forms are attested. Put simplistically, in the competition between different means of marking detransitives (relative to the C), the Cp had a brief flourishing corresponding to a temporary quiescence in the *t* stem counterpart.

It has been suggested that the aggregate, comparative evidence indicates that the Aramaic Cp—only as SC *huqtal*, with rare *haqtal* variants also attested—is cognate with that of Hebrew, both being inherited from proto-NWS (if not earlier proto-CS). However, this leaves the question of why Cp forms are first attested several centuries into the written record of the branch (during Official Aramaic) and are absent from its earliest stages (Old Aramaic). Simply put, with the loss of the N in proto-Aramaic, the functional imbalance originally motivating the creation of the Cp (and Dp) was lost, and so the forms themselves, inherited from proto-NWS (or earlier), were supressed. Subsequently, the Ct declined through Old and into Official Aramaic giving rise to a new functional imbalance between G ~ tG and D ~ tD versus C ~ Ø that motivated formation of the Cp but not the Dp.

Based on the understanding that loss of a feature from language is irreversible change, one proviso of the proposed retreat and resurgence of the Aramaic Cp is that it presupposes its

rehabilitation from dormancy. It was not present in Old Aramaic, or at least was of sufficiently infrequent usage not to appear in the written record, though the limited size of the Old Aramaic corpus may be a factor here, such that its absence could simply be an accident of attestation. Even if the Cp form itself had ceased to be used, the *mechanism for its creation* at least must have remained a latent possibility so that Cp forms might be created anew in Official and Middle Aramaic. Such a reconstruction sits uncomfortably within a traditional methodology of Semitic linguistics but depicts an undulating competition between variants governed by the vicissitudes of dynamic motivating factors, precisely as the variation-and-change model predicts.

Rebutting this explanation, one might argue that Hebrew also lost the Ct and had a highly productive tD, but unlike Aramaic, did *possess* a productive Dp (at least before post-Biblical dialects). However, language variation (and change) is governed by complex webs of competing motivations, and even if some of these are common between languages, they are certainly not all, nor are the cumulative effects of their interactions. This is precisely why individual languages diverge in their developments.[47] For example, while both Aramaic and Hebrew lost the Ct but preserved the tD, only in the latter was the N preserved and the tG lost, while only in the former did the finite *qatl-in* IPFV and *qtil-li* PFV arise; the sum results of their competing motivations are quite different, and as a result, so too are their IP systems.

The grammaticalisation of the ACT PTCP **qātil* in Aramaic into the *qatl-in* IPFV prompted a parallel development of the PASS PTCP **qətīl* into the *qtil-li* PFV. The rise of these two new finite conjugations had profound implications for the verbal system as a whole insofar as they

[47] McMahon's (1994, 126–27) comparison of English and Romanian shows how this principle works. Both shifted from SOV to SVO as the dominant word order, but only in English did the additional motivating factor of loss of case marking result in ambiguity between SVO and OVS sentences, and the consequent elimination of the latter.

respectively took over the functional domain of the PC and SC.[48] With regard to IPs specifically, it is important that this was a reorganisation of the verbal system interacting with (and reacting to) functional asymmetry not between *derivational stems*—these were actually quite well balanced in Aramaic once the tC was established, albeit still a factor in Cp formation—but rather between *conjugational parts* of the paradigm.

One important side-effect of this realignment of the axis of functional symmetry in the Aramaic verbal system was that IP development, to the quite limited extent it occurred at all, was weighted in favour of the Gp and against the Dp and Cp. In the reconstruction of stage 2, reference so far has been made to the imbalance of gaps (X) in the inventory of detransitive stems, between G : N : tG/Gt :: D : *X* : tD/Dt :: C : *X* : Ct. Dp and Cp creation was necessarily blind to any hierarchical relationship between G, D, and C, since the very mechanism at work relied on the perception of them as equivalent counterparts.

In the grammaticalisation of *ACT PTCP into *qatl-in* IPFV, the relationship(s) between the G, D, and C stems, were wholly irrelevant. As a result, the *qatl-in* IPFV—and most crucially *other developments contingent upon it*—was naturally formed far more frequently in the G than the D and C, simply because this is the more common stem, being basic *in relation* to the D and C. This explains why, the first attempt to create a conjugational counterweight to the *qatl-in* IPFV parallel fientivisation of the PASS PTCP occurred only in the Gp SC *qətīl*.[49] No Dp forms are attested in Aramaic, and the Cp *huqtal* was not was not formed like the Gp SC *qətīl* as an Aramaic-specific neologism reacting to *qatl-in*, but was a form inherited from NWS (or even

[48] Coghill (2016, §6.11.2) also recognises the parallels between the *qatl-in* IPFV and *qtil-li* PFV, even if her phrasing regarding the relationship between them does not specifically identify a causal dimension: "Just as the old Suffix Conjugation [SC] was displaced by PAST-L [*qtil-li* PFV], so too was the Prefix Conjugation [PC] displaced by the active participle construction [*qatl-in* IPFV]".

[49] This is true of the Gp SC, a short-lived construction, and frankly a marginal one at that. When the more durable *qtil-li* perfective verb, which ultimately triumphed over the PC (in NENA) and came to occupy a position opposite *qatl-in*, the motivation towards functional symmetry (between stems) and formal isomorphy (with imperfective G *qatl-in* ~ D *məqatl-in* ~ C *maqtəl-in*) demanded corresponding D and C forms: G *qtil-li* ~ D *mqutəl-li* ~ C *muqtəl-li*.

earlier, CS), whose tenure lasted into the earlier stages of the language, aligning with temporary decline in the productivity of a *t* stem counterpart to the C during Official and Middle Aramaic.

Another consideration is the form *hāwe*, a G **qātil* ACT PTCP (from √*hwy*). Insofar as this was used as a copula or auxiliary verb in compound tenses and ultimately became an important grammatical part of the language, it may well have reinforced a conceptual link between the *qatl-in* IPFV and the G specifically.[50] This copula *hāwe* is both part of the grammaticalisation of the ACT PTCP into a *qatl-in* conjugation in particular, and the formation of compound tense using forms from √*hwy* generally, both of which are particular to Aramaic. All of these factors are not so much central to development of IP forms in this language as examples of competing motivations—perhaps amongst many others, some of which may be lost to history and cannot even be identified—that contributed to the overall situation and influenced it in different ways, creating the unique Aramaic IP situation.

Apart from the absence of a Dp in Aramaic and the primacy of the Gp seemingly giving lie to the reconstruction of the Dp and Cp as the earliest IPs, the exclusive attestation of *SC*s among Aramaic IPs could (though should not) be interpreted as evidence against the ordering of stage 2a before stage 2b—and stage 3a before 3b, as discussed below (in §§5.6–7). Again, Aramaic-specific motivating factors are at play; indeed, precisely the same restructuring of the verbal system that accounts for the predominance of the Gp over the Dp in Aramaic is also responsible for the fact that only IP SCs and no PCs are attested.

In simplistic terms, the new *qatl-in* IPFV initially occurred in competitive variation with the PC in some contexts, gradually expanding its scope until it ultimately replaced it altogether in

[50] On grammatical uses of reflexes of **hāwiy* in Neo-Aramaic see, e.g. Khan, 2008, §8.8.4, 8.19.4.6, ; in Late Aramaic, and Stevenson, 1962, §21.3; and as far back as Official Aramaic, Li, 2009, ch. 5.

ENA.[51] This pressure on the PC in general may have a bearing on IPs specifically, that is, it may relate somehow to the prevention against the formation of new IP PCs (in the case of the Gp PC) and the revival of inherited ones (in the case of the Cp PC). However, the chronology of these two factors does not align perfectly; competition between the *qatl-in* IPFV and the PC resolves in favour of the former at the last stage of the branch, and even then only in Eastern Neo-Aramaic, long after the period during which IP PCs might have arisen (considering that IP SC use peaks during Official Aramaic). Instead of seeing the loss of the PC generally as a direct cause for the suppression of IP PCs specifically, one must instead consider that the possibility of a common cause for both.[52]

The preceding reconstruction of the unique development of Aramaic IPs can only be fairly assessed by taking appropriate account of how marginal a category they are. IPs are restricted to Old (very rarely), Official, and Middle Aramaic, and never come close to replacing the *t* stems (or generalised-SUBJ constructions). Given such a limited attestation, divergence from the distributions found in other languages, does not pose a significant objection to the general schema of IP development reconstructed, and in particular to the historical ordering of the Dp and Cp before the Gp, and of the Cp and Dp PCs before their SCs. Aramaic IPs are different to

[51] Li (2009, ch. 3, esp. 55ff.) discusses the incipient development of the Aramaic ACT PTCP *qātel* into a finite verbal form, including the overlap with the PC, during the Official Aramaic period. The PC and *qatl-in* IPFV continued coexist all the way through to WNA, with the former functionally restricted to subjunctive (Arnold, 1990, §3.1). Coghill (1999, §2.4.2.5) reconstructs just such a situation in the precursor to NENA before the loss of the PC.

[52] This would be analogous to the genetic principle of pleiotropy—whose application in linguistics as relates to language change is explained by Matthews (2003, 14ff.)—whereby a single gene affects several ostensibly unrelated phenotypic characteristics. It is unfortunately beyond the scope of a work that addresses all IPs in Semitic, and does so with holistic reference to the broader detransitive context, to delve into the minutia of Aramaic to identify what such a cause may be, but one potential avenue of research would be whether there exists a general tendency for Aramaic to use constructions with verbal-adjective predicates where other Semitic languages would use finite verbs.

those of other CS languages both in that they are subject to unique pressures, and, relatedly, in that they struggled and failed to establish themselves beyond the status of ephemeral variants.[53]

Furthermore, although (some of) the specific competing motivations governing Aramaic IP development (and, in fact, that of the whole verbal system) are unique, they nonetheless reflect the same trends operative throughout Semitic detransitives. For example, the pressure to resolve functional asymmetry—albeit one between different conjugational parts of the paradigm, rather than between verbal stems—is key. Further, the rise of the *qatl-in* IPFV, and the development of the Gp SC and *qtil-li* PFV, in whose developments the *qatl-in* IPFV plays a major role, are patent examples of fientivisations of verbal adjectives to yield finite verbs.[54]

Only Aramaic exhibits behaviour that suggests such divergence from the proposed reconstruction as to warrant an in-depth discussion. Other Semitic languages possessing IPs conform neatly to expectations arising from ordering of Dp and Cp PC as the first finite IPs created (during stage 2a), and of the Dp and Cp preceding the Gp (stage 2 before stage 3). It is true that to the differing extents that languages have advanced beyond stage 2, the development of IPs (not to mention the rest of the detransitive system) may obfuscate the situation to some extent. Nevertheless, by pulling back focus and looking at the extensive body of data altogether, traces are uncovered of the diachronic development from stage 0 through stage 1 and then stage 2 (and onwards), whose "synchronic reflex is the unequal distribution of the I[nnovation, in this case IP forms] across different contexts".[55]

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[53] Here we have been primarily concerned with the generalities of how and why Aramaic diverges from the developments reconstructed for stage 2; the specifics of the development of IPs during stage 2b (Cp SC *huqtal*) and 3b (Gp SC *qətīl*) are analysed further in the relevant sections.

[54] The description of Aramaic above (in §3.5) addresses what made the *qtil-li* PFV a more favourable selection than the Gp SC *qətīl* as the conjugational counterweight to the *qatl-in* IPFV; pressures to create both functional symmetry and formal isomorphy are decisive. This has not been repeated in this section, but is revisited briefly below (in §5.7) with the reconstruction of stage 3b.

[55] Garcia, 1997, 23.

For example, the scarcity of the Hebrew Gp reflects that the Dp and Cp arose earlier and took deeper root in the language. Similarly, in Phoenician, the minimalist position of scholars like Harris and Amadasi Guzzo does not recognise any Gp forms, only the Dp and perhaps Cp.[56] Amarna Canaanite IPs are exclusively from the PC, and though it would be tempting to interpret this as evidence in support of the chronological ordering proposed (PCs and then SCs) for the formation of IP conjugations, I am inclined to agree with Pardee that the relevant forms are too scarce and the analysis thereof too uncertain to serve as reliable data.[57] Though many other aspects of Retsö's understanding of IPs are deeply flawed, he unwittingly identifies a tendency towards Dp and Cp over Gp forms in dialectal Arabic which represents their relative primacy.[58]

Classical Arabic and Ugaritic have the most advanced IP systems of any Semitic language, and the Gp has become as productive as any other IP stem.[59] As a result, the only evidence for the proposed ordering comes in comparison of their forms, or more precisely, the means of their formation.[60] The Classical Arabic Dp and Cp PC, like those of Hebrew, are based directly on PASS PTCPs, which is understood to represent the common heritage of a single CS process (albeit operating on formally diverse source material). The corresponding IP SCs, discussed below (in §5.5) as stage 2b of the reconstruction, differ in the *means* of their formation, with Hebrew forming them directly from PASS PTCPs whereas Arabic does not, which indicates that this occurred at a later stage, after the separation of CS into its constituent branches.

[56] Harris, 1936, 42; Amadasi Guzzo, 1999, §§131–140. Pardee (2020, p.c.) remarks that Amadasi Guzzo's analysis is more reliable than that of other scholars because she relies heavily on the explicit data of overtly vocalised Punic.
[57] Pardee, 2020, p.c. At the least, there is nothing in Amarna Canaanite that overtly contradicts the hypothesis.
[58] Retsö, 1989, 174: "[A]ll occurrences of a 'passive' verb with the vowel sequence *u-i* outside HA [Classical Arabic] are formed from the derived stems (D, CCj). No certain forms are found from the G-stem".
[59] Indeed, Arabic and OSA have progressed to the extreme of IP development, the creation of IPs from consonantally affixed stems (e.g., the tDp, Ctp), discussed below (in §5.8) as stage 4 of the reconstruction.
[60] The following observations are made regarding Arabic since OSA and Ugaritic do not provide sufficient evidence about vocalisation to determine with certainty what the precise forms in question were.

Even though the primary motivating factor behind the developments of stage 2 is the elimination of the functional asymmetry between the G ~ N ~ tG/Gt versus D ~ tD/Dt and C ~ Ct, it is actually very rare to find a truly balanced detransitive verbal system. Considering the complexity of the competing motivations at work, and the fact that the processes occur not in a vacuum, but interact with other parts of the language, this is not surprising. However, the reconstruction of stage 2a—and in particular the consideration of its relative chronology, like that of stage 2 in general—may be concluded with a case where perfect equilibrium has been achieved in this regard: Ḥassāniyya Arabic.[61] Both the N and Gt are retained, but the G, unlike the D, L, and C, does not possess an IP. The resulting system is thus a neat arrangement of four parallel sets of three stems: basic (G, D, L, C) ~ (medio)passive (N, pD, pL, pC) ~ reflexive/semantic middle (Gt, tD, tL, Ct).

Crucially, this situation by no means represents an arrested development at stage 2, with Ḥassāniyya descending from a progenitor in which the Gp never arose. Instead, it reflects how intense and ongoing the pressure exerted by the motivation towards functional symmetry is. Thus, equilibrium was established with the stage 2 development of the Dp and Cp during the CS. Next, in stage 3, motivated by formal isomorphism, Arabic developed a fully productive Gp, and thereby reintroduced the functional asymmetry previously eliminated in stage 2. Its descendent dialects have variously sought to (re)resolve the imbalance, usually by eliminating either the N or Gt (and often IPs as well). Ḥassāniyya, though, achieved it by eliminating the Gp, thereby pulsing back to an earlier stage in the schema IP development. Since it also retained the N, which took back over all passive marking relative to the G, the Gp can only ever have been considered a *variant* in the language, having died out without ever effecting language *change* proper.

[61] In the initial research prompting proposal of this dissertation, I was struck by the regularity of the Ḥassāniyya detransitive verbal stem system, described in detail above (in §3.4.3). Along with the comparison to Hebrew, this was an important early clue that functional symmetry may be an important motivation in IP development.

5.5 Stage 2b: Dp and Cp SC

The next stage in the generalised schema of IP development as reconstructed here is that of the creation of the Dp and Cp SC. The proposal made above (in §5.4) to the effect that functional asymmetry gave rise to the Dp and Cp before the Gp, applies equally to SC forms and to those from the PC, and does not warrant repeating here. Instead, this section focusses on contrasting the Dp and Cp SCs with their PC counterparts, and the inference from the differences between them of a chronological ordering of stage 2a before 2b. In the reconstruction of stage 2a as the first finite IPs ever developed has touched on the idea that whereas a straight line may be drawn from the D PASS PTCP to the Dp PC in both Arabic and Hebrew, the same is true of the Hebrew Dp SC but not that of Arabic. However, the current reconstruction stage 2b is the appropriate place to address in detail the formational diversity of Dp and Cp SC, and also to consider the unique and illuminating data from the Ḥassāniyya dialect of Arabic in this regard.[62]

The Hebrew Dp SC *quttal* mirrors the D PASS PTCP *məquttəl* in precisely the same way as the Dp PC *yə-quttal* does. Its formation simply results from the removal of the PTPC prefix and the use of the appropriate conjugational endings (i.e., the person-marking SC suffixes 3MSG -*ø*, 3FSG -*ɔ*, 2MSG -*tɔ*, etc.).[63] The derivation of Cp SC *huqtal* from C PASS PTCP *moqtəl*, though not as transparent as that of D PASS PTCP *məquttəl* → Dp SC *quttal*, is still quite straightforward, and the precise mechanics thereof simply depend on the chronology of the lenition *h* > *ø*.[64]

[62] OSA and Ugaritic are not included in this discussion because, due to their uncertain vocalisations, there is little analysis of value that may be proposed about the development of forms. That said, in the absence of evidence to the contrary, it is assumed that they behave largely like the other Semitic languages in this regard.

[63] This patent derivational relationship leads Retsö (1989, 166–72) to propose that *quttal* is the original source of *məquttəl*, rather than the contrary. His arguments, which rely on the sketchy identification of an ill-defined nominal pattern **qut*(*t*)*a*(*ː*)*l*, without specification of either gemination of R_2 or of vowel length, related to the semantic field of affliction, have been addressed in detail above (in §4.6).

[64] If the Cp SC was created before this, its formation mirrors that of the Dp SC exactly by simple deletion of the PTCP prefix (*məCuCCaC* → *CuCCaC*); if it post-dated it, the formation is rather one of a proportional analogy

In keeping with the uniqueness of Aramaic IPs generally, it may come as little surprise that the Cp SC in this language is unusual compared to the predictions of the reconstruction.[65] In the (Official) Aramaic of the books of Daniel and Ezra, the main source of data for the Aramaic Cp SC, its form is *huqtal* (sometimes > *hoqtal*), but the C PASS PTCP is *m*(*əh*)*aqtal*, which notably has *a* preceding R_1 where the Cp SC has *u*.[66] This formal divergence seems to contradict the proposal just made regarding the Hebrew Cp, that it is based on the C PASS PTCP, whether directly or by more oblique reference to vocalic sequence. Only by considering exceptional Aramaic data can the derivation C PASS PTCP → Cp SC be traced, and the underlying formal variation appreciated.[67]

Firstly, Cook has identified a pair of Biblical Aramaic Cp SC forms with *a*-*a* vocalisation, and presents convincing evidence that *haqtal* is the Cp SC of Qumran Aramaic, rather than *hoqtal* (< **huqtal*), as is generally assumed.[68] Secondly, apart from the canonical Aramaic C PASS PTCP form *m*(*əh*)*aqtal*, the branch likewise possesses forms with *u* preceding R_1, presented above (in §4.7).[69] When one considers *all* the data, and not just the most common forms, it becomes clear that at the time of the formation of the Cp SC of (or inherited by) Aramaic, **muhaqtal* and **muhuqtal* C PASS PTCP variants coexisted, respectively giving rise to

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involving combining the vocalic sequence *u*-*a* of the PASS PTCP and the consonantal skeleton *hvqtvl* of the active C SC: (**məhuqtal* >) **muqtal* : **maqtil* :: X : **haqtil*. Formation of a Cp SC is certainly possible without elision of the causative morpheme in the PTCP and PC—e.g., OSA *mhqtl* ~ *y-hqtl* ~ *hqtl* and Ugaritic *mšqtl* ~ *y-šqtl* ~ *šqtl*. However, due to the uncertain vocalisations of these languages, how their Cp SCs were formed (i.e., whether directly from PASS PTCPs or not) cannot be determined.

[65] As noted above (in §5.4) with the reconstruction of stage 2a—and specifically, the divergence of Aramaic from the general schema of IP development reconstructed—this language possesses neither a Dp, nor any Cp PC forms.

[66] Attested C PASS PTCPs exhibit variation in the presence of absence of a causative morpheme: cf., e.g., *məhēman* (<**məhayman*) "trustworthy" (Dan 2:45, 6:5) and *məhaḥăṯ-īn* "put down" (Ezr 6:1) with causative morpheme *h* versus *maṣlaḥ* "done successfully" (Ezr 5:8) with no overt causative morpheme.

[67] Within the broader Semitic context, this variation between **muhuqtal* / **muhaqtal* C PASS PTCP variant forms, and likewise that between **muquttal* / **muqattal* D PASS PTCPs, is found to have been inherited into Aramaic from its mother NWS node (if not all the way back to CS), as discussed above (in §§4.6–7, 5.3).

[68] Cook, 2010, 6–10.

[69] It is possible that some Aramaic *muqtal* C PASS PTCPs, such as those in the translational Targumic texts, may reflect Hebrew influence. In Christian NENA dialects where the C *qtil-li* PFV (derived from the *C PASS PTCP) is *muqtəl-li*, this cannot be the case, and they must reflect native Aramaic forms.

huqtal and *haqtal* Cp SCs. The original variation has become obscured because the forms have been redistributed in the attested dialects, with the most prominently cited in terms of the Cp SC—the Official Aramaic of the Bible—preserving the C PASS PTCP from one set and (mainly, but not exclusively), the Cp SC from the other.

Samaritan Hebrew provides an interesting support for this situation. This dialect has undergone a shift **u* > *a* so that the C PASS PTCP **muqtal* inherited from earlier Hebrew has become **maqtal* (> *maqtɔl*), but in certain weak root types the original vowel **u* is maintained.[70] Samaritan Hebrew had lost all finite IPs, but in a very few cases no other recourse was found to render the consonantal text of the Hebrew Bible into this vernacular.[71]

Of the six Cp SCs in the whole Samaritan reading of the Pentateuch, *hukkɔ* (Nu 25:14) follows its PASS PTCP (*mukkɔ*) even to the extent this deviates from the normal pattern by having *u* preceding R_1.[72] Otherwise, three forms derive from *a-a* vocalisation (<**haqtal*), which matches the normal C PASS PTCP form **maqtal* in this dialect, while the remaining two are created by direct application of a VMHC to the active form.[73] These Samaritan Hebrew data reflect, at the micro level and at a relatively late chronological stage, the same ongoing formal variation between C PASS PTCPs giving rise to morphological heterogeneity in Cp SCs as is reconstructed at the macro level, and much earlier, in proto-Aramaic and even further back in proto-NWS.

[70] Ben-Ḥayyim, 2000, §2.13.5.
[71] Ben-Ḥayyim (2000, §2.10.2–4) outlines the main strategies for dealing with IPs in the consonantal text of the Hebrew Bible, namely, reading them as active verbs, or as N or tD forms.
[72] Ben-Ḥayyim, 2000, §§2.10.8, 2.13.5.
[73] Ben-Ḥayyim (2000, §2.10.8) derives 3MSG *w-ɔ̄ʿri* (Lv 13:49) and *ɔ̄ri* (Gn 41:28) <**harʔi*; 2MSG Cp Sc *arrɔ̄-ttɔ* (Ex 26:30, Dt 4:35) <**harʔa-ta*; and *ɔ̄ʔīṭɔb* (Gen 12:16) <**hayṭab*.

Unlike the Hebrew and Aramaic Dp and Cp SCs addressed so far are those of Classical Arabic (*quttila* ~ *ʔuqtila*) and some Central/East Arabian dialects of Arabaic (*qittil* ~ *ʔiqtil*).[74] These are not, and cannot be, formed directly from PASS PTCPs (Classical *muqattal* ~ *muqtal* and dialectal *məqattal*/*miqattal* ~ *miqtal*). Instead, the VMHC has been abstracted and applied to finite active SCs to create their IP counterparts.

It has been demonstrated above (in §4.9.2) that dialectal forms with *i*-*i* vocalisation derive from proto-forms like those of Classical Arabic with *u*-*i*. However, it is important to appreciate that they do not so much represent replacements of older forms as they reflect a breakdown of the phonemic distinction between short high vowels *i* and *u*. These are coming to be allophones of a single phoneme /v_h/, with [*u*] occurring in certain labial contexts and [*i*] elsewhere.[75]

This is why apart from in the Dp and Cp SC, the same consideration applies to all IP forms (e.g., in the Cp PC **yu-qtal* > *yi-qtal*, and Gp SC **qutila* > *qitil*). Indeed, the change **yu-qtal* > *yi-qtal* of the Gp PC in these dialects—itself depending on *ya-qtil* replacing *ya-qtul* as the primary active G PC form—was an important factor in this overall situation, which may indicate *qittil* and *ʔiqtil* forms post-dated the emergence of the Gp **qutila* ~ **yu-qtal*, upon which the same development of a breakdown in the phonemic opposition between short high vowels subsequently operated. As a result, Arabic IP SCs with the vocalism SC *i*-*i* ~ PC *i*-*a* are addressed more closely in the reconstruction of stage 3.[76]

[74] As elsewhere, the same observations regarding the D(p) and C(p) likewise apply to the L(p), but for the sake of streamlining the discussion, the data are not included in the discussion.
[75] Allowing for slight differences among dialects in the distribution of the allophones (as well as the extent of the breakdown of phonemic distinction), the conditioning contexts are quite in accordance with what one would expect according to general phonetic tendencies. For example, in A type Bahraini, the back variant *u* occurs when the vowel falls between a labial and a velar or emphatic consonant, or when it follows a liquid and precedes a labial (Holes, 2016, §2.2.1.1.2).
[76] The comments made below (in §5.7) about the Gp SC *qitil* equally apply to the Dp SC *qittil*, Cp SC *ʔiqtil*, and indeed, and any subsequently formed IP SCs with *i*-*i* vocalisation (e.g., Ctp SC *ʔistiqtil*).

For the purposes at hand of reconstructing the development of Dp and Cp SCs, the fact that *qittil* is a reflex of **quttila* in dialects where the specification between *u* and *i* has been eroded reinforces the validity of the identification of +high vowels as the key marker in both forms. However, this observation is not only specific to the forms in question and illustrates the general principle that height contrast from active forms is the fundamental characteristic of the whole IP system, and that the distinction between high vowels is of less significance. That is, there is no loss of accuracy to treat both dialectal *qittil* and Classical *quttila* Dp SCs together as using the generalised height-based rubric Dp $qv_{h}ttv_{h}l$, contrasted to, and created from, the unmarked active counterpart D SC $qv_{l}ttv_{l}l$ by the simple application of a VMHC.

In considering the ordering of stages of the reconstruction of IP development, one important difference between the Arabic Dp and Cp SCs versus PCs that may impact on this is that of the degree to which the category voice is marked. In the former, a height contrast occurs twice, in both vowels (e.g., D *qattala* ≠ Dp *quttila*); in the latter, the contrast is restricted to a single location (D *yu-qattil* ≠ Dp *yu-qattal*).[77] Kuryłowicz's first law of analogy states that complex markers tend to replace monopartite ones.[78] Leaving aside the issue of the analogy specifically, this can be understood in general as a progression from less to more overt marking.[79] This consideration of linguistic theory supports the idea that the higher degree of contrastive voice marking in the D(p) and C(p) SC reflects their development at a later stage (2b) than that (2a) of the Dp and PC *PC*s.[80]

[77] These forms are Classical Arabic, but precisely the same argument holds for dialectal Dp *qittil* ~ *y*(*i*)*-qattal*.
[78] Kuryłowicz, 1945, 20.
[79] To the extent one might propose that the Dp SC was formed by a proportional analogy *qattala : yu-qattil :: X : yu-qattal*, this would refer only to the functional dimension in Arabic, and not the morphology.
[80] It is shown below (in §5.6) how the same principle likewise suggests that the Gp PC developed after the Dp and Cp PCs—i.e., stage 3a of the reconstruction follows stage 2a—since here too the marking occurs in two vowels rather than one: cf. e.g., C *yu-qtil* ≠ Cp *yu-qtal* versus G *ya-qtul* ≠ Gp *yu-qtal*.

Hebrew differs from this situation, since all Dp and Cp forms, SCs and PCs alike are based on PASS PTCP morphology, specifically from those with **muCuCCaC* syllabic structures.[81] Because of this, the double VMHC present in PTCPs was transferred to D(p) and C(p) SCs as it was the corresponding PCs. That is, proto-NWS D **qattila ~ yu-qattil ~ *muqattil ≠ *muquttal* gave rise to finite Dp forms **yu-quttal ~ *quttala*. Subsequently, the Canaanite development **qattila ~ *haqtila > *qittila ~ *hiqtila* in the D ~ C SC removed the height contrast from the corresponding IP in the first vowel, although a VHMC was maintained between R_2 and R_3. This notwithstanding, the vowels *i ≠ u* of D *qittel* ≠ Dp *quttal* are distinct phonemes in Hebrew, so there is no shift from double to single voice marking, but rather an exceptional case where *height* specifically is not the distinctive contrastive feature in IP morphology.[82] The original double VMHC status of NWS C(p) and D(p) SCs is preserved in Aramaic C *haqtel* ≠ Cp *huqtal*.

To conclude, stage 2 of the reconstruction of IP development is the creation of finite Dp and Cp forms. This is subdivided into PC formation during stage 2a, followed by SC formation during stage 2b. Though there is no incontrovertible evidence for the proposed ordering—indeed, possible counterarguments based on Aramaic data have been examined—several circumstantial arguments support it, such as the indirect means of Dp and Cp SC formation in Arabic, the concomitant increase in the degree of contrast of their voice marking, and their replacement in Ḥassāniyya Arabic by neological forms. The formational diversity of the Dp and Cp SCs between languages points to their formation (stage 2b) after the breakup of CS into Arabic, OSA, and NWS, whereas that of their PCs (stage 2a) may precede this (and even if it does not,

[81] Note, though, that some Aramaic (and Samaritan Hebrew) Cp SC forms were apparently formed directly from a C PASS PTCP **m*(*uh*)*aqtal*, which was inherited by NWS (alongside, and in variation with, **m*(*uh*)*uqtal*) from CS.
[82] Sufficient attention has been paid to what Pardee's (2003/2004, 276–77) alternative reconstruction of the D and C SCs in NWS through to Ugaritic and Canaanite (**qattala > *qittala > *qittil ~ *Caqtala > *Ciqtala > *Ciqtil*) not to warrant repetition at length here. Suffice it to recall that it does not contradict the VMHC hypothesis, but simply requires that Dp and Cp SCs were formed at the proto-NWS stage (which is in full accordance with the reconstruction proposed here), and when this happened, only possessed a VMHC in a single locus.

nonetheless precedes stage 2b). Variation between CS PASS PTCP templates **muCaCCaC* and **muCuCCaC* was inherited into NWS and passed further down into Aramaic, so similar formal heterogeneity pervades stage 2 IPs (e.g., Aramaic *huqtal* and *haqtal* Cp SC variants).

Overall, developments of stage 2 resulted from a motivation to eliminate functional asymmetry between the G ~ N ~ tG/Gt versus D ~ tD/Dt and C ~ Ct by creating a second detransitive stem to the D and C. They were usually also governed by the tendency to create finite verbs from verbal adjectives, because of which they used PASS PTCPs as source morphology, where possible.[83] The resulting homogeneous morphology—e.g., of Hebrew *quttal ~ yəquttal ~ məquttəl* and Ḥassāniyya Arabic *u-qattal ~ yu-qattal ~ muqattal*—also satisfied the motivation towards formal isomorphism. Insofar as the Dp and Cp are restricted to prototypical passive use, whereas the tD/Dt and Ct that they replace (in some contexts) can also mark semantic SUBJ affectedness with no syntactic change, stage 2 also reflects the semantic-to-syntactic shift pervasive among developments in Semitic detransitive systems.

With the completion of stage 2, the detransitive stem system achieved complete functional symmetry, with each of the G, D, and C possessing two detransitive stems. One might wonder then, why (some) languages would progress further to create a Gp that upset the system, or else develop in another way that disrupted this equilibrium (e.g., Aramaic, which possesses a marginal Cp but no Dp). This is precisely why the concept of competing motivations is so crucial for understanding the complexity of the situation:

> It is a truism to observe that if all language change were a response to functional pressure and that this pressure were uniform, then all languages would have settled on a functionally optimal state many thousands of years ago. Clearly, this has not happened. The explanation for this lack of stasis is attributed by functionalists to the existence of competing functional factors or, as they are often called, 'competing motivations'. That is, some forces push language in one direction, some in another. What results is an uneasy balance, whereby languages fall into a range in which all external motivations are filled to a certain extent, but none totally. In such a situation, it is easy for

[83] In Arabic Dp and Cp SCs formation straight from PASS PTCPs was not feasible, and other means were found, namely the abstraction of the VMHC and its application to finite active verbs.

> one functional force to trigger a particular change at the expense of another. Hence, individual language changes are functionally motivated, even though neither individual languages nor language as a whole become more 'functional' over time.[84]

At issue here is how, pushing back against functional symmetry, a countervailing motivation towards functional isomorphism also affects IP development. Pressure to create *formal* parallels to the Dp and Cp overrides that to create or maintain equilibrium between the *functional* arrangement of detransitive stems. As a result, IP morphology was extended to the G to create Gp forms (in stage 3), and further even to consonantally affixed stems, to create the Gtp of Arabic, for example (in stage 4), as discussed below (in §§5.6–8).

This is not to say that stage 3 necessarily only began once stage 2 was complete. A loose ordering can be identified whereby functional symmetry was the initial impetus for creation of finite IPs but was later overwhelmed by formal isomorphism. However, the reconstruction is presented as these distinct stages in large part for the sake of conceptual clarity, and much of the confusion of the situation results from precisely the reality that these competing motivations were at times overlapping and entangled, and were by no means uniform in their operation or results in different languages.[85] Against this rather idealised schema of general IP development, each case must be considered on its own merits—according to the particular situation of the interplay between competing motivations in a given language or dialect—which is precisely the undertaking of the current reconstruction.

[84] Newmeyer, 2003, 29.

[85] For example, it has just been demonstrated that stage 2a precedes stage 2b, and the stage 3b development of the Gp SC is found below (in §5.7) to have chronologically followed all of stage 2 as well as the stage 3a development of the Gp PC. However, it cannot be ruled out that the development of the Gp PC (stage 3a) occurred as early as that of the Dp and Cp PC (stage 2b).

5.6 Stage 3a: Gp PC

The next stage in the reconstruction of IP development is that during which the Gp PC—usually *yu-qtal*, though occasionally *yi-qtal* forms also occur—arose. This creation of a third detransitive stem to the G (apart from the N and tG/Gt) reintroduced anew precisely the functional asymmetry resolved during stage 2. This is no counterargument to the hypothesis presented, but rather confirms how competing motivations interact to create a push-and-pull concertina situation of variation, and potentially, given the right circumstances for a variant to flourish, change. The key factor at work during stage 3 was the pressure for formal isomorphism to be generated by the extension of a morphological process (IP formation) from its original context to other parts of the paradigm where it could apply.

When assessing the creation of the Gp stem, it is worth noting that IP formation first occurred in marked stems (the Dp and Cp); one can well imagine how strong the pull for it to also apply to the most basic part of the paradigm (the G) must have been. In the variation-and-change model, this aspect of IP development neatly fits Garcia's formulation that an "diffusion is characterised by the fact that the innovation (henceforth I) is more frequent, and observed earlier, in certain contexts, from which it invades others...its synchronic reflex is the unequal distribution of the I[nnovation] across different contexts".[86] The point has been made many times already, but at the risk of labouring it, we remind that the scarcity of the Gp in Hebrew, or its absence in Ḥassāniyya Arabic, for example, is precisely such a trace of its relative chronological lateness.

Other examples of the same process of extending derivational verbal-stem morphology (including, but not limited to detransitives stems) to new contexts abound in Semitic, and examples have been presented in detail in Chapter 3. In Ethiopic, for example, the Ct morpheme

[86] Garcia, 1997, 23.

is extended from the G to the D and L to create CtD and CtL stems.[87] Elsewhere, Omani Arabic extends N formation to the D, resulting in an ND stem, and even further in Bahraini and Najdi Arabic to yield NtD forms.[88]

Such developments may work in concert with the motivation to create functional symmetry. In fact, looking at the long-term development of the Omani Arabic stem system, its creation of an ND stem provides an excellent example of the protracted push-and-pull tension between the competing motivations of functional symmetry and formal isomorphism that characterise the relationship between stages 2 and 3 of the reconstruction. During stage 2 pressure to create functional symmetry motivated Dp formation, then formal isomorphism pushed back to upset it again by creating the Gp during stage 3, and finally Omani created the ND, restoring equilibrium between two quadripartite halves of the system (G : Gp : N(G) : tG :: D : Dp : ND : tD). Crucially, though, extension of derived stem morphology to new contexts to create formal isomorphism can also countervail functional symmetry, upsetting that which previously existed (even if it was not perfect), as does the extension of IP formation to create the Gp.

Apart from spreading from a relatively marked to a relatively basic part of the paradigm, something that may have facilitated the extension of IP formation is the location of the morphology towards the inflectional rather than derivational end of the spectrum of morphology (compared with other detransitive stems). For any given root, the possibility of IP formation is more certain than is that of a corresponding N or *t* stem, and the meaning of the resulting IP more

[87] This is described in detail above (in §3.7). The same phenomenon underlies the MSA CtD/L *šəqētəl*. Sporadic dialectal Arabic CtD and CtL forms—for which, see e.g., Cowell, 1964, 107–8; El-Hajje, 1954, 113; Lipiński, 1997, §41.31; and Sumikazu, 2005, §2.2.4.3—are significantly less productive, reflecting earlier stages in the rise and spread of the innovative forms.

[88] For developments in the detransitive systems of these Arabic dialects, see §3.4.4.

predictable.[89] The fact that IPs were fully productive in the Dp and Cp lent weight to the pressure for the analogical extension of the morphology to the Gp; transparency of their function removed the potential barrier of uncertainty as to what the new IP would mean. In this regard, it is striking that N is extended to new contexts in dialects where it is more universally productive than in Classical Arabic, while the resulting (ND, NtD, etc) stems are functionally restricted (to potential modality), and therefore their meanings more predictable.[90]

Having explained *why* the Gp was formed, the remainder of this section describes *how* and *when* it was, with particular reference to the relationship between the Gp and the earlier IP stems, and between the two conjugations (PC and SC) of the Gp. It is fairly ironic that the Gp PC is such a major focus of scholarship on IPs considering its relatively late and often stunted development. Retsö and Petráček, for example, both propose that the Gp PC should be the starting point of an investigation into IPs.[91] Crucially, these scholars (amongst others) have been misled by the formal identity of Arabic and Hebrew Gp PC *yu-qtal*, compared to the divergence of their Dp PCs (*yu-qattal* and *yə-quttal*, respectively), into inferring that the Gp forms necessarily have a closer genetic relationship, and are consequently more archaic in origin.[92]

A further factor leading to the assumption that the Gp must be primary, relative to the Dp and Cp, is the intuitive weighting of the G as the most active basic stem. Someone pressed to justify such a position in terms of linguistic theory might theoretically argue that such would conform to

[89] Another feature that places IPs further towards the inflectional and the N and *t* stems further towards the derivational is that use of the former are necessarily distributed according to syntax, whereas the latter may occur independently of any syntactic factors (i.e., in cases where only mark semantic SUBJ affectedness).
[90] See Holes, 2016, §§4.1.2.6 for high productivity of Bahraini N, and 4.1.2.10: "forms…with in- prefixed to pattern V and VI stems [NtD and ntL] occur in a regular fashion to give a sense of epistemic modality"; and Inhgam, 1994, 74–75 for the same in Najdi.
[91] Petraček, 1963, 592–98; Retsö, 1989, 29–30. Retsö denies that forms lacking overt causative morpheme belong to the C(p), at all, and conflates Gp *yu-qtal* and Cp *yu-qtal* as both relating to active G (as a corollary of his outlandish belief that active Arabic *yu-qtil*, Aramaic *ya-qtil*, Hebrew *ya-qtīl* are themselves not from the C).
[92] Petraček (1963, 596) explicitly states that from a comparison of IPs "finden wir eine einheitliche Vokalisation *juqtal*, die davon zeugt, dass das passive Imperfektum eine gemeinsame Erscheinung dieser Sprachen ist".

the tendency for analogies to proceed from more to less basic parts of the language. However, this generalisation (Kuryłowicz's second law of analogy) applies principally to levelling through proportional analogy. The creation of new IP based on its existence in another stem is rather a case of analogical *extension* of IP morphology to a new context, which is actually precisely where Kuryłowicz's *third* law of analogy supposes processes a spread from less to more basic parts of the language.[93]

To illustrate why the formal homogeneity of Gp PC forms is a red herring and how to not be misled by it, it is worth revisiting a similar case from stage 2 addressed above (in §§5.4–5). It is immediately evident from the divergent forms of the Arabic and Hebrew Dp PCs (and for want of a plausible diachronic development of one from the other) that they are not etymologically cognate. The historical distinction between Cp PCs, though, is less patent, since they are identical. It is by contextualizing these forms alongside Cp SC and the Dp, and understanding their derivation from PASS PTCPs, that the separate origins of Arabic and Hebrew *yu-qtal* Cp PCs become apparent. The formal identity is coincidental; two distinct proto-forms, **yu-Caqtal* and **yu-Cuqtal*—of which Arabic preserves reflexes of the former and Hebrew of the latter—have converged with the elision of the causative morpheme.

In the same manner, the Gp PC *yu-qtal* arises in Arabic and Hebrew by contingency, as the logical result of the limited possibilities of formation of this part of the paradigm. Like the Arabic Dp ~ Cp SCs of stage 2b, no mechanism was available to base the Gp PC directly on a PASS PTCP; that is, any reflex of Arabic ***yv-qatūl* or Hebrew ***yv-qtīl* would not possess the VMHC from active G PC **ya-qtul* that is characteristic and requisite for IP morphology. Precisely the opposite is true of the result of creating the Gp PC using the vocalic sequence of the

[93] Kuryłowicz, 1945, 25: "Une structure consistant en membre constitutif plus membre subordonné forme le fondement du membre constitutif isolé mais isofonctionnel". For his second law, see 23.

pre-existing Dp and (especially) Cp PC. All Arabic and Hebrew Dp and Cp PC (proto)-forms—Arabic *yu-qattal ~ yu-*(**Ca*)*qtal* and Hebrew *yə-quttal ~ y*(**u-C*)*uqtal*—have the vocalic sequence *u-a*. Since the consonantal skeleton *yv-qtvl* of the active G PC has just two vowels, there is only one possible result of the application of this sequence: *yu-qtal*. This possesses the greatest possible height contrast from active G PC **ya-qtul*, perfectly inverting its vowels. In this regard, it is surely no coincidence that Arabic dialects with a Gp PC *yi-qtal* have *ya-qtil* (rather than *ya-qtul*) as the normal active G PC.[94]

Theoretically, D and C PASS PTCPs, and in Hebrew even Dp and Cp SCs, could also have served as the source morphology for the Gp PC, since they also have (and indeed, are the origin of) *u-a* vocalism. All things being equal, though, it is more natural that the source morphology would come from the same conjugational part of the paradigm. That is, a Gp PC would more likely be based on the *PC* of another stem than on its SC or PASS PTCP.[95] Furthermore, if the Gp PC was based on the D and/or C PASS PTCP, this would allow for the possibility it was developed before the finite Dp and Cp forms, which would directly violate the expectations of the motivation towards functional symmetry between stems.[96]

The argument that Gp PC formation was achieved by the extension of the vocalisation from elsewhere in the IP paradigm and its application to the syllabic structure of the active G PC holds for all attested Dp and/or Cp PC forms. That is, whether a language has a Dp PC *yə-quttal* or *yu-qattal*, or Cp **yu-Caqtal* or *yu-qtal*, the source *u-a* vocalism is always present. It is therefore not logically necessary that a common forerunner to attested Gp PCs was inherited (e.g., from

[94] Such a notion of 'polar symmetry' and its possible role in Gp PC formation is recognised by Bergsträsser (1929, §15c) and Petraček (1963, 597–98), for example.
[95] In Arabic at least, there is no way the Gp PC *yu-qtal* could be based on the Dp or Cp SCs (*quttila ~ ʔuqtila*); this would only be a possibility in Hebrew (*quttal ~ huqtal*), and potentially OSA and Ugaritic.
[96] The rise of the Gp already disrupts the functional symmetry achieved by the creation of the Dp and Cp; if its creation preceded that of these IPs altogether, it would be not only be disrupting a balanced system, it would be exacerbating an already existing imbalance.

CS) into the descendent branches. The forms could instead have arisen as independent parallel developments in each language (or during an intermediate node, such as NWS).

It is perhaps a little circular to reconstruct the formation of the Gp PC as being based on the Dp and (especially) Cp PC and then, on this basis, assert that stage 3a follows stage 2a in the diachrony of IP development. However, the reconstruction has gone well beyond the stage of speculative hypothesis, with several robust arguments presented in support of each stage, as well as of the overall schema. Furthermore, all other proposals for the development of the Gp PC *yu-qtal*—e.g., as a variant of stative *yi-qtal* or from a copula *u*—have been thoroughly investigated and decisively disproven (in §4.9.1). The primary internal inconsistency of stage 3 within the overall schema of IP development—that it contradicts the motivation towards functional symmetry dominant during stage 2—has been explained as the result of the countervailing motivation towards formal isomorphism.

Apart from these two competing motivations, one of the others widely operative in the developments of Semitic detransitives was also at play during stage 2a: the semantic-to-syntactic shift. The Gp PC replaces the N PC (in prototypical passive contexts) and invariably entails a syntactic reorganisation of the arguments of a predication, which is patently its primary function; to the extent that the Gp PC contains the notion of SUBJ affectedness, this is an incidental side-effect thereof.[97] This is in contrast to the N, where first-argument reduction in syntactic terms is an optional (albeit frequent) function, whereas semantic SUBJ affectedness is always present, and is therefore the core use of the morphology.

[97] Describing syntactic reorganisation as the primary function of a morphology is admittedly odd; I do not mean to suggest that speakers created this construction with the intention of promoting an OBJ to SUBJ slot! Instead, the real goal—as per Shibatani's (1985, 822) formulation—may be the processes of agent-defocussing and patient-topicalisation. However, the logical relationship of syntactic (re)arrangement to these pragmatic considerations is far tighter and more direct any between syntactic specification and SUBJ affectedness.

The rise of IPs (specifically at issue here, the Gp) is not the only way this fundamental shift in marking manifests in the developments of Semitic detransitives. For example, in (Classical) Arabic, virtually all non-syntactic uses of the N are lost. Nonetheless, the N still retains a semantic dimension that the Gp does not. Both stems are first-argument reducing detransitives, so their functions are restricted to eliminate overlap and therefore redundancy: the N is *medio*passive, with the removal of the agent from the *semantic* specification of the predication; the Gp is prototypical passive, where there is no change to the semantic specification—the agent is retained, and merely deleted from the surface structure, or occasionally demoted to an OBL slot. The semantic-to-syntactic shift is pervasive in Semitic detransitives; it is simply more advanced in IPs because they are significantly later developments than the N and *t* stems.

5.7 Stage 3b: Gp SC

The final major stage of IP development—in terms of positive growth at least; the decline of IP productivity and the creation of *t*IP stems are discussed below (in §5.8) with the reconstruction of stage 4—is the stage during which the Gp SC arose. Between Classical Arabic *qutila*, dialectal Arabic *qitil*, Aramaic *qətīl*, and Hebrew *quttal*, this is the most formally and formationally diverse IP in the whole system.[98] The analysis above (in §§4.8, 4.9.2) includes a survey of previous attempts to derive any of these forms one from another and dismissed them all as implausible except for finding that *qitil* <**qutila* is a likely development in some Arabic dialects.[99] In the absence of any compelling argument linking the etymology of the different Gp

[98] Apart from the function of expressing the passive to the G, these all have common inflectional morphology, that is, the SC person-marking suffixes (i.e., their respective reflexes of 3MSG *-*a*, 3FSG *-*at*, 2MSG *-*ta*, etc.).
[99] An extremely egregious example is that of Blake (1901), who derives Arabic *qutila* from the extension of a passive marker *u* (originally a copula) from the Gp PC *yu-qtal* to the stative G SC *qatila*; from here he derives Hebrew Gp SC *quttal* as having introduced the *a* from either the stative G PC or the active G SC, and gemination as a means of preserving the vowel between R_1 and R_2. No less unpalatable is Wright's (1890, 224–25) derivation of Aramaic *qətīl* <**qutila* as a result of stress lengthening.

SCs, they are all reconstructed back to separate sources. However, according to the holistic view of IPs that is a fundamental of the methodology adopted in the current work, the relationships (or lack thereof) between Gp SCs on the one hand, and the Gp PC and Dp ~ Cp SCs on the other must still be considered when reconstructing their formation(s), particularly in terms of the relative chronology of the stages of the reconstruction of IP development.

One highly conspicuous characteristic of the Gp SC, and one that may be starkly contrasted with the Gp PC and also with IPs from the Dp and Cp stems is the difference between different languages. It has just been argued that the formal heterogeneity of Arabic and Hebrew Gp PC does not reflect, as many assume, that it is older than the Dp PC, which differs between the languages. One might well wonder why precisely the converse argument is being made here about the Gp SC.[100] Crucially, it is not so much the diversity of forms themselves as the *variation in manner of formation* between the Gp SC of different languages that matters in assessing their historical position within the overall development of IPs. Precisely this issue of formational homogeneity or heterogeneity has been cited above (in §§5.4–5) in support of ordering stage 2a before stage 2b.

Aramaic formed its Gp SC *qətīl* very simply by conjugating the G PASS PTCP with the person-markers of the SC. Arabic instead transferred *u-i* (or *i-i* in some dialects) vocalism from the Dp and Cp SC to the active G SC. Hebrew similarly transferred the vocalism *u-a* from its Dp SC, actually common to all IPs in the language, but subsequently also extended the gemination of R_2 characteristic of the D(p).[101] In contrast to unitary formational nature of the Gp PC, by

[100] Petraček (1963, 601–2) cites the diversity of Gp SC forms as evidence that it is a newer construction than the Gp PC. However, he (611–12) believes all of the Arabic, Aramaic, and Hebrew derive from the stative G SC **qatila*, more (Hebrew) or less (Arabic and Aramaic) affected by the influence of the *u-a* vocalisation of the Gp PC. Thus, while recognising the formal diversity of Gp SCs, Petraček does not acknowledge their *formational* diversity.

[101] The question has been raised above (in §4.9.2) whether gemination may have always been present in the Gp and it was thus never truly morphologically related to the G but rather a repurposed Dp. On balance, this possibility

extension of the Dp and Cp PC vocalisation, the different methods of Gp SC formation adopted by Arabic, Aramaic, and Hebrew—which are the very reason that the resulting Gp SCs differ in form—are each conditioned by factors specific to the language in question, thereby confirming the late date of the process. The underlying motivation to form finite IPs from PASS PTCPs found a straightforward manifestation in Aramaic but was blocked in Arabic and Hebrew by their phonologies, which prohibit long vowels in closed syllables, making a form analogous to Aramaic *qətīl-t* (2MSG Gp SC) impermissible.

Most important of all, though, is the effect of the motivation to formal isomorphism with the rest of the already established IP paradigm (namely, the Dp and Cp). Hebrew possessed a full complement of Dp and Cp forms, both PC and SC, with *u-a* vocalism. It is perfectly natural that when a Gp SC was formed in Hebrew, it would take on this same vocalic sequence, resulting in a contrastive pair G **qatal* ≠ Gp **qutal*, with a VMHC in the first syllable. Just so, the motivation to create formal isomorphism with existing the Dp and Cp SC naturally resulted in an Arabic Gp SC *qutila*, though here the Gp SC was based only on its IP SC counterparts *quttila* and *ʔuqtila* and the IP PCs did not contribute to the process.[102]

The Hebrew Gp SC was also affected by the phonology of this language in an additional way: short high back **u* reduced to *ə* in unstressed open syllables and lowered to *o* in open stressed syllables, Therefore, depending on the stress patterns at the time of its formation, the Massoretic reflex of proto-Hebrew **qutal* would be either *qətal* (<**qutál*) or *qotal*.[103] In either case, this would result in a middle vowel between R_1 and R_2 of the Gp, whether *o* or *ə*, and a

rejected, but the profound influence of the Dp cannot be denied. Insofar as gemination it is present in all Hebrew Gp SC forms, it can therefore be considered part of its formational background.

[102] Unlike in Hebrew, Arabic IP PCs differ formally and formationally from their SC counterparts as discussed above (in §§4.8–9), so that there are two separate vocalic sequences associated with IPs—*u-i* for the SC and *u-a* for the PC—which were even subsequently extended beyond the Gp, to create *t*IP stems, as discussed below (in §5.8) with the reconstruction of stage 4.

[103] Pardee (2020, p.c.) assumes ultima stress **qutál*, and Hasselbach (2020, p.c.) raises the possibility of initial stress **qútala* at the time the Canaanite Gp SC was created, which latter option underlies Williams' (1970, 50) analysis.

consequent loss of the VMHC from the *ɔ* of the G in this position. This explains why Hebrew extended gemination from the Dp SC; this formational characteristic of the Gp SC served to preserve the distinctive voice contrast of IP morphology.[104]

Aramaic did not possess this same influence from other IPs in the formation of its Gp SC. No finite Dp forms occur in the language, or any IP PCs for that matter; the only finite IP other than the Gp SC is the Cp SC, and even that is neither particularly well attested nor long-lived. The form that most conditioned the Aramaic Gp SC was in fact the G ACT PTCP **qātil*, particularly as this developed into the *qatl-in* IPFV, which well accounts for the parallel use of G PASS PTCP as the source morphology of the Gp SC (and then, more successfully, of the *qtil-li* PFV), if the general tendency to base finite IPs on PASS PTCPs had not been enough on its own.[105]

Apart from the internal ordering of stage 3, the diverse manners of Gp SC formation during stage 3b also provide circumstantial support for its ordering after that of Dp and Cp SCs during stage 2b. The Dp and Cp SCs, like the Gp SC, exhibit formational variation, being created directly from PASS PTCPs in Hebrew and Aramaic (which only has the Cp SC), but by application of a VMHC to active SC forms in Arabic. However, not all variation is created equal. That between Arabic versus NWS Dp and Cp SCs suggests these forms were created after the division of CS into Arabic, NWS, and OSA; that among Gp SC forms is more fragmented still and points to a stage after the breakup of NWS.[106] In more concrete terms, one may note that the

[104] Williams, 1970, 50. Hasselbach (p.c., 2021) queries why *o* would a problematic in the Gp SC considering it is frequently found in the Cp SC *hoqtal* (a more common variant than *huqtal*). The key here is *contrast* with the vowel of the corresponding active form. That ($i \neq o$) in the C *hiqtīl* versus Cp *hoqtal* is stark, whereas there would be far less distinction ($ɔ \neq o$) in the G *qɔtal* ≠ Gp ***qotal*.

[105] The description of Aramaic above (in §3.5) shows that the Gp SC was not the only way the G PASS PTCP was fientivised, and how ultimately the alternative *qtil-li* PFV was more successful precisely because it better fit the Aramaic verbal system, both in terms of functional symmetry and formal isomorphism.

[106] This relies on an amount guesswork to reach the most likely reconstruction, recognising that some uncertainty is inescapable. Theoretically, a single means of Dp and Cp SC formation could have arisen during CS, and then been replaced in either Arabic or NWS. This is what is reconstructed for Ḥassāniyya Arabic, which replaced the indirectly formed IP SCs inherited from proto-Arabic IP SC forms when (and because) changes specific to this dialect allowed their formation based directly on PASS PTCPs as a new possibility, as discussed above (in §§3.4.3, 4.8, 4.9.3).

Aramaic and Hebrew Cp SCs are identical (*huqtal*), but their Gp SCs (*qətīl* and *quttal* respectively) differ.

In general terms of the transition between stages 2 and 3 of the reconstruction, the creation of a Gp reflects the motivation towards functional symmetry of the stem inventory being overridden by the motivation towards formal isomorphism within it. However, in the context of how stages 3a and 3b interrelate—just as between stages 2a and 2b, actually—another, quite different aspect of functional symmetry comes into play, that between conjugational parts of the paradigm. That is, with the whole system, any stem that has a PC should also possess an SC counterpart, which would have provoked the formation of the Gp SC on the basis of the earlier Gp PC.

This does not hold for Aramaic, where the Gp PC does not occur. However, the Aramaic Gp SC is still conditioned by a motivation towards functional symmetry between conjugational parts of the verbal paradigm. Its creation provided an opposite number to the grammaticalisation of the ACT PTCP **qātil* into the *qatl-in* IPFV. That is, it is precisely because of the unique rearrangement of the Aramaic verbal system that this is the only Semitic language to possess a Gp SC based directly on a PASS PTCP, in an utterly transparent manifestation of the tendency to fientivise verbal adjectives.

Another egregious case of functional symmetry between conjugational parts of the IP system—and one also heavily influenced by the pressure to create formal isomorphism—is that of Hebrew Gp PTCP *quttɔl*, which are traditionally identified as being historical D PASS PTCPs lacking the prefix *mə-*.[107] However, with the Hebrew IPs increasingly detached from their active

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Proposing such a reconstruction at the more macro CS level, though, adds a layer of complexity to the analysis, and unlike the Ḥassāniyya situation, affords no perceivable benefit in terms of how it accounts for the data nor can be justified by additional external factors (such as the specific morphological developments of Ḥassāniyya Arabic, and the motivation to create directly formed IPs in preference to indirectly formed ones).

[107] Gesenius, Kautsch, and Cowley (1910, §52s) and Retsö (1989, 168–72) identify PTPC uses of *quttɔl* as D PASS PTCPs lacking the prefix *mə-*, but the specific instances thereof—e.g., *ʔukkɔl*, *yullɔd*, *luqqɔḥ*, *soʕăr-ɔ*, *yūqɔš-īm* from √*ʔkl*, √*yld*, √*lqḥ*, √*sʕr*, and √*yqš*, respectively—are primarily associated with the G and N, and only rarely with

counterparts, I instead propose that these are instances of a PTCP form *quttɔl* based directly on finite Gp morphology, namely on its SC. They possessed a clear functional restriction to the Gp specifically, in contrast to the (historical) G PASS PTCP *qɔtūl* <**qatūl*, which was more generally related to the G (and the patient thereof). This development would represent a kind of a backwash in the pressure to fill out the different conjugational parts of the paradigm; whereas previously the D and C PASS PTCPs gave rise to finite Dp and Cp SC forms, now, on the basis of the finite Gp SC, a Gp PTCP was created.

In terms of the formal relationship between SC and PTCP, this development is comparable to what has occurred in the N, where the historical Semitic N PTCP **munqatil* (cf. Akkadian *muqqatil* and Arabic *munqatil*) has been replaced by *niqtɔl* in Hebrew, etymologically identical to the N SC *niqtal* (though with lowering **a* > *ɔ* affecting the nominal but not finite verbal form). The difference between the two cases illustrates nuances captured by the variation-and-change model. The Gp PTCP *quttɔl* is an incipient variant, only very infrequently appearing instead of the G PASS PTCP *qɔtūl*, and never replacing it outright to effect irreversible language change.[108] The neological *niqtɔl* N PTCP, by contrast, replaced original **munqatil* before the written record of Hebrew begins, therefore having moved beyond variation to reach the status of change proper.[109]

Like all IPs, the Gp SC reflects the semantic-to-syntactic shift insofar as it is restricted to syntactic reorganisation of arguments into prototypical passive clauses and replaces the N or tG,

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D(p) verbs, so whatever their etymological origin, Jouön and Muraoka (1991, §§56c, 58b) are doubtless correct that their synchronic relationality was to the Gp.

[108] Considering the virtual absence of *quttɔl* forms in post-Biblical Hebrew, it is fair to say that the Gp PTCP disappeared from the language without ever having seriously challenged *qɔtūl*, in variation with which it arose. Segal (1927, §243iii) cites just three Mishnaic examples—*ʔummɔn* "craftsman", *ʕubbɔr* "embryo", and *šuttɔp̄* "partner"—which function as verbal nouns to D verbs and have no relevance to discussion of the Gp PTCP.

[109] The N PTCP likewise does not bear the labial prefix in Ugaritic (for which, see Pardee, 2003/2004, 168) or Phoenician (for which, see Amadasi Guzzo, 1999, §141). Consequently, this replacement of the historical N PTCP **munqatil* with a variant based on the SC may be considered an isogloss of NWS.

both of which sometimes only mark semantic features. However, as the only IP formed directly from a verbal adjective with no original syntactic restriction, the Aramaic Gp SC provides unique and vivid evidence of this shift. That is, unlike D and C PASS PTCPs, which can *only* relate to a transitive patient, Aramaic G PASS PTCP *qətīl* retains remnants of a more general patient verbal adjective use. When inflected with nominal suffixes (e.g., MPL absolute -*īn*), *qətīl* can be linked to an intransitive patient (e.g., *rəgīz-īn* "angry ones"); when conjugated with perfective person-marking suffixes (e.g., 3MPL -*ū*), it can only be linked to a transitive patient, the SUBJ of a passive clause (*qəṭīl-ū* "they were killed"). The latter represents a newer use (as Gp SC) of morphology that is more syntactically oriented than the former use (as a patient verbal adjective referring in a more general sense, including reference to intransitive patients).

In conclusion, to summarise the reconstruction of stage 3b, the Gp SC is the final main IP created, likely in NWS after its division into Aramaic, Canaanite, and Ugaritic branches, and separately in Arabic and OSA.[110] Overall, this stage of the reconstruction reflects the intersection of a number of factors: the ordering of IP stems as Gp following the Dp and Cp; the ordering of IP conjugations as SCs following IPs; and the tendency to diversify mechanisms of IP formation when the primary, original strategy of using PASS PTCP source morphology is not possible. Nonetheless, the same competing motivations operative throughout IPs (and Semitic detransitive systems generally) govern the development of Gp SC forms. In particular, the Gp SC affords a fascinating insight into how the competing motivations of functional symmetry and formal isomorphism interact in a complex and dynamic fashion.

[110] Arguments have been presented as to why Gp SC formation occurred after that of the Gp PC, and Dp and Cp SCs. Strictly speaking, the chronological relationship with the Dp and Cp PCs has not been addressed, but it is understood, by extension of the fact these are older than both their respective SC forms and the Gp PC, that Dp and Cp PC development must also have preceded that of the Gp SC (by a significant margin in fact).

5.8 Stage 4: other IP forms and stems and the decline of IPs

The final stage of the reconstruction of IP development comprises two elements: 1) their expansion to create IPs of *t* stems (the Gtp, tDp, etc) and of INFs dedicated to IP stems, and 2) the decline of previously productive IPs. The first category is a group of developments resulting from the analogical extension of IP morphology to new contexts under the pressure of formal isomorphism (and in the case of IP INFs, also of functional symmetry). These developments have as a prerequisite an existing, robust IP system, and they can be confidently reconstructed to a stage after the languages in which they occur had become independent genetic branches. As such, it makes good sense to group them here together, in the reconstruction of the final stage of the development of IPs.

The phenomenon of IP decline is somewhat different. In some sense, it does not represent developments that belong to a common diachronic stage, but rather a general counter-current pushing back against IP productivity, active throughout their history. Different IP forms underwent decline at different stages, at different rates, and to different extents in different languages.[111] Depending on the intricacies of the competing motivations at work in a given situation, one part of the IP paradigm could be in decline even as another was in the ascendency. Subsuming different cases under the reconstruction of stage 4 is merely a convenient abstraction reflecting the reality that IP decline as a phenomenon manifests more strongly, and its end results are more readily perceived, at later stages of the language than earlier ones.

Within the variation-and-change model, the decline of IPs is viewed simply as a shift back in the productivity of innovative IP forms in favour of the original N and *t* stems (and active generalised-SUBJ constructions, particularly in Aramaic) in competition with which they arose.

[111] For example, the Dp was created during CS, as stage 2 of the reconstruction; it was lost in Aramaic before the written record begins, so certainly before Gp SC was created in this language with stage 3b, but survived in Hebrew until the post-Biblical dialects, following the rise of the Gp with stage 3 and its fall with stage 4.

That is, when IPs are created and subsequently lost, they are precisely what Lüdtke refers to as forms that "remain for a while until they disappear", with the proviso that this "while" may last many centuries.[112] At some level this is true of all forms, since nothing in language endures forever, but there is a substantive difference between a situation where an innovative form (B) replaces an original one (A) and is subsequently replaced by another, more innovative form (C), and a situation where an innovative form (B) arises in competition with an original one (A), and subsequently disappears without even having replaced it. In the former case, two distinct instances of language change have occurred (the replacement of A with B, and then B with C); in the latter, which is that under discussion here, a period of variation (between A and B) arose, though no language *change*, properly speaking, ever occurred.

With these observations in mind, this section first reconstructs the creation of IPs other than the core IP stems (Dp, Cp, and Gp) and conjugations (SC and PC), and then cases of IP decline, framing the discussion—as it has the reconstruction of IPs generally—in terms of the competing motivations operative in each development. Arabic permits IP formation from the Gt, tD, tL, and Ct, which are detransitives to the G, D, L, and C, respectively. These *t* stems can mark the semantic detransitive category of SUBJ affectedness relative to their unmarked counterparts, and otherwise their derivation is often simply lexical. As such, it does not necessarily entail syntactic change, so a *t* stem may retain the syntactic transitivity of the unmarked counterpart: cf. Arabic D *ṭallaba*(-*hu*) "demand (it)" versus tD *taṭallaba*(-*hu*), a close synonym, with an added semantic notion of doing so for one's own benefit (as a manifestation of SUBJ affectedness). The vocalic sequences characteristic of Arabic IPs, *u-i* in the SC and *u-a* in the PC, can be extended to such

[112] Lüdtke, 1989, 135. The most extreme example is that of Arabic dialects like Omani, that are only now in the process of finally losing IPs, some of which (e.g., the Dp and Cp PC) are reflexes of forms dating back to CS.

transitive *t* stems to create syntactic passives: tDp *tuṭulliba* ~ *yu-taṭallab* "to be demanded".[113] The one context to which IP morphology was never extended—other, perhaps, than as an artificial literaryism—is the N, precisely the part of the verbal paradigm that finite IPs were first created to reflect, in terms of functional symmetry.[114]

Like Arabic, OSA permits IP formation from any transitive active verb, though *t*IP forms are significantly harder to find than those from the Dp, Cp, and Gp. Stein cites a Ctp and two tDp forms but no Gtp, and elsewhere in the literature I have only found one possible tDp mentioned by Biella.[115] The absence of Gtp forms may simply be an distributional accident of the very limited attestation of *t*IP forms. However, it may also reflect the fact that the D (and hence tD) is proportionally more frequently transitive than the G (and hence Gt), so the tD is more apt a source for IP formation than the Gt.

IPs other than the Dp, Cp, and Gp only occur in Arabic and OSA among the CS languages with any meaningful frequency, being practically absent from NWS.[116] In Aramaic, where IPs have a quite restricted attestation to begin with, absolutely no traces of *t*IP stems exist. In Biblical Hebrew, the Dp and Cp are highly productive, and the Gp less so though still hardly an

[113] The same applies to dialectal IPs with *i-i* ~ *i-a* vocalism: e.g., Najdi tL *tigāsam* ≠ tLp *tigīsim*, Gt *ʔiʕtibar* ≠ Gtp *ʔiʕtibir*, and Ct *stagbal* ≠ *stigbil* (Abboud, 1979, 476–77).
[114] Considering the impermissibility of transitive N verbs in Arabic, even the theoretical possibility of an Np rests on Arabic impersonal passive use of IPs. At any rate, Badawi, Carter, and Gully (2004, §1.10.7) do not allow for Np forms in Modern Standard Arabic, a dialect largely similar to Classical Arabic.
[115] Stein, 2003, §4.1.7: "Für die übrigen Stämme [other than the G, D, and C] sind passivische neben aktivischen Formen zwar weitaus schwieriger zu belegen, doch finden sich auch hier einige Beispiele". His cited examples are Ctp *stwšʕ* "to be asked" and tDp *tbšr* "to be given good tidings" and *tqdm* "to be presented". Biella (1982, s.v. √*rṯd*) wonders whether the tDp *trṯd* may have a passive sense "it was placed under protection" rather than active "he placed it under protection". Apart from this, a search of the roots for which Beeston (1984, s.vv. √*ʕlw*, √*bʕw*, √*bly*, √*fdy*, √*fṣy*, √*kmt*, √*sbb*, √*srq*, √*śwk*, √*ṣrḥ*, √*wfy*) lists IPs in his lexicon yields no further examples of *t*IP stems.
[116] MSA possesses a very few Gtp and Ctp forms, though their specific formal characteristics, their restriction to Soqoṭri, and the general development of the MSA IP system—for which, see ch. 6—suggests that these are an independent parallel MSA development rather than some sort of common areal development with Arabic and OSA.

aberration, but the entire corpus yields just four forms from each of the tGp and tDp.[117] If these are even genuine forms—more likely they are scribal revocalisations of existing active forms—then they represent precisely the "nonce expressions" that Lüdtke mentions as cropping up as one-off coinings, and certainly nothing further along the journey from variation to change than the very first step.[118]

These *t*IP forms resulted from the same pressure to create formal isomorphism that provoked Gp formation during stage 3. It has simply had a more advanced effect here, with IP morphology having spread to any logically possible context. As with the Gp, *t*IP stems can be created even to the extent that they disrupt functional symmetry or exacerbate existing imbalance between stems (as they do in Arabic). This reconstruction does not require that Arabic and OSA *t*IP stems be etymologically cognate; just as common motivations have led to independent parallel developments of the Gp in different languages—undoubtedly in the Gp SC, and most likely also in the Gp PC—so too has the same occurred with *t*IP stems. However, the motivation to formal isomorphism is active throughout Semitic, some additional factor(s) in the networks of competing motivations of Arabic and OSA, but absent from Aramaic, Hebrew, and Ugaritic, must have favoured their selection as advantageous, and their consequent development into productive forms.

One consideration that likely facilitated *t*IP formation in Arabic is a general vitality of IPs in a way specific to this language. Firstly, the G PASS PTCP *maqtūl*, like those of the D and C, has undergone full restriction to PASS PTCP, whereas Hebrew *qɔtūl* and Aramaic *qətīl* sometimes retain more general patient verbal adjective (i.e., relating to intransitive patients of one-argument

[117] The tGp forms are in Num 1:47, 2:33; 26:63; 1Kgs 20:27; those from the tDp at Lev 12:55, 56; Deut 24:4, Isa 34:6. The comparison with OSA, where similarly, only a handful of *t*IP forms have been found, must be considered in proportional terms, taking into account the substantial corpus of Biblical Hebrew.
[118] Lüdtke, 1989, 135. Casting suspicion on their genuineness is the facts that two of them are INFs, an exceptional conjugational part of the paradigm to be associated with IP morphology to begin with, and that half are from the tG, a stem which, while present in Canaanite to some extent, does not occur in Hebrew specifically.

verbs). Secondly, Arabic has expanded IP use to impersonal passives from syntactically intransitive active verbs as long as they are syntactically specified for a second, patient-like argument (linked to an OBL rather than OBJ slot).

This vitality of IPs Arabic is arguably part of a general trait of this language (family) to develop a rich verbal stem system, as manifested, for example, in the Classical Arabic productivity of the L (and tL) and the formation of stems IX and XI–XV. Much the same principle of vitality of the verbal stems system applies to the extension of the N to new contexts to create ND and NtD forms in Bahraini, Najdi, and Omani dialects.[119] Nonce instances of CtD and CtL forms are also attested in various dialects, though in no cases have these (yet) developed into productive stems as they have in Ethiopic and MSA.[120] It is no surprise that IP morphology would flourish by extension to new contexts (*t*IP stems) in a language so prone to expansion of verbal stems.

The OSA situation is somewhat different. Stein leaves the question of the G PASS PTCP open pending further evidence, but in the meantime rejects a neological form {*mqtl*} for *maqtūl* like that of Arabic, leaving {*qtl*} as the only plausible alternative.[121] Considering comparative evidence, this almost certainly represents *qatv̄ₕl*—whether *qatūl*, *qatīl*, or an underspecified form—and would very likely retain some more general patient verbal adjective use linked to intransitive patients. I am aware of no mention in the literature of impersonal-passive IP use in OSA, nor have I encountered any examples thereof. Apart from IPs specifically, OSA verbal stems are less expansive in general than those of Arabic, with just G, D, C, Gt, tD, and Ct attested; the only case of an expansion beyond this basic inventory is the reduplicative *qttl* stem

[119] These developments are discussed in detail above (in §3.4.4).
[120] For sporadic CtD or CtL forms in Arabic dialects, see Cowell, 1964, 107–8; El-Hajje, 1954, 113; Lipiński, 1997, §41.31; and Sumikazu, 2005, §2.2.4.3. Interestingly, all examples are from weak root types, which suggests some morphophonological motivation behind their development.
[121] Stein, 2003, §4.11.

in Minaic.[122] OSA *t*IP formation must be accounted for otherwise than as a manifestation of IP vitality and a tendency towards expansion within the verbal stem system generally.

Instead, in terms of what additional motivating factors that combined with the tendency towards formal isomorphism, it is important to note that unlike in Arabic and Hebrew, the creation of *t*IP stems in OSA was not hampered by a countervalent pressure towards functional symmetry. That is, since OSA has no N, even with the creation of *t*IP stems, the system remains functionally symmetrical, albeit increasingly complex. Three groups of stems exist, standing in derivational relation to each of the G, D, C, and consisting of a basic-stem (X), syntactic passive (XP), more general (including semantic) detransitive (Xt), and syntactic passive to semantic detransitive (Xtp). The symmetry of the stem inventory is apparent in the following formulation, in which single, double, and triple colons distinguish between the multiple derivational tiers—G : Gp :: Gt : (Gtp?) ::: D : Dp :: tD : tDp ::: C : Cp :: Ct : Ctp.[123]

Before turning to the matter of IP decline, another, separate kind of positive IP development beyond that covered by stages 0–3 warrants consideration: Hebrew IP INFs. These are rare—the Hebrew Bible possesses just under twenty examples—and for good reason; Semitic INFs do not refer specifically to the voice perspective of a clause.[124] Instead, they refer to the action expressed in general terms, and the more prominent participant, whether the agent or patient if

[122] Hasselbach, 2009, 153–55; Stein, 2003, §4.1.1. It is possible that L and tL forms may also exist, which would not be distinguished in the orthography from D and tL. Most relevant, though, is the absence of the N and the resulting regularity and simplicity of the stem inventory, discussed below.

[123] Thus, the G relates at one level (separated by a single colon) to the Gp, at another to the Gt (separated by double colons, and at a third level (separated by triple colons) to the D; the Gt relates to the Gtp in the same way the G does to the Gp, hence also being separated by single colons.

[124] All the attested cases are *gunnōḇ* (Gen 40:15), *hullɛḏɛṯ* x3 (Gen 40:20, Ezek 16:14, 15), *hukkabbes* x2 (Lev 12:55, 56), *hoṗde* (Lev 19:20), *h*(*ŏ*)*šamm-ɔ* x4 (Lev 26:34, 35, 43; 2Chr 36:21), *huggeḏ* x2 (Josh 9:24, Ruth 2:11), *hoḫŏreḇ* 2Kgs 3:23, *homleăh*, *hoḫtel* (both Ezek 16:4), and *hūsaḏ* x2 (Ezra 3:11, 2Chr 3:3).

the verb is transitive, is instead inferred from context. This is a corollary of the generalisation of a restriction against explicitly passive forms with no overt morphological marking.[125]

Hebrew IP INFs might not even be genuine organic forms ever grammatical to a native speaker and perhaps instead reflect scribal revocalisations of normal INFs to stress patient prominence.[126] If they are, however, genuine Hebrew forms, this language family possesses some exceptional features that may have provoked their development. For one thing, Canaanite exhibits a move towards INFs marking of TAM categories, progressing so far towards finite status that they may head VPs.[127] Another possible factor is the aforementioned independence of Hebrew IPs within the verbal system; though formally derived from active stems, the conceptual distance from them is far greater than in Arabic, for example, where IPs are conceived of as simply inflectional variants of their active counterparts.[128] Such features, possibly amongst others, could conceivably have given rise to nonce IP INF cases, doomed never to achieve real productivity anyway, insofar as the finite IPs to which they were derivationally related—and on which they were morphologically based—were, themselves, moribund in Hebrew.

The preceding cases of *t*IPs and IP INFs are the only growth developments in IPs following the creation of the Gp as stage 3 of the reconstruction. In general, they have in common that they are decidedly marginal and exceptional parts of the system.[129] Far more characteristic of the later

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[125] Haspelmath (1990, §2.1) mentions the examples "the enemy's destruction of the city" versus "the city's destruction by the enemy" as a case where the implicit voice orientation is not part of the verbal noun (destruction), but rather depends on the different syntactic constructions in which it is employed; cf. Jouön and Muraoka, 1991, §142n2: "in 2Sm 16.7 *bə-qaləl-o* [prep-curse.inf-3msg]" one cannot say whether the suffix refers to the subject of the action (*his action of cursing*) or to the *object of the action* (*the action of cursing him*)".

[126] For example, *hopōde* (Lev 19:20) "to be redeemed", ostensibly a Cp INF, occurs in a postpositive emphasis of a finite N verb *nipādɔt-ɔ* "she has been redeemed", whose INF *hippɔde* would have the same orthography {*hpdh*}.

[127] For Hebrew, see Jouön and Muraoka, 1991, §123; for Phoenician, Krahmalkov, 2001, 205, 207, 211.

[128] Hasselbach (2020, p.c.) correctly notes that grammarians making such conceptual distinctions—for which, see Ben-Hayyim, 2001, §2.10.1—is not the same as native speakers doing so. Of course, none are alive for Biblical Hebrew or indeed Classical Arabic to ask. Nonetheless, I am confident that this dimension of historical grammarians' descriptions reflects an underlying difference in attitudes of native speakers.

[129] Arguably, the development of the Hebrew Gp PTCP *quttəl* should also feature as part of the reconstruction of stage 4, since it goes beyond the normal bounds of IP development. However, this was addressed above (in §5.7)

stages of IP development is the *loss* of IPs. A diachronic perspective surveying millennia of language development, naturally highlights the disappearance of IPs from Hebrew, Aramaic, and most dialects of Arabic during their later stages since this is the end point to which other developments ultimately lead. However, the deselection of IP variants in the competition against the N and *t* stems and generalised-SUBJ constructions was an ever-present possibility, realised to various extents throughout the history of IP development.

That IP decline occurred at different stages and to different extents in the various branches, languages, and dialects of the phylum is quite natural. The competing motivations governing variation (and change) differed from one situation to another, and as a result so too did the manner in and extent to which individual IPs were more or less successful. This perspective accounts for the messy situation, including periods of reversal in the loss of IPs, like that of the Aramaic Cp (discussed below). Most importantly, it allows the fortunes of IPs to be viewed in terms of the broad context of detransitive development, reaching a more nuanced understanding than simply charting their loss. The variation-and-change model of language diachrony predicts just such a liquid nature to IP decline, in constant undulation according to prevailing conditions, rather than an inevitable, rigid, linear one defined solely by its conclusion.

In Aramaic, for example, a high degree of functional symmetry between unmarked-active and detransitive-marked *t* stems, combined with extensive productivity of generalised-SUBJ constructions, was enough to suppress the Dp altogether before the written record of this branch even began. For much the same reasons, the Cp was not present during the written record of Old Aramaic, the earliest stage of the language, and ultimately was lost by Late Aramaic. However

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with the reconstruction of stage 3b since it is really just an extension of Hebrew Gp SC form. Pardee (2020, p.c.) is quite right to question whether *quttəl* can properly be considered a PTCP, since it comes nowhere close to being fully productive. That said, it is functionally restricted to referring to (transitive) patients of G(p) verbs, and so can best be conceived of as an innovative variant to the original G PASS PTCP *qatūl*, albeit one that only ever achieved an extremely marginal status before it ceased to be used.

during the interim, it experienced a brief surge following the loss of the Ct and before the rise of the neological Ct. The Aramaic Gp SC arose in response to motivations quite different from those elsewhere in Semitic, namely, the wholescale reorganisation of the conjugational arrangement of its verbal system. However, precisely that which provoked its formation—the pull to create a parallel to the emerging *qatl-in* IPFV derived from the ACT PTCP—was what gave rise to an alternative construction, the *qtil-li* PFV, responsible for the deselection of the Gp SC as a viable form.

In Hebrew, a much slower process, and one governed by an entirely different organisation of the detransitive system, nonetheless resulted in the same end situation of IPs being lost. For a time, the viability of the Gp may have been aided somewhat by the decline of the tG/Gt, though it is hardly certain that it ever achieved the same degree of productivity as the Dp and Cp. In any case, the Gp, the last IP stem to arise, was the first IP lost from Hebrew, where it succumbed to the pressures of functional symmetry.

Through post-Biblical Hebrew, the Dp and Cp disappeared by degrees, with the verbal system realigning into a bipartite quartet of stems G : N :: D : tD, outside of which the C stood in isolation.[130] This, then, was wholly distinct from the decline of Aramaic IPs; it occurred much later and was motivated by quite different factors. It would be foolish to unify the two cases except to note how, in both, the competing motivations of the given language ultimately made other variants more desirable options for selection than IPs.

Finally, most Arabic dialects have lost the IPs that are reconstructed for proto-Arabic. Ḥassāniyya Arabic lost the Gp but retained (and evolved) the Dp, Lp, and Cp, reflecting a decline of IPs in the direct inverse order of their formation. That is, the last IP created (the Gp)

[130] This restructuring was in no small part facilitated by a breakdown in the derivational relationship between the G and D, with the two increasingly standing as equivalent, lexically determined basic stems.

was the first lost. Just as in Hebrew, where precisely the same occurred, this may be attributed to the motivation towards functional symmetry working against the Gp, but not against the Dp, Lp, and Cp.[131] In most Arabic dialects, though, either the Gt or N dominates at the expense of the other, resulting in a different equilibrium between (detransitive stems). Such systems—G : N *or* Gt :: D : tD :: C : Ct—are inherently balanced, and hence tend to lose IPs. This is not to deny that a system like that of Classical Arabic with both N and Gt as well as a full complement of IPs was grammatical to native speakers.[132] It is noteworthy, though, that it only really blossomed in an artificial koine with a mandate to preserve the language of a foundational text (the Quran) in a dialect in which IPs were evidently entirely productive.

Since networks of competing motivations are inherently complex, a variety of different detransitive systems develop in the Arabic dialects. For example, quite aside from the question of the loss or preservation of IPs, some dialects extend the N to new contexts to create new detransitive stems, as described above (in §3.4.4). What all cases—and indeed those throughout Semitic—have in common is that the competing motivations governing the variation between detransitives, and among them IPs, are dynamic; situations are ever subject to change and any impression of stasis is misleading. For example, a sociolinguistic motivation—the pressure to conform to a prestige Gulf koine that does not possess IPs—is currently affecting Omani Arabic. After many centuries of productive IP use, the N, tD, and generalised-SUBJ constructions are finally ousting them.[133]

[131] The fundamental imbalance at issue is that between the two detransitive stems (N and tG/Gt) to the G, versus the single detransitive stem to each of the D and C (the tD/Dt and Ct, respectively).
[132] The independent presence of precisely such an inventory of detransitive stems in Ugaritic confirms its feasibility.
[133] Holes, 1998.

5.9 Conclusion

This chapter has reconstructed the historical development of IPs in Central Semitic.[134] Several stages have been reconstructed, and arguments presented for their relative ordering, and absolute chronology in terms of the history of the phylum. This built on the analysis in Chapter 4, which identified the common trends operative in IP development, and then analysed individual IP forms on their own terms, providing an abstract schema of IP development, slightly detached from the historical context(s). The current chapter took the results of this analysis, and finally slotted together in a diachronic reconstruction that not only accounts for all the IP data, but also contextualises them within the broader background of Semitic detransitive systems, as described in Chapter 3.

Stage 0 of this reconstruction, the kernel of IP development, was the rise of G PASS PTCPs. This began during WS but only really achieved significant progress by CS. Subsequently, though still during CS, stage 1 saw the creation of D and C PASS PTCPs. This was the last point at which the IP situation of Semitic was relatively homogenous—i.e., before finite IP forms had been created to differing extents and in different manners in the descendent languages—insofar as all CS languages possessed these forms. Even still, an amount of formal variation existed among the D and C PASS PTCPs of CS, and was indeed inherited into daughter, and even grand-daughter branches thereof.

Based on the D and C PASS PTCPs, stage 2a formed Dp and PC PC forms, also reflecting the formal variation in their source morphology. While this happened after stage 1, it may still have dated to proto-CS (in terms of the nodes of a genetic family tree of the phyum). Stage 2b,

[134] Since MSA is so poorly understood, the question of IPs in this language is addressed separately, in Chapter 6. The analysis in Chapter 4 and the reconstruction in this chapter inform the work in Chapter 6 extensively.

though, post-dated the breakup of CS, at which time, Dp and Cp SCs were created using different strategies in Arabic and NWS.

The timing of stage 3a, the development of the Gp PC, is difficult to pinpoint, and is tentatively dated to the same node of the Semitic family tree as 2b but ordered after it in relative terms (though the two could plausibly also have been synchronous). More certain is that the creation of the Gp SC with stage 3b did not occur until Aramaic, Hebrew, and Ugaritic were separate languages (as were Arabic and OSA, outside of the NWS sub-branch of CS). Finally, stage 4 witnessed the loss of IPs in the individual languages at varying paces, or else, as in Classical Arabic and OSA, their blossoming to the logical extreme with IP formation to (transitive, or at least two-argument) *t* stems verbs, which are detransitive in their own right.

For all the many differences between languages with regard to their IPs, the current approach understands them in terms of a generalised abstract schema, and thereby reaches a novel understanding of several pronounced commonalities. For one thing, the mechanism of IP formation is remarkably homogenous throughout all Semitic. It relies on the principle of a voice-marking height contrast (VMHC), commonly inherited by the different languages from its origin during the late-WS/early-CS stage 0, when it arose by being identified as a marking feature distinguishing the G ACT *qātil* from PASS *qatv̄ₕl* PTCP. Where possible, IPs were based directly on PTCP morphology, but otherwise—and increasingly during later stages of IP development—this VMHC was abstracted and applied to finite active verbs.

The other key innovative dimension of the current work is how it unifies all IP development, and indeed that of other detransitives, according to a number of motivations: 1) towards the functional symmetry of the paradigm, 2) towards its formal isomorphism, even to the extent this may contradict the preceding motivation, 3) a shift from primarily marking semantic features of

detransitive clauses to marking the syntactic organisation of their participants, and 4) the use of verbal adjectives—in the case of IPs, specifically PASS PTCPs—as a morphological source for finite verbs. These have each been found to be operative time and time again, often independently in the same way in different languages or otherwise repeatedly in different manners in a single language. However, these interact in complex webs, and a slight difference in one can translate into a markedly different attested situation. Thus, while the formation of IPs and their occurrence is governed by the same motivating factors throughout Semitic, the concrete attested situations differ precisely because these motivations occur in different combinations and manifestations.

Chapter 6. IPs in Modern South Arabian Languages [1]

6.1 Introduction

This chapter addresses IPs in the Modern South Arabian (MSA) languages. First, the classification of MSA within Semitic will be summarised and its verbal system described. Then, the IPs of the various MSA languages will be presented in synchronic terms and their development within the branch analysed based on these data. With regard to the historical reconstruction of MSA, caution is of the essence. Semiticists have often been far too speculative in their reconstructions of the diachrony of IPs, nowhere more so than in MSA. This is a language family whose study is in its infancy, and knowledge of its historical phonology is still being established. The chapter will conclude by examining MSA IPs within the context of the proposals made above (in Chapters 4 and 5) for Central Semitic (CS).

Unlike all other Semitic languages with IPs, MSA is not a member of the CS branch. The grounds for this classification are that it does not possess an IPFV form *yv-qtvl-u*, a key isogloss of CS, but rather retains a reflex of the PS IPFV *yv-qattvl*, in which respects it resembles Ethiopic alone among the WS languages.[2] This genetic model of Semitic is admittedly not universally accepted; some scholars reject the reconstruction of a CS branch, preferring to posit a South (East) Semitic group comprising the remainder of WS—Arabic, Ethiopic, (presumably?) OSA, and MSA—once NWS had hived off.[3] This proposal is objectionable, though, since the

[1] The data to which this chapter refers are presented in table form in Appendix B.
[2] Porkhomovsky, 1997, 4. Huehnergard (2005) identifies several other CS characteristics absent outside of the group, though some of these may be areal features or parallel independent developments. Furthermore, some are absent from OSA, and cannot therefore be proto-CS developments, but rather imply the existence of an intermediate node—Huehnergard's "North Central Semitic", in contradistinction to "South Central Semitic" (=proto-OSA)—between CS on the one hand and Arabic and NWS on the other.
[3] See, for example, Lonnet, 1993, 45: "La réalité du groupe sud-(ouest)-sémitique qui réunit le SAM [MSA], les langues sémitiques d'Ethiopie et l'arabe ne nous semble pas douteuse".

isoglosses upon which it relies could plausibly be areal features or retentions of original PS or WS features rather than evidence of a genetic relationship.[4]

It is far from certain whether MSA and Ethiopic share a common mother node below WS, standing as a sister to CS. At some level, a "proto-Ethiopic/MSA" node consisting of everything that remained of WS once CS had hived off is theoretically necessary, assuming the development of the innovative CS *yv-qtvl-u* IPFV created a binary split in WS.[5] However, in the absence of clear innovations shared by Ethiopic and MSA but absent from CS, the practical value in reconstructing such a putative node is questionable.

The only potential candidate for such an innovation is the development of CtD and CtL stems—Geʿez CtD *ʔastaqattala* and CtL *ʔastāqatala*, and Mehri CtD/L *šəqētil*—combining the C and t derivational morphemes with unmarked stems other than the G.[6] This is not a particularly surprising development, though, and reflects a perfectly natural levelling through the stem system. Examples of the same in Arabic dialects are certainly independent parallel developments, so it is no foregone conclusion that the MSA and Ethiopic forms in question are inherited reflexes of a proto-Ethiopic/MSA development.[7] The absence of a CD/L stem in MSA—one might expect a form like ***həqvtəl*—cognate to the Ethiopic CD *ʔaqattala* and CL *ʔaqātala* is an important difference between the two branches in this respect.

Whatever the value of the CtD/L as a diagnostic tool for the genetic classification of these languages, there is certainly nothing in the IP situation to suggest a proto-Ethiopic/MSA node, since MSA possesses IPs while Ethiopic does not. Nor does the situation argue for the contrary,

[4] The lenition *p > f could be an areal feature, if not an independent parallel development in Ethiopic and MSA; broken plurals and the L-stem may be retentions from proto-WS. Contact between Southern (in strictly geographical terms) Semitic languages may also have contributed to these features being more widespread and productive.
[5] The designation "proto-Ethiopic/MSA" would be preferable to the most logical alternative, "proto-South West Semitic", which could potentially mislead one to assume a contrastive distinction to "*North* West Semitic".
[6] Dillmann and Bezold, 1907, §§83–84; Johnstone, 1981, xvii.
[7] For dialectal Arabic CtD and CtL forms, see Cowell, 1964, 107–8; El-Hajje, 1954, 113; Lipiński, 1997, §41.31; and Sumikazu, 2005, §2.2.4.3. Unlike the productive Ethiopic and MSA CtX stems, these occur only sporadically.

though, since MSA IPs could be either a retention from WS lost in Ethiopic or an MSA-specific innovation that occurred once the branch had hived off from proto-Ethiopic/MSA. Ultimately, MSA's genetic position within the Semitic languages is tentatively identified here as being that of a sister branch to both CS and Ethiopic, all three being daughters of WS. This is according to the principle that when data are ambiguous, a reconstruction with more independent branches—or, from another perspective, fewer intermediate nodes—is preferable.[8]

For the internal classification of MSA, Lonnet posits a bipartite division into East and West branches.[9] The former comprises Jibbāli and Soqoṭri, the latter Mehri, Ḥarsūsi, and Baṭḥari—these last three, considering their mutual intelligibility, perhaps being dialects of a single language. Hobyōt is another language that Rubin positions within the West MSA group, though on a separate sub-node from that shared by the other three languages/dialects mentioned. Further, Hobyōt is subject to extensive influence from East MSA, specifically through loans from Jibbāli.[10] In relation to IPs, there exists a conspicuous division among the three largest MSA languages that does not align with Lonnet's East-West bifurcation but rather with the geographical distinction of Mainland MSA versus Soqoṭri: the analysis below (in §6.5) finds that Jibbāli and Mehri IPs, spoken on the Arabian Peninsula, share similarities in form and usage not found in Soqoṭri, spoken on the Soqotri Archipelago.

The MSA branch has had a great deal of language contact during its history, with the result that "[m]ultilingualism is standard among Modern South Arabian speakers, who nearly all speak Arabic and, except in Soqoṭra, one or two other Modern South Arabian languages as well".[11] There is evidence of extensive intra-MSA language contact, particularly among the languages of

[8] One should of course remain open to modifying the reconstruction in light of new evidence; cf. Huehnergard's (1995, 282) work on the genetic classification of Aramaic, specifically the relationships of Samalian and the language of Deir ʿAlla to Old Aramaic.
[9] Lonnet, 2006, 27–30.
[10] Rubin, 2015.
[11] Lonnet, 2009, 297–98.

the mainland. Easily the most important external language-contact situation is that with Arabic, which has exerted a large influence over MSA and continues to do so.

In considering Arabic-MSA language contact, it is crucial to avoid the pitfall of oversimplifying and assuming a common degree of influence on all MSA languages, or indeed a unified source form of Arabic. Mehri has historically been the MSA language the least isolated from external linguistic contact, so it exhibits the highest level of influence from Arabic; within Mehri, the dialects of Yemen are influenced more by Arabic than is that of Oman.[12] Borrowings from Arabic into MSA are *not* restricted to the lexicon; considering the greater similarity and closer proximity of MSA languages to each other than to Arabic, it is wholly unsurprising that morphological borrowing likewise occurs within MSA itself, that is between the individual (Mainland) MSA languages.[13]

With this in mind, despite general theoretical arguments against areal diffusion of a morphological feature, it is that IPs may best be explained in terms of the MSA language-contact situation rather than according to a family-tree model. What *is* to be avoided, though, is to simply propose a vague explanation in terms of areal diffusion merely because a genetic account is not forthcoming. When Appleyard, for example, suggests that IPs may have been loaned into MSA from Arabic, he presents his argument in broad, impressionistic terms.[14] There is no proper examination of the contact situation taking into account different levels of contact in different MSA languages or specifying the precise source (i.e., which Arabic dialect) of the loan. Nor does he demonstrate that the MSA and Arabic IP SCs are morphologically cognate or indeed make any mention of MSA IPFV forms. Instead, his proposal is a post hoc solution motivated by a

[12] Lonnet, 2009, 297; Watson, 2012, §0.1.2. Apart from Arabic, Rubin (2008, 69–70) also explains a number of isoglosses between MSA and the OSA language Ḥadramic as resulting from borrowing.
[13] Lonnet, 2009, 298; Watson, 2012, §0.1.2.
[14] Appleyard, 1996, 220. Huehnergard (2005, 182) also voices the possibility that the Arabic Gp PC *yu-qtal* was loaned into MSA, without elaborating further, though he does not rule out alternative genetic explanations.

desire to account for what he considers a CS feature in MSA, based on a superficial observation of formal similarity between the MSA Gp SBJV and the Arabic Gp PC.

Before moving to the description of IPs, a brief survey of the MSA verbal system in general is necessary, since it is substantially different from those of the CS languages covered in previous chapters.[15] Like Ethiopic and Akkadian, MSA has preserved a reflex of the original PS (indicative) IPFV form **ya-qattvl*, namely *yə-qūtəl* (unless stated otherwise, forms cited in the following are Mehri).[16] It also possesses another prefix-conjugation form, (Ga) *yə-qtēl* (<**ya-qtul*), which, with independent use, expresses various kinds of modality (mainly deontic, but also epistemic), but is far more common in dependent use with a range of functions aligning very closely with European subjunctives and the Classical Arabic *manṣūb* form *yaqtul-a*, and is hence termed the SBJV. The third tense of the MSA verbal system is the perfect-marking SC (Ga) *qətūl* (<**qatala*) that is the key isogloss of the WS branch of Semitic.[17]

As for the MSA verbal stem system, the basic G stem takes two distinct forms: Ga *qətūl* and Gb *qītəl*, which derive respectively from the proto-WS fientive **qatala* and stative **qatila* /**qatula*. It also possesses a D/L stem with a lengthened vowel between R_1 and R_2, *(a)qōtəl*; a C causative stem, *həqtūl*; two stems with an infixed *-t-*, Gt *qattəl* and D/Lt *əqtətūl*; and two with a prefixed *š-*, Ct(G) *šəqtūl* and CtD/L *šəqētəl*.[18] A Gp *qətēl* may be formed from the Ga, and IPs are very sporadically (in Mainland MSA at least) formed from other stems, particularly the C.

[15] The following summary of MSA conjugations is based on Rubin, 2018, ch. 7; Rubin, 2014a, ch. 7; Simeone-Senelle, 1997, 416ff.; and Watson, 2012, §2.5.

[16] Goldenberg (1998) has convincingly disproved Cohen's proposal, which Lonnet (2006, 38) follows and summarises, that MSA *yə-qūtəl* results from a resyllabification of **yi-qtul-u*.

[17] Rubin, 2018, §7.1.4; Rubin, 2014a, §7.1.5; Simeone-Senelle, 1997, 401ff.; Watson, 2012, §2.5.1.3.2.3. A distinct conditional is found in Jibbāli and Omani Mehri (and in remnants in Yemeni Mehri, Ḥarsūsi, and Hobyōt). The rarity of this conjugation in concert with that of IPs generally means that this part of the paradigm is best ignored in the present study, since data on which to base any analysis are lacking.

[18] This description is based on Johnstone, 1975; Rubin, 2018; and Simeone-Senelle, 1997. The term "D/L" Is used, following Rubin, presumably because although the lengthening of the vowel between R_1 and R_2 is reminiscent of the Arabic and Ethiopic L stem, the D stem is undoubtedly more primary in the Semitic verbal system generally.

The main difference between the MSA stem system and those of CS is not so much one of diachronic development—apart from the CtD/L, the MSA stems can all be linked to proto-WS forms, even if there is some disagreement regarding the origins of the *t* stems, and cf. the discussion below on the origin of the D/L—but rather relates to their synchronic uses.

The derived verbal stems have to various degrees become lexicalised and lost their derivational meanings, although the extent of this lexicalisation is contested. Johnstone attributes regular, predictable functional values to stems in terms of relationships to their unmarked counterparts (D/L =+conative-intensive, C =+causative, *t* =+reflexive, Ct =+causative, +reflexive), just as occurs in CS.[19] Simeone-Senelle holds a more moderate position and relates derivational or lexical status to the specific attestation of stems from a given root. That is, the D/L represents transitivity raising *relative to its G counterpart*; only when no corresponding G exists may the D/L become lexicalised and occur as an intransitive verb. She also proposes that a distinction exists between the transitive Ga and intransitive/stative Gb, preserved from their respective proto-forms **qatala* and **qatila*.[20] Rubin, by contrast, holds that the only regular derivational relationship among the MSA verbal stems is that the C expresses the G + causativity. While he does not deny that derived stems may retain their original functions, his descriptions suggest that he considers such uses historical remnants and no longer predictable.[21]

The *t* stems—Gt *qattəl* and D/Lt *əqtətūl*, the identification of which discussed below—are extensively lexicalised, though detransitive uses (as reconstructed for the proto-WS mother node) are also attested. A number of Gt verbs are attested with reciprocal meaning, relative to a corresponding G, "others can be loosely classified as passives, intransitives, or reflexives…still

[19] Johnstone, 1975, §3.1.1.
[20] Simeone-Senelle, 1997, 397–401.
[21] Rubin (2014a, §6.2.1; cf. 2018, §6.2.3) makes the same statement, verbatim, regarding Jibbāli and Mehri, respectively: "It is not possible to assign a productive or consistent meaning to the D/L-Stem". His (2014a, ch. 6; 2018, ch. 6) descriptions of the Mehri and Jibbāli verbal systems give the same impression of a breakdown of the derivational meaning for the other MSA verbal stems.

others, including some transitive verbs, are best considered lexical".[22] In the D/Lt, corresponding unmarked forms "are most often also attested in the D/L-Stem, though the derivational relationship between the two is not always obvious. When there is a clear relationship, the T2-Stem [D/Lt] is usually a passive of the D/L-Stem, less often a reflexive".[23]

In assessing the function(s) of MSA *t* stems, one indicator that they cannot be considered productive detransitive markers is the fact that their lexicalisation is so extensive that their respective unmarked counterparts are no longer certain, and a degree of confusion between them has obtained, exacerbated by extensive loans from the Arabic Gt and tD.[24] This situation has resulted in scholars diverging on the very identification of MSA *t* stems: Rubin considers MSA *fátgər* "to burst" and *əftəkūr* "to think" cognates to the Arabic Gt *(ʔi)ftajara* and tD *tafakkara*, respectively; Johnstone and others conversely equate these forms with Arabic tD *tafajjara* and Gt *(ʔi)ftakara*.[25] The derivational opacity of the MSA *t* stems is so intense that Simeone-Senelle even relates them not to the basic opposition between G and D/L, but rather to the subcategories of G stem (i.e., seeing *qattəl* as a "Ga*t*" stem and *əqtətūl* as a "Gb*t*").[26]

Rubin is doubtless correct that *qattəl* (his "t_1" stem) is, diachronically speaking, the Gt, and *əqtətūl* (his "t_2") the D/Lt. Even without a secure semantic basis—and there is arguably some evidence of this kind in support of his position, albeit not the most robust—morphological features confirm this alignment. Notably, an inflectional suffix *-ən* occurs in the IPFV of the D/L (*ya-qátl-ən*) and the IPFV corresponding to SC *əqtətūl* (*yə-qtətīl-ən*), but not with the G IPFV

[22] Rubin (2018, §6.5.2; cf. 2014a, §6.5.2) gives the same description, verbatim, for Mehri and Jibbāli.
[23] Rubin (2018, §§6.5.2, 6.5.4; cf. 2014a, §§6.5.2, 6.5.4) gives precisely the same description for Mehri and Jibbāli, with only minor variations in phrasing (such as "if" for instead of "when").
[24] Rubin, 2012, p.c.
[25] Rubin, 2018, §6.5; contra Johnstone, 1975, 13; Appleyard, 1996, 216–19.
[26] Simeone-Senelle, 1998, §1.3.2. Such a situation would be unique within the Semitic languages, and, even if one assumes that these derivational relationships are wholly synchronic, is highly implausible.

(Ga *yə-qūtəl* / Gb *yə-qtōl*) or that corresponding to SC *qattəl* (*yə-qtətūl*).[27] The fact that one must rely on a formal basis to identify the diachronic origin of the MSA *t* stems, and that this cannot be reliably achieved by recourse to the semantics of marked and unmarked counterparts is decisive in confirming their primary function(s) as lexical rather than derivationally detransitive.

Lexicalisation of verbal stems in MSA is not limited to the *t* stems, but likewise affects the D/L, CtG, and CtD/L. Overall, Rubin frames this breakdown of the historical functions of the derived verbal stems within a major restructuring of the verbal stem system. Key in his analysis is the form of the D/L SC *aqōtəl*, where he notes that the

> prefix *a-* that we find in Mehri (and similar prefixes in the other MSA languages) is very likely a copy of the prefixed morpheme that we find in the H-stem [C], added in MSA in order to provide symmetry to the system of derived verbal stems. So the D/L-stem is the counterpart of the H-stem [C] in the way that the T2-stem [Dt] is the counterpart of the T1-stem [Gt] and the Š2-stem [CtD/L] is the counterpart of the Š1-stem [CtG].[28]

The synchronic arrangement of MSA derived verbal stems is one of two tiers—C : Gt : Ct and D/L : D/Lt : CtD/L—both built off the G, with the proviso that the derivational (transitivity-raising) relationship between the G and C is far more robust than that between the G and D/L.

Individual stems may perform functions conforming to those reconstructed for their inherited proto-forms, but in MSA these are neither productive nor predictable (except, perhaps in the C), and the meaning of a given form is largely governed by which stems that particular root happens to form. Lonnet notes that this lexicalisation is more advanced in Soqoṭri than in continental MSA, such that Mehri and Jibbāli roots frequently form multiple stems that exist in derivational

[27] On the same basis, *šəqtūl ~ yə-šəqtūl* (SC ~ IPFV) may be identified as a CtG stem and *šəqētəl ~ yə-šqatl-ən* as a CtD/L. The scarcity of the CtD/L compared with the CtG is also entirely in accordance with the comparative evidence from Ethiopic and with natural expectations about the CtD/L as a neologism. Parallels between the G and CtG and between the D/L and CtD/L also occur in the SC forms: Ga *qətūl* and CtG *šəqtūl* share a stem *(-)qtūl*; D/L *aqōtəl* and CtD/L *šəqētəl* share a stem *(-)qvtəl*; note that *(a)qētəl* D/L forms with the stem vowel *ē*, while rare in Mehri, are relatively common in Soqoṭri and the norm in Ḥarsūsi (Rubin, 2018, §6.2.1).
[28] Rubin, 2018, §6.2.2.

relationships to each other (if loose ones) whereas in Soqoṭri a given root usually forms a single stem (or occasionally two) with no clear relationship between stem and meaning.[29]

When considering IPs within this whole system of verbal stems, it is crucial to note that far from taking part in this lexicalisation, they have a highly predictable derivationality.[30] IP formation has as prerequisite an unmarked counterpart stem, unlike any of the other derived stems in MSA, which may all occur independently. In continental MSA, at least, IPs only express the prototypical passive thereof, though various secondary, non-prototpyical uses (e.g., impersonal passives and even desubjectives) occur in Soqoṭri, as discussed below (in §6.4). Furthermore, IPs are very scarce in continental MSA and virtually limited to the Gp—Soqoṭri expansions on this situation are shown below (in §6.4) to be secondary developments—so they cannot be considered an element firmly embedded within the MSA stem system; rather, they are superficially overlaid upon it, and for the most part practically only on its primary (G) stem.

These fundamental differences between IPs and the other MSA verbal stems could reflect their status as recent additions to the language that have not yet had time to lexicalise, nor to become well enough established to take place in the structural reorganisation of the verbal stems. If so, their development presumably post-dates that of the CtD/L stem, which *has* undergone extensive lexicalisation and *does* take part in the reorganisation of verbal stems, but cannot be confidently reconstructed further back than proto-MSA.[31] Alternatively (or additionally), IPs may not be apt to lexicalisation because they tend towards the inflectional end of the inflectional-derivational spectrum of morphology, whereas the consonantally derived stems are situated

[29] Lonnet, 1994, 250; 1998, 57–76.
[30] The closest IPs come to lexicalisation is to possess slightly more specific semantics than their unmarked counterparts—cf. Ga *xəlūq* "to create" versus Gp *xəlēq* "to be born" as well as "to be made" (Rubin, 2018, §7.1.7). This is hardly a surprising development; cf. the Arabic Ga *saʔala* "ask" versus Gp *suʔila* "be responsible", as well as "be asked". One exception is Jibbāli *yə-ḥáréṣ-ən* "be made jealous/scared" (Rubin, 2014a, TJ4:57; cf. discussion below in §6.3) whose active D/L counterpart means "to insist", which notably comes from the very rare D/Lp.
[31] A counterargument would be that the CtD/L stem was highly susceptible to lexicalisation because of its rarity, and/or because its functional load was more dispensable than the passive function of IPs.

toward the derivational end. Whatever the case, any understanding of MSA IPs within the broader context of the MSA verbal system must take the lexicalisation and reorganisation of derived verbal stems—and the non-participation of IPs therein—into account.

The following description of MSA IPs, presents the data from the three main languages of the branch individually: Mehri, Jibbāli, and then Soqoṭri.[32] First, the Gp forms of the three finite conjugations (SC, IPFV, and SBJV) are described, and these are then compared to other IPs (to the limited extent that they occur). Particular attention is paid to syncretism between active-passive syncretism in the Gp of certain root types, since this has been shown to affect IP development elsewhere in Semitic (and notably in Arabic dialects in contact with MSA).[33] After the morphology, the functional dimension of IPs—that is, what semantic and pragmatic meaning they express, and how they affect syntax—is described, especially insofar as the Soqoṭri situation diverges from the largely homogeneous CS situation (to which the continental MSA languages basically conform).

6.2 Mehri [34]

In Mehri, the Gp SC is distinguished from its active counterpart—principally the Ga, although occasionally transitive Gb verbs possess Gp counterparts—by alteration of the vowel between R_2 and R_3.[35] The basic distinction, occurring in the 3MSG, 3FPL, and 1P, is between +back in the

[32] This order moves from the West branch of MSA to the East branch, from the mainland to offshore, and from a situation of greater language-contact (both internally and externally) to a more isolated one. These distributions, overlaid upon each other, correlate with a continuum in IP behaviour identified by the analysis below (in §6.5).
[33] Cf. the discussion of *yi-qtal* (stative/intransitive) G/Gp PC forms in Central/East Arabian Arabic in §4.10.
[34] The data on which the following description is based are presented in Appendix B, Tables B1.1 and B1.2.
[35] This description follows Johnstone (1987, xix–lxix), Rubin (2018, chs. 6–7), and Watson (2012, §2.5). Forms are from the Omani dialect, unless otherwise specified.

active and +front in the passive: Omani Mehri Ga *q(ə)tūl* versus Gp *q(ə)tēl*.[36] It is notable that Yemeni Mehri possesses a long high vowel in its Gp SC *qītél* between R_1 and R_2, important ramifications of which are discussed below.[37]

The stem vowel *ē* between R_2 and R_3 of the Gp SC exhibits some person-based allomorphy, though the morphology environments conditioning this are not difficult to identify. For example, it is reduced to *a* in 1SG/DU and 2 *qətál-k* in the environment */_CC#* (contrasted to ə in the Ga *qətəl-k*).[38] Elsewhere, in the 3FSG *qətl-ēt* and 3MDU *qətl-ē*, personal markers *-ēt* and *-ē* create the environment */_Cv́*, resulting in syncope of the *ə* between R_2 and R_3.

The suffixed person markers 3FSG *-ēt*, 3MDU *-ē*, and 3FDU *-tē*, are a highly distinctive feature of Mehri IP morphology, since they contrast with counterparts *-ūt*, *-ō*, and *-tō* occurring in the corresponding positions in the active counterparts.[39] Indeed, since the SC stems for these persons are the same (*-qətl-*) in the Ga and Gp, this means the vowel distinction +back ≠ +front between the Ga and Gp SCs, respectively, occurs only in the person-marking suffixes.[40] This voice-marking ablaut occurring on a person-marking suffix—which, it must be noted, is a unique occurrence within Semitic IPs—occurs in 3FSG Ga *qətl-ūt* versus Gp *qətl-ēt*, or Ga *qtəl-ūt* versus *qtəl-ēt* with √1&2=idle glottis, and 3FDU Ga *q(ə)təl-tō* versus Gp *q(ə)təl-tē*.[41]

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[36] The schwa between R_1 and R_2 is absent when both are "idle glottis" consonants: *f, ṯ, t, s, š, ś, k, x, ḥ,* and h. These do not permit an unstressed, phonemic *ə* between them (Rubin, 2018, §2.1.2).
[37] Watson, 2012, §2.5.1.4.
[38] For explicit citation of this sound rule and other examples, see Rubin, 2018, §2.2.
[39] The surface realisation of these person markers is actually *-(t)ōh/-(t)ə́h*. Rubin (2018, §§2.2.4, 7.1.1) explains this as the result of sound rules **ō > ōh/_#* and **ē > ə́h/_#* affecting underlying forms *-(t)ō/-(t)ē*; following the first edition (Rubin, 2010, §7.1.1) of his Mehri grammar, the latter forms are used to highlight the *historical* active-passive ablaut distinction, which is somewhat eroded in the surface representation.
[40] The person-marking suffixes 3FSG *-ēt*, 3DU *-ē*, and 2DU *-tē* also occur in the D/L, CtD/L, and Q—that is, those stems for which the proto-vowel **u* is reconstructed for the prefix of the IPFV and SBJV—so they cannot be analysed as merely an extension of the vowel-quality distinction between Ga and Gp (back versus front) to this position from its primary locus between R_2 and R_3. Nonetheless, the possibility that this parallel may have played a role in the use of suffixes with the +front vowel in the Gp may not yet be ruled out.
[41] The closest parallel is that of neological Ḥassāniyya Arabic IP SCs discussed above (in §§3.4.3, 4.8), whose voice distinction is marked in a prefix (albeit not a person-marking one), introduced to the IP SC from the PASS PTCP/IP PC: i.e., D SC *qattal* versus pD SC *u-qattal*, where the voice distinction (*ø ≠ u*) occurs outside of the stem.

All of the preceding passive-marking *ē* vowels are subject to two regular sounds rule operative in Mehri, namely the lowering rules **ē* > *ā/Ç_́* (where *Ç* =a glottalic ejective) and **ē* > *ā/G_́* (where *G* =a velar/pharyngeal fricative). In the Gp SC, these rules affect the stem vowel in √2=*Ç/G*, and the 3FSG and 3MDU (and 3FDU in Yemeni Mehri) suffixes in √3=*Ç/G*. For example, both *rəṣān* "he was tied up" (3MSG from √*rṣn*) and *ṣəbṭ-āt* "she was hit" (3FSG from √*ṣbṭ*) have a passive-marking *ā* vowel, rather than the *ē* of the strong root.[42]

In Omani Mehri, the Gp IPFV and SBJV are identical to each other, and to the Gb, throughout the SG and DU (with the proviso that DU forms bear the suffix *-ē*, rather than *-ō* in the Gb). 3MSG *yə-qtōl* could be either Gb or Gp, and either IPFV or SBJV; 3MDU (IPFV/SBJV) Gp *yə-qtəl-ē* and Gb *yə-qtəl-ō* differ only in their suffixes.[43] However, the Gp is usually formed not from the Gb, but instead from the Ga. In the SG and DU at least, distinction between the two is clear—cf. e.g., 3MSG Ga IPFV *yə-qūtəl* and SBJV *yə-qtēl* versus Gb/Gp IPFV/SBJV *yə-qtōl*. In the PL, the Gp IPFV is likewise indistinguishable from the Gb (e.g., Gb/Gp IPFV 3MPL *yə-qtīl*); the Gp SBJV, though, instead follows the Ga, with both taking the stem vowel *ē* (e.g., Ga/Gp SBJV 3MPL *yə-qtēl*).[44]

In Yemeni Mehri, both the IPFV and SBJV of the Gp use the same stem as the SC, namely *qītéĺ*, to which they add the standard person-marking prefixes (and, where appropriate, suffixes). This is true at least in the 3MSG; I have been unable to find examples from other parts of the paradigm to determine the situation there.[45] Because of this, active-passive syncretism is more widespread in Omani Mehri, since there the Gp is distinct from both Ga and Gb only in the SC

[42] For these sound changes, including examples from the Gp and other contexts, see Rubin, 2018, §§2.2.1, 2.2.2.
[43] The stem allomorphy of the Gp follows that of the Gb: *qtōl* as default, 3FSG *-qtáyl*, *-qtəl-* throughout the DU.
[44] The data discussed here are presented Table B1.1, following Rubin's (2018, §6.1.2) paradigm; he is generally more reliable than Johnstone (1987, xxi–xxii), who gives identical PL IPFV and SBJV forms for the Gp.
[45] Simeone-Senelle, 1997, 407.

(in strong roots at least), while Yemeni maintains a voice distinction in all conjugations.[46] Insufficient data for Hobyōt exist to allow a confident description of the situation, though it is worthwhile citing one (3MSG) IPFV Gp form, "*yɛ-ḳābōr*" (ostensibly from **yɛ-ḳḗbōr*, with **ē* > *ā/Ç_́*). Its disyllabic stem is characteristic of the MSA IPFV (as distinct from the typically monosyllabic stem of the SBJV), but unlike that of Yemeni Mehri, it cannot be linked to Gp SC morphology.[47]

One of the most important aspects of the description of Mehri IPs is how those from certain weak root types behave, and specifically how they expand on the active-passive syncretism of the strong root, so that it also occurs in the SC. The Ga/b of √2=*G* has a stem-vowel *ā* in 3MSG and 3PL SC forms, and *a* in persons 1 and 2.[48] Since Gp forms are subject to lowering **ē* > *ā/G_*, a voice distinction is only preserved in person-marking suffixes (i.e., the 3FSG and 3DU).[49] 3MSG *səḥāṭ* could be Ga/b "he slaughtered" or Gp "he was slaughtered"; 2MSG *səḥáṭ-k* Ga/b "you slaughtered" or Gp "you were slaughtered"; but Ga/b *səḥṭ-ūt* "she slaughtered" is formally distinct from Gp *səḥṭ-ēt* "she was slaughtered". A comparable situation occurs in √2=*h*, since the Ga/b SC has the stem vowel *ē* in the 3MSG, 3PL, and 1PL, and is therefore identical to

[46] DU SBJV and IPFV suffixes are admittedly different in the Gp and the Ga/Gb (as discussed above). However, the DU is a marginal part of the paradigm that very much in decline, and native speakers often uncertain how to produce "correct" forms (Rubin, 2013, p.c).
[47] Lonnet, 2006, §6.6. One possibility here is that this form is a loan from Jibbāli, which exerts extensive influence on Hobyōt and possesses a (sometimes) disyllabic Gp IPFV stem *-q(e)tɔl* distinct from the always monosyllabic Gp SBJV stem *-qtɔl*.
[48] The term Ga/b is used to where given root type possesses a single form for the basic, active verb, rather than distinct Ga and Gb forms.
[49] Rubin, 2018, §§2.2.1, 7.2.5, 7.2.6. The active-passive syncretism under discussion is illustrated in Table B1.2. The preceding does not apply to √2=ʕ (discussed below), which has a separate, irregular Ga/b form.

the Gp in these persons.[50] Yemeni Mehri is not subject to the same ambiguity, since the *ī* between R_1 and R_2 of the Gp distinguishes it from the Ga, which has *ə* in this position.[51]

Apart from the SC, √2=*Ç/G/h* Ga/b IPFVs and SBJVs all have the stem *qtōl*, following strong-root Gb morphology (including its person-governed stem allomorphs). Active forms of these root types are therefore identical with the Gp in the prefix conjugations. This is a more advanced syncretism than occurs in the strong root, where the parts of the Ga differ from the Gp. In the strong root 3MSG Ga IPFV *yə-qūtəl* ~ SBJV *yə-qtēl* and Gp IPFV/SBJV *yə-qtōl* are quite distinct; in √*sḥṭ* (a √2=*G* root), 3MSG *yə-sḥōṭ* could be Ga/b "he slaughters" or Gp "he is slaughtered", and regardless which stem, could be either IPFV or SBJV.[52]

Since the consonants ʔ and ʕ share certain characteristics with those discussed above, one might expect a similar situation to exist in √2=*ʔ/ʕ*. However, the data are scarce and the literature somewhat contradictory, so little may be said with certainty. Yemeni Mehri Ga/b *śam-ōt* "she sold" and Gp *śam-ēt* "she/it was sold" (both 3FSG from √*śʔm*) have identical stems, and the voice distinction is marked solely in the suffix.[53] Omani Ga/b *sōl* "he asked for payment" and *swīl* (possibly <**səʔīl*?) "he was asked for payment" (both 3MSG from √*sʔl*), though, do not.[54] The only Gp IPFV from these root types I have found is the Omani form *yə-səwīl* (3MPL IPFV from √*sʔl*).[55] Its glide, and the resulting disyllabic stem, is unexpected. Considering, the Yemeni

[50] Rubin, 2018, §7.2.5; Johnstone, 1987, xxvi–xxvii. Ḥarsūsi *zēhər* "appear, shine" (Johnstone, 1977, 149) is anomalous in that it apparently represents a distinct Gb-type form for √2=*h*. However, Johnstone (1987, 466) explicitly notes its distinctive form in contrast to Mehri *zəhēr*, so it seems not to simply be a typographical error.
[51] Watson, 2012, §2.1.5.4. In Hobyōt such an *i* vowel (or variant *ɛ*) appears in the Gp, but also in the Ga. Therefore, as in Omani Mehri, the two are only distinguished by the vowel between R_2 and R_3: "ğilód 'il a frappé' et ğiléd 'il a été frappé'; ḳɛśór 'il a épluché' et ḳɛśér 'il a été épluché'" (Simeone-Senelle, 1998, 75).
[52] Johnstone, 1987, xxvii–xxviii; Rubin, 2018, §7.2.5. There exist some variants that instead follow the strong-root form in the Ga—e.g., Johnstone (1987, 291) provides *nəḥāg ~ yə-nōḥəg ~ yə-nḥāg* (<**yə-nḥēg*); Rubin provides the IPFV/SBJV form *yə-nḥōg* that is more expected for such a √2=*G* root (√*nḥg*).
[53] Watson, 2012, §2.5.1.4.
[54] Johnstone, 1987, s.v. √*sʔl*; Stroomer, 1999, 4:1n2.
[55] Stroomer, 1999, 58:7.

Mehri Gp IPFV stem *qītéĺ* matches that of the SC, it is possible these forms reflect something similar occurring in the Omani dialect (in √2=*ʔ* at least).

The final weak root type to be described is √2=3, which exhibits partial syncretism between the Ga/b and the Gp.[56] The SC stem for both active and passive verbs is *qəll-* for the 3FSG and 3DU, and the distinction is thus restricted to the person-marking suffix: Ga/b *śəll-ūt* "she took" versus Gp *śəll-ēt* "she/it was taken".[57] In the 3MSG and 3FPL, though, the Ga/b SC has the monosyllabic stem *qəl* (with simplification of the final geminated consonant) while Gp *qəlēl* follows the strong-root pattern.[58] The voice distinction is also eroded in the IPFV of √2=3: 3SG, 3FPL, 2MSG, 2FPL, and all first-person forms have the Ga/b IPFV stem *-qlūl*(-), with only a slight difference from Gp *-qlōl*(-), the opposition between *ō* and *ū* being far from robust in Mehri.[59] As normally occurs with verbs whose MSG stems have a back vowel between R_2 and R_3, the 3MPL is marked by ablaut, but the Ga/b and Gb two use different kinds of ablaut, so a distinction is maintained: 3MPL IPFV Ga *yə-qlawl* versus Gp *yə-qlīl*.[60]

The preceding description of the Mehri Gp illustrates a few broad trends worth bearing in mind when considering MSA IPs more generally. Syncretism between IPs and their active counterparts is extensive in Mehri, and between its dialects, is more widespread in Omani than Yemeni. Such a situation is extremely uncommon in CS languages, though it does occur in some

[56] The active-passive syncretism under discussion is illustrated in Table B1.2.
[57] Johnstone, 1987, 379; Rubin, 2018, §7.2.11. I have found no 3DU forms, though nor am I aware of any reason to suspect that they would not behave similarly. One might well imagine that the 3MPL Gp SC would likewise be identical to that of the Ga/b, *qəll-əm*, though data are currently unavailable to (dis)prove such a prediction.
[58] Johnstone (1987) does not provide Gp forms for the first and second persons of √2=3, so it cannot be ascertained whether they are identical to the Ga/b (i.e., *qə́ll-ək* for 1SG), or instead follow the strong root pattern (***qəlál-k*).
[59] Johnstone, 1987, xxiii; Rubin, 2018, §7.2.11. Rubin (§2.2) states that "*ō*…and *ū* rarely contrast, and sometimes the pronunciation [sic] of the two are difficult to distinguish" but then provides the minimal pair Ga/b *yə-ślūl* "carries" versus Gp *yə-ślōl* "is carried". Interestingly, Stroomer (1999, 68:0) cites this very verb with *ū* rather than *ō* in a passive context (3FPL IPFV *(tə)-śəlūl-ən* "could be loaded"), illustrating precisely the low distinction at issue.
[60] An example confirming the √2=3 Gp 3MPL IPFV follows strong-root *yə-rṣīs* is *yə-rəṣáyṣ* (with the regular sound change **ī* > *ay*/*Ç_́* and epenthesis in a liquid environment) "were pressed" (Stroomer, 1999, 53:2).

Central/East Arabic Arabic dialects.[61] In the (Omani) Mehri Gp SC, syncretism with the Ga/b results from regular phonological processes operative in certain weak root types. In the prefix conjugations it is also present in the strong root, though more so with the Gb than the Ga. Active-passive syncretism is exacerbated in some weak root types, because their Ga and Gb forms fall together into a pattern following the strong-root Gb.[62]

Another interesting characteristic of Mehri IP morphology is the locus of voice distinction. In CS languages this may occur in the stem of the SC and PC and/or in the prefix vowel of the PC—e.g, in Classical Arabic G (variant) PC *ya-qtal* versus Gp *yuqtal*. However, in Mehri, IP SC forms also bear person-marking suffixes that differ from those of corresponding active forms precisely by the same +back ≠ +front ablaut as occurs between the stems of the Ga and Gp SC—cf. e.g., 3MSG Ga *q(ə)tūl* versus Gp *q(ə)tēl* and 3FSG Ga *qətl-ūt* and Gp *qətl-ēt*. Nowhere else in Semitic is such a distinction is made in the vowel of a *suffix*, let alone this being the sole locus of distinction of an IP from its active counterpart.[63]

Apart from the Gp, Mehri possesses a handful of Cp forms.[64] In his grammatical précis and lexicon, Johnstone lists just two Cp verbs (SC ~ IPFV/SBJV): *aglēl* or *həglēl ~ ya-glōl / yə-gəlōl* (from √*gll*) and *awḳā or həwḳā ~ yə-hawḳā* (from √*wḳʕ*).[65] Rubin further identifies the possibility that *yə-həḳāśa* from √*ḳśʕ* may be a Cp form, although he admits this interpretation is far from

[61] See Holes, 1998, and the discussion above (in §4.10) of *yi-qtal* G/Gp PC forms.
[62] Interplay between active-passive syncretism and Ga/b syncretism in weak roots must be informed by reference to the larger MSA situation, and particularly the comparison with Jibbāli data—which is presented in Appendix B. The analysis below (in §6.5) finds these two issues to be of the greatest significance to MSA IPs.
[63] That is not to suggest that passive marking is the *origin* of the suffixes with front vowels, since -*ēt* (3FSG), -*ē* (3MDU), and -*tē* (3FDU) are also found with the D/L, CtD/L, and quadriradical verbs (Rubin, 2018, §7.1.1).
[64] It is noteworthy that all Cp forms identified come from one of the weak root types √2=*3* and √3=ʕ, though I am at a loss to identify what the significance of this distribution might be.
[65] Cf. *əglēl ~ yəgəlōl* and *awḳā ~ yawḳā* (Johnstone, 1975, §3.1.5, with some standardisation of transcription) and *aglēl ~ yaglōl* and *awḳā ~ yəhawḳa* (Johnstone, 1987, 118, 427). A 3MSG IPFV *a-wḳā* is attested in context (Rubin, 2018, 97:16).

certain.[66] Simeone-Senelle provides a Yemeni Cp SC *həđīḳéḳ* from √*dḳḳ*, this being the only Cp I have found from that dialect.[67]

Since the data available are so scarce and unreliable, the analysis is necessarily speculative. Nonetheless, it is notable that the +back ≠ +front distinction between C *həglūl* versus Cp *həglēl*, and C *yə-həḳūśa* versus Cp **yə-həḳēśa* (> *yə-həḳāśa*) parallels precisely that between the Ga versus Gp SCs. In the C(p), a contrast active +front versus passive +back occurs in a prefix conjugation; in the G(p), however, this voice-marking apophony is restricted to the SC. Furthermore, in terms of rule ordering, the very locus of this contrast between R_1 and R_2 situates the creation of the Cp after the regular Mehri sound change **əCCūʕ* > *CūCa* had become operative.[68] As mentioned above, the Yemeni Mehri Gp SC *qītél* has slightly different morphology than that of Omani *q(ə)tēl* since it preserves a vowel *ī* between R_1 and R_2; this feature also occurs in the Cp SC of that dialect: *həđīḳéḳ*.

I have found just one example of a Mehri D/Lp: *ʔādēm*, cited in the SC only in Johnstone's *Mehri Lexicon*.[69] It has the characteristic front vowel *ē* pervasive in the IP SC paradigm, although the second syllable of its active counterpart D/L *ʔōdəm* has a schwa rather than a contrasting back vowel. Owing to the tendency for *ā* to occur in √1=ʔ (including <**ʕ*) in positions where corresponding strong-root forms have *ə*—cf. the Ga/b SC *ʔāmūr* versus strong-

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[66] Rubin, 2013, p.c. The context of the form is:

hām	*t̲ərū*	*ḥə-róh*	*əl*	*yə-hə-ḳāśa*	*ʔār*	*hən-īn*
COND	wet.3MSG	DEF-head	NEG	3M-CAUS-dry(.PAS?)	except	PREP-1PL

"If he has wet his head, let him not dry it except with us" (Stroomer, 1999, 96:5).
If, as in the cited translation, *yə-həḳāśa* is interpreted as an active C, then like *t̲ərū* it takes *ḥə-róh* "(his) head" as its OBJ. An objection to this is that it resembles the normal C IPFV form *yə-həḳūśa* more than the SBJV *yə-hákśa* that the context demands. If it is instead a Cp, then *ḥə-róh* is its SUBJ: "let his head not be wetted".

[67] Simeone-Senelle, 1997, 407. Considering the lowering rule in post-glottalic environments, this is perhaps more accurately transcribed as *həđīḳáḳ*.

[68] Thus, from a regular C proto-form **yə-həḳśūʕ*, this rule yielded the attested *yə-həḳūśa*, from which the Cp would have been formed by applying contrast active *ū* versus passive *ā* (a post-glottalic allomorph of **ē*). Whether Mehri **əCCūʕ* > *CūCa* (Rubin, 2018, §§2.2.2, 7.2.8) reflects a proto-MSA process—e.g., how it relates to the Jibbāli shift *qvtv́G* > *qv́təG / qv́taG* (Rubin, 2014a, §7.4.11)—naturally has ramifications for the rule-ordering, and therefore diachrony, of Cp formation.

[69] Johnstone, 1987, s.v. √*ʕdm*.

root *qətūl—ʔādēm* is precisely the form one would predict the *Gp* SC of √ʕdm to take.[70] The identification of this form as a *D/Lp*, rather than Gp, is based solely on the existence of the corresponding active D/L verb from the root in question.[71]

The scarcity of Mehri Cp and D/Lp forms creates a strong impression—albeit one based on circumstantial evidence—that IPs other than the Gp are neologisms rather than remnants of older (i.e., proto-MSA), originally more productive structures. Indeed, it is not even clear that the form *ʔādēm* is, properly speaking, a D/Lp in terms of formal derivation; there is no morphological basis to argue against it being a Gp drafted in to serve as an IP relative to the active D/L. Differences between Omani and Yemeni Cp SC forms further suggest they were created after the two dialects had separated, based on the subsequent respective Gp forms. That is, *ī* is present between R_1 and R_2 of the Yemeni Cp SC *hədīḵḗḵ* because it is formed by prefixing the causative morpheme *hə-* to the Gp SC *qītḗl*, a form in which the presence of *ī* between R_1 and R_2 is specific to this dialect—cf. Omani Gp *q(ə)tēl*.

According to the principle of archaic heterogeneity, diversity in means of passive marking between the Gp SC and prefix conjugations is understood to be more archaic than the similarity between these different conjugations in the Cp.[72] Specifically, some Mehri Cp forms were based on (and therefore logically created after) Gp forms, with extension of the +back ≠ +front ablaut from the SC to the IPFV/SBJV (or at least some instances thereof). In **yə-həḵḗśa* (> *yə-həḵāśa*) the extension of this ablaut also demonstrably occurred after a Mehri sound change had affected the active counterpart.[73] This analysis is admittedly highly speculative and limited by the data on

[70] For this property of verbs from √1=ʔ, see Rubin, 2018, §7.2.2.
[71] Cf. *ʔādēl*, which Johnstone (1987, s.v. √ʔdl) identifies as a Gp because the corresponding active verb is *ʔādōl* (G), not *ʔōdəl* (D/L).
[72] The theoretical support for such a position is described in Hetzron, 1976.
[73] Extension of IP SC morphology to prefix conjugations is not necessarily restricted to the Cp. In Yemeni Mehri the Gp SC stem *qītḗl* is extended to form an IPFV/SBJV *yə-qītḗl*, and possibly the same may also account for Omani Gp prefix conjugation forms from √2=ʔ (if *yə-səwīl* does indeed reflect the extension of Gp SC *swīl*).

which it may rely, but it may nonetheless serve as a useful preliminary position from which to understand the Mehri situation within the context of the MSA branch as a whole.

6.3 Jibbāli [74]

Jibbāli IPs exhibit certain significant commonalities with those of Mehri. However, there are also considerable differences between these languages that may prove enlightening regarding the development of MSA IPs generally. Rather than reiterate similarities between the two languages, it is more economical to focus on how they diverge.[75] In summary, the most important ways are that in Jibbāli (1) there is far less active-passive syncretism than in Mehri; (2) the locus of vowel variation is restricted to the stem of the SC; (3) depending on voicing features of R_1 and R_2, the Gp IPFV and SBJV stems are distinct; (4) the Gp prefix conjugations exhibit a tendency to lose their prefixed person markers; (5) IPs other than the Gp—that is, the Cp, D/Lp, and even one instance of a CtD/Lp—are attested more frequently than in Mehri; and (6) IPs, particularly (or perhaps exclusively?) non-Gp IPs, may diverge from prototypical-passive syntax, having a slightly expanded functionality.[76]

The Jibbāli Gp forms are SC *q(i)tíl* ~ IPFV *i-q(e)tɔ́l* ~ SBJV *lə-qtɔ́l*.[77] As in Mehri, the SC *q(i)tíl* has a front vowel between R_2 and R_3, in distinction to a back vowel in the Ga *q(ɔ)tɔ́l*. Moreover, because *ɔ* retains the quality +low of its precursor **a*, Jibbāli IPs possess a VMHC like that identified above (in Chapter 4) as fundamental to IP formation in CS. The vowel between R_2 and R_3 is stable and remains unchanged in closed syllables (e.g., *qətíl-k* 1SG), where

[74] The data on which the following description is based are presented in Appendix B, Tables B2.1 and B2.2.
[75] Rubin (2014b, esp. §5) has published a brief comparison of the two languages in which he independently observes several, though not all, of the points highlighted here.
[76] The following description reveals that (1) is a logical corollary of (3) and (4), amongst other factors. This, and the possibility of a causal relationship between points (4) and (6) will be discussed in detail below (in §6.5).
[77] The following description is based on Rubin, 2014a, §§6.1.1–3.

Mehri exhibits stem allomorphy, as described above (in §6.2).[78] The vowel between R_1 and R_2 is affected by certain characteristics of the verbal system relating to voice properties of root consonants. In roots of which R_1 or R_2 is voiced or glottalic and R_1 is not a liquid, there must be a full vowel following R_1 of the SC. In the Ga this vowel is +back, *ɔ* or *u*; in the Gp it is +front, *e* or *i*. Otherwise, there is either schwa or no vowel in this position in both the Ga and Gp.[79]

Several Jibbāli Gp forms are attested from √2=bilabial (henceforth √2=*B*), and one from √2=*ʔ* (namely √*śʔm*), in which R_2 is lost intervocalically, resulting in a Gp SC *qīl*, or *qĩl* with nasalisation in √2=*m*.[80] The simplest (and therefore most desirable) reconstruction is that these derive from the regular Gp SC pattern **q(i)til* by normal Jibbāli phonological processes (**vbv* > *v̄*, **vmv* > *ṽ*) eliding intervocalic bilabials, and in the case of *śīm*, by the same process(es) that result in active forms with long vowels and no token of R_2=*ʔ*.[81] I have found no Jibbāli Gp forms from √2=*w/y*, but the root of the Gp SC *śyík*—rather than expected ***śīk*; its historical root is √*śbk*—may have been reanalysed as √*śyk*. If so, this could be a sliver of evidence that they behave like strong-root forms; the Cp SC *efyíl*, from √*fyl* further supports such a proposal.[82]

The same voicing principles described above in relation to the vowels of the Gp SC also affect the IPFV, so that if either R_1 or R_2 is voiced or glottalic, there is a vowel between them (specifically, *e*), and if not, it is syncopated.[83] Jibbāli Gp IPFV *-q(e)tɔl-* and SBJV *-qtɔl-* stems are distinct in this regard since the latter never has a vowel between R_1 and R_2. Both IPFV and SBJV have a back vowel *ɔ́* between R_2 and R_3, with three allomorphs: *ɔ́* in the 1SG, 1PL IPFV—

[78] Dufour, 2014, p.c.; Rubin, 2014a, §6.1.2.
[79] In most verbs from √1=liquid (and some from √1=*n*), a resulting stem-initial consonant cluster is preceded by an epenthetic vowel *ɛ* or *ə* (Rubin, 2014a, §§6.1.1–2).
[80] For Gp forms from √2=*B*/*ʔ*, see Johnstone, 1981, s.vv. √*dmr*, √*ḥmd*, √*ḳbr*, √*lbd*, √*ṣbḳ*, and √*śʔm*; Rubin, 2014a, 18:11, 32:8, and Pr16.
[81] See Rubin, 2014a, §§2.1.2–3 for the loss of intervocalic bilabials in Jibbāli, and §7.4.8 for the behaviour of verbs from √2=*ʔ*. Nasalisation in *ḥĩd* (Gp SC from √*ḥmd*) certainly points towards the historical presence of R_2=*m*.
[82] Johnstone, 1981, s.vv. √*fyl* and √*śbk*. Admittedly, what is true of the Cp does not necessarily hold for the Gp, but the data are so scarce that the proposals made here are in any case already extremely tentative.
[83] Rubin, 2014a, §6.1.2. Verbs from √1=liquid may occur in either form.

but, according to most authors, not the 1PL SBJV—2MSG, 3SG, and 2/3FPL; *é* throughout the DU, in the 2/3MPL, and the 1PL SBJV; and *í* in the 2FSG.[84]

As mentioned above (in §6.2), active-passive syncretism is widespread in the Mehri Gp, but it is far less common in Jibbāli. The Gb IPFV stem *-qétɔ́l-* resembles that of the Gp, but the two are not identical; the *é* between R_1 and R_2 of the Gb is always present and stressed—except in the DU, where it reduces to *ə*—and raised to *í* in the 2FSG, neither of which is true of the Gp IPFV. Jibbāli Gp prefix conjugations are not always unique, however. The SBJV stem *-qtɔ́l-* is invariably distinct from Ga *-qɔ́t(ə)l-*, but identical to that of the Gb (except in the DU and 1PL).[85]

Crucially though, even where active-passive syncretism occurs in the *stem*, the Gp always remains distinct by virtue of its person-marking prefixes, or rather, the lack thereof. This is a crucial characteristic of Jibbāli IPs, in which it differs from Mehri but resembles Soqoṭri. The Jibbāli Ga and Gb both take the same IPFV person-marking prefixes, namely *yə-* (3M), *tə-* (3F, 2), *ə-* (1SG), and *nə-* (1PL), with the 1DU optionally taking either of the last two. The Gp IPFV, by contrast, tends to lose the consonantal prefixes *t-* and *y-*, which are instead replaced with a front vowel. As a result, for all persons except first—which has *ə-* in the 1SG and *ne-* in the 1PL—the prefix is that same: *e-/i-*.[86] I have found just one Gp form preserving the *yə-* prefix (and none with *tə-*): *y-ḳénɛʔ* "being breast-fed".[87]

[84] This allomorphy is described by Rubin (2014a, §6.1.2), following Johnstone (1980; 1981). It is largely confirmed by Dufour's (2014, p.c.) fieldwork, though he gives the 1PL SBJV *nə-qtɔ́l*, which, just like the 1PL *IPFV*, shares the 3MSG stem allomorph *ɔ́* rather than the *é* of the 2/3MPL. His statement that "the form [*lə-qtél*] given in the Jibbāli Lexicon and reproduced by Aaron Rubin…seems to me very dubious" may refer to the prefix (discussed below) as well as or instead of the theme vowel. It would be imprudent to rule out the possibility of variation between forms.
[85] The Gb SBJV has *ə* between R_2 and R_3 in the DU and *ɔ́* in the 1PL whereas the corresponding Gp forms have *é*.
[86] First-person Gp IPFV prefixes are contested. Johnstone (1980, 470) and Dufour (2014, p.c.) do not cite a distinct 1SG prefix, providing a paradigm with *e-* throughout, except in the 1PL, for which they respectively give *ne-* and *nə-*. Rubin (2014a, §6.1.2), by contrast, follows the *Jibbāli Lexicon* (Johnstone, 1981, xvii–xviii), to differentiate between 1SG *ə-*, 1PL *ne-*, and a more general *i-* used in all other persons.
[87] Rubin, 2014a, 51:2. The prefix vowel *ə* is presumably elided because it follows the relative pronoun *ḏə-*.

Just as the similarity between the Gp and Gb stems is greater in the SBJV than in the IPFV—complete, in fact, with *-qtɔl-* being the stem of both—so too is the distinction between their prefixes. The Gb (and Ga) SBJV takes the personal prefixes *yə-* (3M), *tə-* (3F and 2M/F), *lə-* (1SG/DU), and *nə-* (1PL); the Gp has *lə-* throughout, except in the first person.[88] There is some divergence amongst scholars on the first-person prefix(es) of the Gp SBJV. Rubin distinguishes the vowel of the 1SG prefix, *lɛ-* with that of *lə-*, occurring in all other persons including the 1PL.[89] Johnstone's *Jibbali Lexicon* and notes from Dufour's fieldwork instead suggest that only the 1PL does not take the prefix *lə-*, the former citing a 1PL prefix *le-* with a different vowel, the latter a prefix *nə-* that retains the original nasal.[90]

I find it more than slightly conspicuous that the first person of the Gp SBJV is where the prefix *lə-* tends not to occur, since this is precisely the only part of the paradigm where it would cause full syncretism with the Gb if it did. Furthermore, there is evidence for a change in progress neutralising this prefix loss where it occurs outside of IPs, namely, the increasing use by younger speakers of the *t-* prefix in D/L and C prefix conjugations, where it was historically absent.[91] This means that the feature of the loss of a person-marking prefix *t-* is increasingly specifically passive-marking morphology, rather than something found in the Gp as well as elsewhere in the verbal paradigm, and as such is an important way in which Jibbāli IPs are characterised by distinctive morphology (compared, for example, to those of Mehri).

This loss of *y-* and *t-* (and even *ʔ-* and *n-*, albeit to a lesser extent) cannot be traced back to proto-MSA since Mehri Gp IPFV/SBJV forms invariably bear personal prefixes (and there is no

[88] Rubin, 2014a (§6.1.2 n13) notes an exception: "It seems that [Gp] 3ms subjunctive *yərfɔ̄ṣ* is possible for some speakers". I wonder whether Mehri influence may play a role in this breakdown of the distinction between Gp and Gb SBJVs (since these forms exhibit syncretism as *yə-qtōl* in that language).
[89] Rubin, 2014a, §6.1.2.
[90] Johnstone, 1981, xvii–xviii—though cf. his (1980, 470) article specifically about the loss of prefixes in Jibbāli, which gives a Gp SBJV prefix *lɛ-* for all persons; Dufour, 2014, p.c.
[91] Rubin, 2014a, §§6.3, 7.1.2–3.

evidence suggesting they have been secondarily reintroduced there). However, since same phenomenon does occur in Soqoṭri, it may be identified as a proto-East MSA innovation. When the loss of *t-* (and other) person-marking prefixes is overlaid with various other IP-related isoglosses, this results in interesting distributive patterns.

For example, the loss of personal prefixes has a strong homogenising effect on the conjugation. In MSA, impersonal-passive and desubjective uses of IP morphology occurs only in Jibbāli and Soqoṭri. The presence in these languages of a relatively singular form for different persons (at least in the prefix conjugations, at least) matching that of the 3MSG could certainly have facilitated the development of structures where IPs are employed with semantically empty dummy SUBJs. However, just as the notion of competing motivations from the variation-and-change model of language development predicts, the situation is more complicated than a simple causality between two features; there exists a complex interweaving of multiple isoglosses that must be considered altogether, and as such, can only be properly understood in the final analysis below (in §6.5) once all three MSA languages have been described.[92]

Apart from the strong root, Jibbāli also does not exhibit as much passive-active syncretism in weak root types as Mehri does. In √2=*G*, for example, a difference is maintained between Ga/b and Gp SC—cf. e.g., Ga/b *ṭaḥán* "to grind" and Gp *ṭiḥín*, versus Mehri *ṭəḥān*, cognate to both.[93] As in Mehri, the Jibbāli Gp of √2=3 is more similar to the strong-root pattern than is the active (Ga/b) counterpart, largely because the latter shows a marked tendency for monosyllabic stems

[92] For example, the higher productivity of IP morphology and its formal distinctiveness in Soqoṭri, compared to Jibbāli, are part of a general vivacity of IPs in Soqoṭri that also manifests in its more extensive development of impersonal-passive and desubjective uses of IP morphology, as discussed below (in §6.4).

[93] Relevant here is lowering in pharyngeal environments. Mehri has a regular sound change **ē > ā/G_*, whereas in Jibbāli there is merely a looser tendency for *ɛ* and *ə*, but crucially for the case in hand, not *i*, to lower to *a* when adjacent to a pharyngeal (Rubin, 2014a, §§2.2.1, 7.4.7). The Ga/b SC √2=*h*, *q(ɛ)hél-*, differs slightly from other roots √2=*G*, using *ɛ* (a central allophone of *a*). I have found no Jibbāli Gp forms from this root type, but there is no reason to suspect the voice distinction would not also be maintained here (though the distinction between the vowels *i* and *ɛ* is admittedly less than that between *i* and *a*).

where the strong-root Ga and Gb have more regular, disyllabic ones: Gp *qelíl ~ i-qelɔ́l ~ lə-qlɔ́l* versus Ga/b *qel ~ yə-qlél ~ yɔ́-qqəl*.[94] Because of a rule **C_2vC_2v́ > C_2C_2v́*, the Gp SC stem contracts in the 3FSG, though a voice distinction is retained in the quality of the stem vowel: Ga/b *qəll-ɔ́t* versus Gp *qill-ɔ́t*.[95]

The preceding is not meant to deny active-passive syncretism in Jibbāli altogether. The identity between the Gp and Gb SBJV stems *-qtɔl-* has been mentioned, and this holds (is expanded, in fact) in some weak root types. For example, the Ga/b and Gp SBJVs in √3=*G* both have the same stem *-qtáG-*.[96] There are even instances where Jibbāli lacks a voice distinction found in Mehri, such as in the prefix conjugations of √1=*w*.[97] The issue at hand is rather an *overall trend that Jibbāli Gp forms are far more distinctive than those of Mehri* in strong and weak roots alike, as well as between the three finite conjugations of MSA. This is due to various factors, including certain Mehri-specific sound changes, the generally more diverse Jibbāli verbal paradigm—specifically its greater distinction between IPFV and SBJV forms—and the loss of (most) person-marking prefixes from the Jibbāli Gp prefix conjugations.

The remaining points to be addressed in this description of Jibbāli are IP stems other than the Gp and certain syntactic uses of IPs that diverge from CS norms (to which Mehri adheres). Though rare, and certainly not fully productive, non-Gp IPs are still far more widespread in Jibbāli than in Mehri: "*J[ibbali] L[exicon]* includes at least nine H-Stem passives [Cp], four

[94] Rubin, 2014a, §7.4.14. There is great variety in Jibbāli Ga/b SBJV forms from √2=*3*.
[95] Rubin, 2014a, §6.1.1. Cf. Ga/b *ḥazz-ɔ́t* (13:16; <**ḥəzz-ɔ́t* with **ə* > *a/G_*) "she slaughtered" versus Gp *ḥizz-ɔ́t* "[it] was slaughtered" (2:12). As mentioned above (in §6.2), the √2=3 Mehri Ga/b and Gp SCs have the same 3FSG stem but are distinguished by their suffixes (Ga/b *śəll-ūt* "she took" versus Gp *śəll-ēt* "she/it was taken").
[96] Cf. Gb *yə-fraḥ* (Rubin, 2014a, §7.4.11) versus Gp *lə-ltaǧ*, but without lowering of *e* in the Gp 3MPL *lə-ltéǧ* (Johnstone, 1980, 470; forms cited with prefix *lɛ-*, normalised here in accordance with discussion above).
[97] Cf. Jibbāli Ga *eṭɔ́b ~ ye-ṭɔ́b ~ yə-ṭɛb* and Gb *éṭəb ~ ye-ṭɔ́b ~ yə-ṭɔ́b* versus Gp *eṭíb ~ i-ṭɔ́b ~ lə-ṭɔb* (Johnstone, 1981, s.v. √*wṭb*, with slight emendation; Rubin, 2014a, §7.4.3). Mehri √1=*w* Ga IPFV forms pattern like the strong root, so the same syncretism does not occur there (Johnstone, 1987, xxviii; Rubin, 2018, §7.2.3). Admittedly, one expects the loss of the prefix to distinguish the Gp IPFV in Jibbāli (as it does in the SBJV), so Johnstone's citation with *ye-* could be an error for expected ***i-tɔ́b*. The data are presented in Table B2.2.

D/L-Stem passives [D/Lp]…and one Š1-Stem passive [Ctp]".[98] With regard to the non-Gp forms Rubin provides from his texts, a note on the distribution is in order. Two of the eight Cp forms, *i-ṭerɔ́b* and *i-gefún*, occur together in the same sentence (TJ2:53); a third, *ɛ-šfíḳ*, is also from this text (TJ2:25), as are two of the three D/Lp forms he cites—*i-fíléṯ-ən* (TJ2:58) and *yə-ḥáréṣ-ən* (TJ2:62).[99] Therefore, one cannot rule out the possibility that the non-Gp IPs in question are an anomaly of one particular text (and/or its main interlocutor), particularly considering that TJ2 exhibits a disproportionate number of IPs generally.

This is not the only anomalous distribution for non-Gp IP forms in Jibbāli, however. A further three Cp forms all occur in another single text (TJ4:75, 77, 89) and all have the same root (√ʕ*dm*). This text also contains the only remaining D/Lp cited by Rubin: *ḥéli* (TJ4:57), the syntax of whose use warrants some comment.[100] The clause

ḥéli	*hí-ni*	*tɔ-s̃*
show\PAS.3MSG	PREP-1SG	ACC-2FSG

"it was described to me about you"

is best analysed as a desubjective use deriving from an active clause "X described you to me" (where X is a SUBJ with semantic reference).[101] The ACC-marked *tɔ-s̃* "you" is retained in its original grammatical relation (OBJ) and the OBL PP *hí-ni* "to me" likewise remains unchanged.

[98] Rubin, 2014a, §7.1.7, with examples, see also §§6.2.2, 6.2.3, 6.4.1, 618n75. To the roots for which Rubin identifies D/Lp forms—√ʕ*lq*, √*fsḥ*, √*flṯ*, √*gdl*, √*gfn*, √*ḥly*, and √*ḥrṣ*—I add √*dmr*, √*swr*, √*xbṭ*. To those for which he identifies Cp forms—√ʕ*dm*, √*bny*, √*fgʕ*, √*fyl*, √*nby/nbʔ*, √*rġd*, √*swr*, √*śrḥ*, √*šfḳ*, √*ṭnf*, and √*wgʕ*—I add √*lbṯ*. The sole Ctp comes from √ʕ*śr*. Apart from Rubin's (2014a) grammar, and Johnstone's (1981) lexicon, Johnstone (1980, 470) elsewhere provides some D/Lp and Cp forms (from these same roots).

[99] Rubin (2014a, §6.2.2, 568n63) notes that the D/Lp from √*ḥrṣ* is lexical rather than functionally passive.

[100] Rubin (2014a, 615n57) claims this form could also be a Gb. The Gb of √2=*y* does indeed take this shape, but the following line—*kélíṯ híni biš̃ təḥlɔ́ʔ* "a description of you was told to me (TJ4:58)—reiterates the same idea with another IP (Gp), which speaks in favour of the analysis of *ḥéli* as a D/Lp, however exceptional.

[101] Cf. the active example from the same text:

ḏə-ḥúli	*h-eš*	*t-ɔs*
REL-describe.3MPL	PREP-3MSG	ACC-3FSG

"who described it [i.e., the castle (FSG)] to him" (TJ4:10).

While impersonal passives—i.e., those whose semantically empty SUBJ slot is filled with a dummy referent with default 3MSG agreement—do occur in Jibbāli and may even be created from syntactically transitive active counterparts, such a relation of the patient thereof to the ACC functional relation OBJ is highly exceptional.[102] Instead, the patient (or patient-like argument, since in this case 2FSG "you" is linked to the semantic role theme) is typically encoded as an OBL PP. This is equally true if it appears in the corresponding active as an OBL PP or as an ACC OBJ. The first case is simply a passivisation of a syntactically intransitive clause (though there is a requirement that the *semantic* specification of the predicate include a patient, or at least a semantic role other than agent).[103]

However, Jibbāli IPs may also express the passive of *transitive* active verbs, in which case the erstwhile ACC-marked OBJ is ordinarily demoted into an OBL PP. For example, transitive D/L *essór* "to fence off" can form either an impersonal-passive D/Lp *ɛssír le-š*, where the patient appears with the PREP *l-*, or a personal passive, of which it is the SUBJ and bears the appropriate agreement in the verbal inflection (e.g., *ɛssír-ót* 3FSG).[104] Unlike CS (and Mehri) IPs, those of Jibbāli do not exclusively express the prototypical passive, even if this is by far their most common function; they can be used for other detransitive functions. Such an analysis, though, is not without problems. Impersonal passives of transitive verbs are hardly common in Jibbāli; I have found just three examples, all coming from IP stems other than the Gp.[105]

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[102] Rubin (2014a, 614n57) notes that "the fact that it has a direct object *t-ɔš* is a bit odd". This syntagm, though, is extremely common in Soqoṭri, as discussed below (in §6.4).

[103] For example, Lonnet (2006, §6.8) cites

ɛrdí	*b-e-kélb-əš*	*ʕaḳ*	*e-rémnəm*
throw\PAS.3MSG	PREP-DEF-heart-3MSG.POSS	PREP	DEF-sea

"his heart was thrown in the sea". The patient of the corresponding active is likewise governed by the PREP *b-*, as in *ɔl térd beš lɔ* "don't throw it away" (Rubin, 2014a, AM1:9). Such use is identical to the impersonal passives in Arabic, discussed above (in §3.3).

[104] Similarly, the patient of the Cp from √*lbṯ* can either appear as its SUBJ or in a PP with the PREP *b-*. For both these examples, see Lonnet, 1994, §3.III.

[105] Apart from the D/Lp *ɛssír le-š* and the Cp *əlbíṯ be-š* the only other possible example I have found is the D/Lp *ye-ḥárəṣ-ən bes* "make her jealous (lit. be made jealous to her)", whose patient occurs with the preposition *b-*. This

With regard to their morphology, like the Gp SC, Jibbāli IP SCs from derived stems have a front vowel *í* between R_2 and R_3. However, unlike in the distinction of Gp from Ga, this does not contrast to a back vowel in the active C and D/L counterparts. In fact, the distinction between C *eqtél* versus Cp *eqtíl* (and likewise the much rarer Ct *s̃aqtél* versus Ctp *s̃aqtíl*) is subtle, and eliminated altogether in √2/3=nasal by dint of the raising properties of *m* and *n* (e.g. C/Cp *eṭníf* "to reive").[106] On the one hand, it may be Jibbāli sound changes eliminated an original +back ≠ +front contrast between the C versus Cp—cf. Mehri, where such a contrast does occur, to the extent that Cp forms do.[107] On the other hand, it would be injudicious to rule out the possibility that the *í* between R_2 and R_3, characteristic of the Jibbāli Gp SC, has been extended to the C SC to create a Cp SC, even where the resulting contrast with the corresponding active counterpart is less than stark.

The D/L SC has a schwa (syncopated where syllable types permit) between R_2 and R_3, but the familiar +back versus +front voice-marking opposition stills occurs between R_1 and R_2: e.g., D/L *egódəl* "to tie up" versus D/Lp *egídíl*.[108] In √3=*w/y*, R_3 becomes *-i* in both D/L and D/Lp, so the vowel between R_1 and R_2 is the sole locus of contrastive voice-marking (e.g., D/L *ḥúli* versus D/Lp *ḥéli*, from √*ḥly*). In √2=*w/y*, R_2 is lost from the surface representation, so the same +back ≠ +front voice-marking contrast likewise occurs in the only available position (e.g., D/L *essór* versus D/Lp *essír*, from √*swr*). In an impressionistic fashion, one may observe that the D/Lp is

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analysis, though, is uncertain because the argument specification of the corresponding active is not clear and the "use of the passive here seems to be lexical" (Rubin, 2014a, TJ2:62n62).

[106] Rubin, 2014a, §6.3.2. A voice-marking opposition *e* versus *i* is not wholly alien to the Ga versus Gp, since it occurs in √3=*y*: e.g., Ga *ɛrdé* "to throw" versus Gb *ɛrdí*. In √3=*G*, the distinction between C versus Cp is greatest, since the former has a lowered vowel between R_2 and R_3 (e.g., C *efgáʕ* <**efgéʕ* "to frighten" versus Cp *efgíʕ*).

[107] Rubin (2014b, 132) states that "the difference in the Š1-stem perfects—Mehri *šəktūb* versus Jibbāli *šəktéb*—is probably just the result of vowel shifts".

[108] Rubin, 2014a, §6.2.2.

formed by insertion of a front vowel *wherever this will create a contrast* to the back vowel of the corresponding active.[109]

Fewer data from the prefix conjugations of the Cp and D/Lp are available than from the SC. Nonetheless, a few observations may be made with some confidence. The Cp IPFV *i-q(e)tɔ́l* is basically identical to that of the Gp.[110] The lowering of the theme vowel in Cp forms from √3=*G* precisely matches that of the Gp: it does not affect the *í* of the SC but does the *ɔ́* of the IPFV and SBJV—e.g., *elgíʕ ~ e-lgáʕ ~ lə-lgáʕ*. The only significant difference between Cp and Gp prefix conjugation forms is that in the Cp IPFV (as in the C), R_1 is geminated when it is neither voiced nor glottalic (e.g., *e-ffegaʕ*). Apart from (almost total) syncretism between the Gp and Cp IPFVs, it is it is noteworthy that the Cp IPFV is identical its active counterpart. Both share the same stem (*-q)qetɔl-*), and since C IPFVs undergo the same loss of person-marking prefixes as IPs—like those of all IPs, the D/Lp, and quadrilateral verbs, at least traditionally—the formal identity between C and Cp IPFVs is complete and any voice-marking distinction eradicated.[111]

The D/Lp IPFV takes the same *-ən* suffix as its active counterpart (e.g., D/Lp IPFV *i-fílét̲-ən*).[112] As for the internal vocalisation, the D/Lp IPFV stem *-qitel-* has a front vowel *i* between R_1 and R_2 in contrast to the back vowel of D/L *-qót(ə)l-*. Although this is an unusual locus for the +back ≠ +front contrast compared to the rest of the MSA IP paradigm, it is exactly how the D and D/Lp are distinguished in the SC. The vowels between R_2 and R_3 of the IPFVs—a

[109] This is reminiscent of the location of the +back ≠ +front contrast in suffixed person-markers in certain Mehri IP forms, discussed above (in §6.2). Even though that is a unique locus for passive marking throughout Semitic IPs, it was the only place a vocalic distinction could occur in the forms in question, so that is precisely where it did occur.
[110] Rubin, 2014a, §6.3.2. The presence or absence of the *e* between R_1 and R_2 is governed by the same conditions described above for the Gp IPFV. It occurs in *i-ṭérɔ́b* and *i-géfún* (Rubin, 2014a, TJ2:53) because of their voiced or glottalic consonants, but not in *é-šfɔ̃ḳ* and *é-lgáʕ* (Johnstone, 1980, 470) because of their voiceless or liquid ones.
[111] Rubin (2014a, §§6.2, 6.3, 6.3n30, 31, 7.1.2, 7.1.3) notes an increasing tendency towards the use of the *t-* prefix in the C and D/L, particularly among younger speakers, suggesting a development in progress. (I wonder whether the ascendancy of the innovative variant with the *t-* prefix is at least partly motivated by social factors like the prestige associated with Mehri and/or Arabic, both of which use a *t-* prefix in the forms in question.) Crucially to the matter at hand, the same is not observed in the Cp, which could indicate the (re)establishment of a voice distinction in this part of the paradigm through the contrastive marking of absence/presence of the *t-* prefix.
[112] Rubin, 2014a, §6.2.2; Johnstone, 1980, 470.

sometimes-syncopated *ə* in the D/L versus an irreducible í in the D/Lp—likewise precisely mirror those of the D/L(p) SCs.

No SBJV forms from non-Gp IPs are found in Rubin's texts, so Johnstone's comment that "subj. forms occur more frequently than indicative forms" is perplexing.[113] The scant data on which the following description is based come from Johnstone's article on the loss of the prefix *t-*, sometimes repeated in his *Jibbāli Lexicon*. The Cp SBJV is *lə-qtɔ́l*, with number-marking ablaut between 3MSG *ɔ* (surfacing as *a* in pharyngeal environments) versus 3MPL *e* (e.g., *le-lgáʕ ~ le-lgéʕ*).[114] Similar to the situation in the IPFV, apart from slight variations in the vowel of the prefix—which I suspect simply reflect inconsistencies in Johnstone's work—the Cp and Gp SBJVs are identical.[115] Unlike in the IPFV, however, the voice distinction between C SBJV *yé-qtəl* and Cp SBJV *lə-qtɔ́l*, though, is quite pronounced.

The D/Lp SBJV form is *lə-q(v)tɔ́l* (e.g., *l-ʕɔ́lɔ́ḳ*).[116] Like all IP SBJV forms, that of the D/Lp exhibits stem allomorphy between 3MSG *-q(v)tɔ́l-* and 3MPL *-q(v)tél-* (e.g., *l-gédɔ́l ~ l-gédél*); in its active D/L counterpart, by contrast, *-qɔ́təl-* is invariable. The vowel between R_1 and R_2 of the D/Lp SBJV is not always present (e.g., *l(ə)-fsáḥ*). This is most surprising considering that a stressed vowel in this position is integral to (indeed, the primary formal characteristic of) the active D/L. This syncopation between voiceless, non-glottalic R_1 and R_2 instead precisely mirrors the behaviour of Cp and Gp IPFVs, with whose stems the D/Lp SBJV is identical.

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[113] One puzzling anomaly in Johnstone's (1980, 470; 1981, s.vv.) data is a disproportionate number of examples of the Cp SBJV from the complex root type √*2=g*, 3=ʕ (e.g., √*fgʕ*, √*lgʕ*, √*wgʕ*); for the regular pattern, he cites *le-šfɔ̃ḳ*.
[114] Rubin (2014a, §§2.2.1, 7.4.11) proposes a sound-change ***CCV́G* > *CCáG***, likewise operative in the √3=*G* Gb SBJV, to explain the why *a* appears instead of *ɔ* in these forms. Since this does not affect the *é* of the 3MPL, nor to *i* in the Cp SC e*qtíG* from √3=*G* (e.g., *efgíʕ*), the environment(s) where pharyngeals cause lowering can be restricted to rule out high front vowels. In fact, at the diachronic level, since I consider *a* more original than *ɔ*, I propose that a more accurate formulation would be the statement that backing ***a* > *ɔ*** is blocked in the environment /_́*G*.
[115] Johnstone (1980, 470; 1981, xviii) provides a Gp SBJV prefix *lɛ-* or *lə-* and Cp SBJV *le-*. Without making any inferences at this point about the ramifications thereof, it is noteworthy that Arabic has a single form *yu-qtal* for both the Gp and Cp PCs (the CS PC being the cognate conjugation to the MSA SBJV).
[116] Johnstone (1980, 470) provides the following forms. Precisely the same observations about pharyngeal lowering in √3=*G* made above in relation to the Gp and Cp also apply here.

When a vowel does occur between R_1 and R_2 of the D/Lp SBJV, its quality is unstable, varying between *ɔ* and *e*. In the absence of any obvious phonological processes that can account for the situation, I suspect this reflects uncertainty on the part of the speaker about how to produce the "correct" shape of this rare form. That is, it is not clear whether the source morphology used to form the D/Lp SBJV should be the forms of IP IPFVs or instead its active counterpart, the D/L SBJV. Within the variation-and-change model employed for the analysis of IPs in CS, this would represent an example of learner error as a source of variation.[117]

The final dimension of IPs from derived stems to be addressed here also relates to a kind of uncertainty or ambiguity, namely, the blurring, both functional and formal, with the Gp. Johnstone considers the IP *mini*/*bini* from √*bny* a Cp, no doubt due to its active counterpart, C *ební* "to build".[118] The vowel following R_1, though, is unexpected considering the consonantal skeleton of the C, and is instead reminiscent of the Gp SC *q(i)tíl*. In √1&2= -voice, the Gp *qtíl* has no vowel between R_1 and R_2, so if the causative prefix *e*- of the Cp SC undergoes aphaeresis, Gp/Cp SC syncretism is complete; identification of which stem an IP belongs to can be made only by reference to semantics or to the corresponding active form. For example, Cp *šfíḳ* "been married off" is formally identical to a theoretical Gp SC from the same root but is passive to C *ɛšféḳ* "marry (someone) off" not Ga *šfɔ́ḳ* "get married".[119]

IPs from √ʕ*dm* in Rubin's text TJ4 blur the categories Gp and Cp not just at the formal level, but also in terms of meaning, since they are interchangeable synonyms meaning "to be executed".[120] The Cp occurs three times—3MSG *aʕdím* (TJ4:75), 3MSG *aʕadím* (TJ4:77), and 2MSK *aʕdím-k* (89)—but so does the Gp: *ʕidĩ-k* "you were executed" (TJ4:87). For the most

[117] On uncertainty in D/Lp formation note that "the speaker, Sālim Bakhīt, was doubtful of the indicative [IPFV] forms" (Johnstone, 1980, 470n11). For the linguistic theory framework of learner error, see Ringe and Eska, 2013, 36–37.
[118] Johnstone, 1981, s.v. √*bny*
[119] For these forms, see Rubin, 2014a, 30:16, 97:46, AM1:5; Johnstone, 1981, √*šfḳ*.
[120] Rubin, 2014a, TJ4; Johnstone, 1981, s.v √ʕ*dm*. Rubin (618n75) points out the Arabic C may be an influence here.

part, active counterparts are from the Ga (e.g., TJ4:618), which, apart from the Gp, is the only verb listed under this root in the *Jibbāli Lexicon*. At least one active form (TJ4:75), though, may be a C.

Apart from the Cp, confusion with the Gp also obtains in the D/Lp—cf. the discussion above (in §6.2) of Mehri D/Lp *ʔādēm* and Gp *ʔādēl*. In the root type √2=*B*, the only difference between D/Lp *exīṭ* from √*xbṭ* and the expected Gp form ***xīṭ* is the prosthesis preceding R_1. The IP *dĩr* from √*dmr* relates to an active D/L *edũr* but is certainly derived from an underlying proto-form **dVmVr* rather than **dVmmVr*, since when "m is geminate, then it is also not subject to intervocalic loss".[121] Even in the strong-root, the D/Lp SC has little formal distinction from that of the Gp, particularly in instances where gemination of R_1 and a prosthetic vowel is lacking in the former. For example, D/Lp SC *ḥíríṣ* differs from a Gp only in the accenting of the vowel between R_1 and R_2 (if this transcription can even be relied upon).[122]

To conclude, the description of Jibbāli IPs shows that they are significantly more formally distinctive than those of Mehri. This is true both in terms of the comparative rarity of active-passive syncretism—in which the loss of person-marking prefixes plays no small part—as well as in terms of the separation between the different conjugational parts of the paradigm. Cp and D/Lp are relatively poorly attested, compared with the Gp, though are certainly more common than in Mehri.

However, there is a notable breakdown in their distinctiveness, and Cp and D/Lp morphology is often similar to, or even identical with, that of the Gp (and in the case of the Cp, even with its active C counterpart). This is truer of the Cp than the D/Lp, though even the latter sometimes

[121] Rubin, 2014a, §2.1.3. For this form, see Johnstone, 1981, s.v. √*dmr*. As such, it is not entirely clear whether the form should be labelled a (historical) Gp or D/Lp, since this latter term only references its function position within the stem system and not its morphological origin.
[122] Rubin, 2014a, §6.2.2, 586n62.

merges with the Gp, particularly in the SC. Finally, certain atypical uses of IP morphology that are not found in Mehri, are attested: impersonal-passives, including those from transitive verbs, and even desubjectives. These constructions occur disproportionately with Cp and D/Lp forms; only the least unusual of them, expression of the impersonal passive of an intransitive active clause—albeit one with a second, OBL argument—has been found to occur with the Gp.

6.4 Soqoṭri [123]

Owing to the unique status of the scholarship on Soqoṭri, it is on the one hand the MSA language whose IPs it is the most difficult to described, and on the other hand that for which such a description, and the consequent analysis, is most novel and valuable. No up-to-date reference grammar has yet been published, and early sources often suffer from inconsistent transcription. However, during the past decade a number of scholars from Russia have begun publishing material about Soqoṭri verbal morphology, as well as texts from the Soqoṭri oral-literature corpus with accompanying grammatical commentaries and glossaries.[124] This work is of inestimable value, and, along with some notes from Antoine Lonnet's fieldwork, forms the basis of the following description and analysis possible.

[123] The data on which the following description is based are presented in Appendix B, Tables 5 and 6.

[124] This chapter relies heavily on Naumkin et al. (2014b, §2) and amends the transcription of data from other sources to their description of the vowel system: "The core of the Soqotri vocalic system consists of just five phonetically simple elements: *ɛ*, *e*, *i*, *o*, *u*…sharply contrasting with the bewildering array of vocalic symbols used in the majority of earlier text publications and grammatical descriptions". There additionally exists some allophonic alternation, such as *a* for *ɛ* in the environment of pharyngeal and glottalic consonants, and a non-phonemic contrast between *e*, *ə*, and *ö*—the contrastive environments of the first two are not clear, but *ö* is a labialised allophone found around *w*. Citations from Naumkin et al. (2014b) are made either according to page number, the root under which the lexeme appears in the glossary (e.g., "s.v. √*ktb*"), or with text and line number (e.g., "1:1" or "*1.1", the latter referring to a form cited in the notes to 1:1). Dufour (2014, p.c.) kindly shared a full paradigm of the Soqoṭri Gp from Lonnet's fieldwork notes, along with his own observations about some of the data.

The basic form of the Soqoṭri Gp is (SC ~ IPFV ~ SBJV) *qítɛl ~ (yə-)qútol ~ li-qtól*, in contrast to the Ga *qə́tol ~ yə-qótel ~ li-qtɛ́l* and Gb *qétəl ~ yə-qétol ~ li-qtól*.[125] As in Mehri and Jibbāli, the 3MSG Gp SC possesses a front vowel, though in Soqoṭri, it occurs between R_1 and R_2 therefore not in direct opposition with the +back vowel of the Ga (between R_2 and R_3) as in Mainland MSA. This has misled some into considering *qítɛl* the Soqoṭri counterpart to Mehri *qītəl* and Jibbāli *qét(ə)l*.[126] However, the passive function(s) of *qítɛl* and the semantics of Soqoṭri *qétəl* confirm that it is the latter that, like these Mainland MSA forms, derives from the (historically) stative Gb SC **qatila*.[127] The formal similarity between Soqoṭri *qítɛl* and Mainland MSA *qītəl/qét(ə)l* and the ensuing confusion regarding the relationship between them is simple to explain: in Soqoṭri all SC forms (including the Gp) retract stress to the penultimate syllable, whereas in Mehri and Jibbāli this is true only of the *Gb* SC.[128]

Stem allomorphy in the Soqoṭri Gp SC is fairly restricted. The basic 3MSG stem is used for all first-person, second-person, and MPL forms, with a concomitant shift in stress to the new penultimate syllable in persons whose suffix adds a syllable. Examples of this Gp SC stem being used outside of the 3MSG include 1SG *ísaʕ-k* and *míraṭ-k*, 1DU *kəláʕ-ki* and *ṣikéb-ki*, 2MSG *ḥĭtɛn-k*, 3MPL *gírɛf*, and 3FPL *ʕírɛr* and *níḳaʕ*.[129] In fact, since all 3PL forms lack suffixes, they

[125] For these forms, see Leslau (1937) and Naumkin et al. (2014a, §§1.1, 2.1, 2.3). Simeone-Senelle (1996, 314) gives the IPFV *qutəl*, but the preponderence of evidence is decisively against this.
[126] Petráček (1963, 606) explicitly identifies the Soqoṭri Gp SC with Mainland MSA Gb SCs; Retsö (1989, 181) is unsure at best, and suggests *qítɛl* (which he transcribed as "qitel") is both passive and intransitive (i.e., stative); Leslau's (1937, 92) statement—"La forme du parfait *qítel* est la même que celle du verbe 'transitif' en mehri et šḥauri"—is presumably an egregious typographical error for "intransitif", since he is surely comparing this form to Mehri *qītəl* and Jibbāli *qet(ə)l*, which are both basically stative/intransitive forms.
[127] Examples of triple (Mehri-Jibbāli-Soqoṭri) cognate verbs with the semantic property of stativity and Gb morphology occur with the roots √*ḳṣm* and √*ḥbr*, both "to be cold"; √*ḳṭn*, "to be small, thin"; and √*bẓḳ*, "to tear (intransive)" (Johnstone, 1981; Johnstone, 1987; Leslau, 1938, s.vv.).
[128] Lonnet (1998, §4) notes this stress pattern is particularly characteristic of Soqoṭri among its MSA sisters.
[129] For these 1SG/DU forms, see Leslau, 1938, s.vv. √*ʔsḥ*, √*mrṭ*, √*klḥ* (and for others, √*ndḳ*, √*ṣkb*. √*ḥnn*); for the 3MPL, s.v. √*grf*; for second-person and 3FPL forms, see Naumkin et al., 2014b, 2:11, 10:8, 6:26 (for a further 3FPL form, *23:27). The reduction/elision of the vowel between R_1 and R_2 where this falls in the pretonic position and the occurrence of *a* as a variant of *ɛ* between R_2 and R_3 are discussed below.

are identical to the 3MSG, a syncretism not found in the Ga (where the 3MPL SC is *qétel* versus 3MSG *qédom*) or indeed in the equivalent context in Mehri or Jibbāli.

The 3FSG/3DU Gp SC has a stem allomorph—most commonly *qitíl*, but with variants *qətíl* and *qtil* also attested—in which the vowel between R_2 and R_3 is *i* instead of *ɛ*, and which thus more closely resembles its Mehri and (especially) Jibbāli counterpart: e.g., 3FSG *ḥəbís-o* / *ḥibís-o*, and 3MDU *litíʕ-o* and *ḥtín-o*.[130] With the addition of the suffix *-o* the stress shifts forward from the vowel R_1 and R_2 which then sometimes undergoes lenition *i* > *ə* > *ø*, and with regard to the variation in this, it "stands to reason that this shift is conditioned by the phonetic properties of the first and second radicals, but no exact distributional rules could be established".[131] However, the attestation of different variants from the same root (e.g., √*ḥbs*) suggests a freer distribution, perhaps an instance of variation that has not yet reached the status of change with the triumph of one variant, or the establishment of a fixed conditioning environment(s). Otherwise, two exceptional 3FSG Gp SCs occur with the 3MSG stem: *díḥš-o* (whose initial stress suggests a proto-form **díḥɛš-o* rather than **diḥíš-o*) and *ṣikɛ́b-o*.[132]

Soqoṭri verbal morphology, like that of other MSA languages, varies in certain "weak" root types, whose root consonants have certain phonological properties. In general, though, the Gp SC conforms to strong-root patterns more so that do the Ga or Gb SCs. For example, while active verbs from √2=3 have irregular monosyllabic SC stems (e.g., *ḥez*), the Gp is entirely regular (e.g., 3MSG *ḥízɛz* ~ 3FSG *ḥizíz-o*).[133] Where deviations from *qítɛl* ~ *qitíl-o* do occur, these largely accord with regular Soqoṭri phonology. For example, glottalic and pharyngeal consonants cause **ɛ* > *a* /*[Ç]*, /_*G* (*Ç* =glottalic and *G* =pharyngeal) throughout the language. As

[130] Leslau, 1938, s.v. √*ḥbs*; Müller, 1905, 135:21, 291:23. Naumkin et al.'s (2014b, 2:53) texts contain just one example with a reduced vowel between R_1 and R_2: 3FSG *ḳəṭíb-o*.
[131] Naumkin et al., 2014a, §1.5n14.
[132] Leslau, 1938, 357; Naumkin et al., 2014b, 2:50.
[133] Naumkin et al., 2014b, 3:7, 22:82, 3:13.

expected, the underlying *ɛ of *qítɛl* appears as *a* in √3=*Ç, G*, but *í* of the 3FSG stem allomoph does not lower (e.g., *híraḳ ~ hiríḳ-o* and *lítaʕ ~ litíʕ-o*).[134]

In accordance with the general MSA behaviour of "idle glottis" consonants, the Soqoṭri Ga and Gb SCs usually syncopate the vowel between R_1 and R_2 when both are voiceless or non-glottalic (e.g., *ktob*).[135] The Gp of such roots, by contrast, preserves a trace of this vowel, albeit a shortened, unaccented one.[136] Interestingly, earlier literature sometimes represents such forms with a palatal glide *following* R_2 and no vowel preceding it: e.g., "*ktyeb*" and "*ḥt(y)an*" (for *kⁱtɛb* and *ḥⁱtɛn*).[137] Leslau calls this "métathèse de la voyelle et de la consonne", while Bittner instead sees it as resulting from the insertion of an extraneous *y* (i.e., palatalisation of R_2).[138] The variation-and-change model attributes great weight to the role of language transmission; both of these explanations could be ways of expressing that speakers have reanalysed a phonetic sequence *CiC* as *CCy*.[139] Whatever the diachronic origin of this morphology, the "furtive" vowel between R_1 and R_2 has phonemic status since it creates minimal pairs, in some cases marked for an active-passive voice distinction.[140]

One highly unusual Gp SC form is *yəʕád*, which Naumkin et al. compare this to the √1=*ʔ* Cp SC *ṯʸaf* and *ṯʸar* (discussed below), arguing that since *ʕ* is not susceptible to palatalisation, the

[134] Leslau, 1938, s.v. √*hrḳ*; Naumkin et al., 2014b, 28:34, 4:10.
[135] Rubin (2018, §2.1.2n3) explicitly states that the deletion of unstressed phonemic *ə* between two idle glottis consonants "applies across the MSA languages".
[136] Naumkin et al., 2014b, §2.1.2.3. Of their examples, *šⁱbaḥ* has a voiced R_2, suggesting the phonological environment conditioning this change may not be as restrictive as the previous formulation states.
[137] Cf. Leslau, 1938 and Naumkin et al., 2014b.
[138] Leslau, 1937, 91; cf. Bittner (1918, 7n2) calls the *y* "eingedrungenen".
[139] Cf. Gp IPFV by-forms *i-šúnɛ / šʸúnɛ* (Leslau, 1938. s.v. √*hny*). Moreover, speaker error regarding the position of the glide occurs in the √1=*ʔ* Cp SC *ṯʸɛl*: "[I]n the informants' perception, the palatal glide…comes *before* rather than after the first consonant, which is consistently reflected in their Arabic-based Soqotri transcriptions, such as ثيطاف" (Naumkin et al., 2014b, §2.1.2.3).
[140] Naumkin et al., 2014b, §2.1.2.3. Due to lowering in the second vowel, a voice-marking distinction is expected in verbs √*1&2*=voiceless, *3=Ç/G*: Ga *qtal* versus Gp *qⁱtal*.

glide precedes rather than follows it.[141] It is worth adding to this proposal that although the underlying root of *yəʕád* is √ʕ*yd*, the corresponding Gp IPFV ~ SBJV forms *yú-ʕad* ~ *li-ʕód* suggest reanalysis of the root as √1=ʔ (whose morphology is discussed below). Secondly, as in other MSA languages, there is significant blending between the Gp and Cp in Soqoṭri (discussed below) that may have played a role in this instance. Ultimately, though, since this is the only Gp SC identified from √2=*w/y*, little can be said with certainty other than to observe that it does not conform to the regular Gp SC pattern *qítɛl*.

Apart from this one-off case of *yəʕád*, the only root type whose Gp SC deviates from *qítɛl*, or can otherwise not be derived from it by predictable sound changes operative throughout the language, is √3=*w/y*. The primary Gp SC pattern is *qətṓwə* (e.g., *ḥərṓwə* from √*ḥrw/y* from and *kəsṓwə* from √*ksw/y*), whose stem possesses two schwa vowels, the first of which appears as the labialised allophone *ö* before R_3=*w*, as well a third schwa following the stem.[142] Unlike in the strong root, there is no stem allomorphy in the 3FSG (e.g., *kəsṓw-o* from √*ksw/y*).[143] In terms of relating *qətṓwə* to *qítɛl*, the schwa between R_1 and R_2 is plausibly a reduced **i* in pretonic position (cf. the strong-root 3FSG Gp SC allomorph *qətíl*), but it is less obvious how the sequence *ṓwə* would derived from *ɛl* or *íl*.[144]

[141] Naumkin et al. (2014b, 504) provide other forms from this root that confirm it is √ʕ*yd*. Considering their position that "*kʲtɛb* and similar forms are best interpreted as monosyllabic" (§2.1.2.3n25), it is not clear that they consider *yə* a Cv sequence in the phonology of this form, particularly in view of its superscript representation in their alternative transcription *ʸᵊʕad*.

[142] This relatively novel description relies on Naumkin et al.'s (2014b) recent volume. For the forms cited, see 7:11, 15:11. Earlier scholars variously interpreted *ö* as a back vowel or diphthong in *qetauwi*, *qetowi*, *qetawwi*, etc (see e.g., Leslau, 1937; Leslau, 1938; Retsö, 1989) and the final *ə* as *i*. Two doubly-weak roots, namely √*lwy* and √*twy*, have Gp forms attested: *lə́wə* and *tə́wə*, 3FSG *túy-o* (Naumkin et al., 2014b, 3:13, *18:13, 679). Leslau (1938, s.v. √*twy*) provides a form "*táuwi*" (for *tṓwə*). These bear some resemblance to the √3=*w/y* Gp, especially the last, and their formation seems based on bilateral roots √*ly* and √*ty*.

[143] Non-third person forms are extremely rare; I have found just three, all from the first person: 1SG *ksṓwo-k* (Naumkin et al., 2014b, *18:8), 1DU "*šébeʔí-ki*", and 1PL "*ṣə́ym-en*" (Müller, 1905, 6:23, 311:14n2).

[144] It is admittedly a highly speculative proposal, but perhaps the sequence *ṓwə* results from vowel breaking to resolve impermissible **ɛw* and **iw*. Naumkin et al.'s (2014b) texts contain just one **ɛw* sequence that does not cross a morpheme boundary—*dɛ́wit* "you healed" (30:4), an Arabic loan—and one citation in their lexicon: *ḥagɛ́whi*

Apart from to *qətṓwə*, √3=*w/y* also has a Gp SC *qítɛ* ~ *qitíy-o* (e.g., 3MSG *fílɛ* and 3FSG *hiníy-o*).[145] This differs from the strong-root pattern only in that it retains no overt token of R_3in the 3MSG stem allomorph; that of the 3FSG is entirely regular. The *qətṓwə* and *qítɛ* patterns do not reflect different root types—i.e., √3=*w* versus √3=*y*—at the synchronic level, nor is there any evidence that this is the diachronic origin of the morphological variation between. There is simply no way of predicting which kind of Gp SC will occur with a given root, and for some roots, both are attested.[146]

Overall, then, there is little formal variation in the Soqoṭri Gp SC, including a limited degree of person-based allomorphy, and weak root types tend to follow the strong-root pattern more than other parts of the verbal paradigm do. Even in √3=*w/y*, the only root type with a truly irregular Gp SC, regular variants also occur. Furthermore, although the Gp SC is affected by the same phonological processes operative elsewhere (e.g., the lowering **ɛ > a/[Ç]*, *_G*), this is counteracted by a noteworthy resilience in the distinction of voice, occasionally so strong as to override otherwise normal sound changes (as in the preservation of a "furtive" *i* vowel).

The Soqoṭri Gp IPFV has the stem *qútol*, with two full back vowels, in contrast to Ga *qótəl* and Gb *qɛ́tol*.[147] Many forms exhibit vowel breaking of the *ú* between R_1 an R_2, with the resulting diphthong (or triphthong) represented in various ways in the literature.[148] The precise conditioning environments of this variation are not certain, though some general distributions are

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"dark-brown cows" (554). No instances of ***iw* occur, which is unsurprising considering the general Semitic restriction against this sequence.

[145] Naumkin et al., 2104b, 535, 21:3.

[146] Leslau (1938, s.vv.) cites the *qətṓwə* form for √*drʔ* (√3=*ʔ* behaving like √3=*y*), √*fḳy*, √*hḳy*, √*mly*, √*kṣy*, √*nby*, √*śny* and √*yʰny;* and *qítɛ* for √*ʔty*, √*kly*, and √*ksy*. Naumkin et al. (2014b, s.vv.) cite the *qətṓwə* form for √*bry*, √*gzy*, √*ḥry*, √*kly*, √*ksy*, √*kʕy*, √*ḳry*, √*rḳy*, √*yʰšy*, and √*zʕy*; the *qítɛ* form for √*fly* and √*ḳṣy*; and both for √*ʔgy* and √*yʰny*.

[147] Naumkin et al., 2014a, §2; 2014b, 36. Reference here is made to the *stem* of the prefix conjugations. The prefixes and suffixes with which these are conjugated are addressed separately below.

[148] Naumkin et al. (2014b, §2.1.2.1a) state that the broken allophone of *ú* is "usually realised as a diphthong [ou]"; Lonnet's (Dufour, 2014, p.c.) fieldwork presents it as "o^w" or "$\bar{o}^w$"; Leslau (1938) variously represents it as "*au*", "*uwe*", and "*auwe*".

observable. Naumkin et al.'s text edition shows that the phone [u] is mostly found in roots that contain ʕ; conversely, the roots for which Leslau cites Gp IPFVs with a diphthong or triphthong exhibit a notable tendency to contain velar consonants and *ḥ*.[149]

Broken and unbroken variants are recorded in the *Lexique Soqotri* for the same phonological (cf., e.g., "*iḥúlob*", "*yeḥaúlob*", and "*ḥaúwelob*"), though it is not certain that this means that vowel breaking is optional rather than simply reflecting inconsistent transcription.[150] In any case, the important point here is that *qó*^{w}*tol*, *qóutol*, *qúwetol*, *qáutol*, *qáuwetol*, and so forth are simply allomorphic variants of *qútol*. It is according to the form *qútol* that the data will be presented, since [u] is the most basic allophone of /u/ (even if broken variants are more common). Moreover, the Gp IPFV is precisely one of very few environments where the phone [u] appears, so this vowel may be considered intimately connected to passive marking.[151]

The Gp IPFV has the same stem *qutol* for 1SG, 1PL, 2MSG, 3FSG, and all persons FPL.[152] However, the 2FSG has the vowel *i* between R_2 and R_3, the DU has *ɛ*, and the 2/3MPL has *ə* (e.g., 3MPL *yə-ḥútən*, 3FDU *kutɛf-o*, and from Lonnet's fieldwork, 2FSG *fugig* ~ DU *fugɛg-o* ~ MPL *fugəg*).[153] Stem allomorphy thus precisely parallels that of the Gb IMPV in terms of the

[149] Leslau, 1938, s.vv. √*drʔ*, √*ḥmḥ*, √*ḥlb*, √*ḥgr*, √*ḥly*, √*ḥṣl*, √*ktb*, √*ḳdm*, √*mnḥ*, √*rʕś*, √*škl*, √*ṣḳb*, √*śkm*, and √*ṣ́lḥ*; Naumkin et al., 2014b, s.vv. √*ʔgḥ*, √*ʔmn*, √*ʕbr*, √*ʕgb*, √*ʕmr*, √*ʕnn*, √*ʕrb*, √*ʕrr*, √*ʕṣm*, √*ʕṣr*, √*bʕl*, √*ltʕ*, √*ndḳ*, and √*nfʕ*. In addition to whatever as-yet unidentified phonological conditions might be relevant, another consideration in the case of triphthongs is the insertion of *w* to create an additional syllable in accordance with the metric constraints of Soqoṭri poetry (Naumkin et al., 2014b, 210n2).
[150] Leslau, 1938, s.v. √*ḥlb*.
[151] Lonnet, 1994, 246: "Le timbre u est rarissime en soqotri; dans les verbs il n'apparaît qu'au passif".
[152] For FPL Gp IPFVs, see Naumkin, 2014b, 10:8, 15:4, 28:5; Johnstone, 1968, 425; and Leslau, 1938, s.vv. √*grf*, √*ḥrt*, √*ktb*, √*ḳbb*, √*ḳnm*, √*ndḳ*, √*rgm*, √*rḥṣ́*, √*śrḳ*, and √*ṭḥn*. I have come across just one 1SG Gp IPFV: *ə-rúḥaṣ́* (Müller, 1905, 163:13). Forms from Lonnet's fieldwork (Dufour, 2014, p.c.) confirm this distribution of the 3MSG stem, though his FPL "*fōgōgen*" may suggest an assimilation **qutól-ən* > *qotól-ən*.
[153] Dufour, 2014, p.c.; Naumkin et al., 2014b, 28:11, 262. Elsewhere, Johnstone (1968, 524) gives 3MSG "*yḥuubɔs*" ~ 3MPL "*yḥuubɪs*" for *yə-ḥúbos ~ yə-ḥúbəs*. Leslau (1938, s.vv. √*ḥtn* and √*ʕmr*) gives MPL and DU *qutel*, though his transcription does not give precise (or distinct) values for *ə* and *ɛ*. For active forms, see Naumkin et al, 2014a, §2.1. The *i* in the 2FSG is presumably due to assimilation to a subsequently lost suffix **-ī(na)*; the origin of the other stem allomorphs is less clear to me.

vowel between R_2 and R_3, although a clear distinction is maintained between R_1 and R_2, where the Gp has *u* and the Gb *ɛ*.

Precisely as in the SC, some weak root types have irregular active IPFV forms but the Gp IPFV adheres closely to the strong-root paradigm. For example, in √2=3, it follows the expected *qúlol* pattern (e.g., *yə-ʕúnon*, *ḥúzoz-ən*, and *šúdod*), while corresponding Ga/b IPFVs *ya-ʕnən*, *ya-ḥzəz*, and *yə-hdəd* deviate significantly from regular ***yə-qóləl* or ***yə-qélol* patterns.[154] Again, as with the SC, when Gp IPFV forms *do* deviate from the *qútol* stem, this is in accordance with normal Soqoṭri phonology. For example, *a* rather than *o* occurs between R_2 and R_3 in certain glottalic or pharyngeal environments, which distribution is not specific to this context, but rather occurs in active verbs (and indeed elsewhere in the language) as well.[155]

Similarly, the √1=*ʔ* Gp IPFV can undergo an aphaeresis of R_1 and subsequent fusion of the prefix vowel with that of the stem, resulting in a form *yú-tol* (e.g., *yú-kob*, *yú-rom*, *yú-tom*, and *tú-raṭ*). However, this process does not always occur, and regular √1=*ʔ* Gp IPFVs also occur (e.g., *yə-ʔúgɛ*, *yə-ʔúlaḥ*, and *yə-ʔúmon*).[156] Moreover, comparable variation occurs in active verbs, where forms both with and without aphaeresis are attested for the same root (e.g., *yə-ʔólob* and *yoú-lob* from √*ʔlb*).[157] Indeed, when aphaeresis of R_1=*ʔ* results in an active IPFV *yoú-tol*, this creates an extremely rare instance of active-passive syncretism in Soqoṭri.

[154] Naumkin et al., 2014b, s.vv. √*ʕnn*, √*ḥzz*, and √*yʰdd*.
[155] Exceptional in this regard is *ṭ(y)úloḳ* (Müller, 1905, 177:2). For examples of *qútal* Gp IPFVs conditioned by root letters, see Müller, 1905, 303:19; Leslau, 1938, s.vv. √*ʔgḥ*, √*ʔlḥ*, √*ʔrḥ*, √*ʔṣl*, √*ʕṭb*, √*grḥ*, √*hḳy*, √*hrḳ*, √*ḳʕy*, √*ḳṣm*, √*kzḥ*, √*ltḥ*, √*nśf*, √*rḥś*, √*ṣḳb*, √*ṣḳḥ*, √*śrḳ*, √*ślḥ*, √*tḳy*, and √*zʕy*.
[156] Leslau, 1938, s.vv. √*ʔgḥ*, √*ʔgy*, and √*ʔlḥ*; Müller, 1905, 303:19 for *tuwə-raṭ* (from **tú-raṭ* with vowel breaking); and Naumkin et al., 2014b, s.vv. √*ʔgḥ*, √*ʔgy*, √*ʔkb*, √*ʔrm*, and √*ʔtm*.
[157] Naumkin et al., 2014a, §2.2.1. Naumkin et al. (2014a, 2014b) invariably present the prefix of the active *yoú-tol* forms with a diphthong [ou] and never [u]. One might wonder whether this is *phonemically* different from that of the Gp prefix [ou], since this also manifests as [u], as discussed above.

Data for the Gp IPFV from √2=*w/y* are extremely scarce, but at least one form, *i-kúyol* from √*kwl*, seems to follow the strong-root pattern.[158] Two others from √*zyn* occur in Müller's texts, which he cited transcribed "*tzuwénen*" and "*z(y)úwan*", for 3FPL *tə-zuwén-ən* and 3MPL *zʸúwan*.[159] The vowel *a* preceding R_3 in *zʸúwan* is slightly unusual; the expected vowel between R_2 and R_3 of the 3MPL Gp IFPV is *e*/*ə*. Nonetheless, this *qúwal* form is still more regular than the active counterparts *yv-qvl* insofar as it preserves a consonantal token of R_2.[160] Naumkin et al.'s recent volume features just Gp from the root type √2=*w/y*: *yú-ʕod* from √*ʕyd*. This has the same syllabic pattern *yú-CoC* as the irregular Gp IPFV by-form for √1=*ʔ* (discussed above), and may well reflect reanalysis of the root as √*ʔʕd*.[161]

As in the Gp SC, √3=*w/y* is the only root type to exhibit widespread irregularity in the Gp IPFV; its 3SG stem takes the shape *qútɛ* (or *qúta*) rather than ***qútoy*.[162] Data are insufficient to confirm the person-based stem allomorphs found in the strong root also occur here, and one should remain open to the possibility that phonological and morphological processes associated with R_3=*w/y* may have affected the development (and as a result may complicate the analysis) of the forms in question.[163] This slight irregularity notwithstanding, just as in other weak root types,

[158] Leslau, 1938, s.vv. √*kyl*.
[159] Müller, 1905, 164:19, 166:7. In "t-zuwén-en", the presence of the *t-* prefix is extremely unexpected (as discussed below). My interpretation of its stem as *zuwén* (rather than underlying *zún* with vowel breaking into *zuwən*, for example), is largely due to the position of the stress and the presence of the *a* (an allophone of ɛ) in the other √2=*w/y* Gp IPFV forms.
[160] Variants forms of the active IPFV include *yé-qəl*, *yí-qol*, *yí-qal*, and *yó-qol*—see, for example, Naumkin et al., 2014b, s.vv. √*ʕyd*, √*gwz*, √*ḥwl*, √*kwn*, and √*ḳwl*—but the key point is that all have *CvC* stems.
[161] Naumkin et al., 2014b, 6:40, 22:74.
[162] For examples from √*fly*, √*kly*, √*ksy*, √*kʕy*, √*kry*, √*kṣy*, and √*zʕy*, see Naumkin et al., 2014b, 2:15, 16, 17; 6:51; 7:13; 15:12; 21:7; 22:80; 28:26; *30:3, 18; and *31:51; cf. the vowel following R_2 in the Jibbāli Gp IPFV *y-ḳénɛʔ*, from √*ḳny* (Rubin, 2014a, 51:2). Gp IPFVs *yú-lɛ* and *yú-tɛ* from doubly-weak √*lwy* and √*twy* have both the ending *-ɛ* of the √3=*w/y* Gp IPFV and the *yú-* prefix of the (irregular) √1=*ʔ* Gp IPFV (Naumkin et al., 2014b, s.vv.).
[163] For example, one cannot say whether Müller's (1902, 164:27) transcription "*śaúweneh*" (3MPL Gp IPFV from √*śny*) represents *śúnɛ* or *śúne*. Elsewhere, the *o* between R_2 and R_3 of *kúloʔ-o* (DU Gp IPFV from √*kly*) may derive from **kulɛ́ʔ-o* with progressive translaryngeal assimilation to the vowel of the suffix; cf. 3MSG Gp IPFV *kúlɛʔ* (Naumkin et al, 2014b, 15:12, *17:13).

the 3=*w/y* Gp IPFV is still more regular than the Ga, which has a monosyllabic IPFV stem *qot*; in this respect, the stem of the Gb IPFV *qote* more resembles that of the Gp.[164]

Overall, the same observation made regarding the Gp SC holds for the IPFV: forms from weak root types behave more like strong-root forms than do their active counterparts, as is evident in forms from √2=3 and √2=*w/y*. Moreover, in one weak root type (√1=*ʔ*) with an irregular Gp IPFV, regular variants also occur. Finally, even in the weak root type √3=*w/y*, whose Gp IPFVs invariably deviate from the strong-root pattern, they are still arguably more similar to them than are their active counterparts to their respective strong-root patterns.

All Gp IPFVs, whether from regular strong-root pattern or irregular forms from weak roots, share an important characteristic: an accented *ú* in the penultimate syllable. This phoneme /*u*/ is present in *all* Gp IPFVs, and extremely rare outside of the IP paradigm—absent, in fact, if one restricts further to its [u] allophone.[165] As such, at the synchronic level at least, this vowel is the passive marker par excellence in the Soqoṭri Gp IPFV (as well as in other IPs, discussed below). The *ú* between R_2 and R_3 gives rise to a key characteristic of the Soqoṭri Gp IPFV: its clear distinction from the Gp SBJV. In this regard, Soqoṭri is located at one end of a scalar classification, with Mehri's total syncretism between the Gp IPFV and SBJV at the other; Jibbāli lies between them, exhibiting, as it does, some IPFV forms that are dissimilar to their SBJV counterparts and others that are identical, depending on the characteristics of the root consonants.

Data for Soqoṭri IP SBJVs are far scarcer than those for the SC or IPFV. Just three are cited in the *Lexique Soqotri*; Naumkin et al.'s recent edition of texts contains only a dozen.[166] The Gp

[164] For √3=*y* Ga and Gb IPFVs, see Leslau, 1938, 12.
[165] Lonnet, 1994, 246.The prefix of weak active verbs from √1=*ʔ* is one possible exception, and properly speaking, /u/ always appears there as a diphthong [ou] and never as the basic allophone phone [u]. In fact, in the minimal-pair Ga *yó-ʕod* versus Gp *yú-ʕod* it is the sole voice-distinguishing feature (Naumkin et al., 2014b, s.v. √*ʕyd*).
[166] Leslau's (1938, 11–13), grammatical précis does not provide the SBJV for the Gp, listing SC ~ IPFV ~ PTCP (compared with SC ~ IPFV ~ SBJV for other stems), and two of the three IP SBJVs he (s.vv. √*ʕyg*, √*bwt*) cites are from the D/Lp rather than the Gp, while the last he (s.v., √*ksy*) considers uncertain. IP SBJVs from Naumkin et al.'s

SBJV stem takes the form *qtól*, which differs from the Ga SBJV stem *qtél* but is identical to that of the Gb (though a distinction is maintained in the prefixes, discussed below).[167] All forms attested in the texts are 1SG, 3SG, or 3FPL, so the identification of person-based stem allomorphy parallel to that of the IPFV rests entirely on data from Lonnet's fieldwork.[168]

The Gp SBJV stem is extremely stable, even to the extent of violating normal Soqoṭri phonology. For example, the appearance of *a* in place of *o* adjacent to a glottalic consonant or preceding a pharyngeal as occurs in the Gp IPFV, as well as active forms (and other parts of the language), is not found in the Gp *SBJV* (e.g., *la-ʕḳól* and *li-rkóḥ*, not ***la-ʕḳál* and ***li-rkáḥ*).[169] It is noteworthy that even with *a* between R_2 and R_3, the Gp IPFV stem *qútal* remains distinct from its Ga *qótal* and Gb *qátal* counterparts by virtue of the *ú* between R_1 and R_2. This is not the case in the SBJV, though, since there is no vowel in this position. Therefore, if the Gp SBJV had *a* in place of *o*, the resulting *qtal* would be identical to that of the Ga SBJV.[170]

Data from weak root types are scarce but confirm this general impression of formal homogeneity. The √2=3 Gp SBJV *lə-fgóg* is entirely regular, while √3=*w/y li-bró* and *li-ḥló* diverge from the strong-root pattern only insofar as they possess no overt token of R_3.[171] In √1=*ʔ*, though one regular Gp SBJV form is cited in Naumkin et al.'s glossary (i.e., *li-ʔmón*), forms with aphaeresis of R_1 are the norm (e.g., *li-góḥ*, *li-róm*, and *li-tóm*).[172] The only √2=*w/y* Gp SBJV I

(2014b) texts are found in *7:11, 9:2, 3, 4; 17:57; 19:37; 22:80, 24:5, 7; 28:12, 38 (a Cp SBJV); and 30:22. Their scarcity is an unsurprising natural corollary of the high markedness of IPs combined with the fact that "the domain of use of the jussive is not very broad in Soqotri" (Naumkin et al., 2014a, §3).

[167] For active SBJV forms, see Naumkin et al., 2014a, §3.

[168] Dufour, 2014, p.c.

[169] Naumkin et al., 2014b, 22:80, 28:38. The vowel of the prefix **li-* has, however, been lowered to *a* preceding a pharyngeal in *la-ʕḳol*. In fact, *li-rkóḥ* is a Cp, though that is not particularly relevant to the matter in hand since the Soqoṭri Gp and Cp exhibit full syncretism in the IPFV and SBJV (discussed below).

[170] For active SBJVs from these root types, see Naumkin et al., 2014a, §§3.1.1, 5. The Gb SBJV usually retains the stem *qtól*, but the low vowel *a* is found in *li-dʕar*, *li-fzáʕ*, *li-hmáʕ*, *li-ṣál*, and *li-śraʕ* (§§6, 7.1.2–7.1.3).

[171] Lonnet (Dufour, 2014, p.c.) has compiled an entire Gp paradigm for √*fgg*. For the √3=*y* Gp SBJVs, see Naumkin et al., 2014b, 9:3, 19:37.

[172] Naumkin et al., 2014b, s.vv. √*ʔgḥ*, √*ʔmn*, √*ʔrm*, and √*ʔtm*.

have identified is *li-ʕód* from √ʕ*yd*, whose monosyllabic stem resembles those of √1=ʔ forms in its consonantal skeleton (*CoC*).[173]

One extremely important feature of Soqoṭri IP morphology is the loss of preson-marking prefixes in the Gp IMPV and SBJV. There seems to be more variation than in Jibbāli in whether the glide *y-* appears in the 3M IPFV; it is highly exceptional in Jibbāli but forms both with and without a 3M prefix are well attested in Soqoṭri.[174] No clear phonological motivations governing the distribution thereof can be identified, though this is not meant to rule out the possibility of other conditioning environments. However, in terms of the variation in the presence or absence of *yə-*, the data show that alternate by-forms with and without it may coexist for the same root in a single speaker's idiolect.[175]

First-person forms are not well enough attested to draw any certain conclusions, but in the 1SG and 1DU it seems variation in the presence or absence of *ʔə-* perhaps favours latter, while in the 1PL, the *nə-* is retained.[176] To further complicate matters, deletion of prefixed persona markers also varies between the dialects of Soqoṭri, and in the extreme case of the Qalansiya dialect, all personal prefixes are deleted.[177] One prefix-deletion feature, though, is constant throughout both Jibbāli and Soqoṭri, and ought therefore to be reconstructed to the proto-East

[173] Naumkin et al., 2014b, s.v. √*ʕyd*. It would be imprudent to rule out the possibility the root of this form has been reanalysed as √*ʔʕd*.
[174] For forms—unless indicated otherwise between parentheses, 3MSG Gp—with the *yə-* prefix, see Naumkin et al., 2014b, s.vv. √*ʔgy*, √*ʔgd* (Cp), √*ʔṯf* (Cp), √*ʕgb*, √*ʕḳl*, √*ʕmr*, √*ʕnn*, √*ʕṣm*, √*ʕyd*, √*blg*, √*ḥśm* (D/Lp), √*ḥtn* (3MPL), √*ḳʕy*, √*ḳdr*, √*ḳfl* √*ḳṣf*, √*ltʕ*, √*ntʕ*, √*ṣlb*, √*twy*, and √*ṭbr* (D/Lp); for those without, s.vv. √*ʕmr*, √*fly*, √*gʔr*, √*ghm* (Cp), √*gzy* (Cp), √*ḥrṭ*, √*ḥṣḳ*, √*ḥzz*, √*kly*, √*ktb*, √*ḳʕy*, √*ḳdr*, √*ḳlb* (3MPL), √*ḳnm*, √*rʔš* (D/Lp), √*rkḥ*, √*ṣlb*, √*ṣrf*, √*śʔm*, √*śrʕ*, √*śrḳ*, √*yʰbḥ* (Cp), and √*yʰdd*.
[175] For example, ʿAmer Ahmed al-Daʿrhi uses 3MSG Gp IPFVs from √*ʕmr* with (Naumkin et al., 2014b, 1:61, 7:24, 25:29, 28:6) and without (8:13, 16) the prefix.
[176] Cf. 1SG "erúḥaṣ́" for *ʔə-rúḥaṣ́* (Leslau, 1938, s.v. √*rḥṣ́*), 1SG *fúgog* and 1DU *fugég-o* (Dufour, 2014, p.c.), and 1SG *ḥúton* (Naumkin et al., 2014b, 28:9, 10). The only 1PL Gp IPFV I have encountered is in Lonnet's fieldwork notes (Dufour, 2014, p.c.), and retains the 1PL marker *nə-*: *nə-fúgog*.
[177] Lonnet, 1994, §§III.1.

MSA node (mother language to both of these languages, but not to Mehri) as the core of the phenomenon:. the absence of the dental prefix *tə-* that marks second-person/3F.[178]

When IP IPFVs lack prefixes, the following *ə* vowel is also elided, leaving only the stem (and suffixes, where present), so the form begins with R_1. This is another difference from Jibbāli, which levels a high vowel *e-* or *i-* before R_1. However, in the irregular √1=*ʔ* Gp IPFV *yú-tol*, the vowel of the prefix is retained even when the consonantal element is lost (e.g., 3MSG *ú-kob* from √*ʔkb*).[179] This suggests that the *ú* vowel derives from what originally followed R_1=*ʔ*, prior to its aphaeresis, and supports its identification as a load-bearing part of IP morphology.[180]

As mentioned, data for the Gp SBJV are very scarce, making a precise description of the deletion of its person-marking prefixes difficult. Broadly speaking, though, the phenomena is more advanced than in the IPFV; the loss of *ʔ-* and *y-* appears to be as obligatory as the loss of *t-* in the Gp SBJV. That said, variation between persons in the vowel of lateral *lv-* prefix may reflect remnants of the 3M glide *y-* having been retained longer than *t-* and *ʔ-*.[181] As in the IPFV, the 1PL SBJV *nə-qtol* retains its prefix *nə-*.

The resulting situation is one with higher homogeneity between persons than that of active forms, since *lv-qtól* serves for all singular forms except the 2FSG (which has a stem allomorph *qtíl*). With specific regard to how person-marking prefix deletion in IPs affects voice marking, it is noteworthy that some Ga SBJVs allow a variant *qtól* stem (rather than the normal *qtɛ́l*) matching that of the Gp SBJv, but only in forms with a prefix *tə-*. Naumkin et al. explicitly

[178] The sole exceptions I have found are *tə-zuwén-ən*, a 3FPL Gp IPFV from √*zyn*, and *tú-raṭ*, a 3FSG Gp IPFV from √*ʔrṭ* (Müller, 1905, 164:19, 303:19).
[179] Naumkin et al., 2014b, 22:34.
[180] Naumkin et al., 2014b, *2:37, *21:6, *23:12, and 26:34. √1=*ʔ* Cp IPFVs behave likewise (e.g., *ú-daḥ* and *ú-ḳar*), and as in the Gp IPFV, the prefix *y-* is optionally retained (e.g., *yú-ṭaf*).
[181] Lonnet (Dufour, 2014, p.c.) provides the 3MSG Gp SBJV with a palatalised prefix: *lʲe-fgóg* versus 3FSG *lə-fgóg*. Naumkin et al. (2014b, 12–13n6) note a difference in the quality of the lateral SBJV prefix (glottalic in the 3MSG versus pharyngealised elsewhere) as in the vowel (between 3MSG *li-* and *lə-* elsewhere): cf. 3MSG *lʲa-ḥtón* versus 1SG *ḷa-ḥtón* and 3MSG *lʲi-ṭḥóf* versus 3FPL *ḷə-ṭḥóf-ən* (s.vv. √*ḥtn* and √*ṭḥf*).

observe that these are precisely the contexts where the absence of this prefix in the Gp would preserve its distinction from the Ga: i.e., Ga *tə-qtól* versus Gp *lə-qtól*.[182]

The following describes the morphology of IPs other than the Gp. These are far more prevalent in Soqoṭri than in Mainland MSA, where they are very infrequent. Leslau's claim that they are as "valable" as the Gp is fair, provided one understands this validity to refer to whether speakers perceive them as correct or natural language.[183] It should not, however, be taken as meaning that their productivity is comparable to that of the Gp; none of the other IPs occur with anything approaching its frequency.

Nonetheless, the *Lexique Soqotri* lists no fewer than forty non-Gp IP forms from Müller's texts. Of these, roughly three-quarters are from the Cp, three come from the D/Lp, one from the Gtp, and eight from the Ctp.[184] The distributions in Naumkin et al.'s recent editions of texts are comparable, and they include non-Gp IPs from several roots for which these stems are not listed in the *Lexique Soqotri*.[185] First the Cp will be described, since this is considerably more common than the others non-Gp IPS, and then the D/Lp, Gtp, Ctp, and Qp forms.

The Cp SC takes the form *(ʔ)íqtɛl* (e.g., *íʕbɛr* and *inśɛr*), with the expected lowering **ɛ > a* in glottalic and pharyngeal environments.[186] The vocalic sequence *i-ɛ* is the same as that of the Gp

[182] Naumkin et al., 2014a, §3n31: "The reason behind the different behavior of the 3 sg. m. and 3 sg. f. forms may be sought in the fact that in 3 sg. m. the base $C_1C_2oC_3$ is reserved for the passive: *ligléf* 'let him remove' vs. *liglóf* 'let it be removed'. In the corresponding feminine forms, the active and passive forms use different prefixes (*te-* in the active vs. *le* in the passive…), which reduces the distinctive load of the thematic vowel: *tegléf*/*teglóf* 'let her remove' vs. *leglóf* 'let it$_{sg.\ f.}$ be removed'."

[183] Leslau, 1937, 91.

[184] For Cp forms see Lelsau, 1938, s.vv. √*ʔrd*, √*ʔrḥ*, √*ʕḥṣ*, √*ʕly*, √*hdy*, √*nśf*, √*nkʕ*, √*nśr*, √*rḳḥ*, √*śll*, √*trf* and √*wdʕ*; for the D/Lp s.vv. √*rʔš* and √*šdy*; for the Gtp s.v. √*ʕry*; and for the Ctp, s.vv. √*ʕfr*, √*ʕrk*, √*ḥmy*, √*mtl*, and √*mṯy*. To these may be added a handful of instances of the Cp from √*nkʕ* mentioned in the *Lexique Soqoṭri*, but not given explicit citations (found, e.g., in Müller, 1905, 265, 292, passim).

[185] In addition to forms cited in the commentary and glossary with no context, the texts contain some 32 forms from the Cp (for references, see, Naumkin et al., 2014b, s.vv. √*ʔgd*, √*ʔḳr*, √*ʔlb*, √*ʔrḥ*, √*ʔṯf*, √*ʔṭr*, √*ʕbr*, √*ʕṣr*, √*ʕšr*, √*ʕwg*, √*gdḥ*, √*ghm*, √*gzy*, √*ḥly*, √*knn*, √*ḳdm*, √*ḳfl*, √*nby*, √*rkb*, √*rkḥ*, √*śny*, √*ṭrb*, and √*yʰbḥ*; 11 from the D/Lp (s.vv. √*ʔwy*, √*ḥll*, √*ḥml*, √*ḥrg*, √*ḥśm* √*rʔš*, √*šdy*, √*tgs*, √*tḳb*, √*tḳf*, √*ṭbr*, and √*ṣyf*); 2 from the Gtp (s.v. √*ḳny*); and 1 from each of the Ctp (s.v. √*ʔḳš*) and Qp (s.v. √*dmdm*).

[186] The *ɛ* of *ʔinṣɛf* and *ʔirḳɛḥ* likely just reflects inconsistency in Leslau's (1938. s.vv. √*nśf* and √*rḳḥ*) transcription.

SC *qítɛl*, from which the Cp SC differs only in terms of its syllabic structure *ʔvqtvl*, which it shares with its active counterpart (C *ʔéqtəl*). However, some Cp SCs exhibit aphaeresis of the causative prefix and subsequent epenthesis to resolve the resulting word-initial consonant (e.g., *kʲnɛn*, *śʲni*, and *šʲbaḥ*) and are thus formally indistinguishable from Gp SCs like *ḥʲtɛn*.[187] The citation "*ʕáyheṣ* pour *ʕiheṣ*" for the Cp SC from √*ʕhṣ* plausibly stands for *ʕíhɛṣ* (or perhaps rather *ʕíhaṣ*) in the current transcription system, which would likewise be identical with the Gp SC.[188]

In the 3FSG and 3DU, the vowel between R_2 and R_3 is not *ɛ* (or *a*), but *í* (e.g., *ʔighím-o*). That is, the stem allomorphy of the Gp SC *qítɛl ~ qitíl-o* is mirrored in the Cp: *ʔíqtɛl ~ ʔiqtíl-o*. Just as in the Gp, this *i* is not lowered in pharyngeal or glottalic environments (e.g., 3MSG *ʔígdaḥ* ~ 3MDU *ʔigdíḥ-o*), nor does it assimilate to the 3FSG/DU suffix *-o* in √3=*G*, in which respect it also resembles the Gp (but differs from the *e* of the C).[189] Data for persons other than the third are very scarce, but 1SG *ʔíʕṣar-k* and 3FPL *kʲnɛn* seem to confirm that the distribution of the 3MSG stem allomorph follows the Gp.

The √1=*ʔ* Cp SC *tʸɛl* (e.g., *gʸɛd* from √*ʔgd* and *sʸɛd* from √*ʔsd*) begins with R_2, followed by what Naumkin et al. call a "furtive glide", and ends with the normal *-ɛR₃*.[190] This aphaeresis of the causative morpheme and R_1 does not relate specifically to the Cp since it also occurs in corresponding active C forms (e.g., *ged*). The palatalisation, however, *is* restricted to the Cp, and in roots that are also √3=*G*, lowering neutralises the voice-marking contrast in the stem vowel so it becomes phonemically distinctive, creating minimal pairs like Cp *dʸaḥ* versus C *daḥ* (from √*ʔdḥ*) and Cp *rʸaḥ* versus C *raḥ* (from √*ʔrḥ*).

[187] This also occurs in the corresponding active C forms, *k(ə)nen* and *š(ə)baḥ* and is presumably conditioned by characteristics of R_1 and R_2, since the root-types in which the causative prefix is lost are similar (though not identical) to those that syncopate the vowel between R_1 and R_2 in the Ga.
[188] Leslau, 1938, s.v. √*ʕhṣ*.
[189] Cf., 3FSG Cp SC *ʔigdíḥ-o* versus C *ʔəgdóḥ-o* (<**ʔəgdeḥ-o*), for which, see Naumkin et al., 2014b, s.v. √*gdḥ*.
[190] Naumkin et al., 2014b, §2.1.2.3.

The 3FSG Cp SC from √1=ʔ also begins with R_2 but does not exhibit the furtive glide (e.g., *díḥ-o* from √ʔdḥ, *ḳír-o* from √ʔḳr, and *ríḥ-o* from √ʔrḥ); the same apparently also applies to the 1PL (e.g., *díḥ-ən*).[191] The absence of palatalisation of R_2 in these cases may be attributed directly to the passive-marking functional load of the *i* vowel in glottalic or pharyngeal environments: in 3MSG *tʸɛl* forms, the vowel between R_2 and R_3 is *a* in C and Cp alike, so the only distinction between them is in the palatalisation of R_2 in the Cp; where the Cp has a high vowel *i* in this position (e.g., in the 3FSG) this is sufficiently distinctive IP morphology, and no palatalisation is required to mark the passive. Apart from such √1=ʔ Cp SCs that begin with R_2, at least one attested form follows the regular *ʔíqtɛl* pattern: *ʔíʔʲlɛb*.[192]

Similar variation between regular and irregular Cp SCs occurs in √3=*w/y*, which behaves precisely like the corresponding Gp SC in that some forms have an irregular stem ending *-ṓwə* (e.g., *əgzṓwə*) while others follow the strong root exactly (e.g., *ʔinbíy-o*).[193] In terms of the distribution of these variants, Naumkin et al. explicitly state that both kinds coexist for the root √*nby*; apart from the above-cited regular form, regular *ənbṓwə* also occurs.[194] I have found just one √2=*w/y* Cp SC, *ʕṓwag*, which deviates considerably from what is expected for a Cp but is intriguingly similar to the D/Lp *qétɛl* (discussed below).[195] The only √2=3 Cp SC in Naumkin et al.'s texts, (3FPL) *kʲnɛn*, is identical to a Gp, and the *Lexique Soqotri* cites two 3FSG Cp SCs from √*ṣ́ll* ("*ʔeṣ́éyloh*" and "*ʔeṣ́elóloh*").[196] The interpretation of this data uncertain, but speaks to

[191] Leslau, 1938, 74, 125; Naumkin et al., 2014b, §2.1.2.3, 321n3.
[192] Naumkin et al., 2014b, *18:42. The epenthetic vowel can be compared to the *ḥɔṭep̄* vowel in certain Hebrew √1=ʔ verbal forms and is an allophonic variation of *ø* following *ʔ* rather than having phonemic status.
[193] Naumkin et al., 2014b, 7:11, 14:1. Owing to the aphaeresis of the causative morpheme, *əgzṓwə* is identical to the expected Gp SC form for this root.
[194] Naumkin et al., 2014b, 232; they also provide both variants, regular *ś̑ni* and irregular *śənṓwə* s.v. √*śny*.
[195] Naumkin et al., 2014b, 17:40. Leslau (1938, s.v. √*ʕyg*) cites 3MSG "ʕáuweg" and "aúʕaig", and 3FSG "ʕauwégoh", presumably for *ʕṓwɛg ~ ʕöwég-o*, albeit with unusual metathesis of R_1 and the initial vowel in the second of these.
[196] Naumkin et al., 2014b, *23:27; Leslau, 1928, s.v. √*ṣ́ll*.

variation in the formation of the √2=3 Cp SC, as apparently occurs in other weak root types, possibly reflecting uncertainty on the speaker regarding how to create a "correct" form.[197]

The Soqoṭri Cp IPFV exhibits full syncretism with the Gp, though it is noteworthy that all attested forms are 3MSG or (the identical) 3FPL—the ramifications of which are discussed below—so there is no evidence of stem allomorphy. The formal identity between Cp and Gp IPFVs applies equally to the strong root (e.g., *ʕúšor*, *yə-ḳúfol*, and *rúkob*); to the presence of *a* rather than *o* in glottalic or pharyngeal environments (e.g., *rúḳaḥ* and *šúbaḥ*); to the prefix vowel in √1=*ʔ* (e.g., *yú-rod*); and to the ending -*ɛ* in √3=*y* (e.g., *gúzɛ*).[198] With regard to absence or presence of personal prefixes, the situation mirrors that of the Gp: *tə-* is invariably lost; while there is variation in the presence versus absence of the prefix *yə-*, though no criterion governing the distribution thereof can be identified.[199]

The identification of an IPFV as belonging to the Cp rather than the Gp must therefore be made on a syntactic or semantic basis. That is, *(yə-)qútol* is deemed a Cp IPFV if the active counterpart is a C, or if there exists some notion of causation relative to a G. Even relying on a corresponding SC IP form (if attested) is not infallible, since syncretism sometimes obtains between the Gp and Cp SC. A good example of the blurring between the Gp and Cp occurs in √*ʔgd*, which possesses synonymous active Ga and C verbs (both "to hit the mark"); the IP *gʸɛd* ~

[197] Leslau, 1938, s.v. √*ṣ́ll*; Naumkin et al., 2014b, *23:27.
[198] Leslau, 1938, s.vv. √*ʔrd*; Naumkin et al., 2014b, s.vv. √*ʕšr*, √*gzy*, √*ḳfl*, √*rkb*, √*rḳḥ*, and √*yʰbḥ*. The only irregular Cp IPFVs I have found are "*yéʕiheṣ*" and "*itúref*" (Leslau, 1938, s.vv. √*ʕhṣ* and √*trf*). In the former, it is possible the SC stem *ʕiheṣ* has been levelled to the IPFV—cf. the same phenomenon occurring in Yemeni Mehri as discussed above (in §6.2). Bittner (1918, 12n8) provides a parallel 3FSG form "*yeʕhíṣoh*", with the -*o* SC suffix, so it is not even certain the form in question is correctly identified by Leslau as an IPFV.
[199] Three of the 3MSG Cp IPFVs in Naumkin et al.'s (2104b, *7:11, *17:13, and 23:32) texts lack a prefix, while two (*23:12 and 26:11) retain it. In the *Lexique Soqotri*, retention of the prefix is more common—it occurs in thirteen of sixteen forms—though variation still occurs, sometimes even within a single (e.g., Leslau, 1938 √*rḳḥ*).

yú-god ~ li-gód from this root can therefore only be identified as a Cp on the basis of its SC, since the expected Gp SC form would be ***ʔigɛd*.[200]

Elsewhere, Leslau identifies *šúmaḥ* as a Cp IPFV:

ʔol	*ʕarho*	*šúwemaḥ*	*mé-ki*
NEG	sound	hear.IPFV\PAS.CAUS	PREP-1DU

'*kein Laut wird gehoert von uns*'[201]

He seems to interpret *mé-ki* as the agent of causation (i.e., "no sound was caused by us to be heard"). Syntactic and semantic evidence, though, favours a reading where this constituent of the phrase is tied to the semantic role source, as Müller's gloss (quoted above, meaning something like "no sound is heard [coming] from us" in English) suggests.[202] That is, the evidence points towards a Gp rather than a Cp, or is at least neutral.

Like the Cp IFPV, the SBJV of this IP stem is identical to that of the Gp. Thus, the strong-root form *li-qtól* (e.g., *li-ghom* and *li-rkób*) is also used in √2=3 (e.g., *li-knón*) and √3=*w/y* (e.g., *li-nbó* and *li-śnó*), albeit with apocope of the consonantal token of R_3 in the latter.[203] The *o* vowel between R_2 and R_3 does not occur as its low allophone *a* in glottalic or pharyngeal environments, which departure from normal Soqoṭri phonology precisely matches the bahviour of the Gp PC, and notably preserves the voice distinction in √2/3=*Ḍ* and √3=*G* (cf. e.g., C *la-ndaḳ* versus Cp *li-ndoḳ* and C *la-gdaḥ* versus Cp *li-gdoḥ*).[204] √1=*ʔ* Cp SBJVs exhibit aphaeresis of R_1 (e.g., *li-dóḥ*

[200] Naumkin et al., 2014b, s.v. √*ʔgd*, and 342–43 for explicit identification of speaker uncertainty as to which verbal stems can be formed from this root.
[201] Leslau, 1938, s.v. √*hmḥ*. For text citation and (German) translation, see Müller, 1905, 220:18, 280:9.
[202] In the only other citation I have found of a Cp from this root (properly √*hmʕ*) in context, the experiencer and not the theme is promoted into the SUBJ slot (Simeone-Senelle, 1996, 314). Marking the agent of causation of causation (or indeed the agent of any IP) is not among the functions listed by Naumkin et al. (2014b, 610–11) for the preposition *min-*, though it often marks the source of an action.
[203] Naumkin et al., 2014b, s.vv. √*ghm*, √*knn*, √*nby*, √*rkb*, and √*śny*.
[204] Naumkin et al., 2014b, s.vv. √*gdḥ* and √*ndḳ*. The C versus Cp are also distinguished by their prefix vowels, which distinction not present between the G and Gp.

and *li-gód*), precisely as occurs in the Gp SBJV, and the *CoC* stem in √2=*w/y* (e.g., *li-ʕóg*) likewise matches that of the Gp SBJV.[205]

The D/Lp SC takes the form *qétɛl* (e.g., *ḥémɛl*, *ḥérɛg*, and *ḥéšɛm*) versus D/Lp *qótil* (or occasionally *qétil*), with a 3FSG stem allomorph *qətél* (e.g., *təgéś-o*).[206] The 3MSG thus differs from the Gp SC only in its first vowel, and the limited evidence available indicates that in √3=*w/y* the distinction between Gp and D/Lp is lost altogether: cf. e.g. D/Lp *šədṓwə ~ šədṓw-o* versus Gp *kəsṓwə ~ kəsṓw-o*.[207] Interestingly such blurring between these IP stems seems to occur even where form follow the strong-root pattern; Simeone-Senelle identifies "šīdə" as a Gp SC which is most reminiscent of regular *šídɛ*, even though the corresponding active *šēdə* is certainly a D/L.[208] The D/Lp SC *ʔṓwə* (from √*ʔwy*) likewise precisely resembles Gp SCs *ləwə* (from √*lwy*) and *təwə* (from √*twy*), especially in Leslau's transcription "táuwi" for *tṓwə*.[209]

Apart from *qétəl*, a less-common D/Lp SC variant exists: *qútɛl* (e.g., *rúʔɛš* from √*rʔš* and and *ṣúwɛf* from √*ṣyf*).[210] In the latter the *u* may well result from the influence of R_2=*w*, though this cannot account for the former. To these forms, may perhaps be added "*ḥówal*", which Leslau identifies as an IPFV from √*ḥwl*, but which lacks the D/L(p) IPFV suffix *-ən* (or SBJV prefix *li-*) and so must instead be a SC.[211] However, the first vowel is uncertain, and the form may instead be the regular *qétɛl* type of D/Lp SC (i.e., *ḥṓwal*).[212]

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[205] Naumkin et al., 2014b, s.vv. √*ʔgd*, √*ʔgḥ*, and √*ʕwg*.
[206] Naumkin et al., 2014b., 1:41, 17:31, 22:23, and *28:42; see 36 for active D/L forms.
[207] Naumkin et al., 2014b, s.vv. √*ksy* and √*šdy*.
[208] Simeone-Senelle, 1997, 407. Both Leslau (1938) and Naumkin et al. (2014b) list an active D/L *šódi* (s.v. √*šdy*).
[209] Naumkin et al., 2014b, *22:15, s.vv. √*lwy* and √*twy*; Leslau, 1938, s.v. √*tʔy* (rather than √*twy*).
[210] For *ṣúwɛf*, see Müller, 1905, 255:17, incorrectly identified by Leslau (1938, s.v., √*ṣyf*) as an IPFV, but cf. Naumkin et al.'s (2014b, *24:32) analysis. For *rúʔɛš*, see Naumkin et al., 2014b, s.v. √*rʔš*; Leslau (1938, s.v. √*rʔš*) gives 3FSG "*reaúʔhoh*", perhaps for *rúʔh-o* (<**rúʔɛš-o* with the normal Soqoṭri lenition **š* > *h*/_*V* and deletion of unstressed ɛ in an open syllable).
[211] Leslau, 1938, s.v. √*ḥwl*.
[212] In this regard, note that Naumkin et al. (2014b, s.vv. √*ḥll* and √*ḥwl*)—who list the IP for "go around" under the √2=3 rather than √2=*w/y* variant—indeed provide just such a regular D/Lp SC form: *ḥélɛl*.

The D/Lp IPFV form is (*yə-*)*qətél-ən* in contrast to active D/L *yə-qotíl-in* or *yə-qɛtíl-in*—e.g., *yə-ḥəšám-ən*, *ḳəláb-ən*, *rəʔőwh-ən*, *yə-ṭəbár-ən*, and *yə-təgáś-ən*.[213] The stem *qətél* is the same as the 3FSG stem allomorph of the D/Lp SC, in which the shift in stress (compared to 3MSG *qétɛl*) has reduced the *ɛ* between R_2 and R_3 to *e/ə*. As in the Gp and Cp, forms both with and without the 3M prefix *yə-* are attested, while second-person and 3FSG forms all occur without *tə-*; no first-person D/Lp IPFV forms are attested to ascertain the status of the prefix.[214]

Inconsistent transcription obscures possible irregular D/Lp IPFVs in weak roots. However, if the D/Lp IPFV stem is linked to that of the SC (as it is in the strong root), one might well expect *qətőw* and *quwál* variant D/Lp IPFV stems in √3=*w/y* and √2=*w/y*, respectively. These predictions go a long way towards accounting Leslau's forms "*yeʕaúwegen*", "*buwéten*", "*yḥáuweṣin*", and "*išédauen*"; and Johnstone's 3MSG "*yrúwʔhɪn*" ~ 3FSG "*ruwʔhɪn*" ~ 2FSG "*ruwʔhin*".[215] Accordingly, these are interpreted as *yə-ʕuwág-ən* / *yə-ʕúwɛg-ən*, *buwát-ən*, *yə-ḥuwáṣ-ən* / *yə-ḥúwɛṣ-ən*, *yə-šədöw-ən*, *yə-rúʔh-ən*, *rúʔh-ən*, and *rúʔh-in*, respectively.[216]

Just one D/Lp SBJV is cited in the *Lexique Soqoṭri*: "*l(y)ibúwot*", which represents an underlying pattern *li-qétol*, with *e/ə* between R_1 and R_2 having surfaced as its rounded allophone *ö* preceding the labial glide *w*: *li-bőwot*.[217] The only D/Lp SBJV from the texts—even this has specifically elicited from native speakers—is *li-ḥérog*, confirming both the form and the rarity of

[213] Naumkin et al., 2014b, 36, 22:23, *23:6, 27:14. The D/L(p) IPFV suffix *-ən* assimilates to the vowel between R_2 and R_3; cf. 3FPL D/L IPFV *tə-ḥabéʔ-n-ɛn* from √*ḥby* (30:13, 33).
[214] For D/Lp IPFVs with the prefix *yə-*, see Naumkin et al., 2014b, 22:23, and 27:14; for those without, 27:14 and 22:23. Johnstone (1968, 524) cites a 3MSG D/Lp IPFV from √*rʔš* with a prefix and 2FSG and 3FSG forms without.
[215] Leslau, 1938, s.vv. √*ʕyg*, √*bwt*, √*ḥwṣ*, and √*šdy*; Johnstone, 1968, 524. Note that the IP from √*ʕyg* has above been identified as a Cp—an analysis also proposed by Naumkin et al., 2014b, √*ʕyg*; confusion between IP stems is apparent in that Leslau's IPFV form (provided with no reference from the texts) bears the D/L(p) IPFV suffix *-ən*.
[216] Forms from √*rʔš* exhibit lenition **š* > *h* and syncope of the vowel between R_2 and R_3. In *ruʔh-in* (<**ruʔiš-ən*), the IPFV suffix *-ən* had assimilated to the 2FSG stem vowel *i* before this syncope occurred. One surprising feature of Leslau's forms the stress on the first syllable of the stem (where it must also have occurred in Johnstone's forms, considering the syncope of the following vowel). Little more can be said about this save to note that it would affect the vowel between R_2 and R_3, as I have reflected in the different possible interpretations (i.e., *qútɛl* versus *qutál*).
[217] Leslau, 1938, s.v. √*bwt*.

this part of the paradigm in Soqoṭri.[218] All other data instances for the D/Lp SBJV come from Naumkin et al.'s glossary, but anyway confirm that it behaves in general accordance with what one would expect based on the rest of the IP paradigm. Thus, *a* does not occur in place of *o* in glottalic environments (eg., *li-téḳob*), and √2=3 follows the strong-root pattern (e.g., *li-ḥélol*), as does √3=*w/y* (e.g., *li-šédo*, irregular only insofar R_3 is apocopated).[219] As elsewhere in the IP paradigm, there appears to be some mixing of forms from √2=*w/y* and √1=*ʔ*, and both have *CoC* stems, which also leads to formal confusion between D/Lp SBJVs and those of other IPs.[220]

IPs from *t* stems—i.e., the Gtp and Ctp; the D/Ltp and CtD/Lp are not attested—are the rarest of the Soqoṭri IPs, but are still far more common than in Mehri and Jibbāli, where they are all but unattested. The *Lexique Soqoṭri* contains just one Gtp, a 3MSG IPFV from √ʕry, which, judging from other √3=*w/y* IP IPFVs, should be transcribed *yə-ʕtúrɛ*.[221] Naumkin et al.'s texts contain just one other Gtp, a (twice-occurring) 3FSG from √ḳny: *ḳatúnɛ*.[222] These can both be derived simply by insertion of the *-t-* infix in the (√3=*w/y*) Gp IPFV stem *qútɛ* following R_1, assuming that the initial consonant cluster of ***ḳtúnɛ* was subsequently resolved with an epenthetic vowel **ə* (lowered to *a* as following a glottalic consonant).

More common than the Gtp, though still quite infrequent by any measure, are IPs bearing the *š-* prefix, that is, Ctp forms. The most basic Ctp SC pattern is *šíqtɛl* (e.g., *šínhɛr* and *šíʕrɛk*).[223] This simply applies the sequence *í-ɛ* from the Gp SC to the consonantal skeleton *švqtvl* of the CtG in much the same way as Cp *ʔíqtɛl* did to the consonantal skeleton *ʔvqtvl* of the C. However,

[218] Naumkin et al., 2014b, *28:42.
[219] Naumkin et al., 2014b, s.vv. √*ḥll*, √*šdy*, and √*tḳb*; *li-róʔəš* (s.v. √*rʔš*) is highly unusual, and, I suspect, simply a typographical error for a regular D/Lp SBJV *li-rəʔóš* (by transposition of the two vowels).
[220] Cf. e.g., D/Lp *li-śóf* versus Gp *li-ʕód* and Cp *li-ʕóg*, or D/Lp *li-ʔó* versus Gp *li-ló* and *li-tó* (Naumkin et al., 2014b, s.vv. √*ʔwy*, √*ʕyd*, √*ʕyg*, √*lwy*, √*śyf*, and √*twy*).
[221] Leslau (1938, 327) corrects the form from "*ʔitûre*", as it appears in Müller's (1902, 59:4) texts, to "*iʕture*".
[222] Naumkin et al., 2014b, 4:2, *29:33.
[223] Leslau, 1938, s.v. √*nhr*; Naumkin et al., 2014b, 37.

there also exist *šəqítɛl* Ctp SC variants: *šəḳúwɛš*, *šəʕífɛr*, and (2MDU) "*šémaṭéyki*".[224] The vowel following R_1 in this second type has led some to propose that they have a derivational relationship with the (Ct)D/L tier of verbal stems, rather than the (Ct)G.[225]

A crucial consideration in the analysis of *šəqítɛl* Ctp SCs is what (more) basic, active verbs occur in the same roots (i.e., √*ʔḳš*, √*ʕfr*, and √*mṭy*). From √*ʔḳš* come a C *ḳay(š)* "to describe" and a CtG *šéḳay* "to inquire", which is the active counterpart to Ctp *šəḳúwɛš*.[226] The only active stem from √*ʕfr* is a CtG *šáʕfər* "to ask forgiveness", which is the active counterpart to Ctp *šəʕífɛr*.[227] Finally, √*mṭy* possesses a Gb *míṭa* "to touch", a C *ʔémṭa* "to instruct", and a CtD/L *šəmáṭi* "to catch", which is the active verb corresponding to the Ctp *šémaṭéy-ki*.[228] Thus, a corresponding CtD/L does not always exist for *šəqítɛl* Ctp SCs (and a D/L never is), but G, C, and CtG counterparts are variously attested for the roots in question.

Because of these distributions of stems, I proposed *šəqítɛl* is not a CtD/Lp SC, but instead a variant form of the CtGp, employing an alternative formational strategy. Instead of applying the sequence *i-ɛ* to the consonantal skeleton of the CtG, it instead simply prefixes the CtG morpheme *šə-* to the Gp SC *qítɛl* (or, in the case of √*ʔḳš*, likely reanalysed as √*ḳwš*, a variant *qútɛl*)—cf. the difference between the Omani Mehri *həqtēl* and Yemeni Mehri *həqītēl*, as discussed above (in §6.2).[229] If so, it is logical to infer that the Ctp is a fairly recent innovation; the formal variation reflects that no one strategy for its formation has become standard. This situation is no doubt

[224] Leslau, 1938, s.vv. √*ʕfr* and √*mṭy*; Naumkin et al., 2014b, 26:79.
[225] Naumkin et al., 2014b, 37.
[226] This form appears to belong to a hollow root **√*ḳwš*, and C *ḳay(š)* ~ CtG *šəḳay* reflect a degree of radical restructuring and/or reanalysis. Tellingly, although Naumkin et al., (2014b, s.v. √*ʔḳš*) identify this verb as √1=*ʔ*, elsewhere, Kogan and Naumkin (2014, 71, fig. 67) classify it as √2=w/*y*.
[227] Leslau, 1938, s.v. √*ʕfr*. Given the absence of other verbal stems than the CtG for this root in Soqoṭri—though in Mehri and Jibbāli it also forms the Ga and C (Johnstone, 1981, s.v. √*ġfr*; 1987, s.v. √*ġfr*)—the possibility of a calque of Arabic CtG *(ʔ)istaġfar* "to ask (Allah) for forgiveness" should not be ruled out here.
[228] Leslau, 1938, s.v. √*mṭy*; Naumkin et al., 2014b, s.v. √*mṭy*.
[229] The form *qútɛl* is admittedly a *D/Lp* SC form (e.g., *ṣuwɛf*), but the √2=*w/y* Gp SC is only attested in one uncertain and problematic form, *ʸᵊʕad*; perhaps *qúwɛl* serves as a more general, all-purpose √2=*w/y* IP SC.

aided by the fact that Ctp forms are far from common; if speakers are not frequently using a construction, it is difficult for one variant to supplant another as the only "correct" form. Whatever, the relationship of *šəqítɛl* to *šiqtɛl*, one thing that is certain regarding its formal derivation is that it depends on the pre-existence of the Gp.[230]

The Ctp IPFV forms in the *Lexique Soqotri* are "išmútol", "šoʕúfor", "šeʕúrok", and (3FSG) "tšḥúme".[231] These simply apply the prefix *š-* of the Ctp to the Gp IPFV stem *qútol*; just like in the Gtp IPFV, where the absence of a personal prefix creates a word-initial consonantal cluster ***šqútol*, this is resolved with anaptyxis. In more up-to-date, phonologically accurate transcription, these forms thus represent *yə-šmútol*, *šöʕúfor*, *šəʕúrok*, and *tə-šḥúmɛ*.[232] Retention of the 3F prefix *tə-* in the last is most unexpected, but its ending *-ɛ*, as expected, matches that of the √3=w/*y* Gp IPFV *qútɛ*.

The final IP stem, labelled by Naumkin et al. as the "Qıp", is, according to the terminology adopted here, a QD/Lp, that is, the IP to the quadradical verb with "intensive modification, displaying the characteristic features of other intensive-based stems".[233] Just one form from this stem is attested in the texts, a 3FSG IPFV from √*dmdm*: *dəmədə́m-ən*.[234] This, and the forms Naumkin et al. cite in their grammatical précis for the other conjugations—SC *dəmə́dɛm* and SBJV *li-dəmə́dom*—begin with a syllable *Cə*, after which they precisely match the corresponding

[230] Similar assertions are often made about the IPs of the CS languages (for which, see the summary of the literature in the introduction), but without any specific grounds like those presented here. Rather, there is just a general assumption that since the G is the most basic verbal stem of the language generally, the Gp must likewise be the pre-eminent IP and lie at the core of the IP system as a whole.
[231] Leslau, 1938, s.vv. √*mtl*, √*ʕfr*, √*ʕrk*, and √*ḥmy*. None of the texts contain Ctp SBJV forms, which is unsurprising considering the scarcity of IP SBJV forms in general, and this IP stem in particular.
[232] If the first vowel of "*šoʕúfor*" is not *ö*, the rounded allophone of *ə*, it is perhaps *ú*, resulting from progressive translaryngeal assimilation of **ə* to the following—for examples of the same process in the √3=*G* 3FSG Ga and Gb SCs, see Naumkin et al., 2014a, §1.2.2.
[233] Naumkin et al., 2014b, 39. These features, shared by the D, Dt, CtD, and this, the QD, include the vowel *ɛ* appearing in the SC stem and the use of a suffix *-ən* in the IPFV.
[234] Naumkin et al., 2014b, 21:15.

D/Lp stems.[235] Little more may be said about the QD/Lp, except to note that the generation of an IP to a part of the paradigm as marginal as the quadradical verb illustrates just how productive IP formation is in Soqoṭri.

Having dealt in detail with the morphology of Soqoṭri IPs, the remainder of this section addresses their use(s). The functional dimension of Mehri IPs warranted little comment since, like (most of) the IPs of CS, they are exclusively used in prototypical passive clauses. Some (non-prototypical) impersonal passive Jibbāli IPs have been noted above (in §6.3) but are very marginal. Soqoṭri IPs, though, frequently occur in syntagms other than the prototypical passive. Of these, unique to Soqoṭri are uses of IPs in semantically avalent clauses that remove the semantic specification of agent from the SUBJ of a one-argument active counterpart, and desubjective clauses that remove the agent from the surface structure and retain the patient in its original case and grammatical relation as an ACC OBJ.[236]

Leslau gives the following example of Soqoṭri desubjective use of IPs—referred to hereafter as the *qítɛl t-* construction since it uses the particle *t-*, to which attaches OBJ pronouns:

i-ruʔa	*to-s*
3M-see\PASS	ACC-3FSG

"she is seen".[237] A less idiomatic gloss, but one more faithful to the source construction, would be "seeing is done to her". The verb has a semantically empty dummy SUBJ with default 3MSG agreement regardless of the patient (in this case 3FSG), which explains the overwhelming

[235] Naumkin et al., 2014b, 36–38.
[236] Only these syntagms—for which, see Lonnet, 1993, §30; 1994, III.3—that are unique to Soqoṭri are discussed in the following. Soqoṭri also uses IPs in (non-prototypical) impersonal-passive clauses with OBL PP patients, but since these are the same as those of Arabic, the above (in §3.3) discussion thereof does not bear repeating here.
[237] Leslau, 1937, 92.

predominance of 3MSG agreement in Soqoṭri IPs compared with Mehri and Jibbāli, where forms from other persons are not uncommon.[238]

Of the two results of applying Soqoṭri IP to a syntactically transitive verb—the prototypical passive, and the desubjective *qítɛl t-* construction—the former syntagm is found in all languages with IPs (and indeed is usually the only way in which they can be used); the latter does not occur anywhere else in Semitic with IPs (including the rest of MSA).[239] Considering how unlikely it is that this was something lost in all other Semitic languages and retained only here, it is certainly a Soqoṭri-specific innovation. By the current, attested stage of language, though, it is one that has developed so far as to seriously challenge the primacy of the other, original function of IP morphology.[240]

There exists some tantalising evidence for *how* and *why* this change has come about. Leslau observes the following regarding the Cp from √*nkʕ*, *ʔinkaḥ* "be brought":

> Le passif de ce verbe se rencontre seulement à la 3ᵉ personne; pour exprimer le passif d'autres personnes, on emploie *ʔinkaḥ* avec la particule *t* pourvue des suffixes de la personne que l'on veut exprimer.[241]

The fact that only this IP may only occur in *personal* passive clauses with third person SUBJs, while all first- and second-person uses are restricted to the *qítɛl t-* construction may suggest that non–third-person contexts is where the construction first arose.

Further support for this proposal comes the use of the particle *t-* outside of the *qítɛl t-* construction—indeed, Lonnet very reasonably suggests that the impetus for its development was to mirror the tendency for OBJs of *active* verbs to appear as pronominal suffixes attached to this

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[238] Leslau, 1937, 92: "En soqoṭri le passif est employé surtout à la 3ᵉ pers. masc. sing. Les examples du passif pour d'autres personnes sont relativement rares".
[239] One of the few sound parts of Bicknell's (1984) work on Hebrew passives is its disproving the notion that clauses with *ʔet/ʔɛṯ*-marked patients are desubjectives comparable to these (see §3.6.2 for discussion). To appreciate just how divergent such use of IP morphology in Soqoṭri is from that found elsewhere in Semitic—which is overwhelmingly restricted to prototypical passives—note that not only are desubjectives not prototypical-passives, they are properly speaking not passives at all, since they remain syntactically transitive.
[240] Lonnet, 1994, III.3.
[241] Leslau, 1938, 267.

particle, rather than directly to the verb.[242] Strong formal parallels between *t-* and true prepositions—in the way they bear pronominal suffixes, for example—created a conceptual similarity between them that allowed the reinterpretation of pronouns attached to *t-* as OBL PPs, rather than ACC-marked OBJs. Since IP patients could already be linked to genuine OBL PPs (in impersonal passives like those of Arabic), the same use was extended to *t-* + PRON patients. That is, the *qítɛl t-* construction arose from the following proportional analogy:

$V_{ACT} + PP_{OBL\ =patient} : V_{PASS} + PP_{OBL\ =patient} :: V_{ACT} + t\text{-}PRON_{OBJ\ =patient} : X.$

While there is no clear person-based distribution in Soqoṭri of whether the OBJ pronominal suffix is attached directly to the verb or rather to the ACC particle *t-*, this is not true throughout MSA. In both Jibbāli and Mehri, this variation is governed by the ending of the verbal form. The specifics thereof are complex and vary between the Mainland MSA languages (and even between dialects of Mehri), but the resulting distribution falls out (in the SC at least) as a broad alignment between OBJ suffixes directly attached to third-person verbs versus OBJ suffixes attached to the particle *t-* with first- or second-person verbs.[243] Apart from the verbal form itself, the person of the OBJ pronoun is also a relevant factor. In relation to the matter at hand, it is noteworthy that first-person OBJs *always* occur with the ACC particle *t-*in Jibbāli.

Lonnet proposes that the preference in Soqoṭri to attach OBJ PRONs to the particle *t-* rather than directly to the verb is part of general tendency towards the detachment of pronominal suffixes, including possessives within the nominal paradigm.[244] This implies that the situation of Mainland MSA, where phonological (and/or morphological) criteria influence how the OBJ

[242] Lonnet, 1994, III.3.
[243] Rubin (2014a, §§3.2.3, 3.3; 2018, §§3.2.3, 3.3; 2011, 73–74) and Watson (2012, §§5.1.4.1–5.4.1.2) describe in detail the factors governing the affixation of OBJ pronouns to the verb or to the particle *t-* in Mehri and Jibbāli. Since the relevant criteria are phonological, the distribution does not hold perfectly along person-based lines. Nonetheless, the correlation between person and use of the ACC particle *t-* is substantially robust that it may have been interpreted as morphologically governed, even if its origin was phonological.
[244] Lonnet, 1994, §IV: "Le soqotri connaît une défixation généralisée des pronoms affixes: on a vu le cas des verbs, où la particule t- a un effet séparateur; il faudrait parler des nom, et de la rétro-annexion du pronom indépendant".

pronoun appears, is more archaic. If, at an earlier stage of Soqoṭri, before *t-* + OBJ PRON became the normal syntagm used with active verbs, this occurred mainly with non–third-person verbal forms and first-person patients, then it is quite plausible that the desubjective IPs initially occurred in a similar distribution.[245] This is precisely the situation attested with the Cp of √*nkʕ*.

In addition to the aforementioned syntagms, Soqoṭri IPs can also be formed from intransitive active verbs specified for no argument other than an agent. This results in truly impersonal, avalent clauses (i.e., those for which no semantic roles are specified). Examples are not easy to find, but Lonnet cites "*rīḥɛ́* 'on a lavé', 'on a fait le lavage'", while Naumkin et al's texts contain *ímɛn*, literally meaning "telling the truth has been done" but used here as an interjection, "truly".[246]

Like the *qítɛl t-* construction, such behaviour is highly exceptional. Those languages that allow IP formation from syntactically intransitive active verbs—Arabic and perhaps Jibbāli, albeit only to a limited extent and perhaps only with non-Gp IPs—still require a second argument—usually linked to the semantic role patient, though also potentially to experiencer, theme, or location—even if it only appears as an optional adjunct in the active clause.[247] Despite appearing as a PP, a surface representation typically associated more with optional adjuncts than

[245] An interesting parallel exists in Celtic, where a generalised-SUBJ pronoun *r-* has become a passive marker (Haspelmath, 1990, 49–50). In Old Irish, this suffix functions as a passive only with third-person patients—whose number agreement with the verb confirms their SUBJhood—whereas first- and second-person patients remain OBJs in desubjective constructions. Though the *direction* of change (from desubjective to passive) is the opposite of that in Soqoṭri, the distribution of passive in the third person and desubjective in the first and second persons is the same.
[246] Lonnet, 1994, §III.2; Naumkin et al., 2014b, 28:21.
[247] For example, Arabic intransitive verbs may have an optional location adjunct, but this becomes an obligatory component when this is transformed into a passive with IP morphology. For example, *nāma (fi l-firāš)* "he slept (in the bed) can form *nīma fi l-firāš* "the bed was slept in [lit. sleeping was done in the bed]", but not ***nīma* "sleeping was done" (Bubeník, 2008, 554, with slightly adapted examples). IPs from verbs of speech—e.g., Arabic *qīla lahumu skunū hāḏihi l-qaryata* "they were told 'live in this land'" (Q7:161) and Jibbāli *ʕɛ̃r hɛ̃n bə-ḳəbəlét mosé mékən* "it was told to us, 'In the west there is a lot of rain'" (Rubin, 2014a, 32:8)—do not violate this principle since the content of the speech act is obligatory and linked to a semantic role theme. Moreover, such clauses often possess experiencers, making their argument structures more complex than those resulting from the deletion of agents from one-argument intransitive verbs.

obligatory arguments, this element is central to the verbal predication; its obligatory presence ensures that the (passive) clause is at least monovalent in terms of semantic roles specified.[248]

Scholarship to date has not provided an explanation for how and why IP formation from monovalent active verbs has become permissible in Soqoṭri. I propose that they are part of a general expansion in the applicability of IP formation provoked or at least facilitated by the rise of its desubjective use. Crucial in this is the unique situation of Soqoṭri IP morphology being used in a non-passive syntagm; in view of its ACC OBJ the *qítɛl t-* construction is active rather than passive. This use of IPs in impersonal active *transitive* clauses (with semantically empty dummy SUBJs and OBJs that do have some semantic reference) has been extended to create impersonal active *instransitive* clauses (with no semantic reference to any participant). Just as occurs in the *qítɛl t-* construction, the removal of the agent from the C-structure of the personal clause is accompanied by the morphological transformation of the verb into an IP.

To summarise the description of Soqoṭri IPs, particularly in comparison to those of Mehri and Jibbāli, several of the differences can be subsumed under a single (admittedly impresisonistic) characteristic of "vitality". At its most basic, means that Soqoṭri IPs are more productive than those of Mainland MSA, both in terms of the absolute frequency of occurrences of IPs and of which IP stems other than the Gp are attested. Moreover, the functional scope of IP morphology has undergone significant expansion in Soqoṭri, with its use extended to non-passive (i.e., desubjective) and non-canonical passive (i.e., avalent impersonal passive) syntagms absent from all other Semitic languages, including its MSA sisters.

[248] The distinction between argument and adjunct is made on the basis an argument, unlike an adjunct, is required for the grammatical well-formedness of a clause, must be unique within its clause, and has the potential for selectional restrictions specified by the verbal predicate (Kroeger, 2004, 9–11). Since these criteria relate to *semantic* properties of components, they do not necessarily correlate to the grammatical relation (e.g., SUBJ, OBJ, or in this case OBL) to which a constituent is linked.

The idea of vitality also refers to the fact that the Soqoṭri IP paradigm is rich in terms of its conjugational parts. Unlike in Mehri, the IPFV and SBJV are formally distinct. In Jibbāli a degree of distinction is maintained but in some root types the Gp IPFV and SBJV stems fall together (though they possess different personal prefixes). A separate but related dimension of Soqoṭri IP vitality is that syncretism with corresponding active forms is extremely rare. This is not simply because of the absence of sound rules resulting in this phenomenon elsewhere (e.g., *$\bar{e}$ > $\bar{a}$/_$\dot{C}$ in Mehri); some Soqoṭri IPs do not undergo ordinary sound rules that would result in syncretism if they did occur.[249] I am not the first to infer a direct relationship between this deviation from standard Soqoṭri phonology and the motivation to preserve the formal distinctiveness of IPs.[250]

Just as the vitality of IPs interacts with their morphology (specifically the preservation of their formal distinctiveness), so too have the specifics of their morphology impacted on the development of their use in new syntagms. Lonnet explicitly identifies a link between the formal homogeneity resulting from the loss of personal prefixes and the *qítɛl t-* desubjective and the semantically avalent clause, since they take default 3MSG agreement marking on the verb: "Il y a une sorte de synergie entre l'invariabilité de ce passif, et l'usage du passif impersonnel".[251] However, the loss of personal prefixes alone is not enough to explain these developments, since it only relates to the IPFV and SBJV—where it anyway does not lead to full syncretism; 2FSG and MPL forms have distinct stem allomorphs and FPL forms are distinguished by their suffixes—and not the SC. Furthermore, Jibbāli also exhibits a similar loss of prefixes in IPs and

[249] For example, the √*2/3=Ç* Gp SBJV stem *qtol* does not have *a* between R_2 and R_3, as one would expect according to normal Soqoṭri phonology, and which, if it did, would result in full syncretism with the Ga SBJV stem *qtal*.
[250] Naumkin et al. (2014a, 43n30) explicitly link voice distinction with the permissibility of different SBJV theme vowels.
[251] Lonnet, 1994, §III.1.

consequent syncretism between conjugations of different persons, but undergoes no concomitant development of IP functionality comparable to that of Soqoṭri.

Instead, one must consider the complex network of competing motivations *as a whole* to understand Soqoṭri IPs and the development of some of their unique feature. For instance, the loss of prefixes in the IPFV and SBJV has certainly played a role in the homogenisation between persons of the IP paradigm, but other factors also contributed (i.e., the lack of distinct first- and second-person stem allomorphs in the SC). Furthermore, it is doubtful that this syncretism alone would have been sufficient motivation to spur the development of the *qítɛl t-* construction. Instead, it has worked in concert with other factors specific to Soqoṭri—e.g., the movement away from affixation OBJ pronouns directly to active verbs in favour of increasing use of the ACC particle *t-* and the high productivity of IPs generally) to create an environment conducive to the development of this neological syntagm. The desubjective use of IPs, in turn, cannot be entirely separated from the semantically avalent IPs formed from intransitive unmarked counterparts. This notion of competing motivations, central to the variation-and-change model of language development, is extended below (in §6.5) to the analysis of MSA IPs as a whole, where it serves well in clarifying the relationship between the languages of this branch with regard to their IPs.

6.5 Analysis of MSA IPs [252]

The preceding descriptions are something of a novelty insofar as they constitute the only comprehensive and detailed description of MSA IPs to date. It has been necessary, at some level, to adopt the attitude of a pioneer, because of the scarcity of existing material focussing on MSA IPs specifically. If scholarship so far has failed to provide a detailed description of IPs in the

[252] This section follows the same format as the descriptions of the individual languages above (in §§6.2–4), dealing first with the morphology of the Gp (and its conjugations, the SC, IPFV, and SBJV), then forms from other IPs, before finally moving on to questions of function and syntax.

individual MSA languages, then this is truer still of a comprehensive analysis integrating the findings thereof into an overview of the branch as a whole.[253]

Therefore, the same need for a fresh approach extends into the consideration of MSA IPs as a whole, and the reconstruction of their development(s). A perspective considering the data on their own merits without the benefit of a solid comparative basis requires that the analysis thereof be built up from nothing, beginning with a clean slate. However, it also avoids the risk of being led astray by (false) a priori assumptions. Thus, the analysis presented in this section is innovative this it is based on data from the MSA IP paradigm hitherto not available (or at least never presented together, in context), but also in that it focusses in the first place exclusively on these data and purposefully abandons presumptions about them arising from knowledge of Semitic languages generally.

In addition to being a worthy goal in and of itself, a proper understanding of MSA IPs is naturally a prerequisite for any theory integrating them into a larger WS picture.[254] The conclusions below are therefore ultimately assessed in light of the analysis of CS IPs in Chapter 4 and the reconstruction of their development in Chapter 5. However, considering the difficulty of relating MSA material to the rest of Semitic in general, any proposals must be made with caution and frank recognition of their tentative nature pending developments in the study of MSA studies generally.

[253] For example, Leslau's (1937) article about Soqoṭri IPs and Petráček's (1963) study of IPs throughout Semitic completely ignore the Jibbāli or Mehri Gp, so naturally they cannot address the relation of Soqoṭri *qítɛl* to forms in its Mainland MSA sister languages. Bittner (1917/1918, 351) goes further, explicitly stating that "Im direkten Gegensatze zum Mehri und zum Šḫauri [Jibbāli], die genau genommen keine einige Formen mit lediglich nur passiver Bedeutung bisitzen, kennt das Soqoṭri Passivbildung, die sich von den entsprechenden aktiven Formen durch die Art der Vokalisation ähnlich unterscheiden". This is a particularly ironic misunderstanding, since Soqoṭri is precisely the one MSA language that does use IP morphology in non-passive (i.e., desubjective) uses.

[254] It is precisely (among) the shortcoming(s) of Retsö's (1989, 181–83) work, and that of others like him, that he prematurely relates MSA IPs to those of Arabic and Hebrew without first establishing a solid theoretical foundation for viewing them in their own right. As a result, much of his argumentation rests on presumed relationships between what he believes to be cognate forms and is therefore unacceptably circular.

Considering uncertainty regarding MSA historical phonology, the comparative method as employed here (in relation to the rest of WS) will rely on a process of elimination more than is normal in such endeavours, or indeed optimal.[255] To use a very simple illustrative example, there is no doubt that Mehri *qətṓl*, Jibbāli *q(ɔ)tɔ́l*, and Soqoṭri *qétol* Ga SCs all derive from proto-WS **qatala*; similarly, their respective *qṓtəl*, *qét(ə)l*, and *qétel* Gb SCs can be identified with certainty as reflexes of **qatila*.[256] By the process of elimination, it follows that *qətḗl*, *q(i)tíl*, and *qítɛl* cannot be reflexes of either **qatala* or **qatila*.[257] This assertion holds true regardless of whether these MSA Gp SCs are cognate reflexes of a common-proto form (though the analysis below confirms that they certainly are).

After this elimination, there theoretically remain seven vocalic sequences (assuming both vowels are short) that could lie behind the attested MSA Gp SCs. Of these, only four—*u-a*, *u-i*, *u-u*, and *i-i*—are attested elsewhere in Semitic IP SCs. Since there is no branch of WS with a closer *genetic* relation to the MSA than any other, any recourse to comparative argument should instead consider the *geographical* distribution of these vocalic patterns. The linguistic area covered by MSA is far closer to and more in contact with languages whose IPs have the sequences *u-i* (Classical and Yemeni Arabic) and *i-i* (some Central/Eastern Arabian Arabic dialects) than to those with *u-a* (Hebrew and Aramaic) and *u-u* (some African Arabic dialects).

[255] Dufour's (2017) efforts in the historical phonology of MSA are valiant. Unfortunately, he does not address IP morphology, so to the extent that I rely on his findings—several of which match my own, independently reached conclusions—this is by way of background context in the elimination-style comparative method described. When comparing data from the different MSA languages, it must be remembered that the vowel transcribed as *e* in Soqoṭri is an allophone of *ə*, which is not the case for Jibbāli and Mehri *e*.

[256] These developments are confirmed examples of some of the relatively few MSA sound changes that have been identified to date, such as backing of **a* in an open syllable but its fronting (and raising) in the context */_*Ci* (Dufour, 2017, 56ff). They are further confirmed by remnants of the functional distribution of the Ga as fientive and the Gb as stative, as well as by comparison to cognates from elsewhere in Semitic (bearing in mind with the aforementioned warning against circular arguments based on presumed identification of forms).

[257] One reservation about the preceding it that it assumes the proto-form(s) date(s) to a stage of the language in which the vowel system did not differ substantially from that reconstructed for proto-WS. This is unfortunately a necessary function of our ignorance of MSA historical phonology; we do not know enough to say how (if at all) the proto-MSA vowel inventory (or indeed those of other intermediate stages before the attested situations) differed from that of proto-WS.

As mentioned, data from outside of the MSA should not form the primary basis of any reconstruction of IPs in this branch. For example, it is logically possible that they derive from a pattern(s) other than those attested elsewhere in Semitic IPs. However, the general comparative context provides useful *supplementary* evidence to that arising from internal comparison of the MSA data themselves. The MSA data is considered as follows, before returning to the question of the broader Semitic context.

By applying of the comparative method to the above descriptions, a common proto-form **qitíl* can be reconstructed for Mehri *qətḗl*, Jibbāli *q(i)tíl*, and Soqoṭri *qítɛl* Gp SCs. This retains its original shape in Jibbāli, and indeed in the 3FSG stem allomorph of Soqoṭri (*qitíl-o*), where the stress is not retracted onto the first syllable. The changes that lead to attested forms that differ from **qitíl*, including stem allomorphs based on weak root types and different persons, conform to both natural universal linguistic tendencies and the specific phonologies of the MSA languages in question.

For example, the first, unaccented vowel is reduced to schwa in Omani Mehri *q(ə)tḗl*, and in certain consonantal environments (i.e., in √1&2= "idle glottis" consonants) is syncopated altogether, as it is in Jibbāli roots of this kind. However, Yemeni Mehri *qītḗl* (with lengthening) and the Jibbāli Gp SC *qitíl* in √1/2= +voice/+glottalic retain the original **i* of the vowel between R_1 and R_2. At the cross-linguistic level, lenition of a vowel in an open, pretonic syllable is perfectly natural. In MSA specifically, precisely the same process affects the pretonic **a* vowel of the Ga in Mehri **qatála* > *q(ə)tűl* and Jibbāli *qtɔ́l* (in √1&2= "idle glottis" consonants).

One important characteristic of Soqoṭri phonology is retraction of stress onto the initial syllable of the SC stem. Its Gp SC *qítɛl* preserves **i* between R_1 and R_2 precisely because this

occurs in tonic position due to that development in stress.[258] In decisive support of this are instances of the reduction or syncope of this vowel in unstressed contexts, such as where suffixed person markers add a syllable and draw the stress back onto the vowel between R_2 and R_3 (e.g., 3FSG/3DU Gp SC by-forms *qtíl-o* / *qətíl-o* (alongside *qitíl-o*), and the 1DU *qətél-ki*.

As for the vowel between R_2 and R_3, it is reconstructed as deriving from **i* in the first instance on the basis of Jibbāli Gp SC *q(i)tíl* and the Soqoṭri 3FSG/3MDU Gp SC *q(v)tíl-o*. This vowel is lengthened, and usually lowered to *ē* in Mehri (e.g., *əwtḗġ* <**litíġ*, though variants without lowering *əwtíġ* also occur).[259] This *ē* vowel is further affected by various changes governed by the syllabic or consonantal environments, resulting in the attested stem allomorphs in different persons and weak root types. Of these, a development **ē > a /_CC#* yields 1SG/DU and 2 Gp SC *qətál-k* (<**qətḗl-k*), while **ē > ā /Ç_́, G_́* accounts for √2=*Ç/G rəṣān* (<**rəṣēn*); crucially, both are regular Mehri sound rules documented in the literature as occurring in other contexts throughout the language.[260] Similarly, Jibbāli *ḳīr* from √*ḳbr*, for example, is the natural result of the elision of intervocalic bilabials, a normal process in this language.[261]

The Soqoṭri 3MSG Gp SC *qítɛl* has an unstressed *ɛ* between R_2 and R_3 whose derivational relationship with **i* is more difficult to explain. Indeed, this central vowel exists in an allophonic relationship with [a], which occurs in glottalic and pharyngeal environments (which is entirely natural considering their quality +low).[262] Based on other contexts in which *ɛ/a* occurs, it can

[258] Dufour (2017, 41, 43) convincingly demonstrates that this retraction of stress was a Soqoṭri innovation, identifying a proto-MSA rule locating the stress on the right-most non-final **a* vowel.
[259] For these contrasted examples (with the regular Mehri change **lə > əw/#_*), see Stroomer, 1999, 64:29, 69:7.
[260] Johnstone, 1987, xiv; Rubin, 2018, §§2.2.1–2.2.2. I have found no specific phonological explanation in the literature for the syncope of the vowel between R_2 and R_3 in the Mehri 3FSG Gp SC. However, its behaviour in this context precisely matches that of the Gb, which is likewise reconstructed as a historical **i* vowel (in contrast to the **a* of the Ga): cf. 3FSG Gp *qətl-ēt* <**qitil-ēt* and Gb *qətl-ūt* (<**qatil-at*), versus Ga *qətəl-ūt* (<**qatal-at*).
[261] Rubin, 2014a, §§2.1.2, 2.1.3.
[262] Kogan and Naumkin, 2014, §2.

derive from all three of the proto-WS vowels *a, *i, and *u.[263] It is noteworthy that in the 3FSG SC, the distinction between ε and i becomes a contrastive voice marker: cf. Ga *qətél-o* and Gb *qitél-o* versus Gp *qitíl-o* / *qətíl-o*.[264] Though I cannot explain why ε appears between R_2 and R_3 of the Soqoṭri 3MSG Gp SC, in view of the 3FSG *qitíl-o* and Mainland MSA forms, I am nonetheless confident that it is best considered a secondary development from *i.

Overall, then, there is ample evidence for two original high front vowels throughout the attested MSA Gp SC forms. With the possible exception of the ε in Soqoṭri, deviations from *i in are straightforward to explain as natural developments that follow the phonologies of the individual languages (not to mention universal phonetic tendencies). Due to space constraints and lacunae in our understanding of MSA historical phonology and morphology, it may not be possible to nail down the minutia of every variation—for example, √3=*w/y* forms certainly require further study—but overall picture from the data is sufficient to confidently identify Mehri *qətēl* (Yemeni *qītél*), Jibbāli *q(i)tíl*, and Soqoṭri *qítɛl* all as reflexes of a common (therefore proto-MSA) form **qitíl.* Such a proposal is not new—see the discussion of Petráček and Retsö below—but this is the first time specific morphological justifications has been given within a (near) comprehensive account explaining the attested Gp SC forms in terms of developments resulting from sound changes.

It should be clarified at this point that identifying **qitil* as the common proto-form of the various MSA Gp SC forms does not, per se, entail any relationship with other WS verbal forms (though nor is such a possibility to be ruled out). That is, it is not (at this stage) clear whether

[263] Cf. e.g., Ga 3FSG SC *qitél-o* < **qatal-at*, Gb 3FSG SC *qətél-o* < **qatil-at*, and Ga 1PL SBJV *ne-qtél* < **na-qtul*. Dufour's (2017, esp. 56) treatment of historical MSA phonology does not explicitly address 3FSG SC forms, but these proto-forms are beyond doubt.

[264] Other occurrences of ɛ in the verbal system, particularly in contrastive contexts distinguishing voice or *Aktionsart*, may be an avenue of investigation to solve this problem. Of particular note is the opposition between the Ga SBJV stem *qtɛl* < **qtul* versus that of the Gb (and Gp) *qtol* < **qtal*. The same contrast occurs in the IPFV stems (i.e., Ga *qótəl* < **qattil* versus Gb *qétol* <*qattal*; cf. Gp *qútol* <*quttal*, whose *u* vowel is highly characteristic of the IP system). For the reconstruction of these proto-forms see Dufour, 2017, 59, and the discussion below.

proto-MSA **qitil* has the same etymological origin as dialectal Arabic *qitil* forms, which themselves have been demonstrated above (in §4.9.2) to derive from earlier **qutila*.[265] Any relationship proposed must be supported by independent evidence, whether linguistic or extralinguistic (such as cultural evidence of language borrowing), and not just based on the observation of formal similarity.

Unfortunately, precisely such an a priori linking of MSA IPs to forms from outside of the branch has frequently formed the basis of flawed understandings of them. For example, both Petráček and Retsö identify Soqoṭri *qítɛl* with the Arabic *ʔafʿāl al-taʿajjub* ("verbs of surprise") *niʿma* "how excellent!" and *biʔsa* "how terrible!", all of which they derive from a proto-WS form **qitil*. Though they differ slightly in terms of the ultimate origin to which they ascribe this morphology, both authors have in common a circularity of argumentation in linking **qitil* to their preconceptions about IPs generally.

Petráček identifies **qitila* as a variant of the Gb **qatila*, which is entirely in keeping with, and motivated by, his overall theory of IPs as developing from stative verbs. It is therefore wholly unsurprising that he follows Bittner in further identifying the Soqoṭri Gp SC with Mainland MSA Gb forms (namely, Mehri *qītəl* and Jibbāli *qét(ə)l*), rather than their Gp forms: "Die Form des passiven Perfekts im Soqotri und Šḫauri [Jibbāli] lässt sich bloss mit dem intransitiven Perfekttyp verbinden".[266] To reach the attested forms, Petráček reconstructs

[265] The presence of a high back vowel *u* in the Soqoṭri IP paradigm and its extreme scarcity elsewhere in the language could be taken as marginal, circumstantial evidence for this vowel having existed in the proto-form of the Gp SC. Leslau's (1937, 92) statement that "Il semble donc que la voyelle *u* n'est pas aussi essentielle pour le passif qu'on pourrait le croire d'après l'hébreu et l'arabe"—Petráček (1963, 606) subsequently reiterated the sentiment—does not take account of IPFV and SBJV forms, where *u* was demonstrably historically present in the prefixes (discussed below), and is retained overtly in the Soqoṭri IPFV *(yə-)qútol*. This possibility is examined further below.

[266] Bittner (1917/1918, 351), and following him, Petráček (1963, 606ff.), fails to realise that the superficial similarity of these forms simply results from the retraction of stress in Soqoṭri SCs. It cannot help that these scholars are apparently entirely unaware of the of Mehri and Jibbāli Gp SC forms. This confusion is not restricted to outdated work of non-experts: Simeone-Senelle (1997, 398 table 17.7; 1998, 74) twice provides identical Soqoṭri Gb and Gp SCs (as *qétəl*), though contextual data in those publications suggests this may be a reproduced typographical error.

assimilation, syncope, the loss of final short vowels, and finally epenthesis as having affected the proto-WS Gb: **qatila* > **qitila* > **qitla* (the Arabic "verbs of surprise") > **qitl* > **qítəl* (Mehri *qītəl* and Jibbāli *qét(ə)l* Gb SCs, and the Soqoṭri *qítɛl* Gp SC).[267]

Retsö at least avoids the pitfall of erroneously identifying the Soqoṭri Gp with Gb forms elsewhere and recognises that *qítɛl* is cognate to *q(ə)tḗl* and *q(i)tíl*. However, like Petráček, he links these forms to the Arabic "verbs of surprise" in a manner that is directly informed by his understanding of IPs generally. All of these forms, like the productive IP systems with *i-i* vocalism in the SC of some Central/East Arabian dialects of Arabic, Retsö sees as verbalisations of a **CiCCiC* nominal patterns. The Gp **qitil* he therefore takes to be a secondary development from the Cp **ʔiqtil* and (in Arabic dialects, though not MSA) from the Dp **qittil*.[268]

Apart from the morphological similarities, Retsö also draws a syntactic parallel between MSA IPs and the verbs of surprise, arguing that the indeclinable nature of the latter mirrors the impersonal use so common in Soqoṭri.[269] His consequent claim that MSA IPs do not originally express passivity, but instead have developed out of active generalised-SUBJ constructions, is in fact the inverse of the actual situation as described above (in §6.4). It is unsurprising that he holds such an opinion, though, because it fits neatly within his overall view that generalised-SUBJ constructions (which he calls "subjectless" due to their semantically empty SUBJs) lie at the origin of all genuine passive syntax in Semitic.[270]

The IPFV is the most morphologically diverse part of the Gp paradigm between the main MSA languages: Jibbāli *e-q(e)tɔ́l*, Mehri *yə-qtől*, and Soqoṭri *(yə-)qútol*. All three forms have a

[267] Petráček, 1963, 606.
[268] Retsö (1989, 184) is accordingly obliged to exaggerate the productivity of the MSA Cp. His baffling statement that "the MSA languages do not have the D-stem" reflects a deeper misunderstanding of the MSA verbal system.
[269] Retsö (1989, 184) erroneously claims that impersonal use is also the norm in Mehri; in fact, the example he cites—"*ke ʿeyqal toihin be-qarqor* 'when they are made into a cage'"—is the only example thereof that I have encountered in the literature, and considering problems with his work on MSA, is of dubious reliability.
[270] Retsö, 1989, 184 and, for his overall views on the relationship between passivity and generalised-SUBJ constructions, 155–57.

high back vowel between R_2 and R_3, and there is no reason to doubt that they are reflexes of the same proto-vowel **o* (further < **á*, as discussed below).[271] The *differences* between the languages are instead found in two other areas. The first of these is the vowel between R_1 and R_2, something intimately linked to syncretism with the Gp SBJV and also with parts of the Gb paradigm. A second important divergence between these Gp IPFVs to their personal prefixes, whose absence (when absent) homegenises the Gp conjugation between persons and contributes to the formal contrast marking voice.[272]

The behaviour of the vowel between R_1 and R_2 has a scalar distribution through MSA.[273] Jibbāli sometimes syncopates this depending on the phonological properties of the root consonants, in which respect it occupies an intermediate position between Soqoṭri, where the Gp IPFV stem is always disyllabic, and Mehri, where it is always monosyllabic. The issue of personal prefixes creates a binary split through the language family, separating Mehri, which preserves them, from Jibbāli and Soqoṭri, both of which exhibit their loss to some degree or another. The following analysis focuses on these two features, attempting to reconstruct their diachronic developments and ultimately determine what ramifications they have for a general theory of MSA IPs. As was noted above in relation to the Gp SC, one ought not to assume, a priori, that the Mehri, Jibbāli, and Soqoṭri Gp IPFVs are reflexes of a common proto-form; in order to reach such a conclusion, the formal heterogeneity between the languages must be accounted for by phonological or other processes (as the Gp SC stem allomorphs just were).

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[271] The development **a* > Mehri *ɔ́*, Jibbāli *ɔ́*, Soqoṭri *o /_C#* is self-evident to a trained Semiticist with more than a passing familiarisation with the MSA data, and is anyway unassailably confirmed by Dufour (2017).

[272] This factor also applies to Gp SBJV forms and is further discussed below.

[273] Much of Dufour's (2017, 44) historical morphology deals with the vowel between R_1 and R_2 of IPFV forms, which he dubs "α" to indicate its similarities to **a* without making any assertions about its etymological origin. Despite outward reservations—"La seule certitude est que l'élément *α est bien un morphème" (59)—the overall comparison with Geʿez *ye-qattel*, as well as with MSA vowels whose origin in **a* is beyond doubt, leave me confident of a proto-MSA Ga IPFV stem **qatv$_h$l* (v_h = **u/i*, in contrast to **a*). I have followed him in not representing gemination of R_2 in proto-MSA, even though this was certainly present at an earlier stage.

In Mehri, there is never a vowel between R_1 and R_2 of the Gp IPFV stem *qtōl*, with the result that it is formally identical to that of the Gb in all persons. This monosyllabic Gp IPFV stem also exhibits syncretism between the IPFV and SBJV of the Gp (in the SG and DU at least), in which respect it likewise matches the Gb. In Jibbāli *q(e)tɔl*, the presence or absence of a vowel between R_1 and R_2 depends on the voicing qualities of these consonants, such that if either is voiced or glottalic there is a vowel between them (specifically, *e*), and if, not it is syncopated.[274] When the vowel is retained, the Gp IPFV stem is formally identical to that of the Gb IPFV; when it is not, it matches the Gp SBJV. Because the Soqoṭri Gp IPFV stem *qutol* always has a vowel between R_1 and R_2—specifically the rare phoneme *u* that almost exclusively occurs in IPs—it exhibits no syncretism with either that of Gb IPFV *qɛtol*, which has *ɛ* in this position, or the monosyllabic Gp SBJV stem *qtol*.[275]

A fascinating parallel to this occurs elsewhere in the MSA verbal system in *√2=G* verbs. In this root type, Mehri has just one basic active stem whose IPFV and SBJV are identical, both having monosyllabic stems: √2=*G* Ga/b (SC ~ IPFV/SBJV) *qəGāl ~ yə-qGōl*.[276] Depending on both the phonological characteristics of R_1 and R_2 and dialectal variation, Jibbāli active IPFVs from this root type may have monosyllabic or disyllabic stems: *yə-qGɔ́l* or *yə-qəGɔ́l*. Such forms are reminiscent of the strong-root Gb IPFV *yə-qetɔl*, particularly the latter, which, assuming it derives from ***yə-qeGɔl* by progressive assimilation, is underlyingly regular.[277]

[274] Verbs from √1=liquid may occur in either form (Rubin, 2014b, §6.1.2).
[275] Appleyard (1996, 220) erroneously claim that there are no MSA Gp forms with disyllabic stems (because he only deals with Mehri and Jibbāli forms, and even then, cursorily).
[276] Rubin, 2018, §7.2.5–7.2.6. In √2 =*h* the SC is *qətēl* rather than *qətāl*, while in √2 =ʕ, the elision of this root letter results in *CvC* stems: *qāl ~ yə-qōl*. Very few Mehri √2=*G* IPFVs follow the strong-root Ga pattern (e.g., *yə-nōḥəg* and *yə-roḥəṣ*), and serve as exceptions proving the rule that the strong-root Gb IPFV pattern *yə-qtōl* dominates active verbs from this root type.
[277] Rubin, 2014a, §7.4.7. In √2=*G* roots that are also √1/3=liquid/nasal, a variant active IPFV *yé-qGal* occurs that Dufour (2017, 46) derives from a form similar to the strong-root Ga IPFV.

Dufour elegantly explains the monosyllabic Mehri Gb as an innovation of this language resulting from the syncope of the unstressed vowel between R_1 and R_2.[278] The underlying reason for this is that the vowel (Mehri *ō* and Jibbāli *ɔ*) between R_2 and R_3 derives from **a*, and proto-MSA stress is reconstructed as falling on the right-most non-final **a* vowel. Thus: proto-MSA Gb IPFV *ya-qvtál* > Mehri *yə-qtṓl* and Jibbāli *yə-qetɔ́l*, in contrast to Ga IPFV **ya-qátv$_h$l* > Mehri *yə-qṻ́təl* and Jibbāli *yə-qɔ́təl*. This proposal may be expanded to explain why active √2=*G* verbs (overwhelming in Jibbāli and all but exclusively in Mehri) follow the strong-root Gb rather than Ga pattern: this root type favours a theme-vowel **a* between R_2 and R_3 (like that of the Gb), which is a natural effect of the general phonetic property +low of pharyngeal consonants.[279]

Most important, though, and what Dufour does not mention, is the further parallel between strong-root Gb IPFV, Mainland MSA active √2=*G* IPFV forms, and *the Gp IPFV*. Here too, a proto-form **yv-qvtál* for the Gp IPFV has given rise to Mehri *yə-qtṓl* in which the unaccented vowel between R_1 and R_2 is syncopated, and Jibbāli *e-q(e)tɔ́l*, in which develops it to an optionally deleted *e*.[280] These behaviours precisely match that of the √2=*G* IPFV, including the optional deletion of unaccented this vowel in Jibbāli (which is not the case in the strong-root Gb IPFV, where it is always preserved, as discussed further below).

A further advantage of linking these three classes of IPFV (Gb, √2=*G*, and Gp) in terms of a common theme vowel <**a* is how it can account for the number-marking ablaut in the Gb MPL

[278] The novel part of Dufour's (2017, 47–48, 59) work is not the recognition that Mehri monosyllabic Gb IMPVs are innovative—Johnstone (1987, XXVIIn3) voiced this opinion decades earlier—but rather the phonological explanation he proposes to account for this diachronic development.
[279] This is supported by comparative data from Arabic and Hebrew, in which √2=*G* PCs tend to derive from **yv-qGal* (rather than **yv-qtul*) and resemble the stative/intransitive G PC pattern (as discussed above in §4.10).
[280] The scant evidence available suggests that the Hobyōt Gp (and likewise Gb) IPFV has a disyllabic stem, though forms with a schwa between R_2 and R_3 perhaps represent an intermediate stage of a change in process between the proto-MSA form (with a full vowel) and one like that of Mehri (with full syncope)—cf. Gp IPFV *yɛ̄-ḳābōr* (Lonnet, 2006, §6.6) and Gb IPFV *y-farṓḳ* (Dufour, 2017, 47) versus Gp IPFV *yə-gəlód* (Simeone-Senelle, 1997, 407).

IPFV.[281] Dufour derives Mehri *qītəl*, Jibbāli *qétəl*, and Soqoṭri *qétəl* Gb SCs from **qatila* by a rule **a* > Mehri *ī*, Jibbāli *é*, and Soqoṭri *e* (an allophone of *ə*) in the environment /_Ci.[282] However, if this change operated in the less restrictive environment /_Cv_H, it could also explain MPL stem allomorphs in the Gb IPFV, where the **a* between R_2 and R_3 would have preceded a subsequently lost MPL suffix *-*ū*: proto-MSA 3MPL Gb IPFV **yv-qvtál-ū* > Mehri *yə-qtīl*, Jibbāli *yə-qetél*, and Soqoṭri *yə-qétəl*.[283]

Hasselbach raises the objection that the proposed rule is rather vague, although I am less troubled by the idea of high vowels **i* and **u* patterning together in contrast to low **a* to create a conditioning environment within the broader context of Semitic phonology.[284] Indeed, the notion of underspecification of high vowels that the analysis below finds best accounts for other developments within the proto-MSA Gp and Gb is precisely reflects the trend of height as an organising principle that has been identified in the development of IPs in CS. That is, it represents an instance of MSA languages behaving according to the novel understanding of Semitic phonology laid out above (in §4.3) that underpins this whole dissertation.

It is the Soqoṭri IPFV forms that hold the key to the analysis of the MSA Gp IPFV, and specifically its relationship to that of the Gb. It is entirely unproblematic to derive the Soqoṭri Ga IPFV *ye-qótel*—like Mehri *yə-qűtəl* and Jibbāli *yə-qótəl*—from proto-MSA **ya-qátv$_h$l*.[285]

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[281] The Gb IPFV stems have a different vowel between R_2 and R_3 of the 3MSG ~ 3MPL: Mehri *qtől ~ qtűl*, Jibbāli *q(e)tól ~ q(e)tél*, and Soqoṭri *qétol ~ qétəl*

[282] Dufour, 2017, 56.

[283] Dufour (2017, 55) does address ablaut marking of MPL as a result of the historical -*ū* suffix in the Ga SBJV of √2=*G*, though in quite a different manner, namely, proposing that the (historical) presence of the suffix resulted in different accentuation between the 3MSG and 3MPL, and as a result, divergent developments. A looser formulation of this rule would also allow for MSA Gb SCs to derive from **qatula* (as well as **qatila*), an intriguing possibility considering cognates like Mehri *qáyrəb* <**qīrəb* (Gb) and Arabic *qaruba* "to be near". Interestingly, the Gb SC is one of the few places where Dufour (2017, 42) does not allow for variation or underspecification of a proto-MSA high vowel, unambiguously reconstructing "**C$_1$aC$_2$iC$_3$a*" (cf. his Ga SUBJ "yaC_1C_2u/iC_3").

[284] Hasselbach, 2018, p.c. One example of an environment conditioned by the height of a following vowel elsewhere in Semitic is the Hebrew dissimilatory reduction discussed above (in §4.3) of **i* to *ə* preceding high vowels but its preservation (ultimately being lowered to *e*) before low vowels.

[285] Dufour (2017, 44) does not commit to a theme vowel (**u* or **i*), reconstructing this form as "yV-C_1αC_2u/iC_3".

Similarly, the **a* between R_2 and R_3 in the Gb IPFV *ye-qétol* and Gp IPFV *(yə-)qútol* behaves entirely in accordance with expectations, since Soqoṭri *o* is the predicted cognate of Mehri *ō* and Jibbāli *ɔ* in this position. The point at issue here is rather the vowel between R_1 and R_2.

Unlike Mehri and Jibbāli, where the Gb and Gp IPFV stems both have the same vowel (or lack thereof) between R_1 and R_2—*ø* in Mehri *qtōl* and *e* in Jibbāli *q(e)tɔ́l*, subject to syncopation in the Gp—Soqoṭri distinguishes voice in this regard, between Gb *qɛtol* and Gp *qutol*. If the Gp IPFVs from the three languages are cognate, then it follows that *ø*, *(e)*, and *u* in this context are reflexes of a common proto-MSA vowel. I posit that similarities between the Gb and Gp IPFVs arise from their proto-forms both sharing the same height rubric **yv-qvₕtal*, in contrast to the Ga **ya-qatvₕl*; at the same time, the specification of the high vowel between Gb **yv-qital* versus Gp **yv-qutal* can account for differences between them (prefixes are addressed separately below).

Before the argument supporting this admittedly speculative reconstruction can be mustered, the alternative, to which it reacts, must first be summarised. Dufour's historical phonology of proto-MSA reconstructs combined sonority hierarchies between vowels due to colour (**a* > **vₕ*) and position in the stem (right > left).[286] As a result of the position hierarchy he posits that stress falls on the final syllable of the Gb IPFV **yv-qatál*; whereas in the Ga IPFV *ya-qátvₕl* the colour-based hierarchy draws stress onto the penultima. Differences between attested Ga and Gb IPFVs are attributed to distinct developments of accented **á* (in the Ga) > Mehri *ū́*, Jibbāli *ɔ́*, and Soqoṭri *ó* versus unaccented **à* (in the Gb) > Mehri *ø*, Jibbāli *è*, and Soqoṭri *ɛ*.[287]

Dufour's reconstruction is well thought out and generally convincing, but his reticence sometimes leaves room for variant reconstructions, and the overall theory may be streamlined. For example, given that he specifically avoids identifying the historical identity of the vowel

[286] Dufour, 2017, 61.
[287] Dufour, 2017, 57. Here and in the following, an acute accent *v́* represents a stressed vowel; a grave accent *v̀* represents an unstressed one.

between R_1 and R_2, it is not clear why it must necessarily be the same vowel in the Ga and Gb.[288] If one reconstructs a low-high distinction in both vowels of the Ga and Gb IPFV—i.e., Ga **ya-qátil* versus Gb **ya-qv$_h$tál*—then proto-MSA stress (and consequent developments in the individual languages) is position simply according to the colour-based sonority hierarchy **a* > **v$_h$* without needing to refer to the positions of the different vowels.[289]

Formal parallels between the Gb and Gp IPFVs are well accounted for by commonalities of the vowel between R_1 and R_2 if both fall under the same proto-MSA height rubric **yv-qv$_h$tál*. However, differences between the Soqoṭri Gb IPFV *ye-qétol* and Gp IPFV *(yə-)qútol* point to the origin of two different tokens of **v$_h$* in this context. Specifically, if the Gb IPFV derives *from *yv-qitál* and the Gp IPFV from **yv-qutál*, then the scalar distinction between MSA languages in terms of the preservation/loss of a vowel between R_1 and R_2 of the Gp IPFV is found to align with the proposed distinction between the two high vowels **i* and **u*.

In Mehri, in both cases of *yv-qv$_h$tál*, the vowel between R_1 and R_2 is unaccented (due to the sonority hierarchy **a* > **v$_h$*), and is syncopated in both the Gb and Gp. In Jibbāli, both kinds of **v$_h$* develop into *e* in this context—see the discussion below of the Jibbāli Gp prefix vowel *e* <**u*—but some distinction is preserved between their reflexes since that deriving from **u* is subject to syncope in certain environments (i.e., between voiceless, non-glottalic R_1 and R_2), while that deriving from **i* is not.

In Soqoṭri, the two remain entirely distinct: **u* surfaces as *u* (or broken into a diphthong *ou*) while the **i* develops into *ɛ*. The preservation of a distinction of this high vowel **u* is closely tied

[288] Dufour, 2017, 44: "Notons pour le moment *α cette voyelle en V_1 dans les proto-formes, afin de signaller sa resemblance avec **a* sans préjuger de son origine".
[289] This is not to say that the reconstruction of two interacting sonority hierarchies is to be abandoned. On the contrary, in some places it works exceptionally well. Specifically, "lorsqu'il y a contradiction entre ces deux échelles qo'on voit apparaître des divergences entre les langues: Ga SUBJ.3ms *yaḳdu/ir > jb. *yóḳdər* mais mh. *yəḳdēr*" (Dufour, 2017, 61). However, with regard to the matter at hand, the Ga and Gb IPFVs do not derive from a proto-MSA situation where the two sonority hierarchies contradict each other. Rather, if one reconstructs a Gb **yv-qv$_h$tal*, the positional hierarchy is simply not relevant.

to the Soqoṭri preservation of IP morphology, where it is a highly characteristic passive marker. With regard to the specification of high vowels and the distinctiveness of Soqoṭri IP morphology, elsewhere in the paradigm the Gp SC *qítɛl ~ qitíl-o* also retains the proto-MSA high vowel (in this case **i*), even when doing so violates normal phonology, such as between voiceless, non-glottalic R_1 and R_2 (e.g., Ga *ktob* versus Gp *kʲtɛb*, albeit in a reduced form).

The Gp SBJV is the most homogeneous part of MSA IP morphology across the various languages. Jibbāli *lə-qtɔ́l*, Mehri *yə-qtṓl*, and Soqoṭri *li-qtól* are certainly cognate reflexes of a common proto-form **(l-)yu-qtál*. All that has been observed above regarding the vowel between R_2 and R_3 of the Gp (and Gb and active verbs from √2=*G* generally) applies equally here; there is no need to further justify reconstructing **a* in the proto-MSA Gp SBJV stem **qtal*.[290] What remains, in the reconstruction of the historical morphology of the Gp—the stems of its SC, IPFV, and SBJV having been discussed, is the question of the person-marking prefixes (and why the proto-prefix **yu-* has just been so confidently identified for the Gp SBJV).

Naturally, a discussion of the Gp prefixes must reference those of active verbs, and specifically, any voice-marking contrast that exists between them. Dufour discusses the historical phonology behind the prefixes of the MSA active IPFVs and SBJVs at some length.[291] He is surely correct that the Jibbāli Ga SBJV *yɔ́-qtəl* indicates a prefix vowel **a* (i.e., <**yá-qtvʰl*) and his arguments for a prefix vowel **a* in the Ga IPFV are also fairly convincing.[292] However, data for the Gb—namely, forms from √1=*w* that do not point to a difference in prefix vowel between the Ga and Gb—are significantly less probative. Dufour's statement that "dans les rares cas où le

[290] That is, internal evidence from MSA is sufficient to reconstruct **a* between R_2 and R_3 of the Gp SBJV; cf. Dufour's (2017, 56) first rule of historical MSA phonology, regarding the development of **a* in a closed syllable. The comparison to Gp PC forms *yu-qtal* that occur in CS, while certainly relevant to how MSA relates to the broader Semitic situation—which matter is discussed below—are superfluous to the reconstruction of proto-MSA.
[291] Dufour, 2017, 62–66.
[292] Dufour, 2017, 63. Specifically, he notes the long *ḗ* of Jibbāli *yḗgʕər* < **yá-gàʕir* in √2=G, 1/3=nasal/liquid, and prefix vowel *e* rather than *ə* before liquids like *te-lɔ́ḵəṭ*.

sudarabique modern révèle la vocalisation originelle des préfixes, il semble qu'on ait partout un **a*, bien que la chose soit mieux assurée pour les Ga que pour les Gb" understates the uncertainty regarding the Gb prefix.[293] I do not strongly favour Gb IPFV ~ SBJV **ya-qital ~ *ya-qtal* over **yi-qital ~ *yi-qtal* (i.e., a reconstruction of proto-MSA in which the Barth-Ginsberg distribution of prefix vowels is active). The prefix vowel of the Gb will be assessed anew after that of the Gp has been considered, in the specific context of the distinction between the two, and especially the question of (under)specification between high vowels.

Based on comparative evidence from elsewhere in Semitic and loss of personal prefixes in Jibbāli and Soqoṭri, Testen offers an unassailable argument for reconstructing the vowel **u* in the prefix of both the IPFV and SBJV in IP stems.[294] Just as in the cognate stems of Arabic, he argues, the proto-MSA Gp, D/L, and C took the prefix vowel **u*. The absence of second-person and 3F prefixes in these stems in Jibbāli and Soqoṭri is thus the result of a sound change **t > ø /#_u*, operative in proto-Eastern MSA. Testen further proposed that a corresponding aphaeresis of sonorant prefixed elements *ʔ*, *y*, and *n* occurred, but he restricted this to the more specific environment */#_uCC*, which occurred only in the Gp SBJV, and not in the Gp IPFV or any D/L or C prefix conjugations (all of which had a vowel following R_1 in proto-MSA).[295]

This theory accounts for much of the data in an elegant fashion, but it is not without deficiencies. For example, it predicts that the nasal prefix of the 1PL be lost in the Gp SBJV but not in the IPFV. However, the Jibbāli 1PL SBJV *nə-qtɔ́l* cited by Dufour retains the prefix; Lonnet's fieldwork notes contain a similar Soqoṭri Gp SBJV 1PL *nə-fgóg*.[296] Moreover, as described above (in §6.4), there exists some variation in the occurrence of prefixes *yə-* and *ʔə-* in

[293] Dufour, 2017, 66.
[294] Though Johnstone (1968, 1980) recognised and documented this phenomenon earlier, he did not make the crucial step Testen (1992) achieved of ascribing to it a (phonological) motivation, discussed as follows.
[295] Testen, 1992, 448–49.
[296] Dufour, 2014, p.c., contra Rubin (2014a, §6.1.2) and Johnstone (1980, 1981), whom both give the Jibbāli 1PL Gp SBJV *l-v-qtél*.

the Soqoṭri the 3M and 1SG/DU IPFVs, respectively.[297] Elsewhere, assuming the consonantal skeleton of the Cp IPFV follows that of the active C, it would historically have had a vowel following R_1, and should therefore have preserved the 3M prefix *yv*-. However, Jibbāli and Soqoṭri Cp IPFVs follow the Gp with regard to the presence or absence of this prefix. In addition to these complicated nuances, dialectal variation further obscures the picture.[298]

Conclusions about the loss of personal prefixes should therefore be more reserved, focussing on core commonalities of Jibbāli and Soqoṭri and recognising the limits to current understanding. Thus, Testen's reconstruction of a proto-Eastern MSA sound rule *$t > ø/\#\_u$ and of the proto-MSA IP prefix vowel as *u* may be endorsed with confidence. It may also be observed that Jibbāli and Soqoṭri also exhibit a tendency, albeit a less precisely defined one, possibly subject to dialectal and free variation, towards the deletion of other prefixes in the Gp. These instances are not necessarily all to be subsumed under a single explanation, and may instead reflect a complex range of distinct processes such as aphaeresis of word-initial glottal stop—a common enough occurrence in the world's languages—analogical extension of the absence of the *tv*- prefix, or indeed a combination of these (and/or potentially other) motivations. One important consideration regarding the loss of *yv*- and *ʔv*- in relation to IPs specifically (discussed below), is the consequent homogenisation of the paradigm between persons, and the association of this with the flourishing of impersonal passive and desubjective uses of the morphology in Soqoṭri.

The crucial part of Testen's work for the matter at hand is that it confirms the vowel **u* for the proto-Eastern MSA—and there is no to not extend this further back to proto-MSA—for the

[297] The prefixes *ʔ*- and *y*- may also have been preserved in the SBJV as late as proto-Soqoṭri, judging from differences between persons in the vowel of the SJBV prefix *lv*-. This would be a separate from the phenomenon Rubin (2014a, §6.1.2, n13) identifies in the irregular Jibbāli 3MSG Gp SBJV *yə-qtɔ́l*, which is a neologism modelled off the Gb, rather than the retention of an archaic situation.

[298] Lonnet (1994, 246 n67) believes that the distribution of presence/absence of prefixes in Soqoṭri should be ascribed to dialectal variation. This, however, does not allow for variation within the ideolect of a single speaker, as found in Naumkin et al.'s recent corpus.

prefixes of the Gp IPFV and SBJV. Since the stem **qtal* is common to the Gp and Gb SBJVs, the distinction between the two must arise from the vowel of the prefix; Mehri *yə-qtōl*, Jibbāli *yə-qtɔ́l*, and Soqoṭri *li-qtol* Gb SBJVs all derive from a proto-form **yv$_1$-qtal* (where $v_1 \neq$ **u*). As mentioned, Dufour has reconstructed a prefix vowel **a* for the Gb IPFV and SBJV. By his own admission, though, there is scant direct evidence for this supposition, and it is based largely on the Ga—whose prefix vowel can more confidently be identified as **a*—and his reluctance to reconstruct different vowels for the two stems.[299]

In the preceding discussion of the stem vowels in IPFV forms, I proposed that specification of high vowels in MSA between Gb IPFV **yv-qitál* versus Gp IPFV *yv-qutál* could account for the attested situation.[300] Precisely the same argument can be used for the reconstruction of their prefix vowels—i.e., that of the Gb was **i* and that of the Gp **u*—with exactly analogous results. In Mehri, there is no distinction at all between the reflexes of **i* and **u*, so the Gb and Gp SBJVs are identical: *yə-qtől* (<**yV$_H$-qtál*). Moreover, because **v$_h$* between R_1 and R_2 of the IPFV is syncopated in an open, unaccented syllable, the Gb and Gp IPFVs likewise partake in this syncretism to *yə-qtől (<*yə-qətól* < Gb **yi-qitál* / Gp **yu-qutál*).[301]

In Jibbāli, the developments of the two kinds of **v$_h$* diverge slightly, but their reflexes nonetheless share similarities. The **i* was reduced to *ə* in both the Gb IPFV *yə-qetɔ́l* (<**yi-qitál*) and SBJV *yə-qtɔ́l* (<**yi-qtál*). In the Gp, the consonantal elements of prefixed person markers

[299] Dufour, 2017, 66.
[300] Namely, Mehri Gb-Gp syncretism arose because of a merger of **i* and **u* and were ultimately syncopated. Jibbāli exhibited a partial merger to *e*—this is notably also the form of the IP IPFV prefix vowel <**u*—but *e* <**u* syncopated between voiceless, non-glottalic consonants whereas *e* <**i* was not. Soqoṭri distinguished high vowels throughout: **i* > *ɛ* (as in the Gp SC) and **u* was preserved owing to the functional load of this rare phoneme.
[301] Hobyōt Gp IPFV *yə-gəlód* (Simeone-Senelle, 1997, 407) may reflect the intermediate stage of this development.

were lost (except *n-* in the IPFV, and perhaps SBJV).[302] The prefix vowel **u* was developed into *i* in the IPFV *i-q(e)tɔ́l* and into *ə* in the SBJV *lə-qtɔ́l*, which also took a prefix *l-*.[303]

Thus, both **i* and **u* ultimately merged to *ə* in the closed syllable of the SBJV prefixes, but not before **u* had caused the loss of consonantal prefixes. This explains why the element *l-* occurs throughout the Gp SBJV except in the 1PL, but in the 1SG/DU Gb SBJV: it was added to all SBJV forms beginning with *ə-*. That is, all personal prefixes apart from *n-* were lost before **u* was reduced to *ə* in the Gp SBJV. In the Gb SBJV, though, only the 1SG/DU prefix *ʔ-* was lost and the verb therefore took the *l-* prefix; all other personal prefixes (*yə-*, *tə-*, and *nə-*) were retained.[304]

Finally, in Soqoṭri, a full distinction is maintained between reflexes of **u* and **i*—both when they occur as prefix vowels or between R_1 and R_2—albeit a different manner than in Jibbāli. As mentioned above, in the IPFV stems of the Gp *qútol* and Gb *qétol*, the **i* becomes *ɛ*, while the *u* remains as it is (or sometimes breaks to *[ou]*). The key difference between Soqoṭri and the Mainland MSA languages in regard to this vowel, is that, due to the retraction of stress, it is accented here, and therefore less susceptible to reduction and ultimately syncope.

With regard to the reflexes of **u* when it occurs as a prefix vowel, it is important to note that unlike in Jibbāli, Gp IPFV forms with prefixes *ʔə-* and *yə-* are well attested. Given that the core of the distinctive behaviour of the prefix vowel—deletion of the second-person/3F dental prefix

[302] The *n-* is preserved in Dufour's (2014, p.c.) East Jibbāli 1PL Gp SBJV form *nə-qtɔ́l*.
[303] The precise reasons for the different developments of **u* in these contexts is not clear, though I suspect it may relate to the open versus closed nature of the syllable. However, note that the prefixes of the D/L and C IPFVs both derive from **u*, but have respectively developed into *ə* and *i* (Rubin, 2014b, §§6.2, 6.3).
[304] Rubin (2014a, §6.1.2) gives a slightly different vowel for the 1SG Gp SBJV (*lɛ-qtɔ́l*) than that of all other persons (*lə-qtɔ́l*) and his 1SG Gp IPFV *ə-q(e)tɔ́l* also differs from the default *i-q(e)tɔ́l*. This perhaps suggests that *ʔ-* was lost at a different (later) stage than *y-*. Alternatively, the unique 1SG Gp SBJV prefix vowel may relate to the functional load in distinction from the Gb SBJV, since 1SG (*lə-qtɔ́l*) is precisely where the prefix *l-* occurs. Dufour (2014, p.c.) observes no heterogeneity in Gp prefix vowels, though in his (East) Jibbāli forms he does differentiate between the preservation of the consonant *n* in the 1SG (Gp IPFV *n-ḳeṣɔ́f* ~ SBJV *nᵊ-ḳṣɔ́f*) and the loss of all other consonantal personal prefixes (e.g., 2MSG Gp IPFV *ḳeṣɔ́f* ~ SBJV *lᵊ-ḳṣɔ́f*).

t- occurred during the proto-East MSA rule, the prefix-conjugation forms of the Gp attested in Soqoṭri can be reached by two sound simple, cross-linguistically common sound rules having occurred in this langauge—the merger of unstressed high vowels to schwa, and the aphaeresis of word-initial schwa—and some analogical levelling.

By the first of these rules, formulated as **v̀ₕ > ə* and **ə > ø/#_* prefix vowels **i* and **u* were reduced to schwa (or its allophone *e*), as they remain in the 3MSG ~ 3FSG Gb IPFVs *ye-qétol ~ te-qétol* and 1SG ~ 3MSG Gp IPFVs *ʔə-qútol ~ yə-qútol* (in variants with the prefix). Where the prefix *t-* had been lost, the resulting ***ə-qútol* was impermissible and the second rule, **ə > ø/#_*, resulted in the 3FSG Gp IPFV *qútol*. This exerted analogical pressure that resulted in first-person and 3M Gp IPFV variants that were likewise just the stem *qútol*, without any prefixes.[305] Forms like *yə-qútol* and *ʔə-qútol* that retain their prefixes are instead be the historical forms.

The same historical reconstruction of MSA phonology also explains attested Soqoṭri Gp SBJVs, with the proviso that forms that lost their prefix *t-* were amended by analogy to the default 3MSG, rather than the converse. In the Soqoṭri SBJV, the 3M consonantal prefix *y-*, was preceded by a particle *l-*, regardless of the stem, and these two fused, resulting in a new 3M SBJV prefix *li-*.[306] This accounts for the syncretism between the Soqoṭri Gb and Gp 3MSG SBJVs: Gp **yu-qtál* and Gb **yi-qtál* merged to **yə-qtól* (by **á > o* and **v̀ₕ > ə*), which, with the addition of the *l-* prefix, became *li-qtól*. The 3FSG counterparts, though, remained distinct, since Gb **ti-qtól* simply developed into attested *tə-qtól*, whereas in the Gp the *t-* prefix had been

[305] In this regard, the motivation towards homogenisation of the paradigm caused by the use of IPs in impersonal passive and desubjective clauses (discussed further below) must not be ignored.

[306] On the SBJV prefix *l-*, see Leslau, 1938, 227. Since *li-* occurs in all stems in Soqoṭri—e.g., Ga *li-qtél < l + *ya-qtúl*; Gb *li-qtól < l+ *yi-qtal*; and D/L *li-qétɛl < l + *yu-qattil*—its colour does not depend on the historical prefix vowel, but may rather result from the fusion with its consonantal element *y-* (something like **l-yə > *lʲə > li*). This is supported by the transcriptions *lʲe-qtól* used by Lonnet (2014, p.c.) and *λi-qtól* by Dufour (2017, 47), both of which represent a palatal or palatalised consonant.

deleted during proto-East MSA, so the consequent word-initial schwa was subsequently also lost in Soqoṭri, and the prefix *li-* was extended from the 3MSG to the resulting stem ***qtól*.

One key factor when considering the development of Gp IPFV and SBJV forms in the individual MSA languages, and especially syncretism with the Gb is the distinction of high vowels **i* and **u* on the one hand from the low vowel **a* on the other. The degree of specification of v_h is the other important issue in the divergences between the developments of the individual MSA languages. Both of these considerations apply equally to the stem vowel of the IPFV as to those in the prefixes of IPFV and SBJV.

In Mehri, the two high vowels **u* and **i* merge and full syncretism between the Gb and Gp obtains. In East MSA (mother node to Jibbāli and Soqoṭri), their reflexes share some similarities, but a distinction is maintained long enough that **u* caused deletion of preceding *t-*, whereas **i* did not. Furthermore, in Jibbāli, the two vowels subtle differences in the Gb and Gp IPFV stems. Both merge to *e*, but that which derives from **u* in the Gp is less stable than that which derives from **i* in the Gb; the former is subject to syncope (between voiceless, non-glottalic consonants) while the latter is not.

In Soqoṭri, the historical high vowels remain entirely distinct in the Gb and Gp IPFV stems (*qɛ́tol* and *qútol*, respectively), where they bear the accent. Elsewhere (i.e., in the prefixes), they both undergo the same reduction (*$v̀_h$ > *ə*). However, the effects of *t-* deletion, conditioned by **u*, have had consequences in the formal development of IPs even once this vowel merged with the reflex of **i* in unstressed positions (by the lenition *$v̀_h$ > *ə*). Although optional deletion of *yə-* and *ʔə-* in the Gp IPFV is at least partly analogically motivated, the source of the analogy—absence of a prefix in second-person and 3F forms—is the result of a phonological development rule relating to the vowel **u* specifically (the proto-East MSA sounds rule **t* > *ø*/#_*u*).

To summarise the preceding analysis and reconstruction of MSA Gp prefix conjugation forms, there exists an increasingly pronounced distinction between the two manifestations of v_h from Mehri to Jibbāli and further to Soqoṭri. In Mehri there is no distinction between reflexes of *i and *u; in Jibbāli some distinction is maintained; and in Soqoṭri they develop into totally separate vowels when accented. This correlates to—and indeed is a major cause of—another scalar distribution through the MSA languages in the degree of formal distinctiveness between the Gb and Gp prefix-conjugations, and (relatedly) between the Gp IPFV and SBJV forms. However, this gradation between MSA languages is overlaid with a genetic binary split between the East and West branches of MSA, and the sound change *t > $ø$/#_u in the former significantly impacts the development of its IP prefix-conjugation morphology.

The preceding questions of formal distinctiveness may all be subsumed under a general spectrum of IP "vitality". A further dimension thereof is that IPs are most productive and functionally diverse in Soqoṭri and least in Mehri. An interesting parallel may be drawn with Omani Arabic, where Holes has explicitly identified a causal link between the decline of IPs and the formal syncretism between the Gp and Gb PC forms (both as *yi-qtal*).[307] In this regard, it is noteworthy that Mehri is the MSA language in closest contact with this Omani Arabic, Soqoṭri the most remote from it, and Jibbāli occupies an intermediate position between them. This question of language contact will be revisited at the end of the analysis, after the analysis and reconstruction of the development of the forms and distributions of IPs other than the Gp and the syntactic functionality of IP morphology in MSA.

Apart from the Gp, the MSA languages possess, to varying extents, IPs relating to active stems other than the Ga. The Cp is by far the most common of these, though depending on the language, D/Lp, Gtp, and Ctp forms are also attested. The formal distinctiveness and

[307] Holes, 1998, 353.

productivity of the Gp in a given MSA language correlates precisely to the degree to which these non-Gp IPs are attested. Specifically, Soqoṭri possesses the most distinctive Gp and expanded IP system, Mehri the least, and Jibbāli occupies a position between them in all these regards.

It would be unacceptably circular to assert that non-Gp IPs are secondarily developed from the Gp solely based on the relative rarity of non-Gp IPs. However, their morphology, and especially what this indicates regarding their formation, provides compelling evidence in favour of this hypothesis. Non-Gp IPs in MSA exhibit a remarkable tendency towards formal similarity with the Gp, even to the extent that this differs between different MSA languages or dialects of a single language. For example, the Yemeni Mehri Cp SC *hədīḵéḵ* has a long front vowel between R_1 and R_2 just like the Gp SC *qītél*, even though the corresponding active form *hədḵáwḵ* has no vowel in this position (and never did); cf. the Omani Mehri Cp SC *həqtēl* and its corresponding Gp SC *q(ə)tēl*.

More important that the formal differences, though, are what these tell us about the processes by which these forms were generated. The Yemeni Cp SC seems to derive simply from prefixing the C morpheme *he-* to the Gp SC; the Omani form instead could just as well result from extension of the Gp vocalic sequence *ə-ē* to the consonantal skeleton of the C *hVqtVl*. This is an example of *formational heterogeneity* that has been argued above (in §§4.9.3, 5.4–7) to support the reconstruction of IP PC formation at an earlier date than that of IP SCs in CS. In this case, the Cp SC forms in Mehri suggest that Cp formation was an operative dynamic process after this language had subdivided into its dialects.[308]

[308] Another example of formational heterogeneity in the non-Gp IPs of MSA occurs in the Soqoṭri Ctp SC variants discussed above (in §6.4). The Ctp SC *šiqtɛl* simply applies the vocalic sequence *i-ɛ* from the Gp SC to the consonantal skeleton *švqvtl* of the Ct SC; the variant *šəqítɛl* instead prefixes the Ct morpheme *šə-* to it. These are thus respectively analogous to the Omani Mehri and Yemeni Mehri strategies of Cp SC formation.

Virtually no formal distinction exists between the prefix-conjugation forms of the Gp and Cp in any MSA language. The analogous Arabic situation (Gp/Cp PC *yu-qtal*) is understood to be the result of the loss of the causative morpheme in the Cp.[309] In MSA, though, there is evidence that this is not necessarily the case. Jibbāli C and Cp IPFVs both geminate R_1 when it is not voiced or glottalic, which behaviour can be taken as evidence for a common syllabic structure; that is, gemination of R_1 in C *yə-ffegaʕ* and Cp *e-ffegaʕ* results from assimilation of the causative morpheme to R_1.[310]

There also exist instances where the Cp unexpectedly follows the Gp with non-gemination (e.g., Cp IPFV *e-šfɔ̃ḳ* instead of expected ***e-ššefɔḳ*).[311] An analogous contrast exists in Mehri; the C IPFV (*yə-həqtūl*) retains the causative morpheme, while what very few Cp IPFV forms are attested do not.[312] These are possibly not Cp forms at all, in terms of their historical morphology, but Gp IPFVs extended to this position in the paradigm. Syncretism between the Cp and Gp sometimes extends beyond the prefix conjugations in Jibbāli and Soqoṭri, occurring in the SC because of aphaeresis of the causative prefix *(ʔ)v-* in the Cp or prosthesis in the Gp.[313] However, some instances of identity between the Cp and Gp SCs cannot be explained by phonological processes (e.g., the Soqoṭri Cp SC *ʕíhɛṣ*).[314]

[309] That is, the Cp PC *yu-qtal* developed from **yu-ʔaqtal*, as discussed above (in §§4.7, 4.8, and 4.5).
[310] Bendjaballah and Ségéral (2014, esp. §§3–4) explain how different types of consonants affect the causative morpheme; specifically relevant here is the assimilation into geminate clusters when preceding voiceless non-glottalic R_1. Though they focus on Mehri, the same phenomenon is clearly at work here.
[311] Johnstone (1981, s.vv. √*šfḳ* and √*śḫl*) cites the C IPFV as *yə-ššófḳ-un'* which seems to be an erroneous replacement with a D/L form; however, cf. "*í-śśxɔ̃l*" (for *yə-śśeḫɔl*) that confirms the correct C IPFV pattern.
[312] Rubin (2018, §6.2.2) specifically notes the absence of the *h* in Mehri Cp forms, ascribing it to a difference in the following vowel between the C and Cp although he does not venture to reconstruct the specific conditioning environment(s). Bendjaballah and Ségéral (2014, esp. §§3–4) never refer to vowel quality as a factor conditioning the causative prefix and ascribe its absence or presence only to consonant type and syllabic structure.
[313] Retsö's (1989, 181–82) confusion of Gp and Cp SC arises from his failure to consider precisely these morphological characteristics. For example, he misidentifies the Jibbāli Gp SC *ɛrfiʕ* as a Cp because he does not recognise it as a case of prosthesis before R_1 =liquid.
[314] √1=+voice is not a root type where loss of the causative prefix should occur. Further, even if it was, the initial consonant cluster should be resolved with *a short epenthetic vowel*, stress consequently falling on the ultima (i.e.,

The derivational relationship, and even formal identity, between Gp SC and D/Lp SC is even more direct that between Gp and Cp.[315] Mehri *ʔādēm* is identical to a Gp SC—cf. Gp SC *ʔādēl*—and can only be identified as a D/Lp SC by reference to the active (D/L) verb from this root.[316] The Jibbāli D/Lp SC simply adds to the Gp *q(i)til* the consonantal characteristics of the D/L—stress and irreducibility of the first syllable and prosthesis of *ɛ-* before unvoiced R_1—which can yield forms identical to a Gp SC (e.g., D/Lp SC *ḥiris*). The Soqoṭri D/Lp SC *qétɛl* has first vowel of the D/L SC *qétel* and second of the Gp SC *qítɛl*. However, formal distinction from the Gp is lost in the √3=*w/y* D/Lp *šədṓwə* (cf. the Gp SC *nəbṓwə*). Even if some of these cases reflect mergers of historically distinct Gp and D/Lp forms—due to currently unclear processes—the proto-forms were presumably differentiated at some stage by their syllabic structures. However, some D/Lp SCs are demonstrably reflexes of the pattern **qitil* (rather than **qittil*).[317]

The combined considerations of IP morphology and attestations yield the following picture of how the IP paradigm developed in MSA. IPs were restricted in proto-MSA to the Gp (whose ultimate origin is addressed below), reconstructed as (SC ~ IPFV ~ SBJV) **qitil* ~ **yu-quttal* ~ **yu-qtal*. Its primary voice distinction from active forms (Ga **qatal* ~ **ya-qattil* ~ **ya-qtil* and Gb **qatil* ~ **yi-qittal* ~ **yi-qtal*) was marked through a height contrast in the vowels of stem and prefixes. Where further distinction was needed—to differentiate the Gp versus Gb SBJV and

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***ʕʾhéṣ*). The attested form instead matches the strong-root Gp SC pattern *qítɛl* expected with √1+voice (albeit without [a], the low allophone of /ɛ/).

[315] Prefix conjugation forms of the D/Lp are far from common, so the following summary focusses on SC forms. Suffice it to note that in the SBJV (Jibbāli *l-qetɔl* and Soqoṭri *li-qétol*), the final vowel matches that of the Gp SBJV, while in the IMPV (Jibbāli y*ə-qitel-ən* and Soqoṭri *yə-qətél-ən*) the first vowel duplicates the contrastive voice marker in the D/L(p) SC: i.e., Jibbāli D/L *(ɛ)qótəl* versus D/Lp *(ɛ)qítil* and Soqoṭri D/L *qótil* versus D/Lp *qétɛl*.

[316] Johnstone, 1987, s.vv. √*ʔdl* and √*ʔdm* (actually both originally √1=ʕ).

[317] In the Jibbāli D/Lp SC *dĩr* from √*dmr*, the absence of R_2, reflected in the nasalisation, precludes it having been historically geminated. One might argue that the difference in syllabic structure was Gp SC *qitíl* versus D/Lp *qítil*, but even if that is the case, the general lack in clear formal distinction between the Gp and other non-Gp IPs is still clearly observable elsewhere.

IPFVs—this was marked by the specification of high vowels, with +back for passive versus +front for active forms.[318]

Initially, Gp forms were occasionally used to express the passive relative to stems other than the Ga, which accounts for instances where the formal identity of Cp and D/Lp forms with the Gp cannot be explained by phonological processes. Subsequently, in the individual MSA languages, to the extent that IPs were a productive part of a given language at all, the characteristic morphology of the Gp was extended to active stems other than the Ga, to create Cp and (significantly less frequently) other non-Gp IP forms. The general rarity of IPs in Mehri versus their widespread use in Soqoṭri explains why the latter language has generated non-Gp IPs to such a great extent, whereas the former language barely has. This second stage occurred (or at least continued to occur) after the MSA languages hived off from one another: differences between the Omani versus Yemeni Mehri Cp SCs, for example, suggest that their creation(s) post-dates developments in each dialect that affected their source morphology, the Gp SC.

Apart from the question morphology, how MSA IPs behave at the syntactic level is an important part of the analysis and feeds into the overall reconstruction of their development. Soqoṭri IPs are widely used in clauses with semantically empty dummy SUBJs that are not protoypically passive. These include impersonal passives whose patients are OBL PPs, avalent impersonal passives derived from one-argument active counterparts, and desubjectives whose patients appear as ACC OBJs (which are syntactically active rather than passive). Such use of IP

[318] Cf. Watson's (1989, §4.2.1) analysis of *qitil* IP SC forms in Yemeni Arabic. In the Hubayshi dialect they are determined by adding to the corresponding active *qatal* forms the feature of [+high], and in the *qutil* of Kusmi and Gabīni dialects [+high, +round], with a restriction on the location of [+round] to the first syllable.

morphology for syntagms other than those with a patient linked to the grammatical relation of SUBJ is highly marginal throughout Semitic.[319]

A comparison of the individual MSA languages brings into focus a conspicuous correlation between the extent of IP functionality and other characteristics of this part of the grammar: all the aspects of IP "vitality" outlined so far—i.e., formal distinctiveness, productivity, extension to stems other than the Gp—are most prevalent in Soqoṭri, where their functional scope is greatest. In Mehri, IPs are rarest and least distinct and IPs other than the Gp are highly exceptional; use of the morphology is correspondingly restricted to prototypical passive use. Jibbāli occupies an intermediate position in all regards. IPs in general are more common than in Mehri, and more IP stems other than the Gp occur, but its IP productivity does not rival Soqoṭri. In terms of functions, Jibbāli possesses some impersonal IP clauses with OBL patients in PPs, but no avalent use, and just one case of a desubjective IP has been identified. An interesting distribution points to a possible interrelation between the formation of non-Gp IPs and non-prototypical uses of the morphology: of the three D/Lp forms that Rubin cites in his texts, only one, *i-fileṯ-ən* "are given a new calf", is a prototypical passive.[320]

The functional scope of IPs is not the only dimension of their use tied to their productivity; the formal distinctiveness of IPs is also an intrinsic part of the overall situation. That is, just as Mehri and Soqoṭri have low and high levels of IP "vitality", respectively, Mehri also has the highest degree of syncretism between IPs and their active counterparts of any MSA language, and Soqoṭri the lowest. This is no coincidence. Instead, as a natural corollary of the universal cross-linguistic restriction against finite passives with no voice-distinguishing morphological

[319] The only one of these three categories of IP usage found outside of MSA is the first, which matches the impersonal passive construction of Arabic, discussed above (in §3.3).
[320] Of the others, *ḥéli* "was told" (3MSG SC from √*ḥly*; Rubin, 20114a, 4:57) is used as a desubjective with ACC-marked OBJ *tɔ-s̃* "you" (2FSG), while *yə-ḥárés̠-ən* "made jealous/frightened" (3MSG IPFV from √*ḥrs̠*; 2:62) is lexical, rather than syntactically reorganising the arguments of a basic transitive active counterpart.

marking, the syncretism with the Gb—and with Ga/b active verbs more generally in certain weak root types—has suppressed the use of the Gp.

Another pertinent feature of IP morphology is the deletion of personal prefixes, and especially the consequent homogenisation between the different persons. Lonnet argues that this has contributed to the functional expansion of IPs in Soqoṭri.[321] He makes a valid point: their convergence on the form of the verb as conjugated for 3MSG has no doubt facilitated the development of syntagms possessing a dummy SUBJ (with default 3MSG marking). However, since the loss of personal prefixes and formal homogenisation between persons also occurs in Jibbāli where there is no concomitant development of desubjective IPs, there must be additional Soqoṭri-specific elements at play. One consideration is the geographical isolation of Soqoṭri, whose area of use is on an archipelago, which has caused its development to diverge significantly from Mainland MSA languages.[322] At the more language-internal level, Lonnet argues that the tendency towards defixation of OBJ pronouns in the active verb in Soqoṭri was paralleled IP use, with the development of the *qítɛl t-* desubjective construction.[323]

While such morphological features were certainly important factors affecting the syntax of Soqoṭri IPs, one must not discount the influence of the productivity of IPs per se as one of the factors contributing to IP the expansion of their functionality in Soqoṭri. That is, no matter whatever other considerations played a role in the development of desubjective IP use, one prerequisite was that the morphology be well attested; if IPs were not a frequently used part of the language (as in Jibbāli and even more so Mehri), they could not be expected to expand functionally in this manner. Overall, the situation is an excellent example of how complex webs of competing motivations shape language development, and a small difference in just of these

[321] Lonnet, 1994, §III.3.
[322] Simeone-Senelle, 1996, 310–11.
[323] Lonnet, 1994, §III.3.

factors one can result in profound differences between languages, as laid out above (§2.6) in the methodology of this dissertation.

Having established the proto-MSA situation with regard to IPs and reconstructed their development into the attested languages, the remaining task is to reconcile these conclusions with the reconstruction of IPs in CS. As the analysis above (in Chapter 4) showed, there were two key factors to understanding the development of the IPs of Arabic, Aramaic, and Hebrew—and ostensible, OSA and Ugaritic, though owing to their unvocalised orthographies, these are considerably less certain: the role (and development) of PASS PTCPs and the inventory of detransitive stems. The following will address these issues in relation to MSA in order to establish how the proto-MSA situation just reconstructed was reached (relative to that of CS).

All three MSA languages possess verbal adjectives whose patterns—Mehri *məqtī́l*, Jibbāli *məqtél/maqtél*, and Soqoṭri *míqtil*—allow the reconstruction of a common proto-MSA **maqtīl*.[324] Comparative evidence—cf. the Arabic *maqtūl* and Aramaic *qətīl* (<**qatīl*), both of which are G PASS PTCPs—suggest that proto-MSA **maqtīl* derives from the addition of a prefix *ma-* to the common WS verbal-adjective pattern *qatīl*.[325] The vowel of the preformative **ma-* is reduced to schwa in Mehri and (sometimes) Jibbāli due to its pretonic position; because of the retractive stress patterns typical of Soqoṭri, it appears as *i* (or *a* preceding a pharyngeal).

With regard to the inflection of these reflexes of **maqtīl* for number and gender, a broken plural pattern exists for MPL. Its origin—perhaps **maqtāl(?)*—is far less certain, but the attested forms in the individual languages are similar enough to nonetheless confidently be identified as

[324] For Mehri, see Rubin, 2018, §7.1.8; for Jibbāli, Rubin, 2014a, §7.1.8; and Soqoṭri, forms cited by Leslau (1938, s.vv. √*ʕfḳ*, √*ʕrb*, √*ʕṣn*, √*bhl*, √*blġ*, √*ḥrf*, √*kbb*, and √*ṣlḥ*) and Naumkin et al. (2014b, s.vv. √*ḥrf* and √*ḥzl*). In support of reconstructing a historically long vowel between R_2 and R_3 are Soqoṭri forms like *máʕṣehin* and *mébeḥel* with the "parasitic h", since the conditioning environment for this phenomenon is a historically stressed long vowel following a voiced consonant (Lonnet, 1998, §5.).

[325] Rubin (2018, §7.1.8) also cites two possible examples of verbal adjectives derived from **qətvːl* linked to the semantic role patient in Mehri: *təwəy* "eaten" (<*tawīy, or perhaps **tawūy*) and *kətīb* (<**katīb*) "written".

descendent reflexes. FEM SG and FEM PL forms suffix the appropriate morphemes to the MASC SG and MASC PL forms respectively (with attendant minor changes in vocalisation).[326] The only other observation to be made regarding MSA reflexes of **maqtīl* is that comparison with the rest of Semitic suggests such a use of a broken plural pattern is rather a feature of substantive use that of verbal adjectives. For example, the Geʿez pattern *qətul* (<**qatūl*) takes the regular MPL suffix *-ān* in adjectival use but *qətul* substantives form broken plurals—cf. e.g., *kəbur ~ kəbur-ān* "honoured (MSG ~ MPL)" versus *neguś ~ nagaśt* "king ~ kings".[327] Similarly, the Arabic G PASS PTCP pattern *maqtūl* can form a broken MPL *maqātīl* only in substantival use; adjectives with a more direct reference to a verbal predication require external plural suffixes *-ūn*/*-īn*.[328]

More relevant than the form of nominal patterns derived from **maqtīl*, though, is their functionality and distribution. They are linked to the semantic role patient consistently enough that various scholars have considered them PASS PTCPs. Rubin, though, has questioned the soundness of this analysis, stating that they "are not very productive or common in Jibbāli, and should be considered a marginal category within the verbal system…Sometimes it is not clear whether to classify a word as a passive participle or as a lexicalised adjective".[329] I concur that there are several things indicating that these MSA nominal forms cannot be linked to the verbal paradigm, much less identified as G PASS PTCPs specifically.

Apart from the aforementioned morphological factor of broken-plural formation, an important distributional consideration is their limited attestation. Compared to CS PASS PTCPs

[326] For Mehri non-MSG counterparts of **maqtīl* (FSG ~ MPL ~ FPL) *məqtəl-ūt ~ məqtōl ~ məqtál-tən*, see Rubin, 2018, §7.1.8; for Jibbāli *məqtəl-ót~ məqtól ~ məqtəl-étɛ*, see Rubin, 2014a, §7.1.8; and for Soqoṭri *miqtíl-o ~ míqtol* |~ ? see forms cited by Leslau (1938, s.vv. √*ʕfḳ*, √*ʕrb*, √*ʕṣn*, √*bhl*, √*blġ*, √*grd*, √*ḥrṭ*, √*ḥyf*, √*ḥzl*, and √*ṣlb*) and Naumkin et al. (2014b, s.vv. √*ḥrf* and √*ḥzl*).
[327] Tropper and Lehman, 2002, §§42.32–35.
[328] Fischer, 1972, §95n3.
[329] Rubin, 2014a, §7.1.8; cf., Rubin, 2018, §7.1.8, where uses virtually the same wording in reference to the same feature in Mehri, which reflects that his statements refer to reflexes of **maqtīl* at the broader MSA level.

like Arabic *maqtūl*, Aramaic *qətīl*, and Hebrew *qɔtūl*, MSA reflexes of **maqtīl* are far less common. Furthermore, where they do occur, their role within the MSA verbal system is loosely defined in terms of how they relate to the verbal paradigm. That is, inasmuch as they relate to finite verbs at all, they are not only linked to the Ga, but can also refer to the patient of a C or even a *t* stem verb.[330] As a corollary of this, analogous patterns relative to the other verbal stems are not formed.[331] Considering the general rarity of MSA forms derived from *maqtīl*, it is hardly surprising to find a healthy number of PASS PTCPs loaned from Arabic (especially into Mehri), particularly the D PASS PTCP, where MSA did not possess a native counterpart to **maqtīl*.[332]

Beyond the ill-defined relation to specific verbal stems, nor are MSA reflexes of **maqtīl* restricted transitive patient reference. Sometimes they are simply patient verbal adjective in a more basic sense (i.e., without reference to the arrangement of arguments of a transitive verb). Moreover, these forms may also be substantives with no link to the verbal system. For example, several Soqoṭri *miqtil* nouns have no corresponding finite G (or Gp) verbs attested for the root in question, or if they do, no semantic relationship between noun and verb is apparent.[333]

If a form is not restricted to referring to the semantic role patient—and moreover occurs somewhat productively in this function—it cannot properly be considered a PASS PTCP, even if it functions in this way sometimes. MSA reflexes of **maqtīl* are not common, not always linked to the verbal system, and when they are do not occupy a specific position within the verbal paradigm (e.g., relating to the Ga verb, less still exclusively to transitive patients thereof). Proto-MSA **maqtīl* and its descendent reflexes are therefore not to be identified as G PASS PTCPs,

[330] Mehri *məṣwīb* and Jibbāli *məthím* are examples of **maqtīl* nouns relating to an active C verb (for which, see Rubin, 2018, §7.1.8; and 2014a, §7.1.8, respectively). In Soqoṭri, *máḥrəf* relates to an active CtG verb *šḥaref* (for which, see Leslau, 1938, s.v. √*ḥrf*; Naumkin et al., 2014b, s.v. √*ḥrf*).
[331] Leslau (1938, s.v. √*ḳzḥ*) considers *mšiḳzáʕe* "ceux auxquels on applique la générosité, les hôtes" a MPL CtG PASS PTCP. A substantive with the prefix *š-* is attested for this root, but the only related finite form is a Gp, while Nuamkin et al. (2014b, s.v. √*ḳṣʕ*) list just a Ga and a C. The identification of this form is thus very problematic.
[332] Rubin, 2018, §7.1.8.
[333] Cf. Leslau (1938) and Naumkin et al. (2014b), s.vv. √*gzm*, √*grd*, and √*ḳlf*.

but rather as a general verbal adjective pattern, that numbers the patient of transitive verbs (of no specific verbal) stem among its functions.[334] Unlike in CS, then PASS PTCPs are not a possible source for IP development in MSA, and an alterative origin for them must be identified.

It is not just the status (or rather, lack) of MSA PASS PTCPs that put the IPs in this branch at odds with the analysis above (in Chapter 4) of CS IPs. The inventory of MSA detransitive stems also suggests its IPs did not develop along the same course as those from other Semitic languages. MSA IPs occur predominantly—and in Mehri, virtually exclusively—in the Gp. This is precisely the converse of beginnings of IP development, where the Dp and Cp are productive, but the Gp was absent. At this early stage (stage 2 of the reconstruction above, in Chapter 5), as in two CS (Hebrew and Ḥassāniyya Arabic) that preserve this situation, the presence of an N detransitive to the G was central to the detransitive stem system, occupying a slot corresponding to the Dp and Cp.

MSA, by contrast, has no N, so the same motivation against the presence of a Gp as found in Hebrew, for example, is not present.[335] According to the principle of functional symmetry between detransitive stems laid out above (in §4.2.1), the logical place to look for a reason for the prevalence of the Gp over other IPs in MSA is therefore in the *t* stems. That is, if the MSA Gt differs from the D/Lt and CtG (and CtD/L) stems in a way that impacts the IPs corresponding to their respective unmarked counterparts, this may not only explain the attested situation, but, by extension, may also shed light on the historical development(s) that led to it.

[334] Unlike, Arabic *maqtūl*, for example, that is both productive and restricted in referring to transitive patients of G verbs, MSA **maqtīl* closer resembles Geʿez *qətul* (<**qatūl*), which has many patient verbal adjective uses, but these are sometimes intransitive patients, and also forms many substantives, as discussed above (in §4.4).

[335] A derivational prefix N sometimes occurs with quadriradical verbs, giving rise to a "NQ" stem, often with an ingressive function, particularly with reference to colours or defective states (Rubin, 2014, §6.6.2; 2018, §6.6.2; Naumkin et al., 2014b, 39–40). However, these occur only sporadically and are not formed from the regular triradical verb, so do not constitute a productive part of the regular stem system.

As mentioned in the introduction (§6.1) to this chapter, though MSA *t* stems may perform various detransitive functions, they do not do so predictably, and their primary function must be described as lexical. That is, there is no precise meaning associated with the *t* stem morphology per se, and each form's meaning is individually determined (albeit often by selecting from a common range of uses related to the historical derivational functions of the morphology). Nonetheless, a direct, though subtle, correlation between the functions of the MSA *t* stems and the attestation of IP stems in the branch is perhaps discernible in Rubin's descriptions:

> A number of T1-stems [Gt] are reciprocals…Others can be loosely classified as passives, intransitives, or reflexives, most often with a corresponding G-Stem…Still others, including some transitive verbs, are probably best considered lexical.
>
> Roots found in the T2-Stem [D/Lt] are most often also attested in the D/L-Stem, though the derivational relationship between the two is not always obvious. When there is a clear relationship, the T2-Stem is usually a passive of the D/L-Stem, less often a reflexive…A number of T2-Stems are reciprocals, again often with a corresponding D/L-Stem verb…Other T2-stems must be considered lexical.[336]

If, as the ordering of the functions listed and the phrasing regarding their frequencies implies, passive is prioritised as a function of the D/Lt more than of the Gt, and a derivational relationship D ~ D/Lt occurs more often than does G ~ Gt—even if such relationships are neither productive nor predictable—then this would explain why a Gp occurs in Mehri and Jibbāli but the D/Lp is limited to the point of virtual non-existence.

This analysis of how the attestation of MSA IP forms relates to other parts of detransitive system is supported by differences between Mainland MSA and Soqoṭri. The descriptions above (in §§6.2–4) of the MSA languages have shown that IPs are far more common in Soqoṭri than in Mehri or Jibbāli. The summary of the MSA verbal system generally in the introduction (§6.1) of this chapter also mentions that lexicalisation of derived verbal stems is more advanced in this branch. Lonnet explicitly links these two factors, which fits well with the overall theory of

[336] Rubin uses virtually (and in many cases literally) the same wording to describe Mehri (2018, §6.5.2, 6.5.4) and Jibbāli (2014, §§6.5.2, 6.5.4). The above quotation is from the former.

Semitic detransitives operating as an interrelated network of forms competing for functional territory.[337]

A survey of the Soqoṭri CtG highlights the role of lexicalisation and the consequent expansion of IPs in this language. Out of thirty-six CtG verbs Naumkin et al. list, no clear derivational function of the morphology is discernible for roughly two thirds.[338] Often, the CtG is the only stem in which the given root occurs—which precludes a derivational relationship with another stem—and not a few are likely denominal. However, when the root also forms a (more) basic stem, there is often also an associated IP with a clear passive meaning, particularly where the CtG has a mediopassive or semantic middle meaning.[339] For example, from √*knn*, C "to protect from rain" stands alongside a Cp and CtG that differ insofar as the former is specified for an external protector, while the latter explicitly describes a self-serving action of (goats) seeking protection from the rain.[340] Elsewhere, in √*bny* and √*ty*, the CtG has *potential* passive value, while the Gp has a more plain passive value, not containing this modal nuance.[341] This reflects a demarcation of the relative functional scopes of IPs and the CtG, such that the former is agentive, while the latter marks SUBJ affectedness in semantic terms (if it has a functional load at all, relative to the unmarked counterpart).

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[337] Lonnet, 1998, 75–76: "Le SAM continental utilise une ou plusiers forms dérivées pour l'expression dy moyen, du réfléchi, du réciproque, du passif. Le socotri ne peut le faire que marginalement, mais, comme on le verra plus loin, exprime le passif par le moyen du 'passif vocalique', et ce, de façon très productive".

[338] For CtG verbs in Soqoṭri (including information about other stems from the same roots), see Naumkin et al., 2014b, s.vv. √*ʔkd*, √*ʔḳr*, √*ʔḳš*, √*ʔmn*, √*ʕbr*, √*ʕdy*, √*ʕrk*, √*ʕrś*, √*bny*, √*dhd*, √*ḥbl*, √*ḥbr*, √*ḥlf*, √*ḥmy*, √*ḥrf*, √*ḥyr*, √*knn*, √*ḳnʕ*, √*ḳṣy*, √*ḳyš*, √*mtl*, √*nfʕ*, √*nhr*, √*nḥr*, √*nḳl*, √*nty*, √*rbn*, √*rḥḳ*, √*rḳḥ*, √*skʕ*, √*ṣrm*, √*śfy*, √*śḳr*, √*ty*, and √*tʔf*.

[339] A fair number of CtG verbs occur in roots with other relatively basic stems but not a C—i.e., the Ga in √*ʔmn*, √*nhr*, √*rbn*, √*ty*; the Gb in √*ʕbr*, √*ḳṣy*, and √*tʔf*; and the D/L in √*mtl* and √*nḳl*. This shows that in addition to its derivational function, the Soqoṭri CtG is simultaneously (and as part of the same development) losing its paradigmatic relationship to the C specifically.

[340] Naumkin et al., 2014b, *23:27. Virtually the same situation occurs √*ʔḳr*—C "to bring (a goat) into the pen" ~ Cp "to be brought into the pen (by a goatherd)"—where contextual examples of the CtG (Naumkin et al., 2014b, s.v., *2:37, *8:33, *21:6) focus more on the end result of the goat being in the pen (i.e., SUBJ affectedness) than on the role of the goatherd in getting it there. (see Naumkin et al., 2014b, s.v., *2:37, *8:33, *21:6). For other lexical, mediopassive, or semantic-middle CtG verbs occurring alongside more basic agentive, passive IPs, see Naumkin et al., 2014b, s.vv. √*ʔmn*, √*ḳṣy*, √*nfʕ*, and √*rḳḥ*.

[341] Naumkin et al, 2014b, s.vv. √*bny* and √*ty*.

Another way the unique Soqoṭri IPs reflect its verbal stem system more generally is in the presence of a D/Lp, which is virtually absent from Mehri and Jibbāli. Naumkin et al. state that the D/Lt, "[d]ifferently from many other Semitic languages…is quite uncommon in Soqotri".[342] It seems that apart from the lexicalisation of the D/Lt—which also occurs in Mainland MSA, though less so—the restricted use of this stem in absolute terms may have also had a bearing on the productivity of its IP counterpart in Soqoṭri. Clearly, MSA IPs, like those elsewhere in Semitic, can only be properly understood with reference to the background context of the other (historically) detransitive stems—in this case, the *t* stems, since there is no N.

To summarise, though there is some use of IP morphology to express the prototypical passive (and other functions in Soqoṭri), they are not the only way this is done in the language. The *t* stems can also perform this function—perhaps the D/Lt and CtG slightly more than the Gt, though this initial impression requires further study—in addition to marking other syntactic and semantic detransitive categories. However, broadly speaking, they are losing their derivational meanings and relationships to unmarked counterparts, and their formation and meaning is increasingly lexically specified per given root.[343] As the MSA *t* stems lexicalised, their erstwhile functions needed to be marked by other means.

In the cases of reflexivity and reciprocity, all three MSA languages developed reflexive and reciprocal pronouns.[344] However, the literature on MSA lists no periphrastic passive construction, or similar, which was the motivation for the creation of IPs began to perform this function instead of the *t* stems. Comparison of the different forms and attestations in Mehri,

[342] Naumkin et al., 2014b, 39. The only indication in the literature that D/Lt productivity is also restricted in Mainland MSA is the scarcity of certain conjugational parts (i.e., future and imperative), and even then, only in Mehri (Rubin, 2018, §6.3.4).
[343] One must not ignore of the toll that the general reorganisation of the MSA verbal stem system—i.e., the breakdown of the derivational relationship between G and D/L and the development of the CtD/L stem—has taken on the functional weight and derivational position of the *t* stems within it, though this lies beyond our current scope.
[344] Rubin, 2018 §§3.6–3.7; Rubin, 2014a, §§3.6–3.7; and Naumkin et al., 2014b, s.vv. √*ṭd* and √*nhf*.

Jibbāli, and Soqoṭri have found that the only IP that can be confidently reconstructed to a point before the individual MSA languages hived off from each other—leaving aside for the moment the question of its ultimate origin—was the Gp, which is the kernel of MSA IP morphology. Once MSA split up into its constituent languages—first bifurcating into East and West sub-branches, and then the former sub-branch further into Jibbāli and Soqoṭri—the subsequently developing competition between IPs and *t* stems diverged significantly in them.

Normal Mehri due to widespread syncretism between Gp and Gb, IP development stalled, leaving them an unproductive category limited to the Gp and to prototypical passive functions. Mehri IPs may have been moribund from the outset, with the Gp superficially overlaid on the existing verbal system rather than firmly embedded within it. In Soqoṭri, by contrast, the Gp retained a high level of formal distinction and widespread use. Moreover, based on the morphology of the Gp, non-Gp IPs have been created in step with the heightened lexicalisation of *t* stems in this language, and the decreasing frequency in the use of the D/Lt. As a result of the success of Soqoṭri IPs as a variant in the language, they have made significant inroads into claiming sole dominion over the functional territory of prototypical passive marking, and, moreover, have expanded significantly beyond this into into impersonal-passive, avalent, and desubjective uses.

The development (or lack thereof) of IPs as a variant was intimately linked in various ways to their formal morphology. For example, the reason that IPs fared so poorly in Mehri is because a loss in specification of high vowels (**i* and **u*) as well as various other phonological processes of this language resulted in active-passive syncretism. Conversely, success in Soqoṭri was facilitated by the ramifications of a proto-East MSA sound rule (**t* > *ø*/#_*u*). This both ensured their formal distinctiveness from active counterparts, and homogenised the paradigm between the

different persons, which—in concert with Soqoṭri tendency to attach OBJ pronouns to the ACC particle *t-* rather than directly onto transitive verbs—facilitated the development of desubjective (and thence, avalent) uses of IPs. Jibbāli occupies a position in that a degree of active-passive syncretism—though considerably less than occurred in Mehri—impeded IP development, so non-Gp IPs and uses other than prototypical passivity, though rare, occur occasionally.

The preceding behaviour conforms to several expectations about the MSA languages based on their internal genetic and geographical classification. The unique development of IPs in Soqoṭri is in full accordance with its geographical isolation from the other MSA languages.[345] The loss of personal prefixes aligns with the genetic subdivision of MSA into Eastern (Jibbāli and Soqoṭri) and Western (Mehri and its dialects) sub-branches. Looking beyond the MSA group itself, it is noteworthy that Mehri IPs behave similarly to (Omani) Arabic IPs in ways that Jibbāli IP, and even more so those of Soqoṭri, do not. This precisely reflects the more influential contact relationship Mehri has with Arabic than do other MSA languages, which suggests that a proper understanding of MSA IPs needs to take account of some component external areal contact, whatever the particulars thereof—i.e., when during the course of IP development loaning may have occurred, and in what direction.[346]

The scalar continuum of IP development along which the MSA languages are arranged does not align to either a strictly geographical or genetic model of the branch. Instead, it results from the overlaying of various characteristics of IP behaviour governed by both of these types of

[345] Simeone-Senelle, 1996, 310–11: "[A]mong the MSAL, Soqoṭri is apart: the language underwent a particular evolution mainly as a result of its geographical isolation". It is not necessarily straightforward to determine whether Soqoṭri characteristics (such as the retraction of stress onto the penultima) are areal or genetic, since the division of the language from the rest of MSA aligns in both respects. However, Lonnet (1998, 69–70) confirms that the geographical isolation of Soqoṭri has had a profound influence on all aspects of the grammar.

[346] Lonnet (2009, 298–300) shows that different levels of contact with Arabic are reflected throughout the grammars of the different MSA languages. Uncertainties about both the forms of OSA IPs and the contact relationship of this language family with proto-MSA impede its inclusion in this discussion, which is not to draw any conclusions one way or the other about their role in possible areal diffusion of IPs to MSA.

classification. Further, the spectrum of IP "vitality" from Mehri to Jibbāli to Soqoṭri is affected by a correlation between the productivity of IPs and their morphological distinctiveness. This is simply a factor of a universal linguistic restriction against loss of overt marking of the active-passive distinction in finite passive verbs rather than relating specifically to the internal geographic or genetic make-up of the MSA branch. As such, the final model of MSA IP distribution this study reaches also has a typological dimension.[347]

The final question remaining regarding the diachrony of MSA IPs is the source of the morphology itself. Parallels have frequently been drawn to the IPs of neighbouring Arabic dialects—e.g., (SC ~ PC) Omani *qitil ~ yi-qtal* and Yemeni *qutil ~ yu-qtal*. Indeed, insofar as Sanʕāni Arabic sometimes uses a Gp SC *qitil* alongside normal *qutil*, the resulting paradigm (*qitil ~ yu-qtal*) is conspicuously identical to the reconstructed proto-MSA Gp SC ~ SBJV.[348] Rather than assume independent parallel development, authors have variously claimed that these forms were loaned into MSA or reflect cognate reflexes of a common proto-form.[349] In this relation, it is noteworthy that the Omani and Yemeni Arabic dialects, found in the same geographical area as MSA, are quite unusual among the Arabic dialects in possessing IPs at all.

Hasselbach has questioned whether the situation might instead reflect precisely the opposite loan situation; namely, that the reason IPs occur in Omani and Yemeni Arabic, even though IPs are generally quite rare in Arabic dialects, could be because they have been loaned in from the

[347] On this typological consideration see Keenan, 1985, 255; in the specific geographical context of South East Arabia, but outside of the genetic MSA branch, cf. Holes' (1998) work on the decline of IPs in Omani Arabic.
[348] Watson's (1989, §2.4.1; 2002, §6.5) characterisation of passive as being marked by application of a [+high] vocalic melody to the active form, with additional [+round] marking in the first vowel in *qutil* dialects, is remarkably similar to the reconstruction proposed here for proto-MSA, with the provisos that I identify the relevant characteristic of **u* as [+back] rather than [+round] and the variation between [+high] marking versus [+high, +back] as being distributed between different parts of the paradigm in MSA—the SC versus the SBJV and IPFV—rather than between different dialects, as in Yemeni Arabic.
[349] Appleyard (1996, 220) favours a loan from Arabic to MSA; Retsö (1989, 184–85) instead considers the IPs of the two branches reflexes of a common ancestor.

geographically adjacent MSA.[350] I would be more sympathetic to such a hypothesis were it not for *qitil* IPs in other Arabic dialects that are not in contact with MSA (nor have been, during their reconstructable history). The development of the attested situation is instead best reconstructed as the progenitor of an Arabic dialect group in Central/Eastern Arabia having preserved the proto-Arabic IPs, developing the vocalism of the IP SC from **u-i* to *i-i* (often with a concomitant development **yu-qtal* > *yi-qtal* in the Gp PC).[351] Consequently, the *qitil* Gp was loaned into proto-MSA from one of these Arabic dialects—i.e., Omani or Yemeni—adjacent to and in contact with it.

The loaning of morphological structures (rather than lexical items, for example) is rare and often not the most desirable reconstruction.[352] However, this remains the most convincing explanation of the origin of MSA IPs, and even though ideally one should avoid arguments from ignorance as far as possible, the absence of a plausible alternative cannot be overlooked. MSA IPs do not derive from PASS PTCPs, since these are not part of the language of the branch, whether attested or reconstructed. Even relaxing the criteria somewhat, there is similarly no resultative verbal adjective that provides a plausible candidate for the source morphology.[353] Nor can they be traced back to any of the other cross-linguistically common sources of passives laid out in chapter two (e.g., reflexives, desubjectives, intransitives).[354]

One other piece of evidence for MSA IPs as having been loaned into this branch is found in the different conjugational parts of the paradigm attested. If IPs were indeed loaned into MSA

[350] Hasselbach, 2018, p.c.
[351] This reconstruction is presented in detail above (in §4.9), including arguments against the reconstruction of proto-Arabic polygenesis in this regard (i.e., with some thereof parts having **qutila* and others **qitila*).
[352] Hetzron, 1976.
[353] If some pattern for verbal adjective other than the MSA reflexes of **maqtīl* discussed above existed, it would doubtless have been identified by Rubin (2014, ch. 5; 2018, ch. 5).
[354] Retsö's (1989, 184) proposal that the MSA IPs derive from desubjectives ("subjectless constructions" in his terminology) does nothing to explain the reason(s) and/or mechanics behind the development(s), but is rather a circular argument based on, and at the same time seeking to explain, his (1–6, 155) general understanding of Semitic passive marking as fundamentally related to impersonal constructions.

from Arabic, IPFV forms would necessarily be a secondary development, since Arabic only possesses conjugations cognate to the SC and SBJV. Of course, in the context of a loan in the opposite direction—i.e., if Omani Arabic loaned its IP morphology in from MSA—the analysis would simply be that the target language only adopted the SC **qitil* and SBJV **yu-qtal*, but abandoned the IPFV **yu-quttal*, since Arabic has no conjugation corresponding to this part of the finite MSA verbal paradigm.[355]

They key element indicating the directionality of the loan here is the formal, or rather *formational*, relationship between the reconstructed proto-MSA IPFV and SBJV, whereby the former is based on the latter. A very straightforward proportional analogy referring to the existing active (particularly Gb) forms accounts for how the Gp IPFV was formed when MSA only loaned in the SC and PC (= SBJV) from Arabic. Extending the **u* from the Gp SBJV prefix to the IPFV stem would match the occurrence of **a* in both slots in the Ga, and **i* in the Gb—(Ga) **ya-qtul : *ya-qattil ::* (Gb) **yi-qittal : *yi-qtal ::* (Gp) *X : *yu-qtal*.[356]

This is admittedly a circumstantial argument. For example, one conjugational part of the IP paradigm could have developed from another even if the morphology was native to MSA in its origin (though, as mentioned, no plausible source has been identified). Moreover, just because **yu-qtal* and **yu-qattal* are formally similar, that does not necessarily rule out their being equally original, independent forms. Rather, the extent to which MSA IP IPFV forms suggest a foreign (Arabic) origin can only be expressed as a negative argument. Namely, they *do not* take a form that would argue definitively against such a loan situation. If MSA IP IPFV morphology was highly distinct from that of the SC and SBJV and could not be derived from them in such a

[355] Hasselbach, 2018, p.c.
[356] Theoretically, the data do not preclude IPFV forms having been created in the individual MSA languages after they hived off from each other. However, since differences between their forms can be adequately explained by normal sound changes applying to a common proto-form, there is no particular reason to reconstruct development of the Gp IPFV **yu-qattal* after the proto-MSA stage.

straightforward fashion, this would argue strongly in favour of MSA IPs being a native development, since they could not have been loaned in from a language without a cognate to this conjugational part of the paradigm (the IPFV).

Apart from the preceding morphological considerations, a final clue to the foreign origin of MSA IPs is found in their distribution. The very fact that the core of the MSA IP system is restricted to relatively scarce instances of the Gp suggests they are not native to the language family. Given the rarity of morphosyntactic constructions being loaned at all, it is most unlikely that this occurred first in a peripheral, highly-marked part of the grammar like the D/L(p) and C(p), which was then extended secondarily to the Gp. Instead, the attested situation suggests just the opposite: that the most basic IP, the Gp, was loaned in to MSA, and the extension of its morphology to derived stems was largely restricted to Soqoṭri (whose IPs underwent a whole range of unique developments). Again, this is something of a negative or at least circumstantial argument, but conclusions reached are based on the accumulation of several such indicators—not least of all, the absence of a plausible alternative.

It is far from clear what might have motivated the loaning of the Gp from an Arabic dialect into proto-MSA. The lexicalisation of the stems has been identified as a driving force of the flourishing of IPs in Soqoṭri since this is the branch of MSA where the breakdown of derivational relationships between basic and *t* stems is most advanced. It seems quite likely that the same may have motivated the initial loaning of the Gp. The fact that the reflexive and reciprocal pronouns in the individual MSA languages derive from the same lexical items ("self" and "one", respectively) could well indicate that their grammaticalisation—and relatedly, the

lexicalisation of the *t* stems—was underway by the proto-MSA stage.[357] In the absence of an analogous periphrastic passive construction, verbal morphology (namely the Gp) was loaned in from neighbouring language with an extensive contact situation to express this category that the Gt was no longer reliably and clearly marking.

Like much contemporary scholarship of MSA, the findings of this chapter are necessarily speculative and subject to emendation as understanding of the branch increases.[358] However, the detailed description and initial analysis shall hopefully serve as a valuable starting point for ongoing study. MSA IPs, like all detransitive verbal stems throughout Semitic, develop in relation to the stem inventory as a whole (specifically, in this branch, existing in competitive variation with the *t* stems). However, unlike the IPs of CS, they have not developed from PASS PTCPs, which are absent in MSA. Instead a Gp (SC ~ SBJV) **qitil* ~ **yu-qtal* was loaned in from an adjacent Arabic dialect at the proto-MSA stage, from which IPFV **yu-quttal* was formed to complete the paradigm. Due to a confluence of genetic, areal, and typological motivations, use of this construction declined sharply on the mainland (and particularly Mehri), but in Soqoṭri IPs enjoyed what I have termed "vitality", the morphology developing far beyond its original scope to become something quite unique within the broader context of Semitic IPs.

[357] Rubin, 2018 §§3.6–3.7; 2014a, §§3.6–3.7; and Naumkin et al., 2014b, s.vv. √*ṭd* and √*nhf*. One must be cautious, though, about ruling out independent parallel development, since the same Semitic lexeme **nafs* "soul" is the source of a reflexive pronoun in several Semitic languages, which is a perfectly natural development (Rubin, 2005, §3.1.1).
[358] In this vein, Rubin (2018, xx) has stated that due to "the excellent advances in Mehri phonology and morphology…there was a definite need for…a thorough revision of my grammar", this despite it having been published less than a decade previously (in 2010).

Chapter 7. Conclusions

7.1 Summary

This dissertation addresses internal passives ("IP"s), finite passive verbs in Semitic that are characterised by a distinction from their corresponding active forms in the vowels of the stem, and, where relevant, prefix. Though widespread—occurring, in Arabic, Aramaic, Canaanite, MSA, OSA, and Ugaritic—and well documented, scholarship to date has provided no convincing account for their historical development as a class. This section will briefly summarise the contents of the preceding chapters, the next (§7.2) will present the conclusions of new analysis and reconstruction of IP development achieved, and finally (in §7.3) a number of further ramifications of this work for the discipline of Semitic linguistics will be raised.

The introduction naturally begins by laying out the basis of the issue at hand, defining IPs and outlining how certain terminology—from both the fields of theoretical linguistics and comparative Semitics—is used. Next, the distribution of IPs throughout Semitic is summarised and the attested forms listed. The main task of the introduction is to survey existing theories of IPs and to identify their flaws so they may be avoided by the current work. Chief amongst these is an excessively tight focus, with scholars working back from an (attempted) explanation of the origin and development of an individual IP form (or set of forms). The need is identified to start with a broad perspective and build off a more nebulous basis of what IPs have in common and how they fit into the inventory of verbal stems (and the grammar more generally).

The other key element of the theoretical linguistics framework of this dissertation is the variation-and-change model of language diachrony that it adopts.[1] The Semitic detransitive

[1] I have not encountered a specific explicit instance of someone speaking of the "variation and change model" as such, but the notion that this represents an established theoretical framework is expressed clear enough by Ringe and

systems are characterised by situations of flux, with different stems rising and falling in competition for overlapping functional territory, which is conspicuously in step with how contemporary sociolinguistics understand language to develop. Using the variation-and-change model they see all change as a possible but not inevitable outcome of competitive variation between variants.[2] This variation, that can endure for protracted periods, is constantly (re)shaped by pressures from numerous contributing factors, the individual ebbs and flows of each of which create a complex web of motivations pulling the variation in one direction or another. Ultimately, this is the conception of language diachrony that allows one to understand how and why IPs have arisen, and to a great extent, then disappeared.

Chapter 3 turns to the mapping of the detransitive systems of Semitic. Descriptions of those of all the major branches of the phylum are presented (except for MSA, which is treated on its own in Chapter 6) in the form of synchronic snapshots.[3] Comparing these highlights that although languages differ in the specifics of their developments, they tend to follow certain common trends. Of these, one of the most important is the suppression of either the N or Gt at the expense of the other. This is argued to be a function of the motivation to by resolve functional asymmetry in the detransitive stem system between having G : N : tG/Gt versus D : tD/Dt and C : Ct, precisely as is the initial development of IPs. Chapter 3 also finds that functional symmetry—along with another important motivation, to create or strengthen formal

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Eska (2013, ch. 3, esp. 45), not to mention the fact that *Language Variation and Change* is the title of a journal, edited by Labov, a pioneering figure in sociolinguistics and this way of understanding language development.

[2] The only significant modification to the model as it is generally formulated is that it is applied in the current dissertation to variation between variants that arose contemporaneously, as well as that between original versus innovative variants.

[3] Since the various stages and dialects of Aramaic and Canaanite vary differ with regard to their detransitive systems, some discussion of the diachonric developments thereof is necessary.

isomorphism—governs many other developments in the Semitic verbal systems, beyond the realm of detransitives.[4]

Chapter 4 presents the analysis of IPs that underpins the reconstruction of their development. It identifies first what IPs have *in common* with each other and with Semitic detransitives more generally, and then from this background turns to the specific differences between the languages. Apart from the aforementioned motivations towards functional symmetry and formal isomorphism that affect Semitic detransitives more generally, two factors more specific to IPs are identified: a close relationship with PASS PTCPs, and a ubiquitous contrast in the height of vowels between IPs and their active counterparts, for which the terminology "voice-marking height contrast" (or "VMHC") has been coined.

Based on this analysis, Chapter 5 proposes a reconstruction of how IPs developed in CS, presented as a generalised schema of several stages, each of which corresponds to a different part of the paradigm. Each stage is causally dependent on the previous one(s), and as such, the reconstruction views IP development as a cohesive whole, despite its long history and broad variation. According to the variation-and-change model, the reconstruction of IP development is understood to be a period of ongoing competition between neological IPs and other more original means of expressing the passive (namely, the N and *t* stems). The factors governing this competition are also identified in Chapter 5, which finds that throughout the history of IPs, the competing motivations sometimes favoured the *de*selection of IPs rather than their use, and ultimately led to their loss in most Semitic languages.

Chapter 6 turns to the Modern South Arabian branch of Semitic, and the IPs thereof. MSA is treated in isolation because of the relatively limited current knowledge and understanding of this

[4] Examples covered include the development of ND stems in some Central/East Arabian dialects of Arabic, the creation of the CD, CtD, CL, and CtL stems in Ethiopic, and the wholescale reorganisation of the Aramaic verbal system with new conjugations, the qatl-in IPFV and the qtil-li PFV.

language family compared with other Semitic languages. A comprehensive and detailed description—the first to date—of MSA IPs is presented and their development reconstructed. It is proposed that a Gp SC **qitil* ~ PC **yu-qtal* was loaned from a contiguous Arabic dialect into proto-MSA, where the Gp IPFV **yu-quttal* was created by proportional analogy. A combination of factors has resulted in active-passive syncretism, and consequently the loss of IPs, in Mehri; precisely the opposite happens in Soqoṭri, where IP morphology remains formally distinct, is extended from the Gp to create other IPs (such as the D/Lp, Cp, etc) and even takes on new functions, such as desubjective use. Jibbāli occupies an intermediate position in all of these regards, which has led to the identification of a spectrum of behaviour relating to IPs (and potentially other language features) running through the MSA family that combines areal, genetic, and typological components.

7.2 Conclusions

This dissertation has reached a novel reconstruction of the historical development of Semitic internal passives where to date, finding the morphological marking thereof to be a height contrast with its origins in the development of PASS PTCPs. The analysis and reconstruction plausibly account for all IPs together where previous proposals have been either highly implausible, or else non-cohesive collections of unrelated theories. Furthermore, it also relates IPs to other parts of the language, namely the N and *t* stems and the PASS PTCPs, in which regard, it moves significantly beyond previous works on the subject. Apart from the import of the work on the IPs in CS, Chapter 6 provides the first comprehensive and detailed descriptions and analyses of IPs in the MSA branch, which are of significant value in their own rights.

Perhaps the most significant conclusion is the recognition that their behaviour can only be understood in a broader context, in relation to other detransitives. As such, the direct relationships between IPs and the N and *t* stems as a central concern. So too is the relationship between IPs and non-finite voice-marked morphology, namely the PASS PTCPs. The fundamental key to *why* IPs have arisen (and disappeared) as they have, which is the first clue to *how* they have, and that which has allowed it to reach a convincing account of IP development where previous scholars have been unable, is the holistic conception of the detransitive system as an integrated whole of interrelated parts.

To understand *why* IPs were created, one must look to the broader detransitive system, and specifically to the competing motivations governing the competition between its different parts (as understood by the variation-and-change model). Throughout Semitic detransitives system (and verbal stems more generally, in fact), a strong motivation exists towards functional symmetry between the different parts of the system. This explains why, once a G PASS PTCP had arisen, D and C PASS PTCPs were subsequently created to match it. With regard to IPs specifically, the Dp and Cp were created to alleviate an asymmetry between the detransitive markers relative to the G (which had two, the N and tG/Gt) versus the D and C (which had one each, the tD/Dt and Ct, respectively). At later stages, the suppression of the Gp reflected the same motivation; returning to a stage where the Dp and Cp were the only IPs reintroduced a functional symmetry that had been disturbed by the very creation of the Gp.

However, another motivation governing the competition between detransitive markers—and again, this has been found to be operative throughout Semitic verbal systems—is a tendency towards *formal* isomorphism between the parts of the system, without any necessary regard for the functional dimension. These motivations towards functional symmetry and formal

isomorphism sometime work against each other, creating a situation of tension and flux in the competition between variants. In the case at hand, the tendency toward formal isomorphism was what prompted the extension of IP morphology from the Dp and Cp to subsequently create the Gp, and even *t*IP stems, even as this introduced functional asymmetry. Overall, IPs represent an innovative variant arising in competition with more original detransitives; this competition, governed by the aforementioned motivations (amongst others), is largely abortive, since IPs are ultimately lost from most Semitic.

With regard to *how* IPs were created, in accordance with the cross-linguistically common derivation of passive finite verbs from patient verbal adjectives, the first IPs to be developed—the Dp and Cp PC during stage 1a—were all based directly on PASS PTCPs. However, in later instances, of IP formation, such a mechanism was not always possible, and other strategies for IP arose. Chief amongst these is the other major finding of this dissertation: the voice-marking height contrast (VHMC). All IPs are contrasted from their active counterparts not just in the quality of their vowels, but specifically in the *height* thereof—contrasting low **a* versus high **i* and **u*, or reflexes thereof—and PASS PTCPs are the morphological origin of the first IPs, from which two findings follows the conclusion that those (later) IPs not based directly on PASS PTCPs are created by the abstraction of the concept of a VMHC from its original PTCP context, and its application to finite active verbs (to create IP counterparts).

7.3 Further Ramifications

The conclusions of this dissertation have ramifications beyond the immediate context of IPs. The novel concept of the voice-marking height contrast (VMHC) highlights the value of a more nuanced view of Semitic phonology, overlaying a binary distinction between low and high

vowels on the standard tri-partite division of vowels *a, *i, and *u. Beyond accounting for various by-forms of nominal form with (reflexes of) *i and *u, it is not immediately clear to me where a phonological analysis in terms of *a versus *v_h—and plausibly likewise *$\bar{a}$ versus *$\bar{v}_h$—might benefit the study of Semitic languages. Nonetheless, the fundamental organisation of Semitic vowels according to heigh has a sound basis in reality, so, considering how significant this has been in the development of IPs, such a nuanced understanding should be considered in future work on Semitic phonology and morphology.

The analysis has also provided a framework for understanding the development of Semitic verbal stems, and how they operate as systems. The (sometimes competing) motivations of functional symmetry, formal isomorphism, the semantic-to-syntactic shift, and the fientivisation of verbal adjectives have been found to recur in many developments of detransitive stems. However, examples have also been provided the same motivations operating in other contexts, such as the extension of transitivity-*raising* morphology in the Ethiopic creation of CD and CL stems or the reorganisation of the conjugational parts of the Aramaic verbal system with the creation of the *qatl-in* IPFV and *qtil-li* PFV. Therefore, it is proposed that the notion of these competing motivations and their effect(s) on language development would provide an invaluable conceptual framework for any future studies on the Semitic verbal system(s).

A final significant innovation of this dissertation is its use of the variation-and-change model. While this theoretical framework itself is well established in the field of sociolinguistics, its application to the study of historical Semitic languages is something new. Providing a (successful) test case of the use of this model within the discipline of historical Semitic linguistics, including consideration of its limitations and necessary adaptations, is one of the

most important contributions of this dissertation. Moving forward, its application could well serve Semiticists by solving hitherto unanswerable questions or refining existing theories.

To use the L stem as an example, understanding its productivity in terms of a binary of present versus absent and reconciling this with a family-tree model is not feasible. Ultimately, proposals for its distribution grouping Arabic genetically with Ethiopic as South Semitic or seeing the L as an areal feature of these languages are unsatisfactory.[5] An analysis using the variation-and-change model would instead see the scarce attestation of the L in Hebrew and Aramaic as an abortive innovation compared with its widespread use in Arabic and Ethiopic where it has simply advanced further along the productivity continuum. One might well investigate whether the L initially appeared as a CS variant to the D, perhaps morphologically motivated (e.g., occurring in certain root types), which largely disappeared in NWS, but became functionally specified (e.g., to mark conativity) in Arabic and Ethiopic, allowing its continued coexistence alongside the D.

Another viable context for the application of the variation-and-change model in historical Semitic linguistics—cited above in the discussion of the theoretical framework (in §2.6)—is the variation between Hebrew 1SG pronouns *ʔɔnōḵī* versus *ʔănī*. The former prevails in the earlier books of the Hebrew Bible (and archaising material) and the latter in later books, while post-Biblical dialects, achieve the stage of language change proper by losing *ʔɔnōḵī* entirely.[6] However, looking backwards, since a neological variant {*an*} also occurs in Ugaritic alongside standard {*ank*}, this implies that variation between the two forms existed during proto-NWS and was inherited into two of its three daughter branches.

[5] Huehnergard (2019) asserts that the "L stem is vestigial in the Northwest Semitic languages, and lacking in East Semitic. But since a similar form is attested elsewhere in Afro-Asiatic (viz., in Cushitic), it may be reconstructed to PS". The term "vestigial" reflects that this low productivity results from decline, and the overall reconstruction is an exemplar of how the family-tree model is not apt for a nuance explanations of the development of the L.
[6] Jouön and Muraoka, 1991, §39Aa; Segal, 1927, §67.

Even if this phenomenon and its historical reality is not particularly contentious, a variation-and-change model analysis would consider what specific factor(s) ultimately made *ʔănī* the more advantageous variant in Hebrew.[7] Motivations exist in complex webs influencing more than just a single feature, so a deeper understanding achieved of this particular variation (and change) would give insight into other parts of the language. For example, the influence of Aramaic *ʔanā* likely favoured the evolving preference for the similar Hebrew variant *ʔănī*, which speaks to a sociolinguistic reality also reflected in the variation between Hebrew 3MPL pronouns *hem* and *hen*—the latter being an Aramaic-influenced innovative variant—and in many other places.[8]

Elsewhere, in the phonological arena, the variation-and-change model would afford a better understanding of the Semitic development *s* > *h* > *ʔ* > *ø* found in third-person pronouns, the C, the terminative ending, and (in MSA) lexical contexts. Though this is a well understood lenition in phonetic terms, traditional models cannot capture the nuances of its development. When considering the shift from *haqtel* to *ʔaqtel* in Aramaic, for example, due consideration should be paid to the initial variation between them, rather than solely focussing on the change whereby the latter ultimately replaced the former.

In the field of syntax, a description and analysis of the rise of the Aramaic copula in terms of what affects variation between its absence and presence—ultimately ending in the change whereby nominal clauses require an overt copula—would be most welcome. One factor in the network of motivations governing this is the replacement of the SC and PC by the *qtil-li* PFV and *qatl-in* IPFV respectively, which processes are in fact themselves good examples of variation

[7] Pardee, 2020, p.c.
[8] For increasing Aramaic influence on Hebrew generally, see Jouön and Muraoka, 1991, §§3b; Segal, 1927, §§5–10. Jouön (§39a) only mentions the influence of Aramaic *ʔănā* on *ʔănī* in reference to the unusual ultra-short first vowel, and not in reference to its increasing selection as a variant through time, but I see little doubt in this, particularly considering the Aramaic influence Segal (§70) identifies elsewhere in the pronouns of later Hebrew.

leading to change in the field of syntax.[9] The verbalisation of predications with PTCPs has undermined the formation of nominal clauses with no copula, where predication is marked by the nexus between SUBJ and PRED. Another factor I suspect may be relevant is how the breakdown of definiteness marking—and, with it, an important dimension of the predication nexus of bare nominal clauses—interplays with the variation in the use of the copula.[10]

These are just illustrative examples, but insofar as the variation-and-change model is apt for describing and analysing all instances of competition between different forms or constructions—regardless, in fact, whether they lead to irreversible change, properly speaking—it is recommended as a fresh perspective for any forthcoming work on diachronic developments in Semitic. Furthermore, the influence of factors governing variation is usually not restricted to a single context, but part of a network of motivations affecting other parts of the language. Analyses identifying such motivations therefore not only further the understanding of the specific variation they address, but also that of the broader linguistic situation. The example of Hebrew selection between 1SG pronouns is cited above precisely because the motivating factor of Aramaic influence is known and recognised in this context and elsewhere; the real value of the model in terms of the wider ramifications of its application is, of course, instead in how it can uncover hitherto unidentified motivating factors that affect one variation, and then expand the scope to see how these may have affected other variations (and changes).

[9] Nöldeke, 1868, §167.
[10] In fact, the marking of deixis and identifiability in the recurring generation of definite markers from demonstratives in Aramaic is something that could benefit from a variation-and-change analysis in its own right.

Bibliography

Abboud, P. 1979. “The Verb in Northern Najdi Arabic”. *BOAS* 2/3:467–499.

Abraham, W. and L. Leissiö (eds.). 2006. *Passivization and Typology: Form and Function*, 2 vols. Amsterdam: Benjamins.

Agameya, A. 2008. “Passive (Syntax)”, in *Encylopedia of Arabic Language and Linguistics*, vol. III, edited by Kees Versteegh, 558–564. Leiden: Brill.

al-Labdi, M. 1985. *Muʿjam al-muṣṭalaḥāt al-naḥwiyya wa-l-ṣarfiyya*. Beirut: Muʾassasat al-Risāla and Dār al-Furqān.

al-Sweel, A. 1987. “Verbal and Nominal Forms of Najdi Arabic”. *Anthropological Linguistics* 29/1:71–90.

Amadasi Guzzo, M. (ed.). 1999. *Phönizisch-Punische Grammatik*, by Friedrich, J. and W. Röllig. Rome: Pontificium Institutum Biblicum.

Anderson, P. 1990. Review of *Typological Approaches to the Passive by Masayoshi Shibatani*. *Journal of Linguistics* 26/1:189–202.

Appleyard, D. 1996. “Ethiopian Semitic and South Arabian. Towards a Re-examination of a Relationship”, in *Israel Oriental Studies.* Vol. XVI, edited by Shlomo Izre’el and Shlomo Raz, 203–228. Leiden: Brill.

Arnold, W. 1990. *Das Neuwestaramäische*. Vol 5. *Grammatik*. Wiesbaden: Harrassowitz.

Aro, J. 1964. *Die Vokalisierund des Grundstammes im semitischen Verbum*. Helsinki: Societas Orientalis Fennica.

Awedyk, W. 1999. “Traditional Historical Linguistics and Historical Sociolinguistics”, in *Language Change. Advances in Historical Sociolinguistics*, edited by E. Jahr, 27–44. Berlin: De Gruyter Mouton.

Badawi, E, M. Carter, and A. Gully. 2004. *Modern Written Arabic. A Comprehensive Grammar*. London: Routledge.

Baden, J. 2010. “Hithpael and Niphal in Biblical Hebrew: Semantic and Morphological Overlap”. *Vetus Testamentum* 60:33–44.

Baranowski, K. “The Verb in the Amarna Letters from Canaan”. PhD dissertation. University of Toronto, Toronto.

Bar Asher, M. 1999. “Mishnaic Hebrew. An Introductory Survey”. *Hebrew Studies* 40:115–151.

Bar-Asher Siegal, E. 2013 “Reconsidering the Study of Jewish Babylonian Aramaic. Five Decades after E. Y. Kutscher and his Influential Methodology”. *ZDMG* 163:341–364.

Bauer, H. 1915. “Die Enstehung des semitischen Passivums”. *ZDMG* 69:562–563.

Beeston, A. 1962. *A Descriptive Grammar of Epigraphic South Arabian*. London: Luzac and Company.

——, 1984. *Sabaic Grammar.* Manchester: Journal of Semitic Studies.

Bendjaballah, S., and P. Ségéral. 2014. “The Phonology of “Idle Glottis” Consonants in the Mehri of Oman (Modern South Arabian)”. *Journal of Semitic Studies* 59:161–204.

Ben-Ḥayyim, Z. 2000. *A Grammar of Samaritan Hebrew*. Jerusalem: Hebrew University Magnes Press.

Bergsträsser, G. 1929. *Hebräische Grammatik. Teil II: Verbum*. Leipzig: J. C. Hinrichs.

Bicknell, B. 1984. “Passives in Biblical Hebrew”. PhD dissertation. University of Michigan, Ann Arbor, MI.

Bittner, M. 1917/1918. “Einige Besonderheiten aus der Sprache der Insel Soqoṭra”. *Wiener Zeitschrift für die Kunde des Morgenlandes* 30:347–58.

——., 1918. *Vorstudien zur Grammatik und zum Wörterbuch der Soqoṭri-Sprache. III. Eine Soqoṭri-Version der ersten sechs Kapitel aus dem Marcus-Evangelium.* Vienna: Alfred Hölder.

Blake, F. 1901. “The Internal Passive in Semitic”. *JAOS* 22:45–54

Brockelmann, C. 1908. *Grundriss der vergleichenden Grammatik der semitischen Sprachen.* Berlin: Reuther & Reichard.

Bubeník, V. 2008. “Passive”, in *Encylopedia of Arabic Language and Linguistics*, vol. III, edited by Kees Versteegh, 552–558. Leiden: Brill.

Butts, A. 2018. “The Aramaic Šap̄ʿel in its Semitic Context”. *Aramaic Studies* 16:117–143.

Cantineau, J. 1978. *Le Nabatéen*. Osnabrück: Otto Zeller.

Caubet, D. 2008. “Moroccan Arabic”, in *Encylopedia of Arabic Language and Linguistics*, vol. III, edited by Kees Versteegh, 273–87. Leiden: Brill.

Coghill, E. 1999. “The Verbal System of North-Eastern Neo-Aramaic”. DPhil dissertation. University of Cambridge, Cambridge.

——, 2003. “The Neo-Aramaic Dialect of Alqosh”. PhD dissertation. University of Cambridge, Cambridge.

——, 2013. *The Neo-Aramaic Dialect of Peshabur*. Wiesbaden: Harrassowitz.

——, 2016. “The Rise and Fall of Ergativity in Aramaic”. Oxford: Oxford University Press

Cook, E. 2010. “The Causative Internal Passive in Qumran Aramaic”. *Aramaic Studies* 8/1–2:5–12.

Cowell, M. 1964. *A Reference Grammar of Syrian Arabic*. Washington D.C.: Georgetown University Press.

Croft, W., Shyldkrot, H., and Kemmer, S. 1987. “Diachronic Semantic Processes in the Middle Voice”. In: *Papers from the 7th International Conference on Historical Linguistics*, edited by A. Giacalone Ramat et al, 179–192. Amsterdam: Benjamins.

Del Olmo Lete, G. and J. Sanmartin. 2003. *A Dictionary of the Ugaritic Language in the Alphabetic Tradition*. Leiden: Brill.

Diem, W. 1982. “Die Entwicklung des Derivationsmorphems der *t*-Stämme im Semitischen”. *ZDMG* 132:29–84.

Dillmann, A. and C. Bezold. 1907. *Ethiopic Grammar*. London: Willian and Norgate.

Donner, H. and W. Rollig. 2002[5]. *Kanaanäische und aramäische Inschriften.* vol. I. Wiesbaden: Harrasowitz.

Dryer, M. 1982. “In Defense of a Universal Passive”. *Linguistic Analysis* 10/1:53–60.

Dufour, J. 2017. “La morphologie des formes verbales simples en sudarabique moderne” in *Linguistic Studies in the Arabian Gulf*, edited by S. Bettega and F. Gasparini, 37–67. Turin: University of Turin.

Eades, D. 2009. “Retention of the Passive Verb in a Bedouin Dialect of Northern Oman”. *Journal of Arabic Linguistics* 51: 5–21.

Edzard, L. 2008. “Omani Arabic”, in *Encylopedia of Arabic Language and Linguistics*, vol. III, edited by Kees Versteegh, 478–491. Leiden: Brill.

—— 2011. “Biblical Hebrew”, in *The Semitic Languages*, edited by S. Weninger, 480–514. Berlin: Walter de Gruyter.

El-Hajje, H. 1954. *Le Parler Arabe de Tripoli (Liban)*. Paris: Librairie C. Klincksieck.

Faber, A. 1997. “Genetic Subgroupings of the Semitic Languages”, in *The Semitic Languages*, edited by Robert Hetzron, 3–15. London: Routledge.

Fassberg, S. 2001. “The Movement from Qal to Pi``el in Hebrew and the Disappearance of the Qal Internal Passive. *Hebrew Studies* 42:243–255.

——, 2010. *The Jewish Neo-Aramaic Dialect of Challa.* Leiden: Brill.

Fernandez, M. 1997. *An Introductory Grammar of Rabbinic Hebrew*. Leiden: Brill.

Florentin, M. 2005. *Late Samaritan Hebrew*. Leiden: Brill.

Folmer, M. 1995. *The Aramaic Language in the Achaemenid Period.* Louvain: Peeters.

Fischer, W. 1972. *Grammatik des klassichen Arabisch.* Wiesbaden: Otto Harrassowitz.

Fischer, W. and O. Jastrow. 1980. *Handbuch der arabischen Dialekte*. Wiesbaden: Harrassowitz.

Fitzmeyer, J. 1979. "The Phases of the Aramaic Language," in *A Wandering Aramean: Collected Aramaic Essays*, J. Fitzmeyer, 57–84. Missoula: Scholars Press.

Fox, J. 2003. *Semitic Noun Patterns*. Winona Lake, IN: Eisenbrauns.

Gabelentz, H. von der. 1861. *Über das Passivum. Eine sprachvergleichende Abhandlung*. Leipzig: S. Hirzel.

Garcia, E. 1997. "Grasping the Invisible Hand", in *Language Change and Functional Explanations*, edited by J. Gvozdanović, 21–52. Berlin: Mouton de Gruyter.

Garr, R. 1985. *The Dialect Geography of Suria-Palestine 1000–586 B.C.E.* Philadelphia: University of Pennsylvania Press.

Gesenius, W., E. Kautzsch, A. & Cowley. 1910. *Gesenius' Hebrew Grammar*. 2nd. Ed. Oxford: Oxford University Press.

Gibson, M. 2009. "Tunis Arabic", in *Encylopedia of Arabic Language and Linguistics*, vol. IV, edited by Kees Versteegh, 563–71. Leiden: Brill.

Goldenberg, G. 1998. "The Modern South Arabian Prefix-Conjugation", in *Studies in Semitic Linguistics. Selected Writings*, edited by Gideon Goldenberg, 520–24. Jerusalem: Magnes Press.

Greenblatt, J. 2011. *The Jewish Neo-Aramaic of Amədya*. Leiden: Brill.

Greenberg, J. 1991. "The Semitic 'Intensive' as Verbal Plurality", in *Semitic Studies in Honor of Wolf Leslau.* Vol. I, edited by A. Kaye, 577–587. Wiesbaden: Otto Harrassowitz.

Gzella, H. 2008. "The Heritage of Imperial Aramaic in Eastern Aramaic". *Aramaic Studies* 6/1:85–109.

——, 2009. "Voice in Classical Hebrew against Its Semitic Background". *Orientalia* 78:292–325.

Häberl, C. 2009. *The Neo-Mandaic Dialect of Khorramshahr*. Wiesbaden: Harrassowitz.

Harris, Z. 1936. *A Grammar of the Phoenician Language.* New Haven, CT: American Oriental Society.

Haspelmath, M. 1990. "The Grammaticalization of Passive Morphology". *Studies in Language* 14/1:25–72.

Hasselbach, R. 2004. “The Markers of Person, Gender, and Number in the Prefixes of G-Preformative Conjugations”. *Journal of the American Oriental Society* 124/1: 23–35.

——, 2009. “Altsüdarabisch”, in *Sprachen aus der Welt des Alten Testaments*, edited by H. Gzella, 132–59. Darmstadt: Wissenschaftliche Buchgesellschaft.

——, 2011. “Early Canaanite and Old Aramaic Case in the Light of Language Typology”, in *Grammatical Case in the Languages of the Middle East and Europe*, edited by M. Fruyt, M. Mazoyer, and D. Pardee, 101–111. Chicago: The Oriental Institute of the University of Chicago.

——, 2013 *Case in Semitic. Role, Relations, and Reconstruction.* Oxford: Oxford University Press.

Hayward, K., R. Hayward, and S. al-Tabūki. 1988. “Vowels in Jibbāli Verbs”. *Bulletin of the School of Oriental and African Studies* 51/2:240–250.

Heine, B. 1993. *Auxiliaries. Cognitive Forces and Grammaticalization*. Oxford: Oxford University Press.

Henry, A. 2003. “Variation and Syntactic Theory” in, *The Handbook of Language Variation and Change*, edited by J. Chambers, P. Trudgill and N. Schilling-Estes, 262–282. Malden, MA: Blackwell.

Hetzron, R. 1972. *Ethiopian Semitic*. *Studies in Classification.* Manchester: Manchester University Press.

——, 1976. “Two Principles of Genetic Reconstruction”. *Lingua* 38: 89–108.

——, 1977. “The Vocalization of Prefixes in Semitic Active and Passive Verbs”. *MUSJ* 48: 33–48.

Höfner, M. 1943. *Altsüdarabische Grammatik.* Wiesbaden: Otto Harrassowitz.

Hoftijzer, J., and K. Jongeling. 1995. *Dictionary of North-West Semitic Inscriptions*. 2 volumes. Leiden: Brill.

Holes, C. 1998. “Retention and Loss of the Passive Verb in the Arabic Dialects of Northern Oman and Eastern Arabia”. *Journal of Semitic Studies* 43/2: 347–362.

——, 2006. “Bahraini Arabic”, in *Encylopedia of Arabic Language and Linguistics*, vol. I, edited by Kees Versteegh, 241–255. Leiden: Brill.

——, 2007. “Kuwaiti Arabic”, in *Encylopedia of Arabic Language and Linguistics*, vol. II, edited by Kees Versteegh, 608–620. Leiden: Brill.

——, 2016. *Dialect, Culture, and Society in Eastern Arabia*. Leiden: Brill.

Hopper, P. and E. Traugott. 2003. *Grammaticalization.* 2nd ed. Cambridge: Cambridge University Press.

Huehnergard, J. 1987. "'Stative,' Predicative Form, Pseudo-Verb". *JNES* 46/3:215–232.

——, 1992. "Historical Phonology and the Hebrew Piel" in *Linguistics and Biblical Hebrew*, edited by Walter Bodine, 209–229. Winona Lake, IN: Eisenbrauns.

——, 1995. "What is Aramaic?" *Aram* 7:261–282.

——, 2005. "Features of Central Semitic", in *Biblical and Oriental Essays in Memory of William L. Moran*, edited by Agustinus Gianto, 155–203. Rome: Pontificio Istituto Biblico.

——, 2006 "Proto-Semitic and Proto-Akkadian", in *The Akkadian Language in its Semitic Context*, edited by G. Deutscher and N. Kouwenberg, 1–23. Leiden: Nederlands Instituut voor het Nabije Oosten.

——, 2008. *Ugaritic Vocabulary in Syllabic Transcription*. Atlanta, GA: Scholars Press.

——, 2019. "Proto-Semitic", in *The Semitic Languages*, edited by J. Huehnergard and N. Pat-El, 49–79. Routledge: London.

Huehnergard, J. and A. Rubin. 2011. "Phyla and Waves: Models of Classification of the Semitic Languages", in *The Semitic Languages*, edited by S. Weninger, 259–278. Berlin: Walter de Gruyter.

Hulst, H van der, and M. Mous, 1992. "Transparent Consonants", In *Linguistics in the Netherlands*, edited by R. Bok-Bennema and R. van Hout, 101–112. Amsterdam: John Benjamins.

Ingham, B. 1994. *Najdi Arabic. Central Arabian.* Amsterdam: John Benjamins.

——, 2008. "Najdi Arabic", in *Encylopedia of Arabic Language and Linguistics*, vol. III, edited by Kees Versteegh, 326–334. Leiden: Brill.

Janic, K. 2013. *The Slavonic Languages and the Development of the Antipassive Marker.* Amsterdam: John Benjamins.

Jastrow, M. 1903. *A Dictionary of the Targumim, the Talmud Babli and yerushalmi, and the Midrashic Literature*. London: Luzac and Co.

Jastrow, O. 1992. *Lehrbuch der Ṭuroyo-Sprache*. Wiesbaden: Harrassowitz.

——, 1997. "The Neo-Aramaic Languages", in *The Semitic Languages*, edited by Robert Hetzron, 334–377. London: Routledge.

Jenni, E. 1973. "Zur Funktion der Reflexiv-Passiven Stammformen im Biblisch-Hebräischen". In: *Proceedings of the Fifth World Congress of Jewish Studies*, Vol. IV, 61–70. Jerusalem: World Union of Jewish Studies.

Johnstone, T. M. 1967. *Eastern Arabian Dialect Studies*. London: Oxford University Press.

——, 1968. “The Non-Occurrence of a tPrefix in Certain Socotri Verbal Forms”. *Bulletin of the School of Oriental and African Studies* 31:515–25.

——, 1975. “The Modern South Arabian Languages”. *Afroasiatic Linguistics* 1/5:93–121.

——, 1977. *Ḥarsūsi Lexicon and English-Ḥarsūsi Word-List*. London: Oxford University Press.

——, 1980. “The Non-Occurrence of a t Prefix in Certain Jibbāli Verbal Forms”. *Bulletin of the School of Oriental and African Studies* 43:466–70.

——, 1981. *Jibbāli Lexicon*. London: Oxford University Press.

——, 1987. *Mehri Lexicon and English-Mehri Word-List*. London: School of Oriental and African Studies.

Jouön, J., and Y. Muraoka. 1991. *A Grammar of Biblical Hebrew: Translated and Revised by T. Muraoka*. Rome: Editrice Pontifico Istituto Biblico.

Kaufman, S. 1974. *The Akkadian Influences on Aramaic*. Chicago: University of Chicago Press.

Kaye, A. and J. Rosenhouse. 1997. “Arabic Dialects and Maltese”, in *The Semitic Languages*, edited by Robert Hetzron, 263–311. London: Routledge.

Keenan, E. 1985. “Passive in the World’s Languages”. In: *Language Typology and Syntactic Description*, vol. 1, edited by T, Schopen, 243–281. Cambridge: Cambridge University Press.

Kemmer, S. 1993. *The Middle Voice*. Amsterdam: John Benjamins.

Khan, G. 2008. *The Neo-Aramaic Dialect of Barwar.* Leiden: Brill.

Kogan, L. and A. Korotayev. 2007. “Epigraphic South Arabian Morphology”, in *Morphologies of Africa and Asia*, edited by A. Kaye, 167–192.Winona Lake, IN: Eisenbrauns.

Kogan, L. and V. Naumkin. 2014. “The Vowels of Soqotri As a Phonemic System”, in *Languages of Southern Arabia*, edited by O. Elmaz and J. Watson, 57–80. Oxford: Archaeopress.

Kouwenberg, N. 2010. *The Akkadian Verb and its Semitic Background*. Winona Lake, IN: Eisenbrauns.

Krahmalkov, C. 2001. *A Phoenician-Punic Grammar.* Leiden: Brill.

Kremers, J. 2009a. “Reciprocals”, in *Encylopedia of Arabic Language and Linguistics*, vol. IV, edited by Kees Versteegh, 43–45. Leiden: Brill.

——, 2009b. “Reflexives”, in *Encylopedia of Arabic Language and Linguistics*, vol. IV, edited by Kees Versteegh, 53–57. Leiden: Brill.

Kroeger, P. 2004. *Analyzing Syntax. A Lexical-Functional Approach*. Cambridge: Cambridge University Press.

Kroeze, J. 2002. "The Hofʿal in Biblical Hebrew. Simple Passives, Single Passives, and Double Passives—and Reflexives?". *Journal of Northwest Semitic Languages* 28/1:39–55.

Kuryłowicz, J. 1945. "La nature des procés dits 'Analogiques'". *Acta Linguistica* 5/1:15–37.

Kutscher, Y. 1969. "Two 'passive' Constructions in Aramaic in the Light of Persian". *Proceedings of the international conference on Semitic studies*, 132–151.

Labov, W. 1963. "The Social Motivation of a Sound Change". *Word* 19:273–309.

——, 1972. *Sociolinguistic Patterns.* Philadelphia, PA: University of Pennsylvania Press.

——, 1994. *Principles of Linguistic Change*. Oxford: Blackwell.

Lambdin, T. 1978. *Introduction to Classical Ethiopic (Geʿez)*. Ann Arbor, MI: Scholar's Press.

Lehmann, R. 2008. "Calligraphy and Craftsmanship in the Aḥīrōm Inscription. Considerations on Skilled Linear Flat Writing in Early First Millennium Byblos". *Maarav* 15/2: 119–164.

Leslau, W. 1937. "Le passif interne en Soqotri". *Comptes rendus du Groupe Linguistique d'Études Chamito-Sémitiques* 2: 91–92.

——, 1938. *Lexique Soqotri. Sudarabique Moderne.* Paris: C. Klinckieck.

——, 1991. *Comparative Dictionary of Classical Ethiopic (Geʿez)*. Wiesbaden: Otto Harrassowitz.

Li, T. 2009. *The Verbal System of the Aramaic of Daniel*. Leiden: Brill.

Lightfoot, D. 1999. *The Development of Language. Acquisition, Change, and Evolution.* Oxford: Blackwell.

Lipiński, E. 1997. *Semitic Languages. Outline of Comparative Grammar.* Leuven: Peeters.

Ibn Manẓūr, J. 1981. *Lisān al-ʿArab*. 6 vols. Cairo: Dār al-Maʿārif.

Lonnet, A. 1993. "Quelques résultats en linguistique sudarabique moderne." *Quaderni di Studi Arabi* 11:37–82.

——, 1994. "Le verbe sudarabique moderne: hypothèses sur des tendances". *Matériaux arabes et sudarabiques, nouvelle* 6:213–55.

——, 1998. "Le soqotri. Une métamorphose contrariée", in *Actes du 1er congrès chamito-sémitique de Fès. 12–13 Mars 1997*, 69–85.

——, 2006. "Les langues sudarabiques modernes". *Faits de Langues* 27:27–44.

——, 2009. “South Arabian, Modern”, in *Encyclopedia of Arabic Language and Linguistics*, vol. IV, edited by Kees Versteegh, 296–300. Leiden: Brill.

Lüdtke, H. 1989. “Invisible-Hand Processes and the Universal Laws of Language Change”, in *Language Change. Contributions to the Study of its Causes*, edited by L. Breivik and E. Jahr, 131–36. Berlin: Mouton de Gruyter.

Măcelaru, 2006. “Causative”, in *Encylopedia of Arabic Language and Linguistics*, vol. I, edited by Kees Versteegh, 355–360. Leiden: Brill.

Matthews, P. 2003. “On Change in ‘E-Language’”, in *Motives for Language Change*, edited by R. Hickey, 7–17. Cambridge: Cambridge University Press.

McMahon, A. 1994. *Understanding Language Change*. Cambridge: Cambridge University Press.

Mifsud, M. 2008. “Maltese”, in *Encylopedia of Arabic Language and Linguistics*, vol. III, edited by Kees Versteegh, 146–159. Leiden: Brill.

Milroy, J. 2003. “On the Role of the Speaker in Language Change”, in *Motives for Language Change*, edited by R. Hickey, 143–57. Cambridge: Cambridge University Press.

Meehan, C. 1991. “Qal/Pe`al as Passive of Hif`il/Af`el in Mishnaic Hebrew and Middle Aramaic”. *Studies in Hebrew and Aramaic Syntax*, edited by K. Jongeling, H. Murre van den Berg, and L. Van Rompay, 112–131. Leiden, Brill.

Moran, W. 1992. *The Amarna Letters*. Baltimore, MD: The Johns Hopkins University Press.

Müller, D. 1902. *Die Mehri und Soqoṭri-Sprache. I. Texte.* Vienna: Alfred Hölder.

——, 1905. *Die Mehri und Soqoṭri-Sprache. II. Soqoṭri-Texte.* Vienna: Alfred Hölder.

Muraoka, T. 2005. *Classical Syriac*, 2nd ed. Wiesbaden: Harrassowitz.

Muraoka, T. and B. Porten. 1998. *A Grammar of Egyptian Aramaic.* Leiden: Brill.

Naumkin, V., M. Bulakh, D. Cherkashin, L. Kogan, A. Issa, and I. Gumaan, eds. 2014a. “Studies in the Verbal Morphology of Soqotri I/1: Strong triconsonantal Roots in the basic Stem (the Analysis)”. *Zeitschrift für Arabische Linguistik* 59:25–56.

Naumkin, N., L. Kogan, I. al-Daʿrhi, A. al-Daʿrhi, D. Cherkashin, M. Bulakh, and E. Vizirova, eds. 2014b. *Corpus of Soqotri Oral Literature*. Leiden: Brill.

Newmeyer F. 2003. “Formal and Functional Motivation for Language Change”, in *Motives for Language Change*, edited by R. Hickey, 18–38. Cambridge: Cambridge University Press.

Nöldeke, T. 1868. *Grammatik der neusyrischen Sprache am Urmia-See und in Kurdistan.* Leipzig: T.O. Weigel.

——, 1875. *Mandäische Grammatik*. Halle: Verlag der Buchhandlung des Waisenhauses.

Owens, A. 2006. *A Linguistic History of Arabic*. Oxford: Oxford University Press.

Pardee, D. 2003/2004. ―Review of Josef Tropper. Ugaritische Grammatik. *Archiv für Orientforschung* 50: 1–404.

Payne-Smith, R. 1903. *A Compendious Syriac Dictionary*. Oxford: Oxford University Press.

Perlmutter, D. 1978. "Impersonal Passives and the Unaccusative Hypothesis". *Proceedings of the Annual Meeting of the Berkeley Linguistics Society* 4:157–190.

Perlmutter, D. and P. Postal. 1977. "Towards a Universal Characterization of Passivization". *Proceedings of the Annual Meeting of the Berkeley Linguistics Society* 2:394–417.

Petráček, K. 1963. "Die innere Flexion in den semitischen Sprachen, IV: Das Passiv". *Archiv Orientální* 31:577–624.

Porkhomovsky, V. 1997. "Modern South Arabian Languages from a Semitic and Hamito-Semitic Perspective". *Proceedings of the Seminar for Arabian Studies* 27:219–23.

Praetorius, F. 1923–1924. "Über die aramäischen und arabischen Passivperfekta". *Zeitschrift für Semitistik* 2:134–141.

Procházka, S. 2006. "Cilician Arabic", in *Encylopedia of Arabic Language and Linguistics*, vol. I, edited by Kees Versteegh, 388–397. Leiden: Brill.

Qimron, E. 1986. *The Hebrew of the Dead Sea Scrolls*. Atlanta, GA: Scholars Press.

Rabin, C. 1951. *Ancient West Arabian.* London: Taylor's Foreign Press.

Rainey, A. 1996. *Canaanite in the Amarna Tablets.* 4 vols. Leiden: Brill.

Rendsburg, G. 2003. "A Comprehensive Guide to Israelian Hebrew. Grammar and Lexicon". *Orient* 38:5–35.

——, 2006. "Aramaic-like Features in the Pentateuch". *Hebrew Studies* 47:164–176.

Retsö, J. 1989. *Diathesis in the Semitic Languages.* Leiden: Brill.

Ringe, D. and J. Eska. 2013. *Historical Linguistics. Towards a Twenty-First Century Reintegration.* Cambridge: Cambridge University Press.

Rosenthal, F. 1995. *A Grammar of Biblical Aramaic*. Wiesbaden: Harrassowitz.

Rubin, A. 2005. *Studies in Semitic Grammaticalization.* Winona Lake, IN: Eisenbrauns.

——, 2010. *The Mehri Language of Oman*. Leiden: Brill.

——, 2014a. *The Jibbali (Shaḥri) Language of Oman: Grammar and Texts.* Leiden: Brill.

——, 2014b. “A Brief Comparison of Mehri and Jibbali”, in Language of Southern Arabia: *Papers from the Special Session of the Seminar for Arabian Studies held on 27 July 2013*, edited by Orhan Elmaz and Janet Watson, 125–36. Oxford: Archaeopress.

——, 2015. “The Classification of Hobyot”, in *Semitic Languages in Contact*, edited by Aaron Butts, 311–323. Leiden: Brill.

——, 2018. *Omani Mehri. A New Grammar with Texts.* Leiden: Brill.

Ṣaḥīḥ Musim. Retrieved 10/24/2020 from https://sunnah.com/muslim/44/201

Segal, M. 1927. *A Grammar of Mishnaic Hebrew*. Oxford: Oxford University Press.

Segert, S. 1976. *A Grammar of Phoenician and Punic.* Munich: C. H. Beck.

Shibatani, M. 1985. “Passives and Related Constructions: A Prototype Analysis”. *Language* 61/4:821–848.

Simeone-Sennelle, M-C. 1996. “The Soqotri Language”. *Proceedings on the First International Symposium on Soqotra Island. Present and Future*, 309–21.

——, 1997. “The Modern South Arabian Languages”, in *The Semitic Languages*, edited by Robert Hetzron, pp. 378–423. London: Routledge.

——, 1998. “La derivation verbale dans les langues sudarabiques modernes”. *Journal of Semitic Studies* 43:71–88.

Sznycer, M. 1967. *Les Passages Puniques en Transcription Latine dans le “Poenulus” de Plaute.* Paris: C. Klincksieck.

Speiser, E. 1955. “The Durative Hithpa'el: A tan-Form”. *JAOS* 75/2: 118–121.

Spitta-Bey, W. 1890. *Grammatik des arabischen Vulgärdialctes von Aegypten*. Leipzig: J. C. Hinrischs’sche Buchhandlung.

Spreng, B. 2000. “The Passive in Basque”. *Toronto Working Papers in Linguistics* 19: 87–105.

Stein, P. 2003. *Untersuchungen zur Phonologie und Morphologie des Sabäischen*. Rahden: Verlag Marie Leidorf.

Stevenson, W. 1962. *Grammar of Jewish Palestinian Aramaic*. Oxford: OXford University Press.

Stroomer, H., ed. 1999. *Mehri Texts from Oman. Based on the Field Materials of T.M. Johnstone*. Wiesbaden: Harrassowitz.

Sumikazu, Y. 2005. *The Arabic Dialect of the Jews of Tripoli (Libya). Grammar, Text and Glossary*. Wiesbaden: Harrassowitz.

Taine-Cheikh, C. 2007. “Ḥassāniyya Arabic” in *Encylopedia of Arabic Language and Linguistics*, vol. II, edited by Kees Versteegh, 240–250. Leiden: Brill.

Talmoudi, F. 1980. *The Arabic Dialect of Sūsa (Tunisia)*. Göteborg: Acta Universitais Gothoburgensis.

Teixidor, J. 1987. “L’inscription d’Aḥiram à nouveau”. *Syria* 64:137–140.

Testen, D. 1992. “The Loss of the Person-Marker tin Jibbali and Socotri”. *Bulletin of the School of Oriental and African Studies* 55:445–50.

Tropper, J. 2000. *Ugaritische Grammatik*. Münster: Ugarit Verlag.

Tropper, J. and R. Lehmann. 2002. *Altäthiopisch. Grammatik des Geʿez mit Übungstexten un Glossar.* Münster: Ugarit-Verlag.

Ullendorff, E. 1955. *The Semitic Languages of Ethiopia.* London: Taylor’s Press.

Vycichl, W. 1959. “Das u-Passivum im Maurisch-Arabischen am Senegal. Zum Ursprung des inneren Passivs in den semitischen Sprachen”. *WZKM* 55: 77–83.

Waltisberg, M. 2001. *Die St-Stämme des Altäthiopischen*. Munich: Lincom Europa.

Waltke, B. and M. O’Connor. 1990. *An Introduction to Biblical Hebrew Syntax*. Winona Lake IN: Eisenbrauns.

Watson, J. 1989. “Aspects of the Phonology and Verb Morphology of three Yemeni Dialects”. DPhil dissertation. School of Oriental and African Studies, London.

——, 2002. *The Phonology and Morphology of Arabic.* Oxford: Oxford University Press.

——, 2012. *The Structure of Mehri.* Wiesbaden: Harrassowitz.

Weninger, S. 2001. *Das Verbalsystem des Altäthiopischen*. Wiesbaden: Harrassowitz.

Wehr, H. 1961. *A Dictionary of Modern Written Arabic*. Wiesbaden: Otto Harrassowitz.

Williams, R. 1970. “The Passive *qal* Theme in Hebrew”. *Essays on the Ancient Semitic World*, edited by J. Wevers and J. Redford, 43–50. Toronto: Toronto University Press.

Woidich, M. 2006. “Cairo Arabic”, in *Encylopedia of Arabic Language and Linguistics*, vol. I, edited by Kees Versteegh, 323–333. Leiden: Brill.

Wright, W. 1890. *Lectures on the Comparative Grammar of the Semitic Languages*. Cambridge: Cambridge University Press.\

——, 1896. *A Grammar of the Arabic Language*, *Vol. 1*. 3rd ed. Cambridge: Cambridge University Press.

——, 1898. *A Grammar of the Arabic Language*, *Vol. 2*. 3rd ed. Cambridge: Cambridge University Press.

Appendix A. Tables of data referred to in Chapter 3

Table A1. Akkadian [a]

	STAT/INF	DUR	PRET	PTCP	Function(s)
G	*qatvl*/*qatāl*	*iqattvl*	*iqtvl*	*qātil*	Basic, unmarked stem.
N	*naqtul*	*iqqattvl*[b]	*iqqatvl*[c]	*muqqatil*	(Medio)passive of transitive G, ingressive of intransitive/low transitivity G, rarely natural reflexive of transitive G (especially with decline of Gt).
Gt	*qittul*	*iqtattvl*[d]	*iqtatvl*	*muqtatil*	Natural reflexive and semantic middle of G.
D	*quttul*	*uqattal*	*uqattil*	*muqattil*	Verbal plurality relative to G.
Dt	*qutattul*	*uqtattal*	*uqtattil*	*muqtattil*	(Medio)passive, natural reflexive/reciprocal, and semantic middle of D.
C	*šuqtul*	*ušaqtal*	*ušaqtil*	*mušaqtil*	Causative of G.
Ct	*šutaprus*	*uštaqtal*	*uštaqtil*	*muštaqtil*	(Medio)passive, natural reflexive, and semantic middle of C.

[a] To aid comparison with the WS data, forms are presented in terms of the root √*qtl*, rather than √*prs* as is more standard in the Assyriological tradition. Where dialectal variants exist, the Old Babylonian form is given, but in the functions section, differences between stages are identified in order to show diachronic developments. The "*tan*" stems (e.g., Gtn) are not included, nor is the *t*-infixed perfect, since they are Akkadian-specific developments not germane to the discussion.
[b] This *v* follows the *v* of the G DUR.
[c] This *v* follows the *v* of the G STAT.
[d] This *v*, and that of the PRET, follows the G DUR.

Table A2. Classical Arabic [a]

	SC	PC	PTCP	Function(s)
G	*qatvla* (*qutila*)	*ya-qtvl* (*yu-qtal*)	*qātil* (*maqtūl*)	Basic stem.
N	*(ʔi)nqatala* (*(ʔun)qutila*)	*ya-nqatil* (*yu-nqatal*)	*munqatil* (*munqatal*)	Mediopassive and occasionally semantic middle of G.
Gt	*(ʔi)qtatala* (*(ʔu)qtutila*)	*ya-qtatil* (*yu-qtatal*)	*muqtatil* (*muqtatal*)	Reflexive, semantic middle, and occasionally (where N is impermissible) mediopassive of G; lexical.
D	*qattala* (*quttila*)	*yu-qattil* (*yu-qattal*)	*muqattil* (*muqattal*)	Verbal plurality relative to G, factitive/causative of G, denominal.
tD	*taqattala* (*tuquttila*)	*ya-taqattal* (*yu-taqattal*)	*mutaqattil* (*mutaqattal*)	Mediopassive, reflexive, semantic middle, and (occasionally) antipassive of D.
L	*qātala* (*qūtila*)	*yu-qātil* (*yu-qātal*)	*muqātil* (*muqātal*)	Conative of G, frequently adds a notion of patient participation to G.
tL	*taqātala* (*tuqūtila*)	*ya-taqātal* (*yu-taqātal*)	*mutaqātil* (*mutaqātal*)	Mediopassive and reflexive (especially reciprocal) of L; notions of feigning and of iterativity relative to G.
C	*ʔaqtala* (*ʔuqtila*)	*yu-qtil* (*yu-qtal*)	*muqtil* (*muqtal*)	Factitive/causative of G.
Ct	*(ʔi)staqtala* (*(ʔu)stuqtila*)	*ya-staqtil* (*yu-staqtal*)	*mustaqtil* (*mustaqtal*)	Reflexive and semantic middle of C, lexical, denominal.

[a] The rarer so-called IX and XI–XV stems of Classical Arabic, which are irrelevant to the issue of the detransitive stem system, are not provided. IPs are presented in parentheses underneath their respective unmarked counterparts. Due to space considerations, the functions of each IP stem are not included; suffice it to summarise that they are restricted to expressing the prototypical passive, relative to their unmarked counterpart, with the proviso described in §3.3 regarding impersonal passive use, and formation of IPs from actives with arguments other than agent or patient.

Table A3.1. Ḥassāniyya Arabic

	SC	PC	PTCP	Function(s)
G	*qtəl/qtal*	*yə-qtəl/ya-qtal*	*qātəl*	Basic stem.
D	*qattal*	*yə-qattal*	*mə-qattal*	Causative and iterative of G, denominative.
L	*qātal*	*yə-qātal*	*mə-qātal*	Conative of G, causative of tL.
C	*saqtal*	*yə-saqtal*	*mə-saqtal*	Causative of G.
N	*(ə)nqtəl/(ə)nqtal*	*yə-nqtəl/yə-nqtal*	not formed[a]	Passive of G.
pD	*uqattal*	*yu-qattal*	*mu-qattal*	Passive of D.
pL	*uqātal*	*yu-qātal*	*mu-qātal*	Passive of L.
pC	*usaqtal*	*yu-saqtal*	*mu-saqtal*	Passive of C.
Gt	*(ə)tqtəl/(ə)tqtal*	*yə-tqtəl/yə-tqtal*	*mə-tqtəl/ mə-tqtal*	Reflexive and rarely semantic middle of G, passive of G in √*1* = sonorant.
tD	*tqattal*	*yə-tqattal*	*yə-tqattal*	Reflexive and semantic middle of D.
tL	*tqātəl*	*yə-tqātəl*	*yə-tqātəl*	Reflexive/reciprocal and semantic middle of L.
Ct	*staqtal*	*yə-staqtal*	*yə-staqtal*	Reflexive, semantic middle, and mediopassive (specifically ingressive) of C.
"XI"	*(ə)qtāl*	*yə-qtāl*	not formed	Expresses states, isolated from *detransitive* stem system.

[a] Position within the paradigm occupied by historical G PASS PTCP *ma-qtūl*.

Table A3.2. Najdi Arabic

	SC	PC	PTCP	Function(s)
G	*qital/qitil*[a]	*ya-qtil/ yi-qtal*[b]	*qātil*	Basic stem.
D	*qattal*	*y-qattil*	*mqattil*	Verbal plurality, causative of G.
L	*qātal*	*y-qātil*	*mqātil*	Adds notion of coparticipation to G.
C	*ʔaqtal*	*yi-qtil*	*miqtil*	Causative of G, basic (lexically specified).
N	*inqital*	*yi-nqitil*	*minqatil*	Passive (especially negative potential passive) and semantic middle of G.
Gp	*qitil*	*yi-qtal*	*maqtūl*[c]	Passive of G.
Dp	*qittil*	*y-qattal*	*mqattal*	Passive of D.
Lp	*qītil*	*y-qātal*	*mqātal*	Passive of L.
Cp	*ʔiqtil*	*yi-qtal*	*miqtal*	Passive of C.
Gt	*iqtital*	*yi-qtitil*	*miqtitil*	Semantic middle and reflexive of G.
tD	*tiqattal*	*y-tiqattal*	*mtiqattil*	Semantic middle and reflexive of D.
tL	*tiqātal*	*y-tiqātal*	*mtiqātil*	Reciprocal of L (sometimes of G), sometimes estimative of G, expressing gradation or repetition of G, or denominative.
Ct	*istaqtal*	*yi-staqtil*	*mistaqtil*	Estimative and requestative of G.
W	*qōtal*	*y-qōtal*	*mqōtil*	Basic (lexically determined).

[a] The variation in stems vowels is complicated, but these are the two basic patterns, which Abboud (1979, §2.1) derives from the Classical Arabic fientive *qatala* and stative *qatila* respectively. Properties of root consonants may affect the vowels—e.g., low *a* appearing instead of *i* in pharyngeal or sonorant environments, and rounded *u* instead of *i* with labials. There further exists intra-dialectal variation, with the central Najdi dialect using *qatl* as the reflex of **qatila*, while northern and southern varieties use *qitil* (Ingham, 2008, 330–31).

[b] As with the SC, variants arising from different root consonants exist (e.g., instead of **ya-qtil*, *y-qatil* occurs in √1= pharyngeal, and *ya-qtal* in √3= pharyngeal), but only basic, regular forms are listed here.

[c] Here, and in the other dialects where *maqtūl* is cited as the Gp PTCP, the morphology of this form is not, strictly speaking, derivational related to the Gp, but is rather the inherited G PASS PTCP form.

Y	*qētal*	*y-qētal*	*mqētil*	Basic (lexically determined).
tW	*tiqōtal*	*y-tiqōtal*	*mtiqōtil*	Basic (lexically determined).
tY	*tiqētal*	*y-tiqētal*	*mtiqētil*	Basic (lexically determined), expresses feigning G.
NtD	not formed	*yi-ntiqattal*	not formed(?)	Potential passive of D.
NtL	not formed	*yi-ntiqātal*	not formed(?)	Potential passive of L.
NtW	not formed	*yi-ntiqōtal*	not formed(?)	Potential passive of W.
NtY	not formed	*yi-ntiqētal*	not formed(?)	Potential passive of Y.
Gtp	*iqt(i)tal*	*yi-qtital*	*miqtital*	Passive of Gt.
tLp	*tiqītil*	*y-tiqātal*	*mtiqātal*	Passive of tL.
Ctp	*stiqtil*	*yi-staqtal*	*mistaqtal*	Passive of Ct.
Wp	*qūtil*	*y-qōtal*	*mqōtal(?)*	Passive of W.
Yp	*qītil*	*y-qētal*	*mqētal(?)*	Passive of Y.
IX	*iqtall*	*yi-qtall*	not formed	Expression of states, isolated from detransitive system.

Table A3.3. Omani Arabic

	SC	PC	PTCP	Function(s)
G[a]	*qatal* *qitil* *qutul*	*ya-qtil* *yi-qtal*	*qātil*	Basic.
N	*inqatal*	*yi-nqitil*	*minqitil*	Mediopassive of G, less frequently passive (especially potential) of G.
Gp	*qitil*	*yi-qtal*	*maqtūl*	Passive of G.
Gt	*iqtatal*	*yi-qtitil*	*miqtitil*	Reflexive, mediopassive, semantic middle, and occasionally passive of G.
D	*qattal*	*yi-qattil*	*miqattil*	Causative of G, denominative.
ND	*inqattal*	*yi-nqittil*	?	Potential passive of D.
Dp	*qittil*	*yi-qattal*	*miqattal*	Passive of D.
tD	*tiqattal*	*yi-tqattal*	*mitqattil*	Reflexive, mediopassive, and semantic middle of D.
L	*qātal*	*yi-qātil*	*miqātil*	Variant of D, denominative, gradation or repetition of G.
Lp	*qītil*	*yi-qātil*	*miqātal*	Passive of L.
tL	*tiqātal*	*yi-tqātal*	*mitqātil*	Reciprocal of L, gradation or repetition of G.
Ct	*istaqtal*	*yi-staqtil*	*mistaqtil*	Inchoative aspect, change of state, lexical and isolated from detransitive system.

[a] There is a great deal of variation between the different stem vocalisations of SC and PC forms, both between different dialects, and also governed by the phonological properties of the root consonants, including the presence of *u* (in labial environments, for example). The summary here—based on Edzard, 2008, §2.2.6—is a simplification based on widespread commonalities.

Table A3.4. Yemeni Arabic

	SC	PC	PTCP[a]	Function(s)
G	*qatal* *qitil* *qutul*	*yi-qtul* *yi-qtal*	*qātil*	Basic.
D	*qattal*	*yi-qattil*	*mqittil*	Causative of G, basic (lexically determined), inchoative (taken over from Ct).
L	*qātal*	*yi-qātil*	*mqātil*	Adds notion of coparticipation to G.
C	*ʔaqtal*	*yi-qtil*	*?*	Causative of G, basic (lexically determined).
N	*inqatal*	*yi-nqatil*	*minqtūl* [b]	Rare, semantic middle of G.
Gt	*iqtatal*	*yi-qtatil*	*miqtitil*	Reflexive, mediopassive, semantic middle, and occasionally (particularly in non-Sanani dialects) passive of G.
tD	*tiqattal*	*yi-tqattal*	*mitqittil*	Reflexive and mediopassive of D.
tL	*tiqātal*	*yi-tqātal*	*mitqātil*	Reciprocal of L.
Ct	*istaqtal*	*yi-staqtil*	*mistiqtil*	Mostly lexical.
Gp	*qutil*	*yu-qtal*	*maqtūl*	Passive of G.
Dp	*quttil*	*yu-qattal*	*mqattal*	Passive of D.
Lp	*qūtil*	*yu-qātal*	*?*	Passive of L.
Cp	*ʔuqtil*	*yu-qtal*	*?*	Passive of C.

[a] PTCP forms not attested in the descriptions of the Sanani dialect, are supplied instead from Ḥaḍrami (al-Saqqaf, 2009, 693), with the proviso that dialectal variation should not be ruled out.
[b] Appears to be based in part on the G PASS PTCP, *maqtūl*.

Table A4.1. Aramaic Verbal Stems [a]

Stem	SC	PC	PCTP (PAS)[b]	Dialect(s)	Function(s)
G	*qətal*	*ne-qtol* *ne-qtal*	*qātel* *(qətīl)*	All dialects.	Basic.
D	*qattel*	*nə-qattel*	*məqattel* *(məqattal)*	All dialects.	Adds verbal plurality to G.
C	*ʔaqtel*	*na-qtel*	*maqtel* *(maqtal)*	All dialects.	Causative of G.
tG	*ʔetqətel*	*ne-tqətel*	*meqətel*	All dialects before Neo-Aramaic. Absent in ENA, except fossilized remnants.	Detransitives (syntactic and semantic) of G.
tD	*ʔetqattal*	*ne-tqattal*	*metqattal*	All pre-Modern period dialects. Absent in ENA, except fossilized remnants.	Detransitives (syntactic and semantic) of D.
tC	*ʔettaqtal*	*ne-ttaqtal*	*mettaqtal*	Middle and Late Aramaic only.	Detransitive (syntactic and semantic) of C. Syntactic detransitive of G in √2= w/y, lexicalized.
Gp	*qətīl*	**yu-qtal*[c]	*qətīl*	SC: Official and Middle Aramaic; PC: Old and Official Aramaic, if at all. PTCP: all dialects.	Passive of G.
Cp	*huqtal / haqtal*	Not formed.	*maqtal*	SC: Official and Middle dialects, particularly in contact with Canaanite. PTCP: all dialects.	Passive of C.

[a] Forms provided are from Syriac, though variants that differ significantly from these are also included, as are forms only attested in other dialects. Though generalised-SUBJ constructions are not included, an appreciation of the extensive role they play, particularly at later stages, is vital to a proper understanding of Aramaic detransitives.
[b] Reflexes of D and C PASS PTCPs that suggest by-forms **muquttal* and **muhuqtal*, respectively, are attested in Neo-Aramaic dialects, and are discussed in §§4.8–11, 5.3, 5.5.
[c] The attestation of a Gp PC in Aramaic is uncertain. If the fewer-than-fifteen potential Gp PC in the entire corpus are indeed correctly identified as such—and I suspect they are not—they are so scarce that they hold no practical place in the verbal system of the language, and instead represent nonce exceptions.

Table A4.2. Neological Conjugations of NENA [a]

Conjugation[b]	**G ~ D ~ C**[c]	**Diachronic development.**	**Function(s).**[d]
***qtil-li* PFV**	*qtəl-li ~ mqotəl-li ~ muqtəl-li*	<*PASS PTCP + PREP + OBL PRON (agent), grammaticalised in Eastern Aramaic from Official Aramaic onwards. Ultimately replaced historical SC in ENA (except Mandaic).	ACT.PFV of transitive verbs. Extended in some dialects extend to intransitive verbs.
***qatl-in* IPFV**	*qatl-ən ~ mqatl-ən ~ maqtəl-ən / maqətl-ən*	<*ACT PTCP + SUBJ PRON, grammaticalised from Official Aramaic onwards, and replaced the PC in ENA.	ACT.IPFV.[e]
***qtil-in* PASS.PFV**	*qtil-ən ~ mqutl-ən ~ muqətl-ən /*	<*PASS PTCP + SUBJ PRON (patient), grammaticalised from Late Aramaic onwards, though this development was abortive, and achieved finite verbal status only in a few NENA dialects, where it exists in complementary distribution with *qtil-li* PFV.	PASS.PFV, and occasionally also extended to ACT.PFV of intransitive verbs.

[a] Table A4.2 presents the neological conjugational parts which have developed from erstwhile PTCPs in the systematic reorganisation of the Aramaic verbal paradigm beginning from Official Aramaic and reaching fruition in NENA. Apart from the inventory of verbal stems (presented in Table A4.1), these are the second organisational plane that must be considered to understand developments in Aramaic detransitives. The historical SC and PC conjugations are not included here, since they are inherited from CS, and are only feature in the reorganisation of the verbal system insofar as they are lost in ENA (both in NENA and Ṭuroyo, while Mandaic loses the PC).
[b] Finite verbs derived from erstwhile INFs, though widespread in Neo-Aramaic, are not included here because they do not relate to the development of the detransitive system specifically.
[c] Forms are cited from the Amadəya dialect, as provided by Greenblatt (2011, ch. 4), since this possesses all the conjugational parts, including the *qtil-in* PASS.PFV, which is otherwise rare in NENA. Lexically specific variants with resyllabification also exist for the C *qatl-in* IPFV (*maqətl-ən* instead of *maqtəl-ən*) and C *qtil-in* PASS.PFV (*muqətl-ən* instead of *muqtəl-ən*).
[d] These functional descriptions are simplifications based on the core, shared functions throughout the dialects. For nuances (e.g., where a *qtil-li* PFV form is restricted to PRET), refer to the grammars of the individual dialects.
[e] Coghill (1999, §2.4.1.1) describes an intermediate stage in the replacement of the PC, found in the Late Aramaic dialects of Syriac and Talmudic, whereby the *qatl-in* IPFV is used only for the indicative mood and the PC is restricted to SBJV, before being lost altogether, giving this function up to *qatl-in* as well.

Table A5.1. Amarna Canaanite

	SC [a]	PC	PTCP [b] (PAS)	Function(s) and distribution
G	*qatal / qatil / qatul*	*ya-qtul / yi-qtal / ya-qtil*	*qōtil (qatūl)*	Basic.
N	*naqtal*	*yi-qqatvl*	?	Passive and semantic middle of G; reflexive uses are syntactically indirect and mainly follow Akkadian use.
Gt	*qittul*	*yi-qtatal*	not attested	Primarily semantic middle, and some iterative of G; the few cases identified as reflexive or reciprocal are syntactically indirect; lexical.
Gp	not attested	*yu-qtal*	*qatūl*	Passive of G.
D	*quttil / quttul*	*yu-qattil*	*muqattil*	Factitive and causative of G, Verbal plurality relative to G.
Dt	not attested	*yu-qtattvl*	*mvṯqattil*	Rare and mainly restricted to one root, √*wšr*, interpreted as "separative", reflecting SUBJ affectedness.
Dp	not attested	*yu-qattal*	*muqattal*	Passive of D.
C	*šuqtil / hiqtil*	*yu-šaqtil / ya-qtil / yi-qtil ?*	*mušaqtil / maqtil / muqtil ?*	Causative and factitive of G, some lexical use. Forms without *š* are demonstrably native Canaanite (rather than part of the Akkadian substrate)
Cp	*huqtal*	*yu-qtal*	*muqtal*	Passive of C. Very infrequent.

[a] One must be cautious in recognizing that in some instances Amarna usage may reflect the Akkadian stative rather than the perfect-marked SC that is a key isogloss of WS (see discussion in chapter).
[b] Participles receive scant discussion in Rainey's (1996) seminal grammar of Amarna Canaanite, so the presented forms here are my own reconstructions based on comparative and internal evidence.

Table A5.2. Biblical Hebrew

	SC	PC	PTCP (PAS)	Function and restrictions in distribution
G	*qɔtal*	*yi-qtol / yi-qtal*	*qōtel (qɔtūl)*	Basic.
N	*niqtal*	*yi-qqɔtel*	*niqtɔl*	(Medio)passive and semantic middle of G, extending to some *natural* reflexive use.
tG	*hiṯqɔtel*	*yi-ṯqɔtel*	not attested	Only attested in one root, √*pqd* (of which the G is transitive "to muster"), with meaning "to muster" (intransitive), so ostensibly mediopassive.
Gp	*quttal*	*yu-qtal*	*qatūl*	Passive of G.
D	*qittel*	*yə-qattel*	*mequttɔl*	Factitive of G, Verbal plurality relative to G.
tD	*hiṯqattel*	*yi-ṯqattel*	*miṯqattel*	Reflexive (including reciprocal) and semantic middle of D; feigning the action, requesting action, and iterative of G. Passive of D in very few cases, all from late texts and with a possible prevalence for a Northern dialect.
Dp	*quttal*	*yə-quttal*	*məquttal*	Passive of D.
C	*hiqtīl*	*ya-qtīl*	*maqtīl*	Causative of G.
Ct	*hištaqtvl*	*yi-štaqtvl*	*mištaqtvl*	Only attested in one root, √*ḥwy*, with meaning "to bow down", so plausibly a semantic middle.
Cp	*hoqtal / huqtal*	*yo-qtal / yu-qtal*	*muqtɔl / moqtɔl*	Passive of C, including instances where the causee is removed from the semantic specification, resulting in passive of G.

Table A5.3. Phoenician/Punic [a]

	SC	PC	PTCP (PAS)	Function(s) and distribution
G	*qatol*	*yi-qtol / yi-qtal*	*qūtel (qatūl / qatīl)* [b]	Basic.
N	*niqtal*	*yi-qqatel*	*Niqtal*	Passive, occasionally semantic middle, and rarely reciprocal, of G
Gt	not attested	*yi-qtatal*	not attested	Only in Byblian Phoenician and only in PC. Mediopassive and semantic middle of G.
Gp	*qutal / qutil ?*	not attested	*qatūl*	Passive of G.
D	*qittel*	*ye-qettel*	*meqettel*	Factitive of G, Verbal plurality relative to G.
tD	*(h/y)itqettel*	*yi-tqettel*	not attested	Reflexive (including reciprocal) and semantic middle of D; iterative of G.
Dp	*quttal ?*	not attested	not attested	Passive of D
C	*yiqtel*	*yi-qtil*	*miqtil*	Causative of G.
Cp	not attested	*yo-qtal*	*moqtal?*	Attested once in PC and possibly in a few PTCP forms. Passive of C.

[a] Some variation between the vowels *i* and *e* occurs in many forms, and is not germane to the matter at hand.
[b] Krahmalkov (2001, 201) argues for a *qatūl* G PASS PTCP like that of Hebrew; Friedrich and Röllig (1999, 140b) align Phoenician rather with Aramaic in having a *qatīl* form; cf. the discussion in §4.7.

Table A5.4. post-Biblical Hebrew [a]

	SC	PC	PTCP (PAS)	Function(s) and distribution
G	*qɔtal /*	*yi-qtol*	*qotel (qɔtūl)*	Basic.
	**qɔtel*			
N	*niqtal*	*yi-qqɔtel*	*niqtɔl*	Passive, reflexive, and semantic middle of G
D	*qittel*	*yə-qattel*	*məqattel*	Verbal plurality relative to G, causative of
	**qattəl*	**yē-qattəl*	**mēqattəl*	G, denominal; increasingly functions as a basic stem on same derivational tier as G
tD	*nit̲qattel*	*yi-t̲qattel*	*mit̲qattel*	Passive, reflexive, and semantic middle of D
Dp	X	X	*məquttɔl*	Only PTCP occurs; in Mishnaic expresses
	*X	*X	*X	resultativity, or later perfectivity.
C	*hiqtīl*	*ya-qtīl*	*maqtīl*	Causative of G.
	**aqtəl*	**ya-qtəl*	**maqtəl*	
Cp	*hoqtal*	*yu-qtal*	*muqtɔl*	Passive of C, and resultative in PTCP. Finite
	*X	*X	*X	forms, particularly PC, decrease through Mishnaic; wholly absent from Samaritan.

[a] Samaritan forms (from Ben-Ḥayyim, 2000, §2) are provided preceded by "*", and only as relevant to the discussion of IPs; most importantly in the data presented here, "X" indicates the absence of a form from the language that is productive in Biblical Hebrew.

Table A6. Ethiopic [a]

	SC	IMPV	SBJV	Function(s)
G	*qatala / qatla*	*ye-qattel*	*ye-qtel / ye-qtal*	Basic, distribution according to root is lexically determined.
D	*qattala*	*ye-qēttel*	*ye-qattel*	Basic, distribution according to root is lexically determined.
L	*qātala*	*ye-qāttel*	*ye-qātel*	Basic, distribution according to root is lexically determined.
tG	*taqatla*	*yet-qattal*	*yet-qatal*	All syntactic detransitives and semantic middle of G; some "deponent" lexical uses with no related G stem; some denominative; sometimes detransitive of C.
tD	*taqattala*	*yet-qēttel*	*yet-qattal*	All syntactic detransitives and semantic middle of D; some denominative; sometimes detransitive of CD; notion of feigning or considering oneself to be G.
tL	*taqātala*	*yet-qāttal*	*yet-qātal*	All syntactic detransitives and semantic-middle of L; commonly reciprocal (to G or L), with secondary collaborative and iterative uses.
C	*ʔaqtala*	*yā-qattel*	*yā-qtel*	Causative of G.
CD	*ʔaqattala*	*yā-qēttel*	*yā-qattel*	Causative of D.
CL	*ʔaqātala*	*yā-qāttel*	*yā-qātel*	Causative of L.
Ct	*ʔastaqtala*	*yā-staqattel*	*yā-staqtel*	Causative or factitive of tG or G; estimative and requestitive (combining causative or

[a] It is important to note that no PTCP forms, ACT or PAS, occur in the language, a factor attributable in no small part to the prevalence of relative clauses. Further, Ethiopic possesses two prefixed conjugations: the IPFV, which has cognates in MSA and Akkadian, but not in CS; and the SBJV, cognate to the CS PC.

				factitive and detransitive functions).
CtD	*ʔastaqattala*	*yā-staqēttel*	*yā-staqattel*	Causative or factitive of tD or occasionally G; estimative and requestitive (combining causative or factitive and detransitive functions).
CtL	*ʔastaqātala*	*yā-staqāttel*	*yā-staqātel*	Causative or factitive of tL or occasionally L or G; estimative and requestitive (combining causative or factitive and detransitive functions).

Appendix B. Tables of Data Referred to in Chapter 6

Table B1.1. Regular (Omani) Mehri Gp, Ga, and Gb forms [a]

SC	**Gp**	SG	DU	PL	**Ga**	SG	DU	PL	**Gb**	SG	DU	PL
3M		*qət**ē**l*	*qətl-**ē***	*qət**ē**l-**əm***		*qətūl*	*qətəl-ō*	*qətawl*		*qītəl*	*ḏqətl-ō*	*ḏqətl-əm*
3F		*qət(ə)l-**ē**t*	*qətəl-t**ē***	*qət**ē**l*		*qətəl-ūt*	*qətəl-tō*	*qətūl*		*qətl-ūt*	*qətəl-tō*	*q**ī**təl*
2M		*qət**a**l-k*	*qət**a**l-ki*	*qət**a**l-kəm*		*qətəl-k*	*qətəl-ki*	*qətəl-kəm*		*qətl-ək*	*qətl-əki*	*qət**ə**l-kəm*
2F		*qət**a**l-š*	*qət**a**l-ki*	*qət**a**l-kən*		*qətəl-š*	*qətəl-ki*	*qətəl-kən*		*qətl-əš*	*qətl-əki*	*qət**ə**l-kən*
1C		*qət**a**l-k*	*qət**a**l-ki*	*qət**ē**l-ən*		*qətəl-k*	*qətəl-ki*	*qətūl-ən*		*qətl-ək*	*qətl-əki*	*qətl-**ə**n*[2]
IPFV		SG	DU	PL		SG	DU	PL		SG	DU	PL
3M		*yə-qtōl*$_i$	*yə-qtəl-**ē***	*yə-qtīl*$_i$		*yə-qūtəl*	*yə-qətl-ō*	*yə-qətl-əm*		*yə-qtōl*$_i$	*yə-qtəl-ō*	*yə-qtīl*$_i$
3F		*tə-qtōl*$_i$	*tə-qtəl-**ē***	*tə-qtōl-ən*$_i$		*tə-qūtəl*	*tə-qətl-ō*	*tə-qətl-ən*		*tə-qtōl*$_i$	*tə-qtəl-ō*	*tə-qtōl-ən*$_i$
2M		*tə-qtōl*$_i$	*tə-qtəl-**ē***	*tə-qtīl*$_i$		*tə-qūtəl*	*tə-qətl-ō*	*tə-qətl-əm*		*tə-qtōl*$_i$	*tə-qtəl-ō*	*tə-qtīl*$_i$
2F		*tə-qtayl-i*$_i$	*tə-qtəl-**ē***	*tə-qtōl-ən*$_i$		*tə-qētəl*	*tə-qətl-ō*	*tə-qətl-ən*		*tə-qtayl-i*$_i$	*tə-qtəl-ō*	*tə-qtōl-ən*$_i$
1C		*ə-qtōl*$_i$	*ə-qtəl-**ē***	*nḏqtōl*$_i$		*ə-qūtəl*	*ə-qətl-ō*	*nə-qūtəl*		*ə-qtōl*$_i$	*ə-qtəl-ō*	*nḏqtōl*$_i$

[a] IP morphology distinguishing passive from active verbs by ablaut is in bold, cases of active-passive syncretism with subscript roman numerals.

SBJV	SG	DU	PL	SG	DU	PL	SG	DU	PL
3M	*yə-qtōl$_i$*	*yə-qtəl-**ē***	*yə-qtēl-əm$_{ii}$*	*yə-qtēl*	*yə-qtəl-ō*	*yə-qtēl-əm$_{ii}$*	*yə-qtōl$_i$*	*yə-qtəl-ō*	*yə-qtīl*
3F	*tə-qtōl$_i$*	*tə-qtəl-**ē***	*tə-qtēl-ən$_{ii}$*	*tə-qtēl*	*tə-qtəl-ō*	*tə-qtēl-ən$_{ii}$*	*tə-qtōl$_i$*	*tə-qtəl- ō*	*tə-qtōl-ən*
2M	*tə-qtōl$_i$*	*tə-qtəl-**ē***	*yə-qtēl-ən$_{ii}$*	*tə-qtēl*	*tə-qtəl-ō*	*tə-qtēl-əm$_{ii}$*	*tə-qtōl$_i$*	*tə-qtəl- ō*	*tə-qtīl*
2F	*tə-qtayl-i$_i$*	*tə-qtəl-**ē***	*tə-qtēl$_{ii}$*	*tə-qtēl-i*	*tə-qtəl-ō*	*tə-qtēl-ən$_{ii}$*	*tə-qtayl-i$_i$*	*tə-qtəl- ō*	*tə-qtōl-ən*
1C	*lə-qtōl$_i$*	*lə-qtəl-**ē***	*nə-qtēl$_{ii}$*	*lə-qtēl*	*lə-qtəl-ō*	*nə-qtēl$_{ii}$*	*lə-qtōl$_i$*	*lə-qtəl- ō*	*n̲qtōl*

Table B1.2. Active-passive syncretism in weak root types in Mehri [a]

	SC				IPFV (~ SBJV) [b]	
	3MSG	**3FSG**	**1SG**	**3MPL**	**3MSG**	**3MPL**
√strong Ga	*qət**ūl***	*qətəl-**ūt***	*qətəl-k*	*qət**a**wl*	*yə-q**ū**təl ~ yə-qt**ē**l*	*yə-q**ə**tl-əm ~ yə-qtēl-əm*$_{iii}$
√strong Gb	*qītəl*	*qətl-ūt*	*qətl-ək*	*qətl-əm*	*yə-qtōl*$_i$	*yə-qtīl*$_i$ *~ yə-qtīl*
√strong Gp	*qət**ē**l*$_i$	*qət(ə)l-**ē**t*	*qət**a**l-k*	*qət**ē**l-əm*$_i$	*yə-qtōl*$_i$	*yə-qtīl*$_i$ *~ yə-qtēl-əm*$_{iii}$
√2=*h* Ga/b	*qətēl*$_i$	*qətl-**ū**t*	*qətəl-k*	*qətēl-əm*$_i$	*yə-qtōl*$_i$	*yə-qtīl*$_i$
√2=*h* Gp	*qətēl*$_i$	*qət(ə)l-**ē**t*	*qət**a**l-k*	*qətēl-əm*$_i$	*yə-qtōl*$_i$	*yə-qtīl*$_i$ [c]
√2=*Ç/G* Ga/b	*qətāl*$_{ii}$	*qətl-**ū**t*	*qətal-k*$_{ii}$	*qətāl-əm*$_{ii}$	*yə-qtāl*$_{ii}$	*yə-qtayl*$_{ii}$
√*2*= *Ç/G* Gp	*qətāl*$_{ii}$	*qətl-**ē**t*	*qətal-k*$_{ii}$	*qətāl-əm*$_{ii}$	*yə-qtāl*$_{ii}$	*yə-qtayl*$_{ii}$
√2=3 Ga/b	*qəl*	*qəll-**ū**t*	*qəll-ək*	*qəll-əm*	*yə-qlūl*$_i$ [d] *~ yə-ql**ē**l*	*yə-ql**a**wl*
√2=3 Gp	*qəlēl*	*qəll-**ē**t*	*?*	*?*	*yə-qlōl*$_i$	*yə-ql**ū**l*$_i$

[a] IP morphology distinguishing passive from active verbs by ablaut is in bold; cases of active-passive syncretism with subscript roman numerals.
[b] SBJV is provided only where formally distinct from IPFV.
[c] I have found no attested 3MPL IPFV/SBJV Gp from √*2=h* but have no reason to suspect it would diverge from the strong-root pattern.
[d] The contrast between *ō* and *ū* is not strong, even to the point of variation between them in some contexts (Rubin, 2010, §2.2).

Table B2.1. Regular Jibbāli Gp, Ga, and Gb forms.

	Gp			Ga			Gb		
SC									
	SG	**DU**	**PL**	**SG**	**DU**	**PL**	**SG**	**DU**	**PL**
3M	*q(i)til*	*q(i)til-ɔ*	*q(i)til*	*q(ɔ)tɔl*	*q(ɔ)tɔl-ɔ*	*q(ɔ)tɔl*	*qetəl*	*qetel-ɔ*	*qetəl*
3F	*q(i)til-ɔt*	*q(i)til-tɔ*	*q(i)til*	*q(ɔ)tɔl-ɔt*	*q(ɔ)tɔl-tɔ*	*q(ɔ)tɔl*	*qetel-ɔt*	*qetel-tɔ*	*qetəl*
2M	*q(i)til-(ə)k*	*q(i)til-s̃i*	*q(i)til-kum*	*q(ɔ)tɔl-k*	*q(ɔ)tɔl-s̃i*	*q(ɔ)tɔl-kum*	*qetəl-(ə)k*	*qetəl-s̃i*	*qetəl-kum*
2F	*q(i)til-(ə)s̃*	*q(i)til-s̃i*	*q(i)til-kən*	*q(ɔ)tɔl-s̃*	*q(ɔ)tɔl-s̃i*	*q(ɔ)tɔl-kən*	*qetəl-(ə)s̃*	*qetəl-s̃i*	*qetəl-kən*
1C	*q(i)til-(ə)k*	*q(i)til-s̃i*	*q(i)til-ən*	*q(ɔ)tɔl-k*	*q(ɔ)tɔl-s̃i*	*q(ɔ)tɔl-ən*	*qetəl-(ə)k*	*qetəl-s̃i*	*qetəl-ən*
IPFV									
	SG	**DU**	**PL**	**SG**	**DU**	**PL**	**SG**	**DU**	**PL**
3M	*i-q(e)tɔl*	*i-q(e)tɔl-ɔ*	*i-q(e)tel*	*yə-qɔtəl*	*yə-qɔtəl-ɔ*	*yə-qɔtəl*	*yə- qetɔl*	*yə-qətel-ɔ*	*yə-qetel*
3F	*i-q(e)tɔl*	*i-q(e)tɔl-ɔ*	*i-q(e)tɔl-ən*	*tə-qɔtəl*	*tə-qɔtəl-ɔ*	*tə-qɔtəl-ən*	*tə-qetɔl*	*tə-qətel-ɔ*	*tə-qetɔl-ən*
2M	*i-q(e)tɔl*	*i-q(e)tɔl-ɔ*	*i-q(e)tel*	*tə-qɔtəl*	*tə-qətel-ɔ*	*tə-qɔtəl*	*tə-qetɔl*	*tə-qətel-ɔ*	*tə-qetel*
2F	*i-q(e)til*	*i-q(e)tɔl-ɔ*	*i-q(e)tɔl-ən*	*tə-qitəl*	*tə-qətel-ɔ*	*tə-qɔtəl-ən*	*tə-qitil*	*tə-qətel-ɔ*	*tə-qetɔl-ən*
1C	*ə-q(e)tɔl*	*i-q(e)tɔl-ɔ*	*ne-q(e)tɔl*	*ə-qɔtəl*	*(n)ə-qətel-ɔ*	*nə-qɔtəl*	*ə-qetɔl*	*(n)ə-qətel-ɔ*	*nə-qetɔl*
SBJV [a]									
	SG	**DU**	**PL**	**SG**	**DU**	**PL**	**SG**	**DU**	**PL**
3M	*lə-qtɔl* [b]	*lə-qtel-ɔ*	*lə-qtel*	*yɔ-qtəl*	*yə-qtɔl-ɔ*	*yə-qtɔl*	*yə-qtɔl*	*yə-qtəl-ɔ*	*yə-qtel*
3F	*lə-qtɔl*	*lə-qtel-ɔ*	*lə-qtɔl-ən*	*tɔ-qtəl*	*tə-qtɔl-ɔ*	*tə-qtɛl-ən*	*tə-qtɔl*	*tə-qtəl-ɔ*	*tə-qtɔl-ən*
2M	*lə-qtɔl*	*lə-qtel-ɔ*	*lə-qtel*	*tɔ-qtəl*	*tə-qtɔl-ɔ*	*tə-qtɔl*	*tə-qtɔl*	*tə-qtəl-ɔ*	*tə-qtel*
2F	*lə-qtil*	*lə-qtel-ɔ*	*lə-qtɔl-ən*	*ti-qtil*	*tə-qtɔl-ɔ*	*tə-qtɛl-ən*	*tə-qtil*	*tə-qtəl-ɔ*	*tə-qtɔl-ən*
1C	*lɛ-qtɔl*	*lə-qtel-ɔ*	*lə-qtel* [c]	*lɔ-qtəl*	*lə-qɔtl-ɔ*	*nə-qtɛl*	*lə-qtɔl*	*l-qətəl-ɔ*	*nə-qtɔl*

[a] Johnstone (1980, 470) cites the Gp SBJV prefix as *lɛ-* throughout the paradigm, though elsewhere (1981, xvii) he gives forms with *lə-*.
[b] Some speakers produce *yə-qtɔl* for the 3MSG Gp SBJV, that is, identical to the Gb (Rubin, 2014, §6.1.2 n13).
[c] Dufour, 2014, p.c. gives the 1PL Gp SBJV form *nə-qtɔl*. In the *Jibbali Lexicon*, Johnstone (1981, xvii–xviii) distinguishes the vowel of the 1PL prefix, *le-*, from the *lə-* found in all other persons.

Table B2.2. Active-passive syncretism in weak root types in Jibbāli compared to Mehri

	Gp			**Ga**			**Gb** [a]		
	SC	IPFV	SBJV	SC	IPFV	SBJV	SC	IPFV	SBJV
√strong	*q(i)tíl*	*i-q(e)tɔ́l**	***lə*-qtɔ́l**** [b]	*q(ɔ)tɔ́l*	*yə-qɔ́təl*	*yɔ́-qtəl*	*qétəl*	*yə-qetɔ́l**	***yə*-qtɔ́l****
√2= *G*	*q(i)tíl*	*?*	*?* [c]	*q(a)tál*	*yə-q(ɔ)tɔ́l*	*yə-qtɔ́l*	*q(a)tál*	*yə-q(ɔ)tɔ́l*	*yə-qtɔ́l*
√2= 3	*q(e)líl*	*i-q(e)lɔ́l*	*lə-qlɔ́l*	*qel*	*yə-qlél*	*yɔ́-qqəl* [d]	*qel*	*yə-qlél*	*yɔ́-qqəl*
√3= *G*	*q(i)tíl*	*i-q(e)tɔ́l*	*lə-qtal*** [e]	*qétəl*	*yə-qɔ́təl*	*yɔ́-qtəl*	*qétəl*	*yə-qɔ́təl*	*yə-qtal***
√1= *w*	*etíl*	*i-tɔ́l*	*lə-tɔ́l***	*etɔ́l*	*yə-tɔ́l*	*yə-tɛ́l*	*étəl*	*ye-tɔ́l***	*yə-tɔ́l***

* indicates partial syncretism between active and passive forms depending on phonetic properties of R_1 and R_2. Idle glottis consonant conditions the presence/absence of vowel between these in Gp, which, when absent, distinguishes the Gp and Gb SBJVs.

** indicates full syncretism between active and passive *stems*, though note that even here, a voice distinction (in bold) is marked in the person-marking prefixes (or more precisely, the lack thereof in the Gp).

Boxed text Indicates active-passive syncretism in corresponding Mehri forms.

[a] In root types where the Ga and Gb have merged to a single Ga/b pattern, the forms have been repeated.
[b] Syncretism occurs between the Mehri √strong Gp/Gb SBJV in the SG, and between the Gp/Ga SBJV in the PL (see table 1).
[c] No Jibbāli Gp IPFV/SBJV forms for √2=*G* are attested, but even if the stems exhibit syncretism with the Ga/b pattern (as seems likely, since this is modelled on the strong-root Gb), distinction is nonetheless expected in the personal prefixes (or more precisely, the lack thereof in the Gp).
[d] There is a large amount of variation in the Ga/b √2=3 SBJV pattern, but no forms have the *ɔ* between R_2 and R_3 as found in the Gp.
[e] Syncretism between the Gb and Gp SBJV in √3=*G* is found in the 3MSG, but does not occur in the 3MPL, for example, where the Gb lowers the theme vowel to *a*, but the Gp does not, and has the *e* that occurs in this position in the strong root.

Table B3.1. Regular Soqoṭri IPs and their corresponding active counterparts [a]

	SC	IPFV				SBJV
	3MSG	**3FSG**	**3MSG**	**2FSG**	**3MDU**	**3MPL**	**3MSG**
Gp	*qítɛl*	*qitíl-o*[b]	*(yə-)qútol*	*qútil*	*(yə-)qutél-o*	*(yə-)qútəl*	*li-qtól*[c]
Ga	*qə́tol*	*qətél-o*	*yə-qótəl*	*tə-qótil*	*yə-qotél-o*	*yə-qótəl*	*li-qtél*
Gb	*qétəl*	*qitɛl-o*	*yə-qétol*	*tə-qétil*	*yə-qɛtél-o*	*yə-qétəl*	*li-qtól*
Cp	*íqtɛl*	*iqtíl-o*	*(yə-)qútol*				*li-qtól*
C	*éqtəl*	*əqtél-o*	*yə-gézom*				*lɛ-qtɛl*
D/Lp	*qétɛl*	*qətél-o*	*(yə-)qətél-ən*				*li-qétol*
D/L	*qótil* *(qɛtil)*	*qatíl-o*	*yə-qotíl-in* *(yə-qɛtíl-in)*				*li-qétɛl*
Ctp	*šiqtɛl / šəqítɛl*	*?*	*yə-šqútol / šəqútol*				*li-šéqtol*
Ct	*šéqəl*		*yə-šqétol*				*li-šéqtɛl*
Gtp [d]	*qətítɛl*	*?*	*yə-qtútol* *qətútol*				*li-qtétol*
Gt	*qotétəl*		*yə-qtétol*				*li-qtétɛl*

[a] Only 3MSG forms of the IPFV and SBJV are given for stems other than the G, and 3FSG SC forms are only given where the corresponding IP is attested. The Ctp and Gtp forms given are uncertain, being based on limited, and sometimes possibly unreliable evidence.
[b] This occasionally occurs as *qətil-o*.
[c] This is the only place in the strong-root paradigm where active-passive syncretism obtains, between the Gp and Gb.
[d] These strong-root Gtp forms are made by comparing the attested form (all from √*3*= *y*), with the strong-root and √*3*= *y* Gp forms and hypothesising how the Gtp was formed from it.

Table B3.2. Weak-root Soqoṭri Ga and Gp (3MSG) forms [a]

	SC	IPFV	SBJV
Gp (elision) [b]	*q^{i}tɛ́l*	*(yə-)qútol*	*li-qtól*
Ga (elision)	*qtól*	*yə-qótəl*	*li-qtɛ́l*
Gp √1=ʔ	*ítɛ*	*yú-tol / yu-ʔútɛl*	*li-tól*
Ga √1=ʔ	*etól*	*yoú-tol* [c]	*li-tél*
Gp √2=w/y	*ʔ* [d]	*yə-qúyol / yú-qol* [e]	*li-qól*
Ga √2=w/y	*qel*	*yí-qəl* [f]	*li-qél*
Gp √2=3	*qílɛl*	*(yə-)qúlol*	*li-qlól*
Ga √2=3	*qel*	*yə-qlel*	*li-qlél*
Gp √3=Ç [g]	*qítal*	*(yə-)qútal*	*li-qtól*
Ga √3=Ç	*qətal*	*yə-qátal*	*li-qtál*
Gp √3=w/y/ʔ	*qítɛ / qətŏ̋wə*	*(yə-)qútɛ*	*li-qtó*
Ga √3=w/y/ʔ	*qétə*	*yə-qót*	*li-qté*

[a] Accent has a marginal phonemic load—such as distinguishing between Ga SBJV and C SBJV forms in some roots (Naumkin et al., 2014b, §2.1.3—but is not relevant in the issue of IP morphology specifically. It is indicated here rather for the sake of completeness

[b] The precise consonantal characteristics seem to vary slightly between active and passive types, but a restrictive formulation of the environment in which elision of the vowel between R_1 and R_2 occurs would be √1&2= -voice, -glottalic.

[c] Syncretism with the Gp IPFV occurs only insofar as this latter has the allophone [ou] for the phoneme /u/.

[d] The only attested form, *yəʕad / yəʕad* from √ʕwd, may reflect an underlying pattern *q^{y}ɛl*, with a restriction against palatalising the pharyngeal *ʕ* and lowering **ɛ > a* following it, though this is far from certain.

[e] Other variants are attested with R_2 appearing as the *w* glide, and with other vowels, represented as *a* and *e* in the *Lexique Soqotri*, following it. The only example from Naumkin et al.'s texts, *yú-ʕod* (from √ʕwd), follows the irregular by-form of the *√1= ʔ* Gp IPFV.

[f] There are several variant Ga IPFV forms from this root type (*yé-qəl*, *yí-qol*, *yó-qol*, *yóu-qol*), all conforming to the basic skeletal structure of *yv́-qvl*.

[g] Similar considerations apply to the root type *√2= Ç* and *√3= G* (with slight differences), but in the interests of brevity, these have not been included here.