THE UNIVERSITY OF CHICAGO

HETEROGENEITY IN MORPHOLOGICAL CONTIGUITY

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE DIVISION OF THE HUMANITIES

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF LINGUISTICS

BY

TRAN TRUONG

CHICAGO, ILLINOIS

JUNE 2022

In memory of Tim Feerick

(3 February 1988–13 April 2022)

For quoso suffer cowþe syt, sele wolde folȝe,

And quo for þro may noȝt þole, þe þikker he sufferes.

Pacience

Contents

List of Tables

ACKNOWLEDGEMENTS

remain in this work. I am deeply grateful to the Nippon Foundation for funding my time in Yokohama, where the bulk of the Japanese data was gathered.

Although Karlos brought the Arrernte data into this conversation, it was Sasha Wilmoth who showed me how complex, beautiful, and diverse the world of Australian kintax was.

John Goldsmith, Anastasia Giannakidou, Jason Merchant, Yaroslav Gorbachov, Coppe van Urk, Sverre Stausland, Kirk Hazen, Heidi Harley, Jonathan Bobaljik, Andrea Sims, Farrell Ackerman, Thomas Stewart, Gregory Stump, Tracy Conner, Michael Everdell, and Scott Spicer all contributed to various parts of the analysis. I am blessed to have overlapped with Diane Brentari, Salikoko Mufwene, and Ming Xiang during my time at Chicago—I promise that their courses and mentorship have given me a much wider view of the human language faculty than what is contained in these pages. I also express my very heartfelt thanks to our administrators, Suzanne Torres Friedman and Shekinah Thornton, for everything they do to keep the lights on in the department.

I would like to gratefully acknowledge a number of linguists with whom I have crossed paths during my time as a graduate student: Ben Ó Ceallaigh, Edith Aldridge, Cécile Vigouroux, Marlyse Baptista, Iara Mantenuto, John Baugh, Andrea Beltrama, Tim Leffel, Raj Mesthrie, Ryan Lepic, Jerry Sadock, Kenyon Branan, Paul Reed, Jackie Lai, and Orest Xherija.

My students have taught me more than any article, book, or lecture ever could! Some have even sat through the rawest versions of this work. Garrett Johnson, Declan Jacobs, Haoming Li, Gayathri Rao, Holly Ross, Ayanna Taitt, Anna Whitney, Leah Wilson, Victoria Gin, Lance Johnson, Alex Weissman, Daniel Goldfeder, Myles Xavier, Pat Doyle, Darren Kahan, Tanvi Bagal, Ron Kiehn, Iram Arefin, Alyssa Guillu, Katherine Hou, Luis Rubio, Charlie Ewell, Rafatul Islam, and Dannerys Peralta Ortiz, I wish you all the best in what comes next.

Given that at least a third of this dissertation is about kinship, I'd like to thank my sisters from other misters, CB, JR, SJ, UL, LS, and UF, for showing me that other worlds

are possible. Thank you to my brothers from other mothers, LT, TB, SF, MN, NL, and AA for showing me how to make the most of this one. My fellow book club members, RC, CP, MS, SV, ZL, LY, PS, CC, BP, LY, CL, HG, BU, FL, RH, OB, CG, XM, RJ, WM, OT, and PP have done their best to make sure that I use my brain for things besides theoretical morphology sometimes. Messages from Elliott Indiran, Justin Seymour, David Lurvey, Hephestion Bolaris, Worthington Phillips, Samuel Bunce, Aaron Rodriguez, Isabel Moreno-Garcia, and Nick Kastner meant so much to me on days made lugubrious by writing and social distancing. Endless, effusive thanks to Evan Reynolds, the best co-worker anyone could ever ask for: I have calculated that he was present for the writing of well over 150 pages. Andrew Wells and his wife opened their home to me during the most difficult stages of this project, and I will never be able to thank them enough.

This dissertation was successfully defended on 14 April 2022 at 2:23pm, at which time I received the news of Timothy Thomas Feerick's untimely passing. It seems right that this work be dedicated to him. Farewell to a dear friend, a gifted musician, an incorrigible ailurophile and vinyl hoarder, and the kindest man I have ever had the pleasure to know.

April och tystad

Våren ligger öde.
Det sammetsmörka diket
krälar vid min sida
utan spegelbilder.

Det enda som lyser
är gula blommor.

Jag bärs i min skugga
som en fiol
i sin svarta låda.

Det enda jag vill säga
glimmar utom räckhall
som silvret
hos pantlånaren.

Tomas Tranströmer (1931–2015)

ABSTRACT

Morphological contiguity domains are pockets of natural language grammar in which non-contiguous formal isomorphism is prohibited, yielding so-called *ABA distributions. These domains have shown great initial promise as a possible diagnostic for syntactic hierarchical structure, and have been observed in the morphosyntax of pronouns, case, number, gender, tense, possessives, negation, *inter multissima alia.* This study argues that *ABA domains are heterogeneous in aetiology (i.e., how they emerge diachronically) and derivation (i.e., how they are generated synchronically). Specifically, it identifies two additional lexico-grammatical categories in which the *ABA effect is active: honorifics and kinship.

Chapter 2 describes the honorific system of Japanese (Japonic, Japan) which contrasts three levels of social deixis: neutral, honorific (referent-exalting), and humilific (speaker- or ingroup-humbling). Chapter 3 introduces the novel Honorific-Humilific Generalisation, under which a suppletive verb that contrasts all three levels must demonstrate co-suppletion of the honorific and humilific forms. Crucially, this *ABA configuration is demonstrated to pattern with the literature on comparative suppletion. Special attention is paid to the importance of differentiating suppletion from registral alternation, the significant interspeaker variation in the use of honorifics, and the pitfalls of using casual inspection to map transparent containment to underlying structure.

Chapter 4 pursues two distinct but overlapping goals. First, it argues that kinship terms are decomposable into abstract morphological features, and that the postsyntactic manipulation of these features suffice to generate all six kinship typologies of traditional anthropology. It reframes the First Fundamental Law of Kinship—in which cross and nuclear terms cannot syncretise to the exclusion of parallel terms—as an *ABA effect that patterns with the literature on case co-lexicalisation. Second, it argues that the Principles of Generational Cyclicity and Agnatic Kinship active in Lower Arrernte (Pama-Nyungan, Northern Territory) work together to instantiate an *ABA domain that results not from syntactic hierarchical containment, but from the manner in which certain kintactic features must always co-occur as

triggers of suppletion.

It emerges from this crosstheoretic, crossdomanial, and crosslinguistic investigation that although individual contiguity domains can be grouped into natural classes with one another, their space of potential variation is so vast that a surface *ABA distribution alone cannot be an unambiguous diagnostic of a particular kind of underlying structure. Rather, each domain should be studied on its own terms, as each touches upon different components of the human language faculty, to include the modularity of grammar, the featural decomposition of morphosyntactic categories, and the presence of constraints on linguistic form not recapitulated by constraints on cognition.

CHAPTER 1

INTRODUCTION

> *Þer beset hom aboute noȝt to bryng hom in wordes.*
>
> *St Erkenwald*

This study represents a crosstheoretic, crossdomanial, and crosslinguistic study of morphological contiguity, elsewhere called *ABA configurations. These are understood here to refer to pockets of natural language morphology in one which formal irregularity in one component predicts or constrains certain patterns of irregularity in a related and more representationally complex component. It is crosstheoretic in the sense that it compares multiple approaches to morphology contiguity domains, namely Distributed Morphology (on which much more later), Nanosyntax (Baunaz et al. 2018), and the Natural Semantic Metalanguage research programme (Wierzbicka 1996). It bears noting at the outset that *contiguity* is *not* used here in the sense of Richards (2016; i.e., a theory of the structural-derivational codependencies between syntax and prosody), but rather of Caha (2008, 2013, 2017a; i.e., a theory of the structural-derivational codependencies between forms and other forms).[1] It is crossdomanial in the sense that it considers two unrelated domains of morphological structure, namely honorifics (i.e., the lexico-grammatical encoding of differentials in social status) and kinship (i.e., the lexico-grammatical encoding of sex, generation, sanguinity,[2] and related categories). Lastly, it is crosslinguistic in that it considers data from a variety of genealogically diverse languages, chief amongst them Japanese (Japonic, Japan[3]), most uncited examples of which have been collected by the author from educated and linguistically untrained native speak-

---

1. Caha's use of *contiguity* is not altogether conceptually distant from Hume (1993:§3)'s, for whom the term describes "a principle of connexion among ideas"—although where Hume speaks of spatiotemporal contiguity and the mental organisation of related ideas, this study speaks of morphosemantic contiguity and the grammatical organisation of related categories.

2. *Sanguinity* is used here as an umbrella term that covers both *consanguinity* (kinship by blood) and *affinity* (kinship by marriage).

3. Where possible, the first mention of a language co-occurs with its genealogical classification and a representative region of use, as reported in the 24th edition of the *Ethnologue* (Eberhard et al. 2021).

	POS	CMPR	SPRL
AAA	*large*	*larger*	*largest*
ABB	*good*	*better*	*best*
	bad	*worse*	*worst*
	far	*farther*	*farthest*
		further	*furthest*
	old	*elder*	*eldest*
	many *much*	*more*	*most*
	little	*less(er)*	*least*
	nigh	*near*	*next*
	late	*latter*	*last*
*ABA	*good*	*better*	*goodest*

Table 1.1: Comparative suppletion in English (Germanic, United Kingdom)

ers at the Inter-University Center for Japanese Language Studies in Yokohama, Japan, and Lower Arrernte (Pama-Nyungan, Northern Territory).

The morphological contiguity domain par excellence remains comparative suppletion (Bobaljik 2012), in which irregularity in the comparative grade of an adjective predicts co-irregularity of the superlative.[4] Table 1.1 contrasts the regular adjective *large* with eight irregular adjectives, inclusive of both cases of strong suppletion (i.e., root allomorphy in which no phonological material is shared between the positive and non-positive roots, as in *bad* vs *wors-*, cf. Dressler 1985) and weak suppletion (i.e., root allomorphy in which some material is shared, as in *far* vs *farth-*). This table also contrasts irregular patterns of strong salience, in which the unexpected allomorphy rarely escapes the notice of linguistically untrained speakers and is often the target of wordplay and other forms of metalinguistic reflexion (e.g., *good* vs *be[tt]-*), as well as patterns of weak salience (e.g., *many~much* vs *mo-*).[5] That *ABA configurations are not available in this domain (nor are *AAB configurations, for that matter,

---

4. All abbreviations in this study follow Leipzig conventions (Comrie et al. 2015) except the following: A = adjective, CMPR = comparative, CJT = conjectural, HML = humilific, NPST = nonpast, POS = positive, SPRL = superlative.

5. Some of these alternations are of very low salience indeed. The *little – less(er) – least* contrast is synchronically limited to taxonomic contexts: cf. the *lesser flamingo* (*Phoeniconaias minor*, i.e., the 'little-er' of the two Old World flamingo species), and the *least weasel* (*Mustela nivalis*, i.e., the 'little-est' of all species in the genus *Mustela*).

on which more later) suffice to identify it as a morphological contiguity domain of the sort that is of interest to this study.

Morphological contiguity domains exhibit heterogeneity in multiple senses. First, *ABA distributions are observable in a wide variety of domains. Outside of Bobaljik (2012)'s magisterial treatment of comparative suppletion, *ABA configurations have been found in pronouns (Ganenkov 2018, Smith et al. 2019, Truong 2019, Middleton 2021), case (Caha 2008, 2017b; McFadden 2018; Zompì 2019; Davis 2021), number (Mare 2021), gender (Gray & Gregor 2019), tense and temporality (Franco 2013, Adamson 2019), possessives (Van Baal & Don 2018), complementisers (Wiland 2018), negation (De Clercq 2020), nominalisations (Jabłońska & Marinov 2011), and much else besides. The recency and cross-domanial richness of these citations strongly suggest that the study of contiguity effects represents a growth area in linguistic theorising. Indeed, research on *ABA *effects* has been generated by theoretical (morpho)syntacticians loyal to a diversity of frameworks, and *ABA *configurations* have been studied from experimental (Tippmann et al. 2018), mathematical (Graf 2019), or diachronic (Andersson 2018) perspectives. The distinction between *configuration* and *effect* is subtle but non-trivial: the use of *configuration* emphasises that *ABA distributions (i.e., prohibitions on non-contiguous formal isomorphism) are an empirical fact of particular languages, whatever their theoretical significance. In contrast, the use of *effect* emphasises that *ABA distributions result from theoretically significant considerations related to hierarchical structure. In the case of comparative suppletion, this can be represented as follows:

(1)   **Containment in comparatives** (Bobaljik 2012:4)

    a. [[[POS] CMPR] SPRL]

    b. *[[POS] SPRL]

Simplifying for ease of exposition, paradigms such as *good – better – goodest* are not possible, because realisational rules sensitive to the structure of the superlative must be co-sensitive to the structure of the comparative, which it (obligatorily and universally) contains. Omer Preminger (p.c.) observes that if *ABA distributions necessarily predict certain

3

	ABS	ERG	DAT
Andi	*min*	*mín*	*du-j*
Chamalal	*miː*	*mín*	*du-ła*
Inxokvari	*mó*	*me*	*dub-ul*
Khinalugh	*vɨ*	*va*	*oχ(ɨr)*

Table 1.2: AAB in Nakh-Daghestanian (Russia, Smith et al. 2019:24)

(perhaps nested) configurations, then a fourth diagnostic for the presence of syntactic hierarchical structure—*containment effects*—emerge as a welcome addition to the arsenal of the generativist, alongside constituency effects (Carnie 2013, i.e., the identification of strings as syntactic units), binding effects (Büring 2005, i.e., the association of anaphoric elements with their antecedents), and island effects (Ross 1967, i.e., the prohibition of certain types of long-distance dependencies).

Another dimension in which *ABA domains exhibit heterogeneity involves the behaviour of AAB patterns. With respect to comparative suppletion, AAB patterns are not possible (e.g, *good – gooder – best*), as this would require a context-sensitive rule involving the superlative without a corresponding context-free rule (Bobaljik 2012:150, a subtle argument on which more shortly).

In contrast, AAB patterns occur readily in pronominal suppletion. In the partial paradigm in Table 1.2, the absolutive and ergative forms of the second person singular pronoun exhibit formal identity to the exclusion of the dative form. Smith et al. propose a nesting containment structure of [[[UNMARKED CASE] DEPENDENT CASE] OBLIQUE CASE], isomorphic to Bobaljik's structure of [[[POS] CMPR] SPRL]. Simplifying, the representation of the ergative case contains that of the absolutive case, and the representation of the dative case contains that of the ergative and absolutive cases—analogous to the manner in which comparative grade contains the positive grade, and in which the superlative grade contains the comparative and positive grades. Abstracting away from the details of their implementation, Smith et al. argue that unlike AAB-prohibiting adjectives (and nouns), AAB-permitting pronouns lack a categorising head, and therefore are associated with a larger accessibility domain

(cf. Bobaljik & Wurmbrand 2005, Moskal 2015, *inter multa alia*) for case-conditioned root allomorphy.

Crucially, given the focus of this investigation on the *heterogeneity* of morphological contiguity, it cautions against the simplistic association of surface *ABA distributions with nesting structures (or indeed, any kind of structure). It proposes that the co-suppletion–containment association may fail in both ways: that is, not every domain that disallows non-contiguous formal identity does so out of the preservation of a feature-incrementing structure, and not every containment structure can be recapitulated by overt co-suppletion. Natural language is replete with *ABA configurations, rich in aetiological and derivational diversity, and although some may form a natural class with the index case of comparative suppletion, evidence for such classification is hard won and must be done by means of careful, systematic analysis. This study proposes to do just this for two domains, heretofore un(der)discussed by the contiguity chasers: honorifics (chiefly in Japanese) and kinship (in a genealogically diverse, crosslinguistic perspective).

The principal findings are as follows. First, honorific suppletion in Japanese forms a natural class with comparative suppletion, in that the structure of honorific verbs (i.e., verbs describing the actions of a higher-status individual) is contained within the structure of humilific[6] verbs (i.e., verbs describing the actions of the speaker or a person in the speaker's ingroup[7] that somehow affect a higher-status individual), but that inspection of surface forms alone is insufficient to establish this claim, as it operates on the level of covert structure, with respect to the relationship between the honorificating auxiliary *naru* 'become' and the humilificating auxiliary *suru* 'do, make'. More concretely, main verb *suru* is structurally the

---

6. Although *honorific* has long been established as a linguistic term as far back as Fabricius & Breithaupt (1779)'s description of honorific pronouns in Malabar Tamil (Dravidian, Kerala), Hasegawa (2014) is the first to use *humilific* in a linguistic sense. The *locus classicus* of the contrast between *honorific* 'prototypical of the independent, value-transferring leisure class' vs *humilific* 'prototypical of the dependent, value-creating industrial class' comes from Veblen (1912 [1899])'s study of conspicuous consumption as a means to perpetuate of feudal relations of production.

7. The *uchi-soto* 'ingroup-outgroup' distinction is discussed further in §2.2.5 and §3.3.4, but a fuller characterisation can be found in Bachnik (2019).

causativisation of the inchoative main verb *naru*, and this derivation is maintained under grammaticalisation into honorific auxiliaries.

(2) **Containment in Japanese honorifics**

    a. *Citation form*: *yomu* 'read'

    b. *Honorific form*: *o-yomi-ni naru* 'read; the speaker respects the reader'

    c. *Humilific form*: *o-yomi suru* 'read; the speaker humbles her-/himself or a member of her/his ingroup; the reading affects an individual of higher status'[8]

    d. *Category-level contiguity*: [[[V] HON] HML]

    e. *Auxiliary-level contiguity*: [[[V] INCH] CAUS]

Second, the co-lexicalisation of *cousin* and *auncle* (i.e., *aunt* or *uncle*) kin terms exhibits morphological contiguity effects. Classical approaches to kinship, such as Morgan (1871)'s hexapartite typology (Hawaiian [generational], Inuit[9] [collateral merging], Sudanese [bifurcate collateral], Iroquois [bifurcate merging], Crow [*amitinus*-promoting bifurcate merging], and Omaha [*amitinus*-demoting bifurcate merging],[10] cf. Table 1.3), Héritier (1981)'s Fundamental Laws of Kinship, and Greenberg (2020 [1980])'s universals of kinship terminology

---

8. Note that the humilific is associated with incrementally more propositional content than the honorific, which is associated with incrementally more propositional content than the citation form. This is taken as evidence for containment and addressed in further detail in §3.3.4.

9. This study is compliant with Resolution 2010–01 of the Inuit Circumpolar Council in the substitution of *Inuit* (< Inuktituk [Inuit–Yupik–Unangan, Eastern Canada] 'person.PL') where Morgan and other traditional anthropologists would have *E****o*. At the same time, it acknowledges that although Canadian and Greenlandic circumpolar peoples feel strongly that *E****o* is a slur (Alliaq Kleist Petrussen p.c.), Tabbert (1991) notes that many members of the three non-boreal Alaskan Native groups—Central Yup'ik, St. Lawrence Island Yup'ik, and Alutiiq—do not identify with *Inuit* and continue to self-designate as *E****o*. Armstrong & Brody (1978:179) raise additional linguistic objections: given that *Inuit* is neither a glossonym nor an adjective, the use of forms like *Inuit language*, *Inuit community*, etc. sounds "very peculiar indeed to an E[****]o speaker" and "does not therefore reveal a sensitive regard for the E[****]o language."

10. Although these systems are described in detail in the relevant chapter, it does no harm to define them in brief here, in terms of the mother, the *amita* 'paternal aunt', and the *matertera* 'maternal aunt'. In generational systems, these are all expressed as one term. In collateral merging systems, *amita* and *materera* are one term (e.g., English *aunt*), contrasting with a separate term for the mother. In bifurcate collateral systems, each kin type has its own term. In bifurcate merging systems, the mother and *matertera* are expressed as one term, contrasting with a separate term for *amita*. Some systems additionally raise or lower the *amitini* (i.e., the children of *amita*) a generation.

	Language	Kinship system	'father'	'paternal uncle'	'maternal uncle'
AAA	Malay (Austronesian, Malaysia)	Hawaiian	*bapa*		
ABB	English	Inuit	*father*	*uncle*	
ABC	Macedonian (South Slavic, North Macedonia)	Sudanese	*tatko*	*vcivcko*	*vujko*
AAB	Seneca (Iroquoian, New York)	Iroquois	*hanih*		*hocnoseh*
*ABA	Fake English	*	*father*	*uncle*	*father*

Table 1.3: Kinship as a morphological contiguity domain

are reducible to interactions between and/or modifications of abstract kintactic features. It emerges that Impoverishment (i.e., feature-deletion rules, cf. Halle & Marantz 1994) and referral (i.e., feature-alteration rules, cf. Stump 1993) operating on formal features related to sex, generation, and sanguinity suffice to generate the typological range and limitations observed in the kinship domain. Lastly, generation- and moiety-contrasting nonsingular pronouns in Lower Arrernte are shown to exemplify an *ABA domain that patterns against comparative and with pronominal suppletion in that it permits AAB suppletion—and crucially, not ABB suppletion. This is argued to result from the manner in which generation and moiety features can only trigger pronominal allomorphy together, which means that only agnatic-harmonic forms can supplete.

(3)   **Containment in Lower Arrernte nonsingular pronouns**

   a.   *al-anth* 'he and his mother (third person dual non-agnatic)'

   b.   *al-ak* 'he and his father (third person dual agnatic disharmonic)'

   c.   *un-ar* 'he and his brother (third person dual agnatic harmonic)'

   d.   [[[NON-AGNATIC] AGNATIC-DISHARMONIC] AGNATIC-HARMONIC]

§1.1 summarises the major findings of the study. §1.2 describes the theoretical apparatus in use. §1.3 presents a selection of well-characterised *ABA domains from the literature,

with an emphasis on their aetiological and derivational heterogeneity. §1.4, §1.5, and §1.6 summarise the major findings of chapters 2 (on honorification in Japanese), 3 (on the derivation of honorific suppletion), and 4 (on the analysis of kinship as a morphological contiguity domain).

1.1   Major findings

Although much of this table is expected to mystify those to whom the study of morphological contiguity domains is new, the major results of this study are summarised in Table 1.4. In particular, three novel *ABA environments are identified: the Honorific-Humilific Generalisation, the Fundamental Laws of Kinship, and the Principles of Generational Cyclicity & Agnatic Kinship. The first describes a prohibition on non-contiguous suppletion observable in the Japanese honorific system. The second describes crosslinguistically robust patterns of impossible co-lexicalisations in the domain of kinship terminology, forbidding such systems as those that contrast a word that means both 'father' and 'maternal uncle' via absolute syncretism with another word meaning 'paternal uncle'. The third describes a prohibition on non-contigguous suppletion observable in the nonsingular pronominal system of Lower Arrernte, an indigeneous Australian language. Each of these case studies finds an analogue in the literature, namely Bobaljik (2012)'s comparative suppletion, Caha (2008)'s analysis of Blansitt's generalisation, and Bobaljik's analysis of Germanic ablaut.

Generalisation	Domain	Mechanism	Empirical characterisation	Analogue
Honorific-Humilific Generalisation	Honorifics	Suppletion	Citation and humilific forms cannot co-supplete to the exclusion of honorific forms.	Comparative suppletion
Fundamental Laws of Kinship	Kinship	Absolute syncretism	Nuclear and cross kin cannot syncretise to the exclusion of parallel kin.	Case co-lexicalisation
Generational Cyclicity & Agnatic Kinship	Kinship	Suppletion	Non-agnatic and agnatic-harmonic pronouns cannot co-supplete to the exclusion of agnatic-disharmonic pronouns.	Germanic ablaut

Table 1.4: Three novel morphological contiguity domains

1.2 Theoretical preliminaries

This investigation approaches the study of honorifics and kinship as morphological contiguity domains in the context of the inverted Y-model (cf. Boeckx & Hornstein 2003), in which a syntactic component establishes a hierarchically organized phrase marker that is separately evaluated by the conceptual-intentional (i.e., semantic) and articulatory-perceptual (i.e., phonological) components. Additionally, it assumes the elaborations of the Y-model specific to Distributed Morphology (DM, *locus classicus*: Halle & Marantz 1993), a lexical-realisational (Stump 2001) theory of morphological structure. Toy implementations of Stump's biaxial typology follow:

(4)   **Deriving *stump-ed* in various approaches to morphology**

    a. *Nature of the pieces of inflexion*

        i. In a **lexical** morphology, *stump* and *-ed* have equal status as listed elements.

        ii. In an **inferential** morphology, the root *stump* and the past tense marker do not have equal status. The latter is a formula that could be represented as something like PST = ROOT+*ed*.

    b. *Nature of the process of inflexion*

        i. In a **realisational** morphology, the presence of a past tense feature licenses the exponence of *-ed*.

        ii. In an **incremental** morphology, the phonological form of *-ed* itself is what bears the past tense meaning.

As a lexical theory, DM conceives of the association of a phonological string and its morphosyntactic content in terms of listed rules, called **Vocabulary items**. A Vocabulary item represents a correspondence between a syntactic atom (which can either be a root, such as GOOD, or a syntacticosemantic feature, such as CMPR) and a phonological string (or a set of neuromotor instructions to produce same). As a realisational theory, it proposes that

the atoms of syntax are without phonological content, and only become pronounceable after being SPELLEDOUT at the end of a syntactic derivation by so-called **Late Insertion**.

(5)   **Schema of a Vocabulary item** (adapted from Arregi & Nevins 2013)

morphosyntactic specification[11] $\leftrightarrow$[12] exponent / contextual specification

Note that *lexical* in the Stumpian sense is distinct from *lexicalist* in the Chomskyan (2019 [1970]) sense, in which the inability of some syntactic processes to access the internal structure of words is taken as evidence that words are built in a separate component of the grammar from phrases,[13] an assumption DM rejects in favour of **Uniform Concatenation**,[14] by which sub-word components combine through Merge (cf. Chomsky 1999) to form words in the same ways that words combine to form clauses.

A Vocabulary item may be subject to **underspecification**, whereby it fails to be exhaustively specified for all the terminal nodes it could occupy. Vocabulary items with more elaborated morphosyntactic specifications will outcompete less elaborated ones by the **Pāṇini Principle**, but many items are simply context-free, default items.

DM is a modular theory, in which structure-building operations in the Syntax are followed by morphological operations in the **Postsyntax**. For a particularly rich characterisation of the postsyntactic component, refer to Arregi & Nevins (2012:4). For the purposes of this study only three postsyntactic modules (following structure-building but preceding the phonological realisation) are needed. First, there is a fusion module, in which the Lower Arrernte kinship and number nodes are mono-exponed for agnatic-harmonic nonsingular pro-

---

11. Harley & Noyer (2014) call this the *context of insertion*.

12. This study takes Vocabulary items to be *correspondence rules*, not transformation rules, and therefore uses bidirectional arrows where others might prefer unidirectional arrows.

13. For an example of the syntax failing and succeeding to see into a word, consider these two cases of differential anaphoric licensing:

(1)   Mark thanked the [[baby]$_i$-sitter]$_j$ and kissed him$_{*i/j}$ before leaving.
(2)   [Foucauld]$_i$-ians have a tendency to misapprehend his$_i$ analyses of *Homo economicus*.

14. This term is Rolle (2020)'s coinage and is more commonly referred to as *syntactic hierarchical structure all the way down*.

nouns. Second, there is a markedness-responsive **Feature Modification** module, in which deletion of features by Impoverishment (Bonet 1991) and alteration of features by referral (Stump 1993) can occur, giving rise to particular systems of kinship and blocking impossible configurations (on which more in §4.3). Second, there is a **Linearisation** module, without which the honorific prefix would be misplaced within the Japanese verbal complex (on which more in §3.4).

(6)　**A modular derivation**: Syntax (Move, Merge) → Fusion (e.g., mono-exponence of the kinship and number nodes in Lower Arrernte) → Feature Modification (e.g., nepotisation of paternal cross cousins in Omaha) → Linearisation (e.g., *o*-fronting in Japanese) → Late Insertion

1.3   Case studies in morphological contiguity

This study proposes that *ABA environments form a heterogeneous class, and that there exist multiple derivational pathways that produce surface contiguous suppletion (or equivalently, prevent non-contiguous suppletion). These pathways differ with respect to the organisation (or lack thereof) of the abstract morphological features active in the system. Using honorifics in Japanese as an example, three aetiologies can be proposed:

(7)　**Three ways to generate an *ABA configuration**

　　a.　**The cumulating architecture** (Bobaljik 2012), in which the humilific is the most featurally or representationally complex category (relative to the honorific and citation forms).

　　b.　**The overlapping architecture** (Caha 2017b), in which the honorific is the most featurally or representationally complex category (relative to the humilific and citation forms).

　　c.　**The supra- or non-architectural approach** (Andersson 2018), in which extralinguistic factors are centred.

11

*ABA patterns appear to be a domain-general aspect of natural language morphology. This section looks closely at three case studies: feature-cumulating comparative suppletion, feature-overlapping case syncretism, and non-featural body-part lexicalisation, with an eye to possible homologies to Japanese honorifics. In the first (§1.3.1), the *ABA effect acts as a constraint on non-contiguous suppletion, and predicts what kind of relationships *forms* can have to one another within the same paradigm. In the second (§1.3.2), the *ABA effect acts as a constraint on non-contiguous absolute syncretism, and predicts what kind of relationships *categories* can have to one another across paradigms. In the third (§1.3.3), the *ABA effect acts as a constraint on non-contiguous lexicalisation, and predicts what kind of forms can come into existence at all.

1.3.1 Feature cumulation in comparative suppletion

Using a genealogically diverse sample of languages, Bobaljik (2012) identifies pervasive patterns of parasitic suppletion within the domain of comparatives, in which root inconstancy in a less marked component of a paradigm predicts co-inconstancy in a more marked component. Suppletion is understood here to refer to the context-dependent association of a single lexical item with two or more phonologically unpredictable and often (but not necessarily) etymologically distinct forms, illustrated below by the English verb *go*:

(8) **Suppletion**

    a. *go – went/*goed*

    b. *They wend(ed)/??went their way through the city.*

In (8a), the regular past tense is degraded, and an unexpected form from another paradigm, *wend*, fills in the gap before combining with the past tense ending -*t*. Interestingly, this form survives elsewhere in English as a (low-frequency) verb meaning 'to go in a specified direction, typically slowly or by an indirect route', although its past tense has been regularised in this usage. High-frequency verbs are prone to this type of unpredictable morphologically-

conditioned allomorphy. This is not to say that there are not systematic, rule-governed aspects of suppletion: indeed, with respect to root constancy, very robust patterns can be observed:

(9) **Root constancy in comparative suppletion** (Bobaljik 2012:29)

	POS – CMPR – SPRL	Pattern
a.	**tall** – **tall**er – **tall**est	AAA
b.	good – **bett**er – **be**st	ABB
c.	**bon**us – melior – optimus	ABC (Lat. 'good')
d.	*__good__ – better – **good**est	*ABA
e.	*__good__ – **good**er – best	*AAB

For a regular adjective, such as *tall* in (9a), the root remains invariant across the positive, comparative, and superlative grades, instantiating an AAA pattern. For a suppletive adjective, such as *good* in (9b), the comparative and superlative grades share a root to the exclusion of the positive, instantiating an ABB pattern. For a doubly-suppletive adjective, such as Latin *bonus* in (9c), each of the grades is associated with its own root, instantiating an ABC pattern. Unattested are languages in which the positive and superlative grades share a root to the exclusion of the comparative (an *ABA pattern, as in [9d]), or in which the positive and comparative grades share one to the exclusion of the superlative (an *AAB pattern, as in [9e]). On the basis of (a much more crosslinguistically diverse agglomeration of) these data, Bobaljik proposes a bipartite linguistic universal:

(10) **The Comparative–Superlative Generalisation** (Bobaljik 2012:29–30)

a. **Part I** (CSGI): If the comparative degree of an adjective is suppletive, then the superlative is also suppletive (i.e., with respect to the positive).

b. **Part II** (CSGII): If the superlative degree of an adjective is suppletive, then the comparative is also suppletive (i.e., with respect to the positive).[15]

---

15. CSGI&II are, by Bobaljik's own admission, slight reformulations of a generalisation advanced by Ultan

To account for this empirical generalisation, Bobaljik additionally proposes a universal, abstract, and invariant structural configuration in which the comparative is properly contained by the superlative (Bobaljik 2012:10, with some simplifying modifications for expository purposes):

(11) **The cumulating architecture**

a. AP
   |
   A

b. CMPRP
   ⟋ ⟍
CMPR   AP
        |
        A

c.   SPRLP
        ⟋   ⟍
     SPRL   CMPRP
            ⟋   ⟍
         CMPR   AP
                  |
                  A
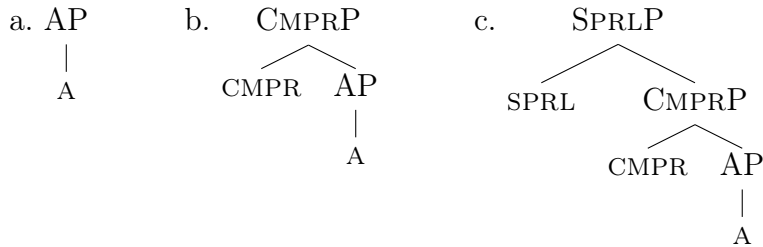
The configuration in (11c) implies that any realisational rule that includes the superlative node as a conditioning environment must also include the comparative node as a conditioning environment, thereby generating surface co-suppletion. The unattested patterns of root inconstancy, *ABA and *AAB, require configurations in which the superlative grade is independent of—that is, does not contain—the comparative grade. The containment effect is, in one sense, a constraint on possible realisational rules, preventing the formal representation of complex categories to the exclusion of their associated subcategories.

The cumulating architecture interacts with the Vocabulary fragment in (12) to derive the ABC-suppletion observed in Latin *bonus – melior – optimus* 'good – better – best'):

(12) **Vocabularial contiguity in Latin** (adapted from Bobaljik 2012:151)

a. $\sqrt{GOOD}$[16]+CMPR[17] $\rightarrow$ *opt-* / ___] SPRL]

(1972), which also makes reference to the equative grade (i.e., '*X* is as ADJ as *Y*'): *[S]uppletive paradigms in the comparison of adjectives almost always imply formal identity or near-identity of the bases shared by the comparative and superlative vis-à-vis those shared by the positive and equative.* That there can exist additional grades that are built on the positive, to the exclusion of the suppletive grades, becomes relevant later in the discussion of the Japanese causative-autobenefactive in §2.4.1.

16. To emphasise that the syntax manipulates phonology-free elements, roots are represented abstractly as radicands.

17. Bobaljik (2012:148) treats the superlative allomorph as a portmanteau in recognition of cases in which a suppletive form bleeds overt regular morphology, such as English *worse*, in which *worse* not only replaces

b. $\sqrt{GOOD} \leftrightarrow$ *mel-* / ___] CMPR]

c. $\sqrt{GOOD} \leftrightarrow$ *bon*

d. CMPR $\leftrightarrow$ *-ior*

e. SPRL $\leftrightarrow$ *-imus*[18]

In the rules in (12), GOOD normally surfaces as *bon*, the default form. In the comparative, it surfaces as *mel-ior*, and not *bon-ior, because the more specific rule (12b) outcompetes the context-free rule (12c) by the Pāṇini Principle. Likewise, in the superlative, it surfaces as *opt-imus*, and not *mel-imus or *bon-imus, because rule (12a) outcompetes rules (12b,c).

A hypothetical Latin without rule (12a) would derive ABB **bon – melior – melimus*. This is a desirable consequence, as such patterns are attested crosslinguistically (cf. the English ABB-suppletive adjectives in Table 1.1). But a hypothetical Latin without rule (12b) would derive AAB **bon – bonior – optimus*, a pattern claimed by Bobaljik to be either impossible or otherwise extremely marginal. To exclude such paradigms, he proposes the following condition on Vocabulary items:

(13) **Contextual Contiguity Condition** (Bobaljik 2012:150)

If there is a context-sensitive rule of exponence involving a node α, then there is a context-free rule of exponence involving α.

Although a pivotal part of his analysis, he neither names the condition nor dwells on it; the appellation given above is novel to this study. In concrete terms, it means that rule (12b) cannot exist in the absence of rule (12c): a language cannot have a suppletive (comparative) allomorph without also having a regular (positive) form. Equivalently, rule (12c) cannot exist

---

bad but also *-er* (*badder, *worser). This competes against an analysis in which there is a zero allomorph of the comparative that surfaces in the environment of Latin $\sqrt{GOOD}$ and English $\sqrt{BAD}$. At this time, there is not much to choose between these two approaches: fused *worse* ($\sqrt{BAD}$+CMPR) and bimorphemic *worse-* $\varnothing$ ($\sqrt{BAD}$-CMPR) are string-equivalent. The portmanteau analysis complicates the Postsyntax by adding a Fusion module in which the adjacent root and CMPR nodes are combined, whereas the zero-based analysis complicates the allomorphy of CMPR. For theorists who reject zero morphs for psycholinguistic, aesthetic, or philosophical reasons (cf. Dahl & Fábregas 2018), the cumulative exponence analysis has its strengths.

18. These entries abstract away from gender- and case-conditioned allomorphy in the grade suffixes.

in the absence of rule (12b): a language cannot contain a rule sensitive to the superlative environment without also having a rule that is sensitive to the comparative environment.

More formally, let node $\alpha = \{\sqrt{GOOD}\}$. The context-free rule (12c) is unproblematically permissible. Its existence licenses the existence of rule (12b), a sensitisation of α to the comparative. Then let node—or rather, span (cf. Merchant 2015)—$\beta = \{\sqrt{GOOD}, \text{CMPR}\}$. If rule (12b) is restated as the context-free equivalent in (14), then its existence licenses the existence of rule (12a), a sensitisation of β to the superlative.

(14)   **Latin comparative allomorphy as a context-free rule** (Bobaljik 2012:151)

$\sqrt{GOOD}$+CMPR $\leftrightarrow$ *mel*-CMPR

The upshot is that rules are acquired in a stepwise fashion, with the emergence of simpler rules preceding that of more complex rules in ways that constrain possible patterns of allomorphy. Furthermore, for the purposes of adjudicating whether a simpler rule can license a more complex rule, syntacticosemantic content can be freely 'moved' between the morphosyntactic specification and the contextual specification (i.e., CMPR is treated as a conditioning environment of allomorphy in rule [12b] but as part of the context of insertion in [14]). However unaesthetic the formalism, the underlying logic is tantalising: relations between Vocabulary items constrain relations between forms. The competing analysis below may be both clarificatory and simplificatory:

(15)   **Specificational contiguity in Latin**

a. $\sqrt{GOOD} \leftrightarrow$ *opt-* / ___] CMPR] SPRL]

b. $\sqrt{GOOD} \leftrightarrow$ *mel-* / ___] CMPR]

c. $\sqrt{GOOD} \leftrightarrow$ *bon*

The rules in (15) illustrate the logic of condition (13) transparently. The context-free rule (15c) licenses the more contextually specific rule (15b). Rule (15b) licenses the incrementally more contextually specific rule (15a). A prohibition on *AAB suppletion in adjectives, so understood, reduces to a prohibition on the co-occurrence of *specificationally non-contiguous*

Vocabulary items: in other words, a hypothetical Latin that contains rules (15a,c) without (15b).

Comparative suppletion, therefore, is a contiguity effect in multiple senses. Morphologically, it is a restriction on non-contiguous suppletion, ruling out paradigms like *good – better – goodest*. Syntactically, it implies a hierarchical structure in which the representation of the superlative properly contains the representation of the comparative. Derivationally, it suggests the presence of implicational relationships between Vocabulary items. Cognitively, it generates predictions about acquisition order and learnability: perhaps incrementally more complex rules or categories can only be acquired once the corresponding lower-complexity and simplex rules or categories have been acquired.

One form of evidence for these nested structures central to Bobaljik's analysis comes from a handful of cases of transparent containment, such as Persian (Indo-Iranian, Iran) *kam-tar-in* 'fewest (few-CMPR-SPRL)', schematised in (16b), in which the superlative grade is perceivably built upon the comparative grade, with postsyntactic linearisation yielding the correct order. The resulting form could be rendered literally in English as 'betterest'. A more elaborated set of realisational rules, specifically one that includes a zero comparative marker in the context of the superlative marker, is necessary to keep forms like *betterest* from surfacing in English, even though the underlying hierarchical structure is otherwise identical to what occurs in Persian.[19]

(16) **Overt feature cumulation in Persian** (Bobaljik 2012:31)
 a. *kam – kam-tar – kam-tar-in*
  'few – fewer – fewest'

---

19. It bears mentioning that a fringe case of transparent containment in English may exist in the form of *lattermost*, an intensificatory realisation of the superlative in the historical *late – latter – last* paradigm. Synchronically, this paradigm coexists with the retroregularised—and consequently semantically differentiated— *late – later – latest.*

b. SPRLP

```
        SPRLP
        /    \
     SPRL   CMPRP
      |      /   \
     -in  CMPR   AP
           |      |
         -tar   kam
```
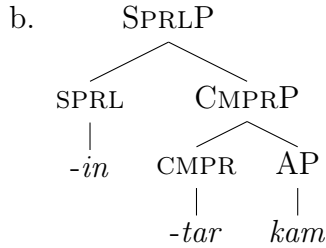
In other words, comparatives exhibit a *ABA environment in which the final category—namely, the superlative grade—is the most featurally and structurally complex: it is impossible to express the superlative meaning without also expressing the comparative meaning.

It is worth noting that diachronically, Persian comparatives were not an overtly feature-cumulating environment (Yaroslav Gorbachov p.c.). Proto-Indo-Iranian distinguished the comparative suffix *-tara (< Proto-Indo-European *-tero) from the superlative *-tama (< PIE *-tmmo), yielding a state of affairs resembling the -er∼-est contrast in English. That Persian synchronically realises the superlative meaning by means of overt feature cumulation suggests that strings such as *kam-∅-tama 'good-CMPR-SPRL; fewest' are in some sense unstable, and may tend towards overt realisation. Instabilities created by zero morphs that feed reanalysis can also be observed in multiple honorification in Japanese, exemplified below and discussed in further detail in §3.4.1.

(17)   **Deparadigmatisation of 'eat'**[20]

    a. *tabe-ru*
        eat-NPST
        'eat'

    b. *∅-meshiagar-∅-∅-u*   (**o-tabe-ni naru*)
        HON-eat.HON-NMLZ-AUX:HON-NPST
        'to eat; the speaker respects the eater'

    c. % *o-meshiagar-i-ni*   *nar-u*
          HON-eat.HON-NMLZ-DAT AUX:HON-PST
        'to eat; the speaker greatly respects the eater'

---

20. This study represents Japanese data in the modified Hepburn romanisation, which is more phonetic and therefore more closely approximates pronunciation. Datum (17b) would be *mesiagaru* in Kunrei- or Nihon-style romanisation.

Datum (17a) represents the citation form of 'eat'. Datum (17b) represents the suppletive honorific form, which blocks regular honorification. Nonstandard but widely attested datum (17c) represents the regular honorification of the suppletive root, presumably driven by the abundance of zero morphs, thereby triggering deparadigmatisation (cf. Hopper 1994), in which realisational alternants lose their relationship to one another. That is, if *meshi-agaru* is no longer seen as the suppletive form of *taberu*, it can undergo further (regular) honorification.[21]

1.3.2   *Feature overlap in case syncretism*

A re-evaluation of Blansitt's generalisation by Caha (2017b) argues that the *ABA environment characterised by the dative–allative–locative functional subsequence is associated with a non-cumulating featural architecture, distinct from what is observed in the case of comparative suppletion. The empirical generalisation at issue is restated below:

(18)   **Blansitt (1988)'s generalisation**

The functions DAT – ALL – LOC can be identically marked only if the identically marked functions are contiguous in the order shown. These functions can be defined to facilitate crosslinguistic comparison as follows:

a.   DAT: The recipient in a ditransitive construction.

b.   ALL: The goal of motion.

c.   LOC: The place where [some entity is].

Whereas *ABA effects within comparatives restrict possible patterns of co-suppletion, *ABA effects within this functional subsequence restrict possible patterns of syncretism (strictly speaking, absolute syncretism in the sense of Calabrese 2008, also called conflation by McGinnis 2005).

---

21. Some verbs, such as *kiru* 'wear', are more or less conventionally deparadigmatised, and almost always occur in the multiply-honorific frame in which suppletion co-occurs with regular honorific morphology: *o-meshi-ni naru* (*o-ki ni naru, %*mesu*) 'to wear; the speaker respects the wearer'.

	DAT	ALL	LOC
Japanese: AAA (DAT = ALL = LOC)	*tomodachi-**ni*** friend-DAT 'to a friend'	*kōen-**ni*** park-ALL 'to the park'	*Tōkyō-**ni*** Tokyo-LOC 'in Tokyo'
Pite Saami: AAB (DAT = ALL)	*Jåssjå-**j*** Josh-DAT 'to Josh'	*Ornvika-**j*** Ornvika-ALL 'to Ornvika'	*vágge-n* valley-LOC 'in the valley'
Dime: ABB (ALL = LOC)	*Šhiftay-in* Shiftaye-DAT 'to Shiftaye'	*ʔéh-**ó** ýiz-i-n* house-ALL run-PFV-3 'ran to the house'	*ʔéh-**ó** dán* house-LOC COP 'be in the house'
Basque: ABC	*aita-ri* father-DAT 'to my father'	*bulego-ra* office-ALL 'to the office'	*soro-an* field-LOC 'in the field'
Unattested: *ABA	*(gave it)* **in** *Mary*	*(went) to the pub*	*(lives)* **in** *New York*
Feature structure	[DAT]	[DAT, LOC]	[LOC]

Table 1.5: The overlapping architecture (Caha 2017b:2–5)

As shown in Table 1.5, in Basque (isolate, Basque Country & France), the DAT-ALL-LOC sequence is fully differentiated by three case markers,[22] dative *-ri*, allative *-ra*, and locative *-an*. In Japanese, the sequence is fully syncretic, with all of these functions served by *-ni*. Pite Saami (Uralic, northern Sweden) observes a DAT-ALL syncretism, whereas Dime (Omotic, Ethiopia) observes an ALL-LOC syncretism. Unattested (in Blansitt's sample of 71 genealogically unrelated languages) is the non-contiguous DAT-LOC syncretism. These data are suggestive to Caha of a featural architecture in which the medial category—namely, the allative case—is the most featurally and structurally complex. As with the case of transparent feature cumulation in the Persian superlative, Caha offers the example of transparent feature overlap in Tigrinya (Semitic, Ethiopia & Eritrea), Macedonian (South Slavic, North Macedonia), and Malayalam (Dravidian, Kerala).

In Table 1.6, it would appear that the Tigrinya allative is composed of *ne+ab* 'DAT-LOC', with vowel coalescence or deletion to avoid hiatus. In the case of Macedonian, the allative appears as a combination of the full forms of the dative and locative. In Malayalam, the allative takes the form LOC-*ee*-DAT (-*ee* behaves as a case connective here but acts an

---

22. Caha has *father* as **alta* in Basque, but this has been corrected to *aita* here thanks to Karlos Arregi.

emphatic marker elsewhere in the language). The temptation presents itself to rearrange the columns as DAT–LOC–ALL or LOC–DAT–ALL in pursuit of a feature-cumulating analysis, but recall that there are no attested cases of DAT-LOC (absolute) syncretism, whereas DAT-ALL and ALL-LOC syncretisms are common (and indeed, apparent in Table 1.6). To restate, the data suggest that the DAT–ALL–LOC case sequence exhibits a *ABA environment in which the medial category—namely, the allative case—is the most featurally complex: it is impossible to express the allative meaning without also expressing the dative and locative meanings.

Caha argues that theories that assume the Pāṇini Principle cannot handle these overlapping architectures, because they would overgenerate the unattested *ABA DAT-LOC syncretism:

(19) **Contextual non-contiguity in case realisation**

    a. Japanese: DAT-ALL-LOC syncretism

        i. [   ] ↔ -*ni*

    b. Pite Saami: DAT-ALL syncretism

        i. [DAT] ↔ -*j*

        ii. [   ] ↔ -*n*

    c. Dime: ALL-LOC syncretism

        i. [LOC] ↔ -*ó*

        ii. [   ] ↔ -*in*

    d. *ABA: DAT-LOC syncretism

	DAT	ALL	LOC
Tigrinya	*ne*	*nab*	*ab*
Macedonian/West Bulgarian	*na*	*na kaj*	*kaj*
Malayalam	-*kkə*	-*ileekkə*	-*il*
Feature structure	[DAT]	[DAT, LOC]	[LOC]

Table 1.6: Transparent overlap (Caha 2017b:9–11)

i. [DAT, LOC] $\leftrightarrow$ B

ii. [   ] $\leftrightarrow$ A

In Caha's overlapping architecture, dative and allative share a feature, and allative and locative share a feature. There is no common feature that joins the three categories. Therefore, a Vocabulary item that can realise a three-way syncretism between them must be maximally underspecified with respect to the features relevant to this case subsequence (it still may be specified for other case features, if the dative is in fact built on the accusative). This is shown for Japanese in (19a). The dative-allative syncretism (i.e., a locative/non-locative contrast) in Pite Saami is derived via two rules, one specified for dative features and one maximally underspecified, as in (19b). Similarly, allative-locative syncretism (i.e., a dative/nondative contrast) in Dime is derived via two rules, one specified for locative features and one maximally underspecified, as in (19c). But this system also generates *ABA paradigms, in cases where a rule is specified for both dative and locative features co-occurs with a maximally underspecified rule, as in (19d).[23]

The derivational contrasts between comparative suppletion and case co-lexicalisation exemplify what is meant by heterogeneity in morphological contiguity. Although they both constitute *ABA environments, comparative suppletion and case syncretism are associated with different domains, different architectures, and different derivations. In both cases, crosslinguistic investigation has revealed forms in which the underlying architecture is made explicit (e.g., Persian *kam-tar-in* 'few-CMPR-SPRL; fewest' and Tigrinya *n-ab* 'DAT-LOC; allative'). It is this heuristic—the use of overt form as an assay of covert structure—that is being questioned by this study. First, honorification is a crosslinguistically rare category (and humilification even more so), and therefore it is difficult to compile the large, genealogically diverse samples that Bobaljik and Caha are able to for comparatives and case. Second, it

---

23. An alternative analysis, presented in Truong (2021), uses the same intuition that underlies Bobaljik's Contextual Contiguity Condition presents. Suppose that the rules in (19d) are non-contiguous on the level of the morphosyntactic specification. That is, perhaps the system is unable to make a rule that targets both [DAT, LOC] without having a rule that targets either [DAT] or [LOC] on its own.

is possible for differentials in overt morphological structure gleaned from inspection *not* to map perfectly onto differentials in covert syntactic structure.

(20) **Honorific suppletion in Japanese 'know'**

> *shir-u* – *go-**zonji*** *dearu* – ***zonji**-ru*
> know-NPST HON-know.HON COP know.HON-NPST
> 'to know – to honourably know – to humbly know'

By inspection, one could be led to believe that the honorific is the maximally complex structure, as it impressionistically appears as though the honorific form is composed of a combination of the humilific form and some additional morphological material (cf. Czech *hor-ší* 'bad-CMPR; worse' and *nej-hor-ší* 'SPRL-bad-CMPR; worst' within the comparative domain, Bobaljik 2012:32). Crucially, however, this study argues that the humilific indeed represents the maximally complex structure, and that this is obscured in 'know', a form for which systematic zero auxiliarification under humilific suppletion co-occurs with idiosyncratic overt auxiliarification under honorific suppletion. That is, *zonjiru* is in fact associated with more covert syntactic structure than *go-zonji dearu*. Although overt structure can be often suggestive of underlying containment structures, a reliance on what can be gleaned from overt structure alone will lead one to miss out on more subtle cases of containment, especially in the context of crosslinguistically uncommon categories.

1.3.3 *Feature inactivity in somatic lexicalisation*

In addition to the cumulating and overlapping architectures, there may be *ABA configurations that are not reducible to abstract hierarchical structure at all. One such case may be crosslinguistic patterns of lexicalisation in the FINGER-HAND-ARM sequence. Although lexicalisation constraints in this domain have long been documented by typologists (Brown 2013a,b), they have not typically been framed in terms of or in relation to *ABA effects. Data in Table 1.7 are representative, not exhaustive, and have been culled from the World Atlas of Language Structures.

	'finger'	'hand'	'arm'	ABC
Bambara (Mande, Mali)	*tɛgɛ*	*bolo*		ABB
Warlpiri (Pama-Nyungan, Northern Territory)	*rdaka*		*jiwirnpa*	AAB
Cahuilla (Uto-Aztecan, southern California)	*nemo*			AAA
*Fake English	*arm*	*hand*	*arm*	*ABA

Table 1.7: A putative nonstructural *ABA configuration (Dryer & Haspelmath 2013)

First, an English-type language is one in which the FINGER-HAND-ARM sequence undergoes tripartite lexicalisation, yielding one separate (monomorphemic) term for each member in the sequence. Second, in a Bambara-type language, bipartite lexicalisation yields two terms, one targeting FINGER and the other targeting the HAND-ARM subsequence. Third, in a Warlpiri-type language, an alternative bipartite lexicalisation yields two terms, one targeting ARM and the other targeting the FINGER-HAND subsequence. Fourth, in a Cahuilla-type language, monopartite lexicalisation obtains to yield a single term that targets the entire sequence. What is unattested is a bipartite lexicalisation that yields two terms, one targeting HAND and one targeting the discontinuous subsequence *FINGER-ARM. Table 1.7 exemplifies the heterogeneity of surface *ABA configurations, which not only appear in contextual syncretism (e.g., in comparative suppletion) and in absolute syncretism (e.g., in the lexicalisation of case), but also in the lexicalisation of content words as well.

Using a genealogically diverse sample of 354 languages, Cysouw & Comrie (2013) show that the monopartite lexicalisation occurs very rarely in both languages spoken by nomadic hunter-gatherers as well as those spoken by sedentary agriculturalists. Likewise, the tripartite lexicalisation occurs very commonly across both language types. Importantly, a difference between the two groups arises with respect to the bipartitions: the Warlpiri-type arm-differentiating bipartition is more frequent in hunter-gatherer (HG) languages, whereas the Bambara-type finger-differentiating bipartition is more frequent in non-hunter-gatherer (non-HG) languages. Their data are reproduced in Table 1.8.

Cysouw & Comrie defer to Brown (2013a,b)'s appeal to historical contingency in explaining these facts. Specifically, Brown argues that the material culture of hunter-gatherer

Pattern	HG	Non-HG	Observations
FINGER-HAND-ARM	5 (3%)	8 (2%)	rare in both
FINGER, HAND, ARM	111 (64%)	153 (43%)	common in both
FINGER-HAND, ARM	38 (22%)	14 (4%)	more frequent in HG
FINGER, HAND-ARM	20 (11%)	179 (51%)	more frequent in non-HG
HAND, *FINGER-ARM	0 (0%)	0 (0%)	unattested
Total	174 (100%)	354 (100%)	

Table 1.8: Lexicalisation asymmetries & subsistence strategies (Cysouw & Comrie 2013:391)

groups may contrast with agrarian groups with respect to the extent and use of finger adornment. The creation and wearing of rings would increase the salience and distinctness of the finger as a body part, promoting separate lexicalisation and yielding a preference for the finger-differentiating bipartition on the part of sedentary agriculturalists. Relatedly, Brown proposes that the hunter-gatherer preference for the arm-differentiating bipartition may be explicable in terms of the use of arm-covering tailored clothing, as well as hand-covering gloves and mittens, all of which serve to increase the salience and discreteness of the arm. Given that the necessity of such articles of clothing is tied to climate, Brown hypothesises that non-equatorial languages should be more likely to differentiate ARM from HAND (either by means of the Warlpiri-type bipartition or the English-type tripartition) than equatorial languages.

Whether this two-part appeal to material culture and climate is convincing lies outside the scope of this investigation. It suffices to say that this lexicalisation asymmetry indeed exemplifies a *ABA configuration, and crucially one that is unlikely to result from any kind of featural architecture, cumulating or overlapping. That is, there seems to be something unparsimonious and theoretically inadequate about positing the following two architectures:

(21) a. **A cumulating architecture**: 'arm' [ArmP] – 'hand' [ArmP [HandP]] – 'finger' [ArmP [HandP [FingerP]]]

b. **An overlapping architecture**: 'arm' [arm] – 'hand' [arm, finger] – 'finger' [finger]

The proposal in (21a) claims that, universally, 'finger' is a complex form that abstractly contains the meanings for 'hand' and 'arm'. Certainly, there are cases of 'transparent containment' in which the word for 'finger' contains the word for 'hand': for instance, Vietnamese *ngón tay* 'finger (lit. digit hand)', with *tay* itself meaning both 'hand' and 'arm'. This datum would contradict (non-opaque implementations of) the proposal in (21b), in which 'finger' is featurally simplex. In any case, however unconvincing or incomplete the aforesaid appeal to clothing or finger adornment may be, an extralinguistic approach certainly feels more reasonable than a decompositional one. Lexicalisation of the ARM-HAND-FINGER sequence seems intimately tied to the real-world *physical* contiguity of the sequence, not to the abstract 'featural contiguity' proposed in (21). More concretely, somatic lexicalisation may be less analogous to comparative suppletion and case syncretism than it is to other instances of semantic drift grounded in physical contiguity, such as Latin *coxa* 'hip' > French *cuisse* 'thigh' (Hopper 2003:88). One is led to conclude that the ARM-HAND-FINGER sequence exhibits a *ABA environment that cannot be featurally decomposed, epiphenomenal as it is to the embodied character of language and cognition.[24]

Continuing this thread, Brown (2013a) notes further that whilst there are many languages in which the word for 'finger' builds transparently on 'hand', there are no languages in which 'hand' is built transparently on 'finger'. That is, there can be no *Bizarro English that distinguishes *finger* from *fingerbase* (i.e., 'hand'). Yet this generalisation is not without complication: Yaroslav Gorbachov (p.c.) observes that within Indo-European, 'hand' can be built on PIE **penkwe* 'five (i.e., fingers)': Early Proto-Slavic **pn̥kw-sti-* > PS **pęstĭ* > Russian *pjast'* and Germanic **fūnh-sti-* > Old English *fýst* > English *fist*. There are at least two interpretations of these data. First, if accepted as 'transparent', they can be interpreted as counterexemplifying the claim that 'hand' cannot be built on 'finger'. Second, they provide

---

24. Cases exist of conceptually contiguous semantic drift in the kinship domain, such as Roper River Creole (New South Wales) *katjin* 'mother-in-law' > English *cousin* (Yallop 1982:171). The principal task of Chapter 4 is to demonstrate that kinship terms pattern against body-part nouns and with comparatives and case in several important respects.

an additional (embodied, system-external) explanation for why *FINGER-ARM cannot be co-lexicalised: fingers can be associated unproblematically with 'fiveness', but arms certainly cannot. That is, the non-lexicalisation of an 'arm' word that is built on 'finger' proceeds not only from the physical discontiguity of ARM and FINGER, but additionally from their numeric incongruity.

Contrasting as strongly as it does to comparatives and case, this case study stands out as a proof of principle that not all *ABA *configurations* (i.e., the absence of of non-contiguous formal isomorphism) instantiate *ABA *effects* (i.e., interactions between abstract formal features).

1.4   Chapter 2: Honorification in Japanese

Before Japanese honorifics can be analysed as a morphological contiguity domain, the system must be described in detail. §2.2 pursues an in-depth analysis of the prefix *o-*, in light of the four factors most important to its role in honorification, including allomorphy, allosemy, differential grammaticalisation, and ingroup-sensitivity. In general, the prefix surfaces as *o-* in front of native words, as *go-* in front of Sino-Japanese words, and as *mi-* in front of words from religious or ceremonial registers—although exceptions exist to all these tendencies and are discussed in detail. A wide range of morphological and phonological evidence is marshalled for the claim that there are at least two instances of *o-*, an allomorphy-participatory and ingroup-sensitive one that expresses an honorific meaning, and a form-invariant (or retroregularised, cf. (Arregi & 2014)) and ingroup-insensitive one that expresses non-honorific meanings.

(22)   **Non-unitariness of the honorific prefix**

    a.   *Multiple honorification*: *o-mi-o-tsuke* 'HON-HON-HON-miso.soup'

    b.   *Honorific* o- *creates atonic forms and does not potentiate* rendaku

      i.   *koko↓ro*   downstep on second mora

      ii.   *o-kokoro* (**o-gokoro*) 'HON-heart'   atonic

iii. *mi-kokoro* 'HON-heart' atonic

iv. *mi-go↓koro* 'HON-heart' downstep on first mora

c. *Honorific* o- *is etymology-sensitive, ingroup-sensitive, and actually honorific*

i. *shitsumon* 'question' vs *go-shitsumon* 'a question from the audience'

ii. *jōhin* 'refinement' vs *o-jōhin* (*go-jōhin) 'pretence, affectation, putting on airs'

Datum (22a) provides the strongest evidence that there are multiple slots in which an honorific prefix can appear. The phono-accentual contrasts in (22b) shows that *kokoro* 'heart' is normally a mesotone, becoming an atone when honorific *o-* or *mi-* is attached. There is a second *mi-* that attaches more closely to the root, triggering *rendaku* and moving the downstep over one mora. Lastly, the contrast in (22c) shows that honorific uses of *o-* surface as *go-* and bear a non-first-person interpretation when attaching to Sino-Japanese *shitsumon* 'question', but remain *o-* when attached sarcastically to Sino-Japanese *jōhin* 'refinement'. The idea that there are multiple instantiations of *o-*, only one of which is truly honorific, ingroup-sensitive, and suppletive when appearing before Sino-Japanese roots becomes important in Chapter 3, in which honorific *o-* in the verbal domain is shown to exhibit atypical postsyntactic linearisation behaviour.

§2.3–4 describes the major contrasts within the regular honorific system, including the *o-*V-*ni naru* and *o-*V *dearu* honorifics, the passive -*rare* and highly archaic causative-passive -*sase-rare* honorifics, the *o-*V *suru* humilific, and the innovative -*saseitadaku* causative-autobenefactive, which has emerged in response to the defectiveness of the humilific. That voice morphology (i.e., passive, causative-passive, and causative-autobenefactive) is so often refurbished into honorific morphology becomes important in Chapter 3.

(23) **Regular honorification**

a. *sugo-ku   takusan-no hon-o   o-mochi   desu   ne*
   wonderful-ADV many-GEN book-ACC HON-have AUX:HON.POL EXCL
   'You have ever so many books; the speaker respects the addressee.'

b. *kishū-ga   ooi-node   wakari-yasui yōni   hyō-o   o-mochi*
   models-NOM numerous-because understand-easy in.order.to table-ACC HON-have
   shi-mashi-ta
   AUX:HML-POL-PST
   'Given how many models there are, I brought a table to make things easier; the

   speaker respects the addressee; the act of bringing affects the addressee.'[25]

c. *nihon-no   kigyō-ni   donoyōna   inshō-o   mot-are-mashi-ta   ka*
   Japan-GEN company-DAT what.kind.of impression-ACC have-HON-POL-PST Q
   'What kind of impression did you have of Japanese firms?; the speaker respects

   the addressee.'

d. *o-kaban-o   mot-aseteitadaki-mas-u*
   HON-bag-ACC have-HML-POL-NPST
   'I'll hold your bag; the speaker respects the addressee; the act of holding affects

   the addressee.'

1.5   Chapter 3: Deriving honorific suppletion

This chapter defends Japanese honorifics as a morphological contiguity domain. §3.2 proposes
three diagnostics for suppletion specific to Japanese: compound intersubstitutability, main-
tenance of irregularity under grammaticalisation, and maintenance of truth-conditionality.
These tests permit the exclusion of forms that have been misclassified as suppletive honorifics
in previous work, to include registral alternants (i.e., semantically but not paradigmatically
associated verbs), courteous verbs (i.e., verbs that take the form of humilifics but lack their
licensing and pragmatic properties), and *hai*-mulifics (i.e., *hai*-initial Sino-Japanese words
argued to constitute suppletive humilific forms). This classification represents a major de-
parture in many important respects from both traditional pedagogical grammars as well as
more recent work in the generative literature (e.g., Thompson 2011).

(24) **Suppletion diagnostics**

---

25. *Motsu* 'have, hold, carry, possess' is a punctual verb. Therefore, it means 'have' only in certain contexts,
including the progressive (*motte iru* 'to have') and the copular honorific (*o-mochi dearu* 'to have; the speaker
respects the possessor'). In the simple nonpast and past, it respectively means 'bring' and 'brought'. The
interaction of Japanese verb types and the honorific auxiliary is discussed in additional detail in §3.3.1.

a. *Compound intersubstitutability*: *ii-wake* 'excuse' vs *mōshi-wake* 'excuse' (therefore *mōsu* is the suppletive honorific of *iu* 'say')

b. *Maintenance of irregularity under grammaticalisation*: *-te iru* 'PROG' vs *-te irassharu* 'PROG.HON' (therefore *irassharu* is the suppletive honorific of *iru* 'to exist')

c. *Maintenance of truth-conditionality*: *hon-o yomu* 'to read a book' vs *hon-o haidoku suru* 'to read a respected person's book' (these verbs select for different arguments, and therefore *haidoku suru* is not the suppletive humilific of *yomu* 'to read')

Most important of all, this chapter proposes the Honorific-Humilific Generalisation:

(25)   If a verb contrasts all three categories of honorification (citation, honorific, and humilific forms), and the honorific form of a verb is suppletive, then the humilific is also suppletive.

§3.3 provides a number of syntactic and non-syntactic evidence in favour of the following containment structure:

(26)   **The humilific contains the honorific**

a.

$$
\begin{array}{l}
v\text{P} \\
\quad \diagup \;\; \diagdown \\
\text{HonP} \qquad v^0 \\
\qquad\qquad \textit{nar-} \\
\quad n\text{P} \quad \text{Hon}^0 \;\; v_{INCH} \\
\quad\diagup\diagdown \quad \textit{o-} \\
\text{VP} \;\; n^0 \quad \text{HON} \\
\;|\quad \text{NMLZ} \\
\text{V}^0 \\
\text{Verb}
\end{array}
$$

b.
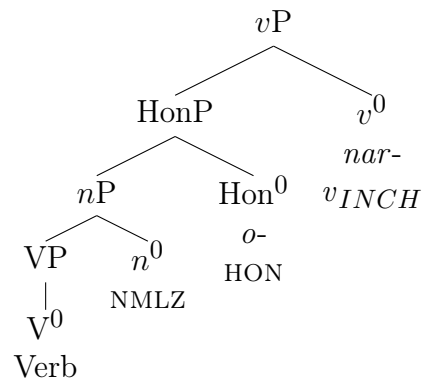
```
                                        vP
                                       /  \
                                     vP    v⁰
                                    /  \    s-
                                 HonP   v⁰  v_CAUS
                                 /  \   ∅
                               nP   Hon⁰ v_INCH
                              /  \   o-
                            VP   n⁰  HON
                            |    NMLZ
                            V⁰
                           Verb
```
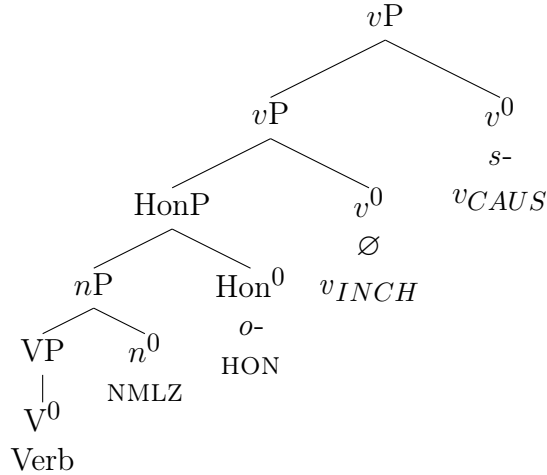
The phrase markers in (26) exemplify the major claims of the chapter. First, they demonstrate that the humilific contains the honorific, thereby forbidding *ABA configurations. Second, the fact that the main verbs *naru* 'become and *suru* 'do, make' lead second lives as AUX:HON and AUX:HML is not coincidental, as these two forms alternate elsewhere in the language in a variety of constructions as an inchoative-causative verb pair. This study follows Miyagawa (1998) in claiming that causative *suru* 'cause to become' is built on top of inchoative *naru* 'become', and that this is whence honorific (auxiliary) containment by the humilific (auxiliary). Forms in which this structure is overt, such as *iya-gar-ase-ru* 'hate(ful)-INCH-CAUS-NPST; to harass, to annoy' are identified.

The third major finding of this chapter is that casual inspection of such paradigms as 'know' might lead one to believe that the honorific (*go-zonji dearu*) contains the humilific (*zonji-ru*). Although the honorific form of 'know' does indeed present with more overt morphology, it is in fact structurally simpler relative to the humilific form (i.e., it lacks a causativising projection). In other words, it is possible for a containment effect to be active at the level of covert syntactic structure, and not every differential of overt morphological structure should be treated as transparent containment.

(27) **Honorifics are more phonologically complex, but humilifics are more structurally complex**

31

a. *o-kik-i-ni*   *nar-u*
HON-hear-NMLZ-DAT INCH-NPST
'to hear; the speaker respects the hearer'

b. *o-kik-i*   *∅-s-uru*
HON-hear-NMLZ INCH-CAUS-NPST
'to hear; the speaker respects the addressee; the acting of hearing affects the

addressee'

c. *go-zonji-∅*   *dearu*
HON-know-NMLZ AUX:HON.NPST
'to know; the speaker respects the knower'

d. *∅-zonji-∅-∅-∅-ru*
HON-hear-NMLZ-INCH-CAUS-NPST
'to know; the speaker respects the addressee; the acting of knowing affects the

addressee'

Lastly, sample derivations are provided for honorifics and humilific sentences. It emerges from this work that honorific suppletion is associated with extensive zero-marking, which is proposed to predict the high levels of interspeaker variation observed in the use of honorifics.

1.6   Chapter 4: Universals in kintactic morphology

This chapter contrasts two approach to kinship terms, an *emic* approach situated within the Natural Semantic Metalanguage research programme (Wierzbicka 2010) and the *etic* approach based on the Crossmodular Structural Parallelism (CSP) hypothesis (Nevins 2010). In this latter approach, contrasts in kinship can be modelled in terms of the modification and realisation of bundles of kintactic features, parallel to what happens in the analysis of phonological contrasts. Naturally, the fact that kinship terms constitute a morphological contiguity domain that forbids certain patterns of co-lexicalisation in and of itself instantiates the CSP, in that it demonstrates that yet another dimension of linguistic contrast can generate *ABA configurations. §4.2 proposes a number of dimensions of contrast that an empirically adequate theory of features must be able to distinguish, as well as four additional

extralinguistic dimensions of contrast. In the definitions below, *propositus* refers to a person from whom a line of descent is derived, and *sanguinity* refers to the distinction between kinship by blood (consanguinity) versus by marriage (affinity).

(28)   **Major contrasts in kin terms**

    a.   **Sex of referent**: *father* vs *mother*

    b.   **Sex of linking relative**: Basque *anaia* 'brother of a male propositus' vs *neba* 'brother of a female propositus'

    c.   **Sex of speaker**: Acoma *ša^{ʔ}u* 'sister to a female speaker' vs *sa·kuitc* 'sister to a male speaker'[26]

    d.   **Generation**: *father* vs *son*

    e.   **Sanguinity**: *brother* vs *brother-in-law* vs *co-brother-in-law*

    f.   **Descent**: *grandmother* vs *great-aunt*

    g.   **Age**: Vietnamese *anh* 'older brother' vs *em* 'younger sibling'

§4.3 frames Greenberg's universals of kin terms and Morgan's typology of kin systems as products of Impoverishment and referral, or postsyntactic modification of kintactic features triggered or targeting marked combinations of features. For instance, consider these data from Hanunoo (Austronesian; Mindoro, Philippines), which exemplify the Greenbergian generalisation that more remote generations express fewer distinctions than closer generations.

(29)   **Progressive loss of contrast in Hanunoo kin terms**

---

26. In one sense, *sex of speaker* can be thought of as a special case of *sex of linking relative*, in which the linking relative is the speaker. Mickey (1956:250) describes cases in which the same word refers to different people depending on the sex of the speaker: *jiji* used by a male speaker refers to 'sisters and female cousins', but to 'brothers and male cousins' when used by female speakers. Eggan (1950) describes varieties of Acoma in which the same referents are associated with different terms depending on the sex of the speakers: specifically, female speakers describe maternal cross cousins (i.e., a woman's mother's brother's children) as children, whereas male speakers describe maternal cross cousins (i.e., a man's mother's brother's children) as grandchildren. This represents an interaction between sex of speaker and skewness, discussed further in §4.3.2.

a. **First ascending generation**: *qāmaq* 'father', *bāpaq* 'uncle', *qīnaq* 'mother', *bāyih* 'aunt'

b. **Second ascending generation**: *lakih* 'grandfather, great-uncle', *qiduh* 'grandmother, great-aunt'

c. **Third ascending generation**: *qumput* 'great-grandparent, great-great-auncle'

Whereas the first ascending (i.e., parental) generation contrast sex (male 'father' vs female 'mother') as well as descent (lineal 'father' vs collateral 'uncle'), the second ascending (i.e., grandparental) generation only contrasts sex, and the third ascending (i.e., great-grandparental) generation contrasts neither. This metasyncretism, widely attested in crosslinguistic perspective, can be modelled in terms of an Impoverishment rule that triggered by marked (i.e., greater than 1) values of the generation feature, represented here as $\mathbb{G}$.

(30)   **Morphokintactic Impoverishment in Hanunoo**

a. *Neutralisation of descent for grandparental terms*

   i. Structural description: A kin term specified as [±feminine, ±lineal, $\mathbb{G}$: +2].

   ii. Structural change: Delete [±lineal].

b. *Neutralisation of descent & sex for great-grandparental terms*

   i. Structural description: A kin term specified as [±feminine, ±lineal, $\mathbb{G}$: +3].

   ii. Structural change: Delete Gender and [±lineal].

§4.4 describes Héritier's impossible typologies with respect to cousin and uncle terms as *ABA configurations, as well as identifies a novel impossible typology, in which siblings, parallel cousins, and cross cousins each have their own terms. This is likewise demonstrated to be modellable in terms of Impoverishment. In languages that recognise the parallel-cross distinction (i.e., in which cousins from the mother's sister and the father's brother are treated as siblings), the features associated with parallelness are always targets of markedness-targeted Impoverishment, and therefore terms that pick out specifically parallel referents cannot be lexicalised.

Lastly, §4.5 describes Lower Arrernte nonsingular pronouns as an AAB-permitting contiguity domain, a result that only obtains if the traditional categorial ordering of AGNATIC-HARMONIC > AGNATIC-DISHARMONIC > NON-AGNATIC is reversed. This demonstrates the importance of ordering the categories in a domain properly before trolling for containment, and presents a proof of principle of a case in which the ordering is not obvious. Equally importantly, the contiguity effect is shown *not* to result from syntactic hierarchical containment, but rather from the fact that particular kintactic features must always act as co-triggers of suppletion. This means that at least some *ABA effects are the result of a prohibition on (or the non-occurrence of) particular combinations of Vocabulary items.

CHAPTER 2

HONORIFICATION IN JAPANESE

He worth rather reseyved and reverentloker sitte: Amice, ascende superius.

William Langland, *Piers Plowman*

2.1   Introduction

Careful description of the honorific system of Japanese is necessary before delving into analysis of the suppletion facts for at least three reasons. First, outside of Harada (1976), there have been few detailed explanations of the major generalisations of the system (and their numerous and theoretically significant exceptions) in English. Chapter 2 of Yamada (2019) is a welcome counterexample to this tendency. Second, Harada, and much generative work subsequent built on his account, promote a tripartite classification (subject vs object vs performative honorifics), competing with the more modern pentapartite classification, which has been argued by Barešova (2015) to be a more empirically and theoretically adequate account of the system. Third, the analysis in Chapter 3, and in particular the appeal to the contrast between suppletive and registral alternants, requires that a few crucial assumptions within *both* classifications not be true.

The chapter begins with a discussion of the honorific prefix *o-*, and in one sense can be read as a minimally novel theoretical elaboration of the thorough empirical work performed by Miyake (1999). Four characteristics of *o-* emerge as relevant for the study of the role in honorification: allomorphy, allosemy, differential grammaticalisation, and ingroup-sensitivity. With respect to allomorphy, in general, the prefix surfaces as *go-* before Sino-Japanese words and *o-* before native words (although exceptions to these tendencies, as well as marginal allomorphs, are also be discussed). With respect to allosemy, it is argued that within the nominal domain—but crucially, not in the verbal domain—there is a second, allomorphy-nonparticipatory *o-* that has taken on a wide variety of non-honorific (e.g., mollescent, eu-

phemistic, etc.) meanings. With respect to differential grammaticalisation, it becomes clear that some appearances of the honorific prefix are more strongly 'attached' than others, and that this co-occurs with structural and interpretive consequences. Finally, with respect to ingroup-sensitivity, certain uses of the honorific prefix in the nominal domain are instances of bona fide *honorification*, in that they encode the higher status of a relevant possessor, referent, or benefactee, whereas others are instances of *beautification*, in that they encode the desire of the speaker to signal refinement.

§2.2 discusses the allomorphy (e.g., *o-* vs *go-* vs other marginal forms) and allosemy (e.g., honorific vs non-honorific uses) of the *o-* prefix, in both synchronic and diachronic perspective. After it is made clear that the *o-* prefix in the nominal system does not always have the same allomorphic or semantic properties as the *o-* prefix in the verbal system, §2.3 describes the regular honorific system and §2.4 describes the regular humilific system.

2.2   The *o-* prefix

This study begins with a characterisation of the behaviour of the honorific prefix *o-* in the nominal system. Given that the wider focus of the work is on honorific verbal suppletion, this may strike some as an unconventional point of departure. Pedagogical grammars, linguistically untrained speakers, and even some generativist writers often assume the crossmodular unitariness of *o-*: that is, they assume that the *o-* prefixes that show up in various corners of honorific and polite language represent instantiations of the same semantically stable meaning. It is demonstrated in this section that this is decidedly not the case. The major generalisations are as follows:

(31)   **Allomorphy & allosemy of the honorific prefix**

    a.   The honorific prefix attaches to nouns (and some adjectives and adverbs) to communicate a variety of meanings: honorification, humour, mollescence, euphemism, sarcasm, paedomimesis, etc.

37

b. It takes the form *o-* when attaching to native Japanese words, highly assimilated Sino-Japanese words, and loanwords.

c. It takes the form *go-* when attaching to less-assimilated Sino-Japanese words.

d. It takes the form *mi-* when attaching to select words belonging to a spiritual or religious semantic field.

e. It can attach multiple times, as long as identical allomorphs are not adjacent (e.g., *o-mi-o-tsuke* 'miso soup').

The most complete English-language study of the honorific prefix remains Miyake (2000), and much of what follows revisits ground well trodden there, with a few novel theoretical elaborations. Although *o-* has been often called the honorific marker—and this study follows this tradition in most cases—Miyake herself prefers Tsujimura's more expansive definition of *o-* as a prefix that expresses honorific, humilific, and beautificatory meanings, with her own proviso that the full range of meanings in contemporary usage continues to grow ever more 'polysemous and elusive' (Miyake 2000:3).

§2.2.1 discusses the allomorphy of the prefix, which in most cases takes the form of *o-* before Yamato (i.e., native) vocabulary and *go-* before Sino-Japanese vocabulary, although there are additional marginal allomorphs, such as *mi-*, that attaches to words from particular semantic domains. §2.2.2 uses phonological (i.e., *rendaku* 'sequential voicing'), accentual (i.e., pitch accent placement), and morphological (i.e., multiple honorification) evidence to argue that there are least two positions for the honorific prefix. §2.2.3 discusses non-honorific uses of *o-*, which can soften or euphemise offensive terms, convey sarcasm, or be used by and/or in addressing children. §2.2.4 argues that there are at least two instances of *mi-*, one that acts more like a compounding element, and one that acts more like a bona fide allomorph of the honorific prefix. §2.2.5 describes the phenomenon of ingroup-sensitivity, in which some appearances of the honorific prefix contain implicatures of possession by or affiliation with a higher-status referent, whereas others do not (i.e., they constitute ingroup-insensitive or beautificatory uses). §2.2.6 combines all the major insights of §2.2.1–5 to create a toy

Vocabulary fragment as well as account for the behaviour of exceptional honorification (i.e., the unexpected *go*-prefixation of an English loanword).

2.2.1 Allomorphy & diachrony

This section discusses the allomorphy of *o-* in non-verbal contexts. In brief, this marker surfaces as *o-* before Yamato (i.e., Japanese-origin) nouns and adjectives and highly assimilated Sino-Japanese nouns, and as *go-* before less assimilated Sino-Japanese nouns. Exceptions to both tendencies are also explored. The section ends with a consideration of Miyake's historical reconstruction of the honorific prefix.

In the base case, *o-* attaches to Yamato nouns (i.e., native Japanese nouns) to yield an honorific—or beautificatory—form. Although there can be overlap, *honorific* is used here to refer to usages that express deference to a higher-status outgroup referent, whereas *beautificatory* refers to usages that express politeness to the addressee and/or the wider discourse context.

(32) **Prefixation of *o-* to Yamato nouns**

    a. *hana* 'flower', *o-hana* 'honourable flower'

    b. *mizu*, 'water', *o-mizu* 'honourable water'

It is worth it to spend some time discussing what this free translation means. In (32), the lexical content of the prefixed nouns is not affected. That is, *o-hana* still refers to 'flower' and *o-mizu* still refers to 'water'. Following Yamada (2019), a more rigorous translation would add another proposition, represented in (33). At this time, not much turns on the choice between (33a,b), although each emphasises something different about the pragmatic import of *o*-prefixation: (32a) centres the addressee and frames it in terms of politeness, whereas (33b) centres the speaker and frames it in terms of persona construction. In most cases, this study avoids writing out these fuller, more accurate translations, preferring the brevity of 'honourable flower'.

(33) **Alternative free translations for *o-hana***

    a. 'flower; the speaker respects the addressee'

    b. 'flower; the speaker positions oneself as refined'

Attachment to adjectives is also attested, although in most cases this sounds highly archaic and stilted.[1]

(34) **Prefixation of *o-* to adjectives**

    a. *utsukushii* 'beautiful', *o-utsukushii* 'honourably beautiful'

    b. *samui*, 'cold', *o-samui* 'honourably cold'

Crucially, (34a) does not mean 'beautiful in an honourable way', but rather 'beautiful; the speaker respects the addressee.' In sentence (35), neither 'education policy' nor 'Japan' are being honorificated: rather, the presence of *o-* here simply conveys the speaker's respect for the discourse context and/or sense of refinement.[2] Note that although *samui* means 'cold' in the context of weather, it can mean 'poor, bad, scanty' in the context of a policy or budget.

(35)   *o-samui   kyōiku-seisaku-wa   nihon-no   gan   da*
      HON-poor education-policy-TOP Japan-GEN cancer COP
      'Poor education policy is a blight on Japan; the speaker positions oneself as refined.'

Prefixation of *o-* to an adjective can co-occur with *onbin* 'euphonic modification' of the ending.[3] This survives in a few set expressions, as in (36b,d), contrasting with the regular, non-honorific forms of the adjectives in (36a,c). All other uses, such as (36f) constrasting with non-honorific (36e), would be received as highly archaic and perhaps even pretentious. *Gozaimasu* is the honorific polite form of the copula.

(36) **Co-occurrence of *o*-prefixation and euphony**

---

1. Strictly speaking, *i*-final adjectives, or *keiyōshi*, are closer to stative verbs, as they inflect for tense and other verbal categories.

2. Addressee-oriented politeness is an unlikely reason for the use of *o-samui* 'honourably cold' here, as it does not co-occur with the polite form of the copula, *desu*.

3. Euphony applies to the adverbial form of the adjective: *haya-i* 'early-NPST' > *haya-ku* 'early-ADV' > *hayau* (velar deletion) > *hayō* (vowel coalescence).

a. *hayai* 'fast, early'

b. *o-hayō   gozai-mas-u*
   HON-early COP.HON-POL-NPST
   'Good morning (lit. You're here early).'

c. *medetai* 'auspicious'

d. *o-medetō   gozai-mas-u*
   HON-auspicious COP.HON-POL-NPST
   'Congratulations!'

e. *tanoshii* 'fun, enjoyable'

f. *o-tanoshū gozai-mas-u*
   HON-fun   COP.HON-POL-NPST
   'I'm having fun.'

When the noun is of Sino-Japanese origin (such words are also known as *kango*), the honorific marker takes the form *go-*:

(37) **Prefixation of *go-* to Sino-Japanese vocabulary**

    a. *jūsho* 'address', *go-jūsho* 'honourable address'   **o-jūsho*

    b. *hon*, 'book', *go-hon* 'honourable book'   %/??*o-hon*

Sino-Japanese words that are sufficiently assimilated may take *o-*; examples of such appear in (38). That a (very small) minority of speakers permit *o-hon* 'honourable book' suggests that the degree of assimilation can be subject to interspeaker variation.[4]

(38) **Prefixation of *o-* to assimilated Sino-Japanese vocabulary**

    a. *genki* 'health, wellness, energy', *o-genki* 'honourable health'   **go-genki*

    b. *denwa* 'telephone', *o-denwa* 'honourable telephone'   **go-denwa*

    c. *o-cha* 'tea'   ?*cha, **go-cha*

    d. *uma* 'horse', *o-uma* 'honourable horse'[5]   **go-uma*

---

4. A less polarising example of a word that traditionally takes *go-* but now is highly likely to take *o-*, especially in women's speech, is *henji* 'reply'. This alternation is discussed in further detail in §2.2.4.

5. Another acceptable gloss is 'horsey'. The use of *o*-prefixation in child-directed and child-imitative speech is revisited in §2.2.3.

There are at least three reasons that a word might merit classification as 'highly assimilated'. First, it may belong to the stratum of Sino-Japanese vocabulary that came into Old Japanese from Early Middle Chinese in the 5th–9th century, as with (38a). Second, it may belong to the class of words made in Japan from Chinese roots (*waseikango*),[6] which began to proliferate in the Meiji era (1868–1912), as in (38b). Third, it may belong to the domain of culturally significant everyday objects and activities, such as (38c). Following Miller (1967), Miyake calls items of this lattermost subtype, in which *o-* seems to have irretrievably fused to the root, exemplars of lexicalised (i.e., frozen) honorification. Glosses for these forms leave out the clunky 'honourable', as they almost never appear unprefixed and do not contain an additional proposition that the speaker respects the addressee and/or the discourse context.

Although native speakers are often without access to detailed etymological knowledge, they still possess an excellent metalinguistic awareness of whether a word should be classified as Sino-Japanese, or at the very least an awareness that these forms are somehow distinct from native words, given their unique phonology. Hasegawa (2014), citing Komatsu, adds that there is a stratum of very early Sino-Japanese borrowing from the period prior to regular cultural interchange with China (i.e., prior to around 670 AD) that are hyperassimilated to such an extent that even highly reflective native speakers are unlikely to categorise them as Sino-Japanese, of which (38d) is one example. In other words, the distribution of *o-* is complex, and includes *transparently assimilated* forms such as *o-genki* 'honourable health' (which is honorificated by *o-* but is known to speakers as an exceptional Sino-Japanese form) as well as *opaquely assimilated o-uma* 'honourable horse' (which is honorificated by *o-* and is assumed by speakers to be a native form).

The inverse case, in which *go-* is prefixed to native vocabulary, is much rarer, but also attested. It seems as though the only native words that can take *go-* are adverbs, but no one so far seems to have made anything of this observation.

---

6. These are equivalent to neoclassical coinages in English, such as *biography* (< Gk. *bíos* 'life' + *gráphō* 'write'), which make use of roots from a source language to a coin a word that did not exist in the source language as such.

(39) **Prefixation of *go-* to Yamato vocabulary**

    a. *yukkuri* 'slowly', *go-yukkuri* 'at honourable ease, at your leisure'   *o-yukkuri

    b. *mottomo* 'for good reason, naturally', *go-mottomo* 'but of course'   *o-mottomo

Miyake discusses a few more highly marginal allomorphs of *o-*, which essentially survive in the synchronic language as fossilised or lexicalised forms. Whereas before, the claim that forms such as *o-cha* 'tea' are fossilised referred to the impossibility (or at least extreme infelicity) of unbound ?/*cha, here *fossilised* refers to the nonproductiveness of *on-*, *mi-*, *omi-*, and *gyo-*. That is, they attach to a tiny fraction of the lexicon, and a disproportionate number of such attachments additionally express conventionalised euphemism or metonymy.

(40) **Marginal allomorphs of the honorific prefix** (Miyake 2000:§1.5)

    a. *on-chū* 'dear sirs, Mssrs (lit. honourable inside)'

    b. *mi-gushi* 'honourable hair (cf. *kushi* 'comb')'

    c. *mi-gokoro* 'honourable heart (cf. *kokoro* 'heart')'

    d. *mi-kado* 'the emperor (lit. honourable gate)'

    e. *omi-ashi* 'honourable foot/leg'

    f. *omi-yamairi* 'the custom of taking a baby to a shrine to be blessed'

    g. *gyo-sha* 'carriage driver, emperor's vehicle'

    h. *Ama-terasu*   *oho-mi-kami*
       heavens-illuminate great-beautiful-god
       'Amaterasu the sun goddess (lit. the great god who illuminates the heavens)'

A note on datum (40f): two possible parses of this form are possible. The first is *omi-ya-mairi* 'HON-house-go-visit.shrine', and the second is *o-miya-mairi* 'HON-shrine-visit.shrine'. The first is more historically accurate, and the second is only possible later on once complex *mi-ya* 'honourable house' has been reanalysed as simplex *miya* 'shrine'. The 'instability' and reanalysability of *mi-* is important to keep in mind as one evaluates what it means to be

a 'marginal allomorph'. This observation becomes important later in §2.2.2, in which it is argued that not all instances of *mi-* are bona fide allomorphs of the honorific prefix.

The maximal form, *oho-mi-*, appears in (40h), and is clearly analysable as a compounding of two honorific prefixes, *oho-* 'large, great' and *mi-* 'great, beautiful'. The maximal honorific was historically attached to terms relating to gods, emperors, and members of the royal court. Miyake schematises the development of *oho-mi-* to present-day *o-* in the following way:

(41)   **Diachronic change in the honorific prefix** (Miyake 2000:§2.2)

a.   *oho-mi-* 'great-beautiful' → $\begin{cases} ohomi\text{-} \\ mi\text{-} \end{cases}$ → *ohom-*, *ohon-* → *on-* → *o-*

b.   Middle Chinese *ŋɨʌ*[H] 'imperial' → *gyo-* → *go-*

For expository reasons, Miyake has abstracted away from phonological particulars: for instance, *ohomi-* would have been pronounced as something closer to [oɸomʉ] in Early Middle Japanese. She has also elided a few etymological curiosities (e.g., *oho-* may be cognate to *ō-* 'large, great' and *mi-* to *mi* 'spirit, god'), but not much seems to turn on these details.

In summary, although exceptions exist, the form of the honorific prefix is *o-* when attaching to native and highly assimilated (whether opaquely or transparently) Sino-Japanese forms and *go-* when attaching to less assimilated Sino-Japanese forms. A handful of marginal allomorphs (*on-*, *mi-*, *omi-*, *gyo-*) exist, which mostly survive in frozen expressions. Diachronically, *o-* and related allomorphs are reductions of the bimorphemic maximal form, *oho-mi-* 'great-beautiful'.

2.2.2   Sequential voicing, accent, & differential grammaticalisation

This section argues that diachronic derivation of the honorific prefix from a span of two morphemes, *oho-mi-*, is observable synchronically with respect to variation in sequential

voicing application and pitch accent placement. Empirically, it is shown that the system contrasts at least two types of *mi-*. The first is a relatively more grammaticalised, semantically restricted allomorph of *o-* that does not trigger sequential voicing and that creates atonic forms (i.e., flat-accented words without a drop in pitch). In contrast, the second is a relatively less grammaticalised morpheme that triggers sequential voicing and the same accentual behaviour observed in compounding. This strongly suggests that there are at least two synchronic positions for the honorific prefix, one inner and one outer, and provides examples of multiply-honorificated forms in which both are filled.

Although the argument from differential phonology is subtle, it can be summarised as follows. In general, honorific prefixation creates atonic forms, in which the initial mora is low and subsequent morae are high (i.e., there is no downstep). Additionally, honorific prefixation does not in general trigger sequential voicing, as it is not a compounding process. By looking at exceptional cases in which ostensible honorific prefixation yields tonic, sequentially-voiced forms, it is possible to conclude that relatively more lexical uses of the honorific prefix persist. This predicts that there should be forms in which the relatively more lexical (i.e., compounding) and the relatively more prefixal uses coexist, and indeed such forms do exist.

Synchronic evidence exists in favour of the pathway in (41a) in terms of the behaviour of *rendaku* 'sequential voicing' as observed in (40c,d). Simplifying massively, *rendaku* describes a process in which the initial consonant of the non-initial element of a compound is voiced (cf. *ori* 'folding' + *kami* 'paper' → *origami* 'the art of paper folding', **orikami*). The relevant data are reproduced below, with significant contrasts placed in sentential contexts:

(42) **Variable triggering of sequential voicing by the honorific prefix**

    a. *mi-kado* 'the emperor (lit. honourable gate)'   **mi-gado*

    b. *o-kado-ga*   *chiga-u*   **o-gado*
        HON-gate-NOM differ-NPST
        'You're barking up the wrong tree (lit. the gate is otherwise).'

    c. *kami-no mi-kokoro*   pitch accent: L-H-H-H
        god-GEN HON-heart

'the will of the gods'

d. *jihi-no   mi-gokoro-de sekai-o   suku-u*   pitch accent: L-H-L-L
   mercy-GEN HON-heart-INS world-ACC save-NPST
   '[She] will save the world with her merciful heart.' (Mr. Children, 'Monster')

e. *anata-no o-kokoro-no   yasumar-u   yōni...*   *o-gokoro[7]
   you-GEN HON-heart-GEN feel.at.ease-NPST so.that
   'So that your mind might rest...' ('Salutary Remonstrances', Weintz 1904)

In (42a), the marginal allomorph of the honorific prefix *mi-* attaches to *kado* 'gate'. The honourable gate literally refers to the gates of the imperial palace, but metonymically refers to its most important resident, the emperor (cf. the use of *the White House* to refer to the president or his/her administration). In (42b), the default form of the honorific prefix *o-* attaches to *kado* 'gate', yielding the transparent meaning of 'honourable gate', in this case referring to the entryway of a home, shop, or other location mistakenly entered. Although the free translation highlights the idiomatic meaning, the literal meaning, in which one has simply come to the wrong shop or house, is also possible. (The nominalized form, *o-kado-chigai* 'a wrongful entry', is also possible.) In either case, by Kamo-Motoori-Lyman's Law,[8] words that already contain a voiced obstruent, such as *ka**do***, do not undergo *rendaku*.

In (42c,d), the marginal allomorph *mi-* triggers optional *rendaku* on *kokoro* 'heart, mind, spirit, psyche, emotions, mentality'. First, in general, the honorification of *kokoro* feels extremely archaic, except in particular religious (and especially Christian) contexts. Second, the choice to sequentially voice or not produces accentual consequences. A simplified typology of pitch accent follows:

---

7. Akitaka Yamada (p.c.) adds that *on-kokoro* is attested in Heian-era texts (794–1185). An example of this highly archaic and marginal form, which should be considered as a more formal variant of the *o-* allomorph (and is still used as such in particular ceremonial and written registers), is provided for completeness.

(1) *mi-kado on-kokoro ugokite   ito   awarenite on-shio-tare-sase-tamau*   (Miyake 1993:22)
     HON-gate HON-heart move.GER very apologetic HON-salt-shed-HON-HON.AUX
     'The emperor, his noble heart stirred, lacrimated in contrition.'

8. This triply-eponymous formulation was first suggested by Tanaka (2017) on the basis of the fact that Kamo no Mabuchi and Motoori Nobunaga had both described this blocking phenomenon prior to and independently of Lyman.

(43) **Accentual patterns in normative Tokyo Japanese**[9] (adapted from Hyman 2009)

    a. ***Heiban-gata*** 'flat type, atonic': Initial mora is low, subsequent morae are high. When a particle follows, the particle is also high (e.g., L-H-H in *sakana* 'fish' vs L-H-H-H in *sakana-ga* 'fish-NOM').

    b. ***Atamadaka-gata*** 'head-high type, prototonic': Initial mora is high, subsequent morae are low (e.g., H-L-L in *ma↓kura* 'pillow').

    c. ***Nakadaka-gata*** 'mid-high type, mesotonic': Initial mora is low, subsequent morae up to and including the accented mora are high, following morae are low (e.g., L-H-L in *koko↓ro* 'heart').

    d. ***Odaka-gata*** 'tail-high type, oxytonic': Initial mora is low, subsequent morae are high. When a particle follows, the particle is low (e.g., L-H-H in *atama↓* 'head' vs L-H-H-L in *atama↓-ga* 'head-NOM').

In most cases, honorific prefixation creates an atonic form (Martin 2003:333). This is observable in mesotonic *koko↓ro* becoming atonic *mi-kokoro* in (42c). This makes the prototonic *mi-go↓koro* appear quite mysterious. There are cases in which a prototonic word retains its accent under honorific prefixation, such as *(o-)hi↓ya* '(honourable) cold water'.[10] However, (42d) is a case of a word that is mesotonic in isolation becoming prototonic, which is exceptional in the context of honorification. Rather, it appears to pattern with the accentual marking of compounds. Following Alderete (2015), for compounds in which the second element is three morae or longer, accent regularly falls on the first syllable of the second element. That is, *mi-gokoro* 'honourable heart' patterns with *onna-go↓koro* 'woman's heart', both of which also displaying sequential voicing. These facts provide evidence for the claim

---

9. This is a heavily idealised system. Pitch accent is subject to significant dialectal as well as intraspeaker variation. For instance, *kokoro* 'heart' is normatively mesotonic in Tokyo Japanese but normatively prototonic in Osaka Japanese. Complicating matters further, oxytonic pronunciation of *kokoro* is also attested in some Tokyo speakers.

10. Certainly, there are exceptions to this exceptional tendency as well, such as prototonic *ka↓ge* 'shadow, influence' vs atonic *o-kage* 'honourable shadow, your influence/assistance/favour').

that there are two instances of *mi-*. The first is a marginal allomorph of *o-*, conditioned by spiritually important entities, and which atonicises the nouns to which it is prefixed (as does *o-* and *go-*). The second is a less grammaticalized form that retains relatively more of the lexical character of *ohomi-* 'large, great, beautiful', and therefore participates in processes specific to noun-noun interactions, such as sequential voicing and compound accent assignment.

This predicts that a word should be able to be doubly-honorificated with both this more lexical *mi-* and a more grammatical honorific prefix. Indeed, this is attested in both normative and nonstandard usage. These forms are often referred to colloquially as MAX *keigo* 'maximal honorifics'.

(44) **Multiple honorific prefixation**

    a. *o-mi-kuji*
       HON-HON-lottery
       'a fortune, often written on a strip of paper, drawn by lot at a Japanese shrine'

    b. *o-mi-koshi*
       HON-HON-palanquin
       'portable Shinto shrine'

    c. *o-mi-o-tsuke*
       HON-HON-HON-miso.soup
       'miso soup'

    d. % *o-mi-gokoro*
       HON-HON-heart
       'divine/august will'

Datum (44c) is a maximal example, and suggests that something like an Obligatory Contour Principle is in effect to ensure that identical allomorphs of the honorific prefix do not surface as adjacent to one another. It bears mentioning that the *mi-* in *o-mi-kuji* 'fortune' and the *mi-* in *mi-kokoro* 'heart' are typically written with different characters, which is often (but by no means always) a sign that they are instances of different morphemes. Therefore, some native speakers may have a strong sense that it is not proper to consider these forms together. Specifically, the former is written with 神 'god', and the latter is written with

御 'imperial'; the latter is also used to write *o-* and *go-*.[11] The orthographic facts both mystify and strengthen the argument. First, the fact that both instances of *mi-* are cognate and should be considered together is lost to native speakers as a result of this orthographic contrast. Yet at the same time, the use of two characters shores up the claim that there is both a more and less grammaticalised *mi-*.

Although (44a–c) are normative forms, datum (44d) is a contested form. It appears in the 15 October 1994 edition of the *Japan Weekly Mail* in the following context: 'The grammar of some preachers is very incorrect and many of their expressions offend the ears of educated listeners. In prayer one often hears the following: *o-migokoro* ['divine will'], *o-mitama* ['departed soul'], *o-mimegumi* ['divine favour'].'[12] The confluence of apparent multiple honorification, atonicity, *and* sequential voicing in *o-mi-gokoro* provides the best evidence for the claim that at least some *mi-*initial forms are behaving as compounds that can potentiate single honorification. Likewise, the aforementioned case of *mi-ya* 'HON-house' being synchronically reanalysed as *miya* 'shrine' shows a more 'lexical' guise of *mi-*. Crucially, this means that are some cases of honorific *mi-* that are allomorphs of *o-* and *go-*, and cases that are not, either because *mi-* is being treated as a compounding element, or because it has fused to the root completely. Obeisance to the Schuchardtian dictum, *Chaque mot a son histoire* 'Every word has its own history' (Malkiel 1964), reveals itself to be useful in the pursuit of empirically adequate morphological analysis.

Another case study at the intersection of sequential voicing, *mi-*prefixation, and differential grammaticalisation occurs with 'hair'.

---

11. This is not a hard and fast rule, and there are cases in which 御 is used for *mi-koshi* and *mi-kuji*. *Mi-kado* 'the emperor; honourable gate' offers another case of the manner in which orthographic variation may obfuscate morphological relatedness. Specifically, when written as 御門, the morphemes for the honorific prefix and 'gate' are apparent, and the the relationship of this word to other *mi/*御-initial forms is recoverable. In contrast, when written more conventionally as 帝, decomposition becomes difficult and reanalysis as a monomorpheme is encouraged (in fact, this may be precisely what is happening in the minds of many speakers).

12. A footnote from the editor in the same issue defends the forms: "The contention...that pleonasm is unallowable in such cases seems to us to be open to question. Certainly a great many terms resembling those given above are in common use."

(45) **Registral alternants of 'hair'**

    a. *kami* 'hair'

    b. *o-kami-ga   itami-mas-en yōni*   (shampoo advert)
       HON-hair-ACC hurt-POL-NEG so.that
       'so that [you] do not damage your hair'

    c. *kushi* 'comb'

    d. *honkon-dizunii-no   daffii-no o-kushi   desu*   (auction listing)
       Hong.Kong-Disneyland-GEN Daffy-GEN HON-comb COP.POL
       'This is a Daffy comb from Hong Kong Disneyland.'

    e. *tama-no o-gushi*   (literary work title)
       gem-GEN HON-comb
       'Precious Comb'

    f. *konata-nite mi-gushi-nado   mairu-hodo-ni*   (*Makura no Sōshi*)
       here-at   HON-comb-such.as serve-extent-DAT
       'When [you] attend to your hair here...'[13]

    g. *o-yome-sama-no   o-mi-gushi*   (service industry, Akitaka Yamada p.c.)
       HON-bride-Ms-GEN HON-HON-comb
       'the bride's tresses'

Data points (45a,b) show the typical plain and honorificated forms of 'hair'. Likewise, (45c,d) show the typical plain and honorificated forms of 'comb'. Datum (45e) is the title of a literary commentary by Motoori Norinaga on the *Tale of Genji*, published in 1799, and exhibits both *o*-prefixation and sequential voicing. Datum (45f) is an excerpt from *The Pillow Book*, a collection of observations by Sei Shōnagon, published in 1002. In this sentence, the *mi*-prefixed form of 'comb' occurs metonymically refers to 'hair', and is translated as the higher-register 'locks'. Finally, (45f) shows the doubly-honorificated form of 'comb', and is translated as the even higher-register 'tresses'. Importantly, the use of high-register forms in

---

13. For clarity, this sentence is rewritten in Modern Japanese below. Note that *mairu*, the humilific of 'to go' in the modern language, is actually an honorific form in its earliest attestations. This fact is discussed further in §3.3.3.

  (1) *kochira-de o-kami-nado   o-totonoe-ni   nar-u-koro-ni*
       here.HON-at HON-hair-such.as HON-arrange-DAT become-NPST-such.a.time-DAT
       'When [you] attend to (such things as) your hair here...'

the translations is meant to underscore that *kushi* is not an honorific allomorph of *kami*—*kushi* is merely another word that can mean 'hair' in specialised contexts. Note that all the contemporary data (45b,d,g) exemplify cases of customer-facing speech.

The appearance of sequential voicing in (45e), ruling out *o-kushi, merits commentary, as *o*-prefixation should not trigger *rendaku*, as it is not a compounding process. At least two explanations for this incongruity are possible. First, given that *o*- historically comes from *oho* 'large, great', perhaps there was a stage in which some cases of *o*-attachment, just like some cases of *mi*-attachment, were treated as compounding, thereby licensing sequential voicing. Second, consider that *mi*-prefixation of 'comb' precedes *o*-prefixation in the history of the language: (45f) is from 1002, whereas (45e) is from 1799. Additionally, multiple prefixation is still possible in the contemporary language, as in (45g), which would be typically used by a tonsorialist coiffing a bride for her wedding day. This suggests that sequential voicing in *o-gushi* is in fact triggered by *mi*- at an intermediate derivation, which later deletes, leaving the *rendaku* phonologically opaque.

In summary, the behaviour of sequential voicing and pitch accent suggests that there are two instances of the *mi*- prefix, one that is bona fide allomorph of honorific *o*-, and one that acts as the first element of the compound, and that can itself potentiate further prefixation of *o*-.

2.2.3   Non-honorific uses

This section begins by considering the behaviour of loanwords, which by and large do not permit honorific prefixation, except for certain lexical items in service-industry registers. Loanwords are grouped with non-honorific uses of *o*- more broadly, as they almost always communicate something more than just honorification or beautification, by virtue of their morphological and pragmatic markedness. It then considers non-honorific uses of *o*- in broad perspective, describing mollescent (i.e., forms that could be interpreted as insulting or offensive that are softened), euphemistic (i.e., forms that could be interpreted as unpleasant

that are substituted for more agreeable ones), sarcastic (i.e., forms that have been inverted in meaning), and pediatric, paedomimetic and child-directed (i.e., forms used by children, adults mimicking children, and adults addressing children) uses.

In general, words that are neither of native nor Sino-Japanese origin take neither *o*- nor *go*-: **o/go-kaado* 'card'. A selection of exceptions follow. Although (46a–c) are fairly unexceptional, especially in the speech of service workers, (46d,e) belong to more humorous, ironic registers. Note that France is the only country that permits prefixation, and therefore forms such as *o-Doitsu (intended: 'honourable Germany') are not possible.[14]

(46) **Prefixation of loanwords**

    a. *toire* 'toilet (clipped from *toiretto* > Eng. *toilet*)', *o-toire* 'the facilities'

    b. *biiru* 'beer', *o-biiru* 'honourable beer'

    c. *tabako* 'cigarette (> Port. *tabaco*)', *o-tabako* 'honourable cigarette'[15]

    d. *Furansu* 'France', *o-Furansu* 'honourable France'

    e. *kokakōra* 'Coca-Cola', *o-kokakōra* 'honourable Coca-Cola'

Now that the idea that *o*-prefixation can be humorous or ironic has been presented, recall that Miyake describes the semantic range of *o*- as 'polysemous and elusive'. Indeed, she documents a range of non-honorific *o*-prefixing phenomena, in which *o*- need not (and in some cases, cannot) be exalting a referent, addressee, or discourse context. Representative examples are reproduced below.

(47) **Mollescent prefixation**

    a. *o-shiri* 'buttocks'

---

14. Miyake (1999:§2.4.4) also documents prefixed loanwords such as *on-orasho* 'prayer (> Lat. *oratio*)', *go-passhon* 'the Passion', and *on-bontaade* 'will (> Port. *vontade*)' in archaic Christian contexts. Accounting for such forms lies outside the scope of this work.

15. One could go back and forth on whether *tabako* takes *o*- because it is a non-Yamato, non-Sino-Japanese item, or because it has been assimilated into the native stratum. After all, it is a relatively old loan, dating back to the Nanban trade period (1543–1614), and to this day is often written in *hiragana*, the script intended for native words.

b. *o-kane* 'money'

c. *o-benchara* 'blarney, flattery'

d. *o-tankonasu* 'fool, good-for-nothing'

The mollescent forms in (47) describe words that would feel too 'direct' if used without *o*-prefixation. This could be for a variety of reasons: perhaps they belong to semantic fields associated with *kegare* 'defilement', such as 'buttocks' or 'money'.[16] Alternatively, they may represent inherently pejorative notions or terms, such as 'blarney' and 'fool', and therefore require the use of *o-* as a softener. The prefix is very strongly attached to words in this category: one never hears unprefixed *tankonasu (intended: 'fool'), and unprefixed ??*shiri* 'buttocks' and ??*benchara* 'flattery' occur extremely rarely. Unprefixed %*kane* 'dough, cheddar, bucks' is attested in blunt (and typically young male) registers.

(48) **Euphemistic prefixation**

a. *go-fujō*
HON-impurity
'toilet, the facilities, powder room'

b. *o-tazune-mono*
HON-inquire-person
'wanted person, fugitive'

c. *o-ta-fuku*
HON-much-good.fortune
'a homely woman with plump cheeks and a flat nose; epidemic parotitis (i.e., the

mumps)'

d. *o-nimotsu*
HON-luggage
'deadwood, an encumbrance'

The euphemistic forms in (48) exemplify cases in which sensitive matters are referred to indirectly or figuratively. Euphemism goes one step beyond mollescence: whereas mollescent

---

16. So defiling is money that *nyōbō kotoba* 'court ladies' language' in the Muromachi-era (1336–1573) euphemises it as *o-ashi* 'HON-foot' (Miyake 1999:§2.4.1.1).

prefixation simply prefixes *o-* to a troubling word, yielding a softer, more morphologically complex but still semantically transparent form, euphemism combines *o*-prefixation with circumlocution to create opaque, idiomatised forms. Some euphemisms are more opaque than others: *go-fujō* 'powder room' and *o-tazune-mono* 'wanted person' hint at the meaning (the English translation is likewise a euphemism), whereas both meanings of *o-ta-fuku*, 'a homely woman' and 'the mumps' are fully exocentric to the word.

(49) **Sarcastic prefixation**

    a. *takai* 'high, high-class', *o-takai* 'haughty, self-important, stuck up'

    b. *jōhin* 'refinement', *o-jōhin* 'pretence, affectation, putting on airs'

The sarcastic forms in (49) are further distinct, in that *o-* acts to pejoratively reverse the meanings of the forms to which it attaches. Whereas mollescence and euphemism could be interpreted as sharing a *Familienähnlichkeit* with honorification, sarcasm does so less plausibly, and strongly shores up the claim that *o-* should be understood as having non-honorific usages.

(50) **Paediatric, paedomimetic, & child-directed prefixation**

    a. *uma* 'horse', *o-uma* 'horsey', *o-uma-san* 'Mr Horsey'

    b. *ningyō* 'doll', *o-ningyō* 'dolly'

    c. *o-e-kak-i*
       HON-picture-draw-NMLZ
       'doodling'

    d. *o-te-te*
       HON-hand-hand
       'hand'

    e. *o-tsuki-san*
       HON-moon-Mr
       'Mr Moony (i.e., the moon)'

    f. *o-chūshajō-san*
       HON-parking.lot-Mr
       'Mr Car Park'

The last set of forms group together a variety of meanings, including diminution, personification, and what Miyake calls *cutification* (this she distinguishes from prenominate *beautification*, which describes the more conventional use of *o-* by adult speakers to create an air of refinement or sophistication). When these forms are used by children, they are *paediatric*. When they are used to by adults when talking to children (e.g., [50a–f] could be used by a nursery school teacher), they are child-directed. When they are used by adults to imitate, mock, or otherwise affect childishness, they are *paedomimetic*. In all cases, understanding these forms as honorific would be fraught and dubious.

2.2.4   Non-unitariness

This section reinforces some of the arguments presented in §2.2.2, in which it is claimed that there is a less grammaticalised *mi-* that acts like a compounding element with respect to its phono-accentual behaviour, and a more grammaticalised *mi-* that acts like an allomorph of the honorific prefix. Congruously, Miyake's empirical categorization of the polysemy of *o-* is consistent with the claim that there are at least two instances of *o-*, an allomorphy-participatory one that alternates with *go-* (and perhaps *mi-*) and expresses an honorific meaning, and an allomorphy-nonparticipatory one that expresses non-honorific meanings.

At a glance, it is clear that the *o-* allomorph exhibits the widest distribution. Namely, it can attach to, Yamato words, highly assimilated Sino-Japanese words, exceptional loanwords, and numerous other etymologically diverse forms used in non-honorific contexts. Consequently, *o-* can be taken to be the elsewhere form of the honorific prefix. In the interest of parsimony and theoretical adequacy, it may be desirable to reinterpret some of this polymorphy and polysemy as a byproduct of homophony. As argued supra in the treatment of *o-mi-gokoro* 'divine will', certain instances of *mi-* do not instantiate honorific prefixation, and should be treated as compounding and/or fossilisation. Put otherwise, there is a *mi-* that is a bona fide allomorph of the honorific prefix, and there is a *mi-* that is a more contentful element meaning 'great, beautiful' (and which is cognate with yet another *mi* 'god, spirit').

Miyake uses similar reasoning to argue for a non-unitary analysis of *o-*: there is an *o-* that is a bona fide allomorph of the honorific prefix, and there is a separate and homophonous *o-* that bears the non-honorific meanings. She argues that the etymology-sensitive *go-* allomorph never expresses non-honorific meanings, shoring up observations that suppletive allomorphs do not share in the semantic drift of their elsewhere forms. That is, the fact that *o-* has mollescent, euphemistic, or otherwise non-honorific guises unshared by *go-* (or *mi-*) patterns with other cases of retroregularisation (Arregi & Nevins 2014):

(51) **Retroregularisation of *bad***

    a. She's a Bad Mama Jama (She's Built, She's Stacked)   Carl Carlton song, 1982

    b. You da Baddest/*Worst   Future ft. Nicki Minaj song, 2017

The semantic shift of *bad* to 'tough, impressive, formidable' does not maintain its suppletive alternations: the correct superlative is *baddest*, not *worst.*[17] Likewise, the semantic shift of *o-* to its non-honorific usages should not maintain its etymology-sensitive alternation with *go-*. This prediction obtains:

(52) **Etymology-insensitive attachment of non-honorific *o-***

    a. *o-ta-fuku* 'the mumps'   **go-ta-fuku*

    b. *o-chūshajō-san* 'Mr Car Park'   **go-chūshajō*

    c. *o-shiri-ni*   *o/*go-chūsha shi-masu*   *kara*   *ne*   (Miyake 1999:20)
    HON-buttock-DAT HON-injection do-POL-NPST because PRT
    'So I shall administer your injection dorsogluteally.' Or: 'I am going to give you a shot in your backside.'

Data in (52) exemplify the euphemistic, paedomimetic, and mollescent usages of the *o-* prefix. Given that all the nouns under consideration are Sino-Japanese in origin, *go-* is expected, but only *o-* is possible. Although it may be possible to argue that (52a) requires

---

17. Ayanna Taitt (p.c.) observes that, at least in her variety, this so-called Michael Jackson *bad* does not permit a comparative form: in this regard, it would pattern with *mere – *merer – merest*.

o-attachment as a highly assimilated Sino-Japanese form, this would not explain (52b,c), which are recent *waseikango* (i.e., post-19th century) coinages intended to express the newly introduced concepts of 'parking' and 'injection'.[18]

If the analysis of *go-* as a monosemous allomorph of the honorific prefix is correct, then Sino-Japanese forms that permit both *o-* and *go-*, such as *henji* 'reply', exemplify neither free variation nor differential assimilation. Rather, Miyake argues that *go-henji* is a true honorific form, exalting the author of the reply in question, whereas *o-henji* is a paedomimetic or beautificatory form, affecting a childlike or refined stance, depending on context.

Only one putative counterexample to the tendency of *go-* to be incompatible with non-honorification can be found: datum (48a), *go-fujō* 'toilet (lit. the uncleanliness, the impurity)'. Three options to maintain the generalisation are possible. First and simplest is the option taken by Miyake: dismiss the form as lexicalised and not truly decomposable: *gofujō*. Second, reject the form as a bona fide euphemism: one is not euphemising 'toilet' with 'the uncleanliness', one is indeed referring to (and exalting) the uncleanliness. This seems implausible and even somewhat ghastly. Third, and most convincingly, accept the form as a bona fide ingroup-sensitive honorific, and specifically one that exalts the proprietor of the home or establishment in which the toilet is situated. This predicts that one would not use *go-fujō* to refer to one's own washroom.

2.2.5   Ingroup-sensitivity

Having established in the foregoing sections that *o-* has both honorific and non-honorific guises, and that these guises are associated with differential allomorphic, phono-accentual, and interpretive characteristics, this section discusses the criterion that most easily differentiates honorific from non-honorific uses of *o-*: ingroup-sensitivity (*uchi-soto*). That is, the appearance of the honorific prefix can often signal certain meanings related to possession,

---

18. Although *chūsha* 'parking' and *chūsha* 'injection' are indeed homophonous, they are morphologically distinct: *chū* 'stopover' + *sha* 'car, wheel' = 'parking', whereas *chū* 'pour, irrigate' + *sha* 'shoot' = 'injection'.

benefactivity, or affectedness (defined and further explained in §2.4), particularly as these relate to one's membership or non-membership in a discursively salient group (e.g., one's family or workplace). In particular, there are cases of *honorification* in which *o*-prefixation implies possession by a higher-status reference, contrasting with cases of *beautification*, in which prefixation implies no such thing but instead usually conveys an air of refinement on the part of the speaker.

This contrast is most readily exemplified by the contrast between the prefixed and non-prefixed forms of 'water' and 'letter':

(53) **Ingroup-sensitivity**

a. *mizu* 'water'; *o-mizu* 'water; the speaker positions oneself as refined'

b. *tegami* 'letter'; *o-tegami* 'letter; the speaker positions oneself as refined; the letter was written by a higher-status individual'

The prefixed form in (53a) is not restricted in terms of the identity of the possessor or drinker of the water: *o-mizu* can refer to the speaker's water, the addressee's water, or some third party's water. In contrast, the prefixed form in (53b) describes a letter sent to the addressee by someone else, and could never refer to a letter written by the speaker or a member of the speaker's ingroup. Further examples of this contrast follow. For a start, non-honorific uses of *o-* are ingroup-insensitive.

(54) **Ingroup-insensitive vocabulary**

a. **Obligatorily prefixed words**: *ocha* 'tea', *gohan* 'rice, meal', *onigiri* 'rice ball' (> *nigiru* 'to grasp, to grip')

b. **Prefixed an overwhelming amount of the time**: *o-kane* 'money', *o-shiri* 'buttocks', *o-naka* 'stomach'

c. **Prefixed in some registers/performances**: *o-senbei* 'honourable rice crackers', *o-tenki,* 'honourable weather', *o-hana* 'honourable flower'

Reiterating, what ingroup-insensitivity means in this context is that one cannot assume to know anything about the possessor of these objects when they are *o*-prefixed. Certainly, items patterning with set (54a) are cases of lexicalised honorification, and almost never appear in the bare form. (Excepting *gohan* 'rice' as a fused, fossilised form allows for the maintenance of the generalisation that productive *go-* never occurs in non-honorific uses.) In the case of the optionally prefixing forms, such as *o-mizu* 'honourable water', the presence of *o-* need not require the association of the noun to an exalted referent. That is, one could order *o-mizu* for oneself at a restaurant. Ingroup-insensitive usage of the *o-* prefix and its allomorphs is referred to as *word beautification* (*bikago*). Importantly, this contrasts with the behaviour of ingroup-sensitive nouns, which participate in bona fide *honorification*.

(55) **Ingroup-sensitive vocabulary**

    a. *shitsumon* 'question', *go-shitsumon* 'a question from the audience'

    b. *kuruma* 'car', *o-kuruma* 'a hired car, a car being sold to a customer'

    c. *namae* 'name', *o-namae* 'an outgroup member's name'

    d. *imōto* 'younger sister', *o-imōto-san* 'an outgroup member's younger sister'

    e. *shinseki* 'non-immediate family member', *go-shinseki* 'an outgroup member's non-immediate family member'[19]

    f. *#(go)-yukkuri dōzo*
       HON-slowly   by.all.means
       'Please take as much time as you need.'

    g. *(#go-)yukkuri o-nega-i   shi-mas-u*
       HON-slowly   HON-wish-NMLZ DO-POL-NPST
       'Please (say it again) slowly.'

    h. *#(go)-renraku-o o-mach-i   shi-mas-u*
       HON-contact-ACC HON-wait-NMLZ do-POL-NPST
       'I await your correspondence.'

    i. *mata %(go)-renraku itashi-mas-u*
       again HON-contact   do.HML-POL-NPST

---

19. *Shinseki* is commonly glossed as 'relative', but strictly speaking excludes first-degree relations.

'I shall reach out to you.'

In general, honorific prefixation to ingroup-sensitive nouns expresses outgroup possession: one's own car is *kuruma*, but a car salesperson offers an *o-kuruma* to a customer. The contrast displayed by ingroup-sensitive adverbs in (55f,g) is subtle: in (55f), the speaker wants the addressee to act leisurely for the addressee's own benefit, and therefore *go-* is necessary and its absence an imposition. In (55g), the speaker wants the addressee to do something for the speaker's benefit, and therefore *go-* is an imposition and its absence more natural.

The contrast in (55h,i) is perhaps even subtler and consequently a contested one. In (55h), nearly everyone agrees that *renraku* 'contact, correspondence, communication' should be *go-*prefixed, as the outgroup member is expected by the speaker to initiate contact. In (55i), prescriptivist grammar holds that *renraku* cannot be *go-*prefixed, as the author is initiating contact. Yet a significant minority of speakers permit *go-*prefixation here, as the contact involves the (presumably higher-status) addressee. Without dwelling too much on the details of these fine-grained contrasts, it suffices to say that honorific prefixation requires the tracking of an exalted referent in the outgroup, and that no such tracking occurs in the non-honorific uses of the prefix (e.g., mollescent *o-shiri* 'buttocks' could refer to anyone's hindquarters).

2.2.6   Exceptional & typical behaviour

Given the prenominate discussion of the allomorphy, polysemy, and ingroup-sensitivity of the honorific prefix, it is now possible to create a Vocabulary fragment of the honorific-beautificatory markers that captures all the major generalisations:

(56)   **Exceptional behaviour of the honorific prefix**

   a. Some appearances of *o-* are obligatory and fully fused to the noun (e.g., *ocha* 'tea').

60

b. The form of honorific *o-* is semantically and etymologically sensitive (e.g., *mi-kado* 'gate', *go-benkyō* 'study', *o-mizu* 'water').

c. There is a non-prefixal *mi-* and a non-honorific *o-*.

d. There is a higher-register (and non-alternating) honorific prefix, *on-*.

Before presenting the Vocabulary fragment, this section attempts to account for the behaviour of an extremely marked, divisive, but oft-heard case of *go*-prefixation of a loanword:

(57) % *honjitsu-wa nikoniko-dōga-ni go-akusesu itadak-i*
      today-TOP   smiling-video-DAT HON-access receive_{out→ingroup}-NMLZ
      ar-i-gatō   gozai-mas-u
      have-NMLZ-difficult COP.HML-POL-NPST
      mata-no   go-akusesu-o   o-mach-i   shi-te   ori-mas-u
      again-GEN HON-access-ACC HON-wait-NMLZ do-GER PROG.HML-POL-NPST
      'Thank you for using Niconico today. We look forward to your next visit.' (Alternatively: 'We gratefully receive your accessing of Niconico, a video-sharing service akin to YouTube, today. We are humbly awaiting your next access.')[20]

Many, perhaps most, speakers find this 'awkward' (*kimochiwarui* 'gives a bad feeling, disgusting'). Others interpret it as 'tongue-in-cheek' (*hiniku hyōgen* 'an ironic expression'). It seems to be a satisficing wordplay in response to a number of conflicting tendencies:

(58) **Contributing factors to the use of %*go-akusesu***

   a. Loanwords do not permit honorific prefixation (highly assimilated loans and specialised terms from Christian doctrine excepted).

   b. The few loanwords that permit honorific prefixation, such as *biiru* 'beer' or *sōsu* 'sauce', take *o-* and not *go-*.

---

20. A more conventional way of stating this involves no prefixation of the loanword at all:

(1) *honjitsu-wa niconicodōga-ni akusesu shi-te   kudasat-te   arigatōgozaimasu*
     today-TOP   Niconico-DAT   access   do-GER give_{out→ingroup}-GER thank.you
     'Thank you for accessing Niconico today.'

c. *A*-initial words, even within the native lexical stratum, resist *o*-prefixation for reasons of hiatus avoidance (e.g., ?*o-ayatori 'cat's cradle').

d. *O*-prefixation, especially in the context of loanwords, can be ambiguous, as *o-* can convey ironic, sarcastic, paedomimetic, and other meanings undesirable in the context of a respectful message to service users.

e. *Go*-prefixation, being an etymology-sensitive suppletive allomorph of *o-*, is associated exclusively with the honorific meaning (certain fossilised forms excepted).

f. Non-prefixation of a word related the actions of an exalted referent can feel too direct or create an imposition.

g. Given that honorifics are a site of significant metalinguistic reflection for native speakers, creative rule-breaking in this domain is certain to create a strong impression (positive or negative).

Go-akusesu is at its core a register clash: *go-*, typically co-occurring with high-register Sino-Japanese vocabulary, attaches here to the low-register (but trendy) recent English origin loan. Certainly, it bears mentioning that some speakers have much subtler judgements than that it is 'awkward' or passable as wordplay. Here is an alternative set of judgements for (57):

(59) a. * *honjitsu-wa nikoniko-dōga-ni   go-akusesu itadak-i*
today-TOP   smiling-video-DAT HON-access receive$_{out \rightarrow ingroup}$-NMLZ
ar-i-gatō   gozai-mas-u
have-NMLZ-difficult COP.HML-POL-NPST
Intended: 'Thank you for using Niconico today.'

b. *honjitsu-wa nikoniko-dōga-ni   {*o/*go/on}-akusesu-o itadak-i*
today-TOP   smiling-video-DAT HON-access-ACC   receive$_{out \rightarrow ingroup}$-NMLZ
ar-i-gatō   gozai-mas-u
have-NMLZ-difficult COP.HML-POL-NPST
'Thank you for your use of Niconico today.'

c. *mata-no   {*o/*go/on}-akusesu-o o-mach-i   shi-te   ori-mas-u*
again-GEN HON-access-ACC   HON-wait-NMLZ do-GER PROG.HML-POL-NPST
'We look forward to your next visit.'

In (59a), honorification of *akusesu* 'access' within the verbal complex of *go*-V *itadaku* 'to humbly receive the favour of someone doing V' is completely unacceptable. It is clear that this is tied to the appearance of *akusesu* in the verbal complex, as the nominal usage of it in (59b) is acceptable. Notably, the nominal *akusesu* is only compatible with the higher-formality variant of the honorific prefix, *on*-, and not *o*-, contrary to the expected behaviour of a loanword. Two explanations of *on*- present themselves: first, it could be conceived an 'allomorph of last resort' of *o*-: *go-akusesu is etymologically (i.e., diacritically) mismatched, and *o-akusesu is phonologically inviable (cf. ?*o-ayatori 'cat's cradle'). Second, and more simply, it could be another lexical item completely, with a distinct 'high honorific' meaning and a verb-excluding selectional restriction. Nothing hinges on the choice between these two analyses, although in a vacuum, the second is preferred for reasons of parsimony.

Whatever the relation (or lack thereof) of *on*- to *o*-, this close study of the differential acceptability of a presumed morphological aberration (*go-akusesu*) shows that the consideration of marginal and contested forms can illuminate much about the underlying architecture of the conventional forms. That is, honorification in the nominal domain is distinct from honorification in the verbal domain, both distributionally (i.e., in terms of when it is permitted) and formally (i.e., in terms of what is permitted).

The following non-exhaustive list of Vocabulary items captures the major generalisations made thus far:

(60) **Honorific/beautificatory prefixation: A Vocabulary fragment**

    a. $\sqrt{TEA} \leftrightarrow ocha$

    b. $\sqrt{RICE} \leftrightarrow gohan$

    c. HON $\leftrightarrow mi$- / LOTTERY, GATE, ...

    d. HON $\leftrightarrow go$- / STUDY, CONTACT, ...

    e. HON $\leftrightarrow o$- / WATER, HEALTH, ...

    f. $\sqrt{BEAUTIFUL} \leftrightarrow mi$

g. $\sqrt{BEAU} \leftrightarrow o\text{-}$

h. HIGHHON $\leftrightarrow on\text{-}$ / N

Rules (60a,b) are an interim solution to convey that the prefix has fused to these forms. This may need to be unpacked further, given that there are compounds in which the un-prefixed forms appear, such as *sen-cha* 'extract-tea; infused green tea' and *cha-han* 'fry-rice; fried rice'. One possible solution would be to add *cha* and *han* as allomorphs when following certain bound roots.

Rules (60c–e) model the behaviour of the honorific prefix. Instead of listing out all the roots, two binary etymological features could be proposed:

(61) **Toy etymological features**

    a. [+Yamato, −Sino-Japanese]: native vocabulary (e.g., *o-mizu* 'water')

    b. [−Yamato, +Sino-Japanese]: Sino-Japanese vocabulary (e.g., *go-benkyō* 'study')

    c. [+Yamato, +Sino-Japanese]: highly assimilated Sino-Japanese vocabulary (e.g., *o-genki* 'health')

    d. [−Yamato, −Sino-Japanese]: loanwords (e.g., ∅-*kaado* 'card')

Much does tantalise about this, and etymological diacritics have been proposed in the analysis of certain corners of English in which the Latinate vs Germanic distinction is mor-phosyntactically significant. In the case of Japanese honorific-beautificatory prefixation, how-ever, so many exceptions abound that it may be more parsimonious to list out all the roots after all. Certainly, all the roots would need to be listed for rule (60c), as *mi-* selects for a small set of semantically circumscribed words, which cannot be easily generalised in terms of an abstract feature (other than that of the *mi*-prefixing 'gender'). Rule (60f) accounts for the presence of a contentful, compounding (i.e., not prefixing) *mi* in certain nouns. Certainly, these forms could also be treated as fused forms, *à la* (60a,b).

Rule (60g) captures the fact that there is a non-alternating, non-honorific guise of *o-* with a much freer distribution than the honorific *o-* (i.e., it can also attach to Sino-Japanese

words as well as many loanwords).

Likewise, rule (60h) captures the fact that there is a non-alternating *on-* with a distribution that is semantically and diacritically freer than *o-* (i.e., it can attach to words from a variety of domains and lexical strata), but categorially more limited (i.e., it cannot be used within a verbal complex).

With the multifarious character of *o-* so adumbrated, it becomes possible to discuss the system of honorification as it operates in the verbal domain, in which only etymology-sensitive *o-* and *go-* are observed.

2.3   The regular honorific

Although this study is most preoccupied with the behaviour of suppletive honorification, it is necessary to begin with the consideration of the regular system. Four forms are considered: the citation (i.e., pragmatically unexceptional) form, the semantically equivalent but aspectually distinct regular and copular honorifics (in which *o-* co-occurs with a nominalised form of the verb and either the *naru* 'become' auxiliary or the *da∼dearu* copula), and the unhelpfully named *-(r)are*-marked[21] passive honorific, in which the passive voice marker is exapted to an honorific meaning in the co-presence of active case morphology. In general, these forms are used in describing the actions of higher-status referents.

The prefix *o-* figures strongly in most cases of regular (i.e., non-suppletive) honorification in the verbal domain. A sample paradigm for *kiku* 'to hear' appears in Table 2.3.

2.3.1   The regular & copular honorific

The citation form of a verb with a consonant-final root, such as *kik-u* 'to hear', takes the form ROOT-*u*, in which *-u* is the nonpast marker. (In the case of verbs with a vowel-final root, an epenthetic liquid appears between the root and the nonpast tense marker, yielding

---

21. The passive marker appears as *-rare* before vowel-final stems (e.g., *tabe-rare-* 'eat') and as *-are* before consonant-final stems (e.g., *kik-are* 'hear').

Form	Notes
kik-u hear-NPST	citation form 'to hear'
o-kiki-ni nar-u HON-hear-DAT become-NPST	regular honorific 'to deign to hear (nonpast)'
o-kiki da HON-hear COP.NPST	copular honorific 'to deign to hear (present)'
kik-are-ru hear-PASS-NPST	passive honorific 'to honourably hear'
o-kiki su-ru HON-hear do-NPST	regular humilific 'to humbly hear'
o-kiki mōshi-age-ru HON-hear say.HML-raise-NPST	obsequitive 'to make bold to hear'
kik-ase-te itadak-u hear-CAUS-GER receive_{out→ingroup}.HML-NPST	causative-autobenefactive 'to take the liberty of hearing'

Table 2.1: Regular honorification in *kiku* 'to hear'

ROOT-*ru*: e.g., *tabe-ru* 'to eat'.) To create the regular and copular honorific, the honorific prefix *o-* is first added to the stem of the verb (ROOT-*i*), yielding a honorific nominal form. The following sentences exemplify the nominal behaviour of *o*-STEM:

(62) a. *o-kangae-o   kik-i-mashi-ta*
         HON-think-ACC hear-POL-PST
         '(I) heard (your) opinion.'

   b. % *ken-bai-ki-zen-supēsu-de-no*   *o-machi-wa   kinshi-to*
         ticket-sell-machine-front-space-LOC-GEN   HON-wait-TOP   forbidden-as
         sase-te   itadak-i-mas-u
         CAUS-GER receive_{out→ingroup}.HML-NMLZ-POL-NPST
         'Loitering in front of the ticket vending machine is forbidden (lit. We take the liberty of forbidding your waiting in the space in front of the ticket vending machine).'

In (62a), the honorific stem of *kangae-ru* 'to think', *o-kangae*, can be translated as 'thoughts, opinion, consideration'. Crucially, as an ingroup-sensitive term, when honorificated, it can only refer to cognitive behaviour of someone outside of the speaker's ingroup. Similarly, in (62b), the honorificated stem of *matsu* 'to wait', *o-machi*, can be translated as 'waiting'. Judgements vary here: although some verbs have stems that freely permit nominal

66

usage for all speakers (e.g., *omoi* 'thought' > *omou* 'to think'), other verbs do not, and *matsu* is one such. That is, for many speakers, *o-machi cannot mean 'waiting', and sentence (62) is entirely unacceptable. In any case, these facts are only mentioned to underscore that verbal honorification contains a nominalisation layer, even if the nominal is not always well-formed as a free-standing element.

The auxiliary *naru* 'become', selecting a dative-marked complement, can then added to the honorific stem to create the regular honorific verb. The final form, *o-kiki-ni naru*, can be idiomatically translated as 'Hearing becomes you': effortlessness and nonvolitionality are metaphorically extended to express an honorific meaning. To create the copular honorific, one simply adds the copula to the stem: *o-kiki da*. The regular and copular honorific are equal in level of deference: the difference in their distribution is aspectually or contextually motivated.[22]

(63) **Regular vs copular honorifics** (Ken Hiraiwa p.c.)

    a. **Context**: Socially inferior A is at a party with socially superior B. The party has gone on for quite some time, and A would like to leave. A asks B:

      A: *O-kaeri-ni   nari-mas-u   ka?*
          HON-go.home-DAT become-POL-NPST Q
      'Will you be going home (i.e., any time soon)?'

    b. **Context**: Socially inferior A spots socially superior B putting on her shoes at the *genkan* (a traditional entryway to a Japanese home). A asks B:

      A: *O-kaeri   desu   ka?*
          HON-go.home COP.POL Q
      'Are you going home (i.e., are you on your way out)?'

---

22. In older forms of Japanese, there existed *o-kiki asobasu*, an even more exalting form that contains an auxiliary grammaticalised from 'to play': this is another case of 'effortlessness' being extended to honorification. The example below has been reproduced with new glossing from Miyake (1999:41), and depicts a 14–15-year-old girl speaking to her mother-in-law in a public bath. Both verbs, *abiru* 'to pour, to shower' and *agaru* 'to finish taking a bath', are *o*-prefixed and co-occur with the maximally exalting auxiliary.

(1) *o-mae-san   kore-o   o-abi   asobashi-te o-agar-i   asobas-e*
      HON-front-Ms this-ACC HON-pour play-GER   HON-leave play-IMP
      'Madam, please pour (this water onto yourself) before you leave (the bath).'

In (63a), A is asking B for social proof. If she will be leaving soon, it will also be appropriate for him to leave the party. He uses the regular honorific for its nonpast meaning—she may be leaving quite soon, or quite late. In (63b), A finds B in the middle of leaving, and uses the copular honorific for its near-future meaning. This utterance has something of a valedictory, 'checking-in' meaning, and would lead into a proper goodbye.

Table 2.1 only describes the behaviour of regular Yamato verbs. Sino-Japanese verbs such as *benkyō suru* 'to study' and *chūmon suru* 'to order (i.e., at a restaurant)' are prescriptively incompatible with this type of honorification: **go-benkyō-ni naru, *go-benkyō da* 'to deign to study (intended)'. One does hear **go-benkyō-ni naru* from less proficient speakers, as in (64b), but this tends to be poorly received. The prescriptively correct way honorificate Sino-Japanese verbs uses a suppletive form of *suru* 'to do', *nasaru*, as in (64a):

(64) **Regular honorification of Sino-Japanese verbs**

    a. *nanika   hon-de   go-benkyō nasar-ō   toiu shisei-ga   ii   desu*
       something book-INS HON-study do.HON-VOL COMP attitude-NOM good COP.POL
       ne
       PRT
       'It is nice to have an attitude that is oriented towards learning about things from books, isn't it?'

    b. % *mazu hōritsu-o go-benkyō-ni   nat-te   kudasai*
       first   law-ACC HON-study-DAT become-GER give$_{out\rightarrow ingroup}$.HML.IMP
       'First, please study the law (lit., Please give me the favour of your deigning to study the law).'

2.3.2   The passive (& causative-passive) honorific

The passive honorific is so called because it appears identical to the passive form of the verb. This form is perceived to be less exalting than the regular and copular honorifics. To establish that this is indeed an exaptation of the passive marker instead of mere accidental homophony, consider that in diachronic perspective, valency-changing operations other than the passive have also been extended to convey an honorific meaning:

(65) **Voice-exapted honorification**

a. **S-*ga* O-*o* V: active**

Yū-ga ringo-o   tabe-ta
Y-NOM apple-ACC eat-PST
'Yū ate an apple.'

b. **S-*ga* A-*ni* V-*rare*: passive**

ringo-ga   Yū-ni tabe-rare-ta
apple-NOM Y-DAT eat-PASS-PST
'The apple was eaten by Yū.'

c. **S-*ga* O-*o* V-*rare*: honorific**

sensei-ga   ringo-o   tabe-rare-ta
professor-NOM apple-ACC eat-PASS-PST
'The professor deigned to eat the apple.'

d. **S-*ga* C-*ni* O-*o* V-*sase-rare*: causative-passive**

Yū-ga sensei-ni   ringo-o   tabe-sase-rare-ta
Y-NOM professor-DAT apple-ACC eat-CAUS-PASS-PST
'Yū was forced by the professor to eat the apple.'

e. **S-*ga* O-*o* V-*sase-rare*: archaic honorific**   (McClain 1981:218)

heika-ga   sore-o tsuzuke-sase-rare-ta
emperor-NOM it-ACC continue-CAUS-PASS-PST
'The Emperor deigned to continue with it.'

Sentence (65a) is a prototypical active sentence, with a nominative-marked subject and an accusative-marked object. Sentence (65b) is a prototypical passive sentence, with a nominative-marked theme, a dative-marked agent, and passive morphology on the verb. Sentence (65c) combines active case-marking on the nouns with passive morphology on the verb and yields an honorific interpretation. Sentence (65d) is a prototypical causative-passive sentence (i.e., a sentence in which the subject is forced to perform an action), with a nominative-marked subject, a dative-marked causer, an accusative-marked object, and both causative and passive morphology on the verb. Sentence (65e), only grammatical in earlier forms of the language, shows that the coexistence of the case-marking pattern typical of an active sentence with a causative-passive verb can also yield an honorific interpretation. Following

69

a principle of quantitative iconicity (Kawahara et al. 2018), this longer and more morphologically complex causative-passive honorific is 'more honorific' than the passive honorific, restricting its use to the highest-status referents—in this case, the emperor. It bears noting at this point that in canonical passive sentences such as (65b), the *ga*-marked subject can *never* be honorificated (even if animate).

The upshot is that the verbal domain and the nominal domain can be mismatched in terms of voice morphology, and this mismatch has interpretive consequences. That is, active case-marking on nouns, when combined with (causative-)passive marking on verbs, produces an honorific interpretation. In one sense, this can be likened to some analyses of the 'constructed dual' in Hopi, in which plural nominal morphology, when combined with singular verbal morphology, produces a dual interpretation.

(66) **The constructed dual in Hopi**

    a. *Pam wari*
       he   ran.SG
       'He ran.'

    b. *Puma yuutu*
       they   ran.PL
       'They ran.'

    c. *Puma wari*
       they   ran.SG
       'The two of them ran.'

These facts are analysed by Nevins (2011) in terms of Impoverishment (i.e., feature-deleting operations), and it is likely that something similar can be done to the case or voice features of sentences (65c,e), in which case-marking on the subject is mismatched with voice morphology on the verb. Specifically, one can either delete the voice features on -*sase* and -*rare*, or modify the case features of the arguments such that the honorific referent surfaces as nominative and the object surfaces as accusative.

In any case, two important points emerge from the contrasts in (65). The first is that the voice-exapted honorifics are by no means ambiguous forms: the (causative-)passive in-

terpretation is available only when the arguments are case-marked in a manner befitting canonical (causative-)passive constructions. The honorific interpretation obtains otherwise, and the fact that this option is available to both the passive morpheme in isolation (*-rare*) as well as in conjunction with the causative morpheme (*-sase-rare*) strongly suggests that this results from an exaptation of the passive morpheme to produce an honorific meaning.

That 'honorific' *-rare* can still concatenate to causative *-sase* to yield the 'high honorific' *-sase-rare* can be explained as follows. First, *-rare* retains its ability to follow *-sase* via persistence, understood here to refer to the retention of traces or aspects of the prior semantic or distributional characteristics of a form, long after it has undergone language change (Hopper 1991, equivalent to the more domain-general formulation by Schank & Wimsatt 1986 of generative entrenchment). More concretely, the newer honorific *-rare* can follow *-sase* because the older passive *-rare* can follow it. Second, the causative meaning of *-sase* is bleached, and what remains is an element that reinforces the honorific meaning of *-rare* (note that there is no 'causative honorific'—that is, *-sase* can never express an honorific meaning in the absence of *-rare*). Although this discussion on the diachrony of *-rare* may seem digressive, it is believed that an understanding of honorification as an exaptation of voice and/or volition can be useful in the analysis of the grammar of honorifics in the synchronic grammar.

The *-rare* morpheme has at least two additional meanings: spontaneous (67a) and potential (67b).[23]

(67) **Polysemy in *-rare*** (Iwasaki 2002:138–40)

    a. *boku-ni-wa aitsu-ga   hannin da-to   omow-are-te   naranai*
       I-DAT-TOP that.guy-NOM culprit COP-COMP think-SPON-GER cannot.help
       'I can't help but think that he is the culprit.'

---

23. The 'at least' here refers to the fact that individual authors may recognise additional gradations: for instance, potential can be split into spontaneous-potential ('This fish is edible') vs agentive-potential ('I can eat fish'), and even the passive use itself can be split into high-affectedness passive ('I was hit by Tarō') vs low-affectedness passive ('The meeting was announced by the president') vs adversative passive ('I was died (on) by my parents'). Each of these uses is associated with a particular pattern of case-marking as well as a particular set of restrictions on possible agents and experiencers.

b. *Tarō-wa sonnani hayaku-wa oki-rare-nai*
   T-TOP   such   early-TOP get.up-POT-NEG
   'Tarō cannot get up as early as that.'

Oshima (2006) reports that of these four uses—passive, spontaneous, potential, and honorific—the passive and spontaneous are the oldest, with first attestations in the 8th century. Of the two earliest-attested usages, it remains disputed whether the passive or the spontaneous came first, although in crosslinguistic perspective, passive morphology has been observed to emerge from spontaneous morphology (cf. Luraghi 2012 on Hittite). The potential use emerged before the 9th century, but only in negative contexts. The potential use in affirmative contexts and the honorific use arose in the Heian period (794–1192).

Yaroslav Gorbachov (p.c.) offers an alternative analysis that sidesteps the question of which emerged first between spontaneous *-rare* and passive *-rare*. Specifically, it is possible to unify all synchronic uses of *-rare*, if its original function is understood as a marker that transforms a verb, regardless of transitivity, into a [−control] (i.e., involuntary) verb that requires an experiencer subject. Spontaneity, passivisation, potentiality, and adversity are all grammatical categories that require the logical subject to be a non- or less agentive experiencer(-like) role. The development of *-rare* into an honorific auxiliary simply extends the notion of [−control] involuntariness (i.e., effortlessness) to the actions of exalted referents. Under this analysis, honorific use of 'passive morphology' is not a case of exaptation, but rather instantiates a natural development of the semantics of the ancestral involuntarising function of *-rare*. This analysis is consistent with the observation that there are other components of the Japanese honorific system that also rely on the logic of effortlessness (e.g., the archaic honorific auxiliary *asobasu* 'play' and the contemporary honorific auxiliary *naru* 'become').

Sino-Japanese verbs are compatible with this strategy of honorification, with two minor modifications, as shown in (68a). First, the passive form of the auxiliary *suru* 'do' occurs, and second, the honorific prefix is absent (although it may be present in marginal and/or nonstandard usage, as in [68b]). As well, the passive honorific can coexist with the conven-

72

tional regular honorific, as shown in (68c), which is commonly heard but not prescriptively correct.

(68) **Passive honorification of Sino-Japanese verbs**

    a. *nihongo-o   benkyō s-are-te   iru   sō   desu   ne*
       Japanese-ACC study do-PASS-GER PROG EVID COP.POL PRT
       'I heard that you are studying Japanese; I respect you.'

    b. *kaigi-de   shachō-ga   ??(go)-setsumei s-are-ta*
       meeting-at company.president-NOM HON-explanation do-PASS-PST
       'The company president explained it at the meeting; the speaker respects the

       company president.'

    c. % *sassoku   desu   keredomo, sensei-ga   shindenzu-o*
       immediate COP.POL but   professor-NOM electrocardiography-ACC
       go-benkyō nas-are-ta   saisho-no koro-no nihon-no jōtai-wa
       HON-study do.HON-PASS-PST first-GEN time-GEN Japan-GEN condition-TOP
       donna fū datta   n   deshō   ka
       which way COP.PST NMLZ COP.POL.CJT Q
       'Forgive me for getting straight to the point, but what was the state of Japan

       when you first started studying electrocardiography?; I greatly respect you.'

2.4   The regular humilific

This section considers non-suppletive humilification, elsewhere called *non-subject honorification*, which prototypically describes actions performed by a lower-status speaker or ingroup member for the benefit of a higher-status individual. Three forms are discussed: the regular humilific (in which *o-* co-occurs with the *suru* 'do' auxiliary), the obsequitive (in which *o-* co-occurs with an auxiliarified guise of *mōshiageru* 'say', itself a suppletive humilific of *iu* 'say'), and the causative-autobenefactive (an innovative form subject to high levels of inter-speaker variation that combines causative morphology with a humilific benefactive verb of receiving).

    Within the honorification system, humilifics—forms in which the speaker is morphosyntactically designated as socially inferior or deferential to another referent—are in multiple

senses relatively more marginal than honorifics. For one, humilifics appear at lower frequencies in naturalistic speech and corpora. Relatedly, from a viewpoint of prescriptivist grammar, speakers (both native and non-native) make more errors within the humilific subsystem than in the honorific subsystem. In genealogical perspective, there are varieties of Ryukyuan in which honorific forms exist but humilific forms do not (or have not been elicited, or have been lost even to full speakers, which in either case would shore up the claim of marginality).[24]

Importantly, humilifics are much more distributionally restricted than honorifics, in that the former are subject to an **affectedness criterion**. Whereas honorific *o-kiki-ni naru* means 'to deign to ask',[25] the regular humilific *o-kiki suru* means something closer to 'to ask [someone something] for the benefit of a higher-status individual' or 'to ask [someone something] in a way that affects a higher-status individual'.

(69) **Contrasting the honorific and humilific**

a. *shōko-shirabe-o*   *shi-te*   *itadai-te,*
evidence-research-ACC   do-GER   receive$_{\text{out}\rightarrow\text{ingroup}}$.HML-GER
shōnin-jinmon-o   *o-kiki-ni*   *nat-ta-ri,*
witness-crossexamination-ACC   HON-ask-DAT   become-PST-CONJ
hikokujin-shitsumon-o   **o-kiki-ni**   **nat-ta-ri**   *shi-te*
defendant-question-ACC   HON-ask-DAT   become-PST-CONJ   do-GER
rassharu-to   *omo-u*   *n*   *desu*   *kedomo, sono yari-kata-nitsuite*
PROG.HON-COMP   think-NPST   NMLZ   COP.POL   but   that   do-way-about
nanika   *go-kansō-wa*   *ari-mas-en*   *ka*
something   HON-impression-TOP   exist-POL-NEG   Q
'I know that you've been questioning both the witness and the defendant after considering the evidence for us, so do you have any impressions on how (best) to do this?; the speaker respects the questioner.'

b. *sensei,*   **o-kiki**   **shi-tai** *koto-ga*   *ari-mas-u-ga*
professor   HON-ask   do-DES   thing-NOM   exist-POL-NPST-but
'Professor, there is something I'd like to ask {you/*someone}.'

---

24. Pellard (2010) documents in Ōgami Ryukyuan an honorific verbal suffix *-samar*, in addition to a number of suppletive honorifics, to include *fa-~nkɛk-* 'eat~deign to eat' and *ks-~mmɛr-* 'go~deign to go'. No humilifics, regular or suppletive, are recorded. Interestingly, Anderson (2019) mentions that Ryukyuan-substrate Japanese tends to use honorific forms where normative Japanese would use humilific forms.

25. *Kiku* is both 'to ask' and 'to hear', depending on context.

c. * *Kagoshima-ni o-sumi   shi-te   i-mas-u*
   K-DAT   HON-reside do-GER PROG-POL-NPST
   Intended: 'I live in Kagoshima; I respect the addressee; my residence in Kagoshima affects the addressee.'

Sentence (69a) is a naturally occurring datum that takes place in a legal context, in which *o-kiki-ni naru* 'to deign to ask' describes the action of a higher-status addressee. Sentence (69b) takes place in a classroom. The affectedness criterion is in play here. If the statement is a prelude to a question asked of the teacher, then the use of the humilific is acceptable. If the statement is a more general one calling to attention that the speaker has something to ask of someone else, then the use of the humilific would be unacceptable. More starkly, sentence (69b) is completely degraded, as it is difficult to imagine how living in a particular location could be to the benefit of someone higher status.

To create the regular humilific, the light verb *suru* 'to do' is added to the stem: *o-kiki suru*.[26] This transforms it into what Poser (1992) calls an incorporated periphrastic verb, in which a light verb combines with a nominal component that is not accusative-marked. In humilifics, incorporation is obligatory: it is not possible to have forms such as **o-kiki-o suru* 'HON-hear-ACC do; intended: to humbly hear'. In contrast, non-humilific periphrastic verbs can be incorporated or unincorporated: *benkyō(-o) suru* 'study(-ACC) do; to study'. The regular humilific instantiates a complementary logic to what it is observed in the grammaticalisation of honorifics, in that 'effortfulness' (instead of 'effortlessness') is being extended to humilification. Instead of meanings like BECOME, BE or PASSIVE, it is the transitive, intentional, agentive DO. The obsequitive form is formed similarly, but with a different humilificating auxiliary, *mōshiageru* 'to humbly say', instead of *suru* 'to do'. This form is extremely humble and is reserved for the most formal and ceremonial registers.

In another example of Hopperian persistence, the use of 'to do' in forming humilifics means that many intransitive verbs have an ineffable humilific form, as seen in Table 2.2. In

---

26. *Suru* itself has a suppletive humilific form, *itasu*: co-humilification of the main verb and the light verb yields the politer *o-kiki itasu* or *o-kiki mōshiageru*.

root	HON		HML	
kaeru	*o-kaeri-ni*	*naru*	**o-kaeri*	*suru*
'to return'	HON-return-DAT	become	HON-return	do
hajimeru	*o-hajime-ni*	*naru*	**o-hajime*	*suru*
'to begin'	HON-begin-DAT	become	HON-begin	do

Table 2.2: Defective humilification

particular, the intransitive verbs 'to return' and 'to begin' freely and regularly honorificate, but cannot regularly humilificate. There are at least three explanations that can be proposed to account for this. The first, alluded to above, is that the transitive or transitivising properties of the humilificating light verb 'to do' may prohibit its use with intransitive stems. The second is that the 'affectedness' requirements of the humilific may not be met by the argument-structural or discourse properties of these defective verbs—one could reason that there are plausibly few senses in which the agent of *kaeru* 'to return (to ego's own home or some otherwise salient point of origin)' is 'returning' in such a way that 'affects' or 'benefits' a higher-status referent. (Compare this to the distinction between *miru* 'to see [in a socially neutral way]' and *haiken suru* 'to humbly see [e.g., a film of some personal significance to a higher-status referent]', discussed in further detail in §3.2.2.) The third is that there may be some lexical or idiosyncratic semanticopragmatic properties of these verbs that render them unhumilificatable, similar to the case of (transitive but still non-humilificating) *yurusu~*o-yurushi suru* 'to forgive~to humbly forgive'. This type of defectiveness would be isomorphic to the behaviour of adjectives like *pregnant*, which lack comparative and superlative forms (**pregnanter~*pregnantest*), or adjectives like *mere* and *winning*, which lack comparative forms without lacking superlative forms (**merer~✓merest*; **winninger~✓winningest*).

In addition, verbs like *kiru* 'to wear' and *neru* 'to sleep' may lack humilific forms in part because of one or more of the reasons above, but it is important to consider that they may lack them for reasons of phonological ill-formedness. That is, derivations like **o-ki suru* 'to humbly wear' and **o-ne suru* 'to humbly sleep' fail to converge because the honorific prefix *o-* can only attach to prosodic words, which must be minimally bimoraic in Japanese (Itô

1990). That intermediate representations are judged against this minimality constraint prior to the attachment of *o-* (i.e., both **o-ki* and **o-ne* are non-monomoraic, but still fail to surface) suggests that there remains much to work out with respect to ordering and cyclicity in the derivation of honorific forms. For now, it suffices to say that speakers can choose between two strategies to deal with verbs that are unhumilificatable as a result of weight or intransitivity: suppletion (e.g., *suru*∼**o-shi suru*/✓*itasu* 'to do∼to humbly do', discussed further in §3.3.2), and the causative-autobenefactive form, discussed presently.

2.4.1 The causative-autobenefactive

If used in the appropriate discursive contexts, none of the regular and singly-honorificated forms thus far discussed would raise an eyebrow. In contrast, the inclusion of some uses of the causative-autobenefactive in the domain of honorifics, first proposed by Nishina (2008), although well motivated synchronically, pushes this study outside the boundaries of prescriptive grammar. Given that honorific speech is a component of the grammar characterised by marked metalinguistic awareness and sociolinguistic reflexion (Silverstein 1981), the acceptability of some of the data to follow may be highly variable. Two naturalistic uses of the causative-autobenefactive form follow:

(70) **Two uses of V-*(s)asete itadaku*[27]**

    a. **Context**: The speaker wishes to borrow something from a co-worker.

       kono pen-o tsukaw-ase-te itadak-e-nai   *deshō*
       this   pen-ACC use-CAUS-GER receive$_{out→ingroup}$.HML-POT-NEG COP.POL.CJT
       ka
       Q
       'I don't suppose that you could let me use this pen (lit. Would it not be possible for me to humbly receive the favour of being allowed to used this pen)?'

    b. **Context**: The text below is written on a flyer advertising a contest.

---

27. The initial sibilant appears when attaching to vowel-stem verbs (e.g., *tabe-sasete itadaku* 'to be humbly allowed to eat'), and does not appear when attaching to consonant-stem verbs (e.g., *hair-asete itadaku* 'to be humbly allowed to enter').

> *kibōsha-wa   hagaki-de   o-mōshikomi kudasai.   nao,*
> candidate-TOP postcard-INS HON-apply   give[to.ingroup].HML.IMP furthermore
> *teiin-ni   nari-shidai   shimekir-ase-te itadaki-mas-u.*
> quota-DAT become-circumstances close-CAUS-GER receive.HML-POL-NPST
> 'Candidates, please send your applications by postcard. At such time as the quota
>
> is reached, we reserve the right to stop receiving applications.' Or: 'Candidates,
>
> please do us the favour of applying by postcard. Even so, we will take the liberty
>
> of closing [the application process] once a quota is reached.'

Sentence (70a) is fully standard usage and is judged unproblematically acceptable to all native speakers consulted. The most typical usage of V-*sasete itadaku* is to ask for permission. The causative morpheme -*sase* adds the 'let me do~' meaning and the (suppletive) humilific verb *itadaku* 'receive (from a higher-status outgroup member)'[28] adds the 'I receive~' meaning. These compose further with the verb to yield a meaning of 'I humbly receive the favour of being allowed to V'. In this particular example, the verbal complex is further softened by the negative and potential morphemes, and the utterance as a whole is further softened by the conjectural form of the polite copula. A breakdown of thematic roles in Nishina's terms would identify the speaker as beneficiary as well as causee. The addressee is benefactor as well as causer. The benefactum is the proposition that [the addressee lets the speaker use her pen], and the causatum is the proposition that [the speaker uses the pen].

In contrast, sentence (70b) contains a less compositional usage of V-*sasete itadaku*. First, a brief excursus on the structure of the first clause: the form *o-mōshikomi kudasai* 'please deign to apply' exemplifies a common use of honorifics, as softeners of imperative morphology. The simple imperative (in this case, *mōshikome!* 'apply!') is far too direct to use here—indeed, imperatives only occur in the normative language in very limited contexts, as exemplifed below.

(71)   **Typical contexts for imperatives**

---

28. The citation form of this verb is *morau*. Suppletion blocks the regular humilific, expected to be **o-morai suru.*

a. *ko-i!*   pet-directed speech
   come.IMP
   'Come here!'

b. *tomar-e*   traffic sign
   stop-IMP
   'stop'

c. *hontō-ni   shi-ro,   uso-ni   shiro*   frozen expressions
   'truth-DAT do-IMP, lie-DAT do-IMP
   'be it true or false'

In addition to these and similar contexts, simple imperatives can also be used more freely in reported speech and military orders. Outside of these highly marked discourse situations, one of the commonest ways to express imperative force is to imperativise a humilific benefactive verb. In this case, *kudasaru* 'to give (to the speaker or an ingroup member of the speaker)', the (suppletive) humilific of *kureru*, takes on this role. The force of the command is softened in two ways: first by the benefactive meaning and second by the humilific meaning.

Moving onto the causative-autobenefactive form in the second clause, *shimekirasete itadaki-masu* 'to humbly receive the favour of being allowed to close [the application-receiving process]', it seems apparent that the writer is by no means 'asking for permission' from the intended audience. That is, whereas the speaker of (70a) is indeed expecting a response, affirmative or negative, from his interlocutor, there is no sense in which the writer of (70b) is seeking approval from the addressees for her actions. That is, there is no causer-benefactor role here, and indeed introducing an explicit causer-benefactor is grammatical for (70a) but not (70b):

(72) **Differential suppression of causer-benefactors by V-*sasete itadaku***

a. *Chūman-san-ni kono pen-o   tsukaw-ase-te itadak-e-nai*
   C-Mr-DAT   this   pen-ACC use-CAUS-GER receive$_{out \rightarrow ingroup}$.HML-POT-NEG
   deshō   ka
   COP.POL.CJT Q
   'I don't suppose that Mr Chūman could let me use this pen? Or: 'I don't suppose

   that I could receive from Mr Chūman the favour of letting me use this pen?'

79

b. *teiin-ni*   *nari-shidai*   (**kibōsha-ni*)   *shimekir-ase-te*
quota-DAT   become-circumstances   candidate-DAT   close-CAUS-GER
itadaki-mas-u
receive$_{\text{out}\rightarrow\text{ingroup}}$.HML-POL-NPST
Intended: 'We hope that the candidates will let us receive the favour of being

allowed to close [the application process] once a quota is reached.'

In (72a), an overt causer-benefactor argument is perfectly acceptable (note that it is pragmatically unexceptional to address people by name in this way in Japanese), because this first use of the causative-autobenefactive is both humilific and permission-seeking. In contrast, in (72b), an explicit causer-benefactor degrades the sentence, because the second usage is *only* humilific, and *not* permission-seeking. Given that the causative meaning has been bleached—and indeed, the causer-benefactor argument is obligatorily suppressed—it can be argued that the second usage is 'more grammatical(ised)' than the first usage. Nishina argues that the second usage, in the grammar of the speakers who permit it, can be characterised as a single complex, uninterruptible predicate, *-saseteitadaku*, that expresses 'honorification' (Nishina 2008:296).

This investigation agrees with the broad strokes of this claim, but goes further to say that the *-saseteitadaku* in fact expresses *humilification*, and indeed, takes on the role of the 'regular humilific' for the many verbs that are defective in that part of the paradigm. For evidence that V-*saseteitadaku* and *o*-V *suru* are indeed truth-conditionally equivalent, note that for some speakers, (70b) could be rewritten with the regular humilific with no change in meaning:

(73)   % *teiin-ni*   *nari-shidai*   *o-shimekiri shi-mas-u*
       quota-DAT become-circumstances HON-close   do-POL-NPST
       'At such time as the quota is reached, we reserve the right to stop receiving applications.'

Some speakers judge the use of the causative-autobenefactive *shimekir-asete itadaku* in (70b) to be grammatical, and crucially also to be more polite than the use of the regular humilific *o-shimekiri suru* in (73), as it takes into consideration the effects on the addressees,

Dimension	V-*sasete( )itadaku*	*o*-V *suru*
Interpretation	causative-autobenefactive humilific	humilific
Productivity	transitive verbs intransitive verbs	most transitive verbs
Affectedness	none	narrow loose none

Table 2.3: Contrasting the regular & causative-autobenefactive humilifics

given that it is ostensibly a permission-seeking expression. In contrast, the use of the regular humilific feels more unilateral: although humble, it has the sense of an assertion of one's will. Other speakers judge the regular honorific to be simply ungrammatical here: for such speakers, the causative-autobenefactive is the only acceptable form. As well, for some subset of those who judge this ungrammatical, the regular humilific *o-shimekiri suru* is ineffable for them in all imaginable contexts (despite being transitive). For others, although the regular humilific is not ineffable, it cannot be licensed in the context of (70b) as a result of the low 'affectedness' of the higher-status addressees (i.e., that the advertisers will stop receiving applications is not something that 'affects' the addressees positively). Still other speakers find neither the regular humilific nor the novel humilific use of the causative-autobenefactive acceptable. In short, these two humilifics contrast on a number of dimensions, to include possible interpretations, productivity, and licensing properties, as summarised in Table 2.3.

First, on the dimension of interpretation, speakers may vary with respect to whether they permit the humilific (i.e., non-permission-seeking or not necessarily permission-seeking) interpretation of V-*saseteitadaku* at all. Idealising, there could be speakers for whom V-*sasete itadaku* is exclusively a fully compositional (note the space between the causative and benefactive components) form that expresses polite permission-seeking. As well, there could be speakers for whom a contrast is observed between compositional V-*sasete itadaku* 'humbly receive the favour of being permitted to V' and the string-equivalent (but morphosemantically nonequivalent, note the *absence* of a space between the causative and benefactive

components) V-*saseteitadaku* 'to humbly V'.

Second, on the dimension of productivity, -*saseteitadaku* 'ʜᴍʟ' can co-occur with many more verbs than the *o*-V *suru* complex (cf. ✓*ow-araseteitadaku* 'to humbly end' vs **o-owari suru*).

Third, the -*saseteitadaku* form can mark actions that do not 'affect' a higher-status referent, whereas the *o*-*V suru* complex is variably sensitive to 'affectedness'. It is possible to identify at least five groups of speakers (four actual, one hypothetical) based on the contrasts they observe between these two methods of humilification:

(74)   **Variation in the intersubstitutability of V-*saseteitadaku* & *o*-V *suru***

   a.   **A-speakers are maximally conservative**. They do not permit the humilific interpretation of **shimerkir-aseteitadaku* 'to humbly close [the application process]' in (72b). For them, the valency-increasing, permission-seeking V-*sasete itadaku* predicate has not grammaticalised to the valency-neutral, humilificating V-*saseteitadaku* predicate.

   b.   **B-speakers are medially conservative**. They permit the humilific extension of the causative-autobenefactive and apply the 'affectedness' criterion of the regular honorific narrowly. For them, *shimekir-aseteitadaku* is unexceptional, and *o-shimekiri suru 'to humbly close' in (73) is impossible because the 'closing' action is perceived not to 'affect' positively the higher-status addressees.

   c.   **C-speakers are medially innovative**. They permit the humilific extension of the causative-autobenefactive and apply the 'affectedness' criterion of the regular honorific loosely. For them, both *shimekir-aseteitadaku* and *o-shimekiri suru* are acceptable, and the 'closing' action is perceived to 'affect' the higher status addressees.

   d.   **D-speakers are maximally innovative**. They do not apply the 'affectedness' criterion of the regular honorific at all. For them, both *shimekir-aseteitadaku* and *o-shimekiri suru* are both possible because the regular humilific can be licensed

82

whether or not the 'closing' action 'affects' the higher-status addressee. (Note that on the level of acceptability judgement, C- and D-speakers are identical, but on the level of language ideology and/or the sensitivity to affectedness of the humilific, they are distinct.)

e. (*Hypothesised*: **E-speakers are simultaneously conservative and innovative**. If such speakers existed, they would *not* permit the humilific interpretation of the causative-autobenefactive, but they would have either a loose or absent 'affectedness' criterion. For these speakers, **shimekir-aseteitadaku* would not be possible but *o-shimekiri suru* would be acceptable.)

With the above typology in mind, consider the variable judgement of the datum below:

(75) **Context**: The speaker is preparing to report to his seminar group on what he has learnt from interviewing Professor Taniguchi.

% *tadaima-yori*   *shikei-nitsuite*   *Taniguchi-sensei-ga*   *dō*   *kangae-te*
now-from   capital.punishment-about   T-professor-NOM   how   think-GER

irassharu-ka-o   {*go-shōkai*   *shi-mas-u*   / *shōkai-saseteitadaki-mas-u*}
PROG.HON-Q-ACC   HON-introduce   do-POL-NPST   introduce-HML-POL-NPST

'At this time, I will present Professor Taniguchi's views on capital punishment (lit. At this time, I humbly present what Professor Taniguchi is thinking about capital punishment).'

For A-speakers, only the regular humilific *go-shōkai shimasu* would be acceptable. For B-, C-, and D-speakers, both would be acceptable, although *shōkai-saseteitadakimasu* would be interpreted as humbler (i.e., more considerate of the addressees). The quadripartite classification of terms A-, B-, C-, and D-speakers should be interpreted as gesturing at particular archetypes, as the grammaticalisation of the causative-autobenefactive into a (high) humilific cannot be framed in absolute terms. Nishina (2008:297) reports on the contrast below, adapted from a study conducted by the Agency for Cultural Affairs:

(76) **Interspeaker & inter-verb variation of V-*saseteitadaku***

a. *fuka-ku   hansei-saseteitadakimasu*   acceptable to 58.6%
   deep-ADV regret-HML.POL.NPST
   'I regret it deeply.'

b. *kore-de   kaigi-o   shūryō-saseteitadakimasu*   acceptable to 91.9%
   here-LOC conference-ACC end-HML.POL.NPST
   'I would like to end the conference here.'

Nishina explains this contrast in terms of semantics of the main verb. For speakers who accept (76a), even the benefactive meaning has been bleached from -*saseteitadakimasu*, leaving only the humilific meaning. For speakers who do not accept (76a), the negative emotional valence of 'regret' is incompatible with the persistent benefactive meaning. These data show that the grammaticalisation of the causative-autobenefactive is proceeding gradually across speakers and across different lexical items in the grammar of individual speakers.

In summary, the fact that the normative honorific system was missing a way to express humilification that was as productive and unrestricted as the regular honorific, *o*-V-*ni naru* 'to deign to V', is dealt with in innovative varieties by means of the grammaticalisation of the causative-autobenefactive form as a secondary humilificating marker. Furthermore, not only is there grammaticalisation of -*saseteitadaku* into a humilific meaning, but there is concurrent restructuring of the regular humilific with respect to the 'affectedness' criterion: that is, for the most innovative speakers, the appearance of a secondary means of humilification by means of semantic bleaching of the causative has begun to trigger an analogical change in the primary means of humilification such that its licensing properties now more resemble those of the novel humilific (for some verbs, in some situations).[29] If the relaxing of the 'affectedness' criterion is indeed triggered by the reanalysis of the causative-autobenefactive into the (high) humilific, then the hypothesised E-speakers may not exist: if there is no secondary humilific on which to model a less restrictive 'affectedness' criterion, analogy cannot occur. Table 2.2, which can now be identified as the representation A-speakers' grammar, can be rewritten as Table 2.4 to account for the grammars of B-, C-, and D-speakers.

---

29. More concretely, this amounts to the reanalysis of a humilific verb as a courteous verb, to be discussed later in §3.3.2.

root	HON		HML
kaeru	*o-kaeri-ni*	*naru*	*kaer-aseteitadaku*
'to return'	HON-return-DAT	become	return-HML
hajimeru	*o-hajime-ni*	*naru*	*hajime-saseteitadaku*
'to begin'	HON-begin-DAT	become	begin-HML
shimekiru	*o-shimekiri-ni*	*naru*	*shimekir-aseteitadaku*
'to close'	HON-close-DAT	become	close-HML
			o-shimekiri *suru*
			HON-close do

Table 2.4: Regular humilification in innovative grammars

Innovative speakers do not have a defective paradigm in which some, mostly intransitive, verbs are not humilificatable. (Note that for the speakers who report the highest extent of humilific defectiveness, *both shimekiraseteitadaku* and *o-shimekiri suru* are innovative forms.) The emergence of a humilific form equiproductive to the regular honorific appears in some respects spiritually similar to *symmetric deployment* (Yaroslav Gorbachov p.c.), a process of analogical change in which asymmetries in morphological contrasts are 'repaired'. Such a development has been observed in the Latin *perfectum* system, which has copied the missing morphological contrasts from the 'richer' *infectum* system, achieving paradigmatic symmetry (Jasanoff 1987). Specifically, the infectum verbs form an aspectual class that distinguish between present, imperfect, future, subjunctive, and imperfect subjunctive. In earlier stages of Latin, the perfectum verbs—reflexes of [−control] verbs in Proto-Indo-European, denoting involuntary states—are extremely defective and appear only in the 'perfect'.[30] Later varieties of Latin, as well as a number of Italic dialects within Osco-Umbrian, repaired the defectiveness of the *perfectum* by innovating a past perfect, future perfect, perfect subjunctive, and past perfect subjunctive, built on a combination of an enlarged perfect stem in **-is-* and the same tense-mood-aspect markers imported from the *infectum*. Similarly, just as honorific forms have been historically created from the passive and causative markers, innovative speakers have created a humilific form from the causative marker, in conjunction with a verb

---

30. Yaroslav Gorbachov (p.c.) cautions that the use of *perfect* here is something of a misnomer: the PIE perfect is not a perfect tense form, but simply a present form for [−control] verbs.

of self-benefaction, in response to the systematic defectivisation of the intransitive humilific.

Strictly speaking, the presence of two humilific forms for verbs like 'close' does not exemplify morphological overabundance (Thornton 2010), given that B-, C-, and D-speakers all recognise the novel form to be 'more strongly humilific' than—that is, interpretively distinct from—the older form. (For B- and C-speakers, the forms differ further in terms of sensitivity to 'affectedness'.) It does not seem unreasonable to propose that the 'more strongly humilific' interpretation is tied to the relative length, morphological complexity, and articulatory difficulty of the -*saseitadaku* suffix relative to the *o*-V *suru* complex. That is, the logic of quantitative iconicity is again at play here: *ceteris paribus*, longer expressions are interpreted as more honorificating or humilificating. Recall the cumulating containment exhibited by Persian adjectival grades (e.g., *kam – kamtar – kamtarin* 'few – fewer – fewest'), in which the more semantically complex superlative meaning is likewise more morphologically complex. Within Japanese, similarly quantitative-iconic effects have been observed in many domains, to include plurality, repetition, and intensification, with the most recent being an investigation into Pokémonomastics that argues that the number of morae in Pokémon species names positively correlates with their size, weight, evolutionary stage, and statistical parameters, christened the 'longer-is-stronger' principle by Kawahara et al. (2018), complementing the 'longer-is-politer' principle advanced here. This principle appears active in both honorifics (e.g., *tsuzuku~tsuzukareru~tsuzukaserareru*, respectively the citation, passive honorific, and [archaic] causative-passive high honorific forms) and humilifics (e.g., *o-kiki suru~kik-aseteitadaku*, respectively the regular and high humilific forms).

2.5   Conclusion

This chapter began with a description of the prefix *o*-, which is associated with at least two functions. The first function can be variously called the person-insensitive, addressee-oriented (i.e., polite), and polysemous use, and describes all uses of *o*- that do not convey an honorific meaning (i.e., a meaning in which the speaker expresses respect for a higher-

status referent). This includes forms in which *o-* is obligatorily prefixed (e.g., *o-cha* 'tea') and forms in which prefixation of *o-* conveys diverse and not necessarily honorific meanings (e.g., euphemistic *o-* in *o-shiri* 'buttock' or child-directed *o-* in *o-chūshajō-san* 'Mr Car Park'). The second function is the person-sensitive, referent-oriented, or honorific use. This include forms in which the presence of *o-* implies a higher-status possessor (e.g., *shiteki* 'pointing out, indication' vs *go-shiteki* 'an honourable pointing out, typically describing such contexts when a conference attendee raises an issue with the speaker's talk'), as well as forms in which *o-* functions as part of an honorificating verbal complex (e.g., *matsu* 'to wait' vs *o-machi-ni naru* 'to deign to wait').

In addition, this chapter has describe two forms of the regular honorific, *o*-V-*ni naru* and V-*rare-ru*, and two forms of the regular humilific, *o*-V *suru* and V-*saseteitadaku*. Honorific verbs describe actions performed by a higher-status referent, whereas humilific verbs describe actions performed by the speaker or an ingroup member for the benefit of, or in a way that affects, a higher-status referent.

CHAPTER 3

DERIVING HONORIFIC SUPPLETION

Þise were diȝt on þe des and derworþly served, and siþen mony siker segge at þe sidbordez.

Sir Gawain and the Green Knight

3.1 Introduction

Suppletion is understood in this study to refer to the context-dependent, paradigmatic[1] association of a single lexical item with two or more phonologically unpredictable (and often, but not always, etymologically distinct) forms. In the case of English *go*, the unexpected past tense *went*, is supplied (> Lat. *supplere*, hence *suppletion*) by a form from another semantically contiguous paradigm, *wend* 'to go in a specified direction, typically slowly or by an indirect route'. This irregular form blocks the expected regular past tense form **goed*, although such forms do occur in child and non-native speech. The primary goal of this chapter and in particular §3.3 is to demonstrate that morphological relations of this sort are observable within the Japanese honorific system, and crucially that honorific suppletion patterns with Bobaljik (2012)'s account of comparative suppletion with respect to the manner in which co-suppletion is constrained. Specifically, if the humilific form of a verb is suppletive, then its honorific form is also suppletive (i.e., if AB, then ABB or ABC). Equivalently, no verb observes formal isomorphism between the pragmatically neutral and humilific forms, to the exclusion of the honorific (i.e., never *ABA). It is further demonstrated that there is a structural containment relation between the honorific and humilific, in which the auxiliary associated with the humilific *suru* 'do, make' is built on structure of the auxiliary associated with the honorific, *naru* 'become'. From this follows an additional restriction on the positing of a rule of exponence sensitive to the more complex category of humilification without one

---

1. *Paradigmatic* is used atheoretically here to mean 'can be intuitively organized into tabular form' and makes no claim that there are such psychological objects as *paradigms*.

sensitive to the less complex category of honorification (this condition blocks both *ABA and *AAB).

Second, this study breaks from both traditional grammar and the generative literature in arguing that certain forms that have historically been argued to be suppletive forms are in fact registral alternants or courteous forms, both of which fall outside of the honorification system proper. For instance, *haidoku* 'to read [a text written by or otherwise associated with a higher-status referent]' is often treated as the humilific form of *yomu* 'to read', but it can be demonstrated that these are truth-conditionally distinct (and therefore heteroparadigmatic) forms. Two further tests of suppletion specific to Japanese—compound intersubstitutability and formal maintenance under grammaticalisation—are proposed in §3.2, which can be used to distinguish suppletion from registral alternation. Courteous verbs are verbs that are formally identical to—but distributionally and semantico-pragmatically distinguishable from—humilific verbs, and can be thought of as the grammaticalisation of a person/ingroup-sensitive humilific form into an addressee/discourse-sensitive polite form.

Third, derivations are proposed for a selection of suppletive honorific verbs in Japanese in §3.4. It is demonstrated that a containment relation obtains between honorifics and humilifics, both semantico-pragmatically with respect to their incremental propositional complexity and syntactically with respect to the incremental structural complexity of their associated auxiliaries. Crucially, the honorific auxiliary *naru* 'become' is shown to be contained by the humilific auxiliary *suru* 'do, make, cause to become', with both being realisations of *v*. The major claim underlying the analysis is that honorification results from the semantic bleaching of inchoativising morphology, whereas humilification results from the semantic bleaching of causative morphology. This is concordant with previous observations that grammaticalisation of the voice system is fertile ground for the emergence of honorifics more broadly (cf. §2.3.2).

(77)   **The containment effect in Japanese honorifics**

a.

vP
├─ HonP
│ ├─ nP
│ │ ├─ VP
│ │ │ └─ V⁰ — Verb
│ │ └─ n^0 — NMLZ
│ └─ Hon⁰ — o- HON
└─ v^0 — nar- v_{INCH}

b.

vP
├─ vP
│ ├─ HonP
│ │ ├─ nP
│ │ │ ├─ VP
│ │ │ │ └─ V⁰ — Verb
│ │ │ └─ n^0 — NMLZ
│ │ └─ Hon⁰ — o- HON
│ └─ v^0 — Ø v_{INCH}
└─ v^0 — s- v_{CAUS}
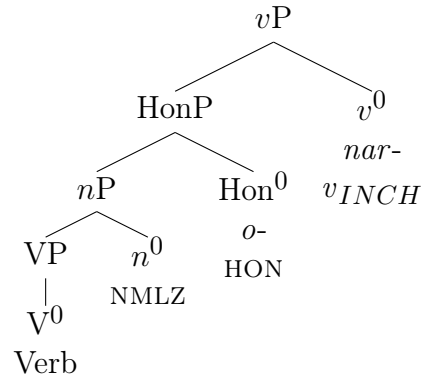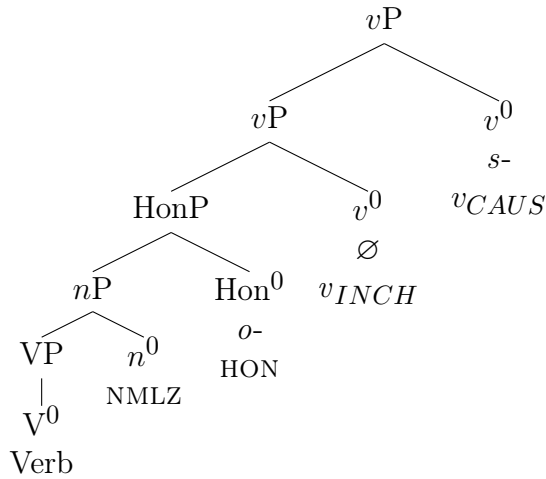
The partial phrase markers above represent structures that would be postsyntactically linearised and realised as honorific *o-V-ni nar-* and humilific *o-V s-*. Although the phonology of the humilific is associated with less overt structure relative to the honorific—that is, it does not mark case on the nominalised verb, and *s-* 'do (humilifico-causativising auxiliary)' is a shorter string than *nar-* 'become (honorifico-inchoativising auxiliary)'—its morphosyntax is associated with more covert structure. Two points of major theoretical significance emerge as a consequence of this analysis: first, the Japanese honorific system does indeed pattern with Bobaljikian comparative suppletion in its containment architecture, and second, the assumption that so-called transparent containment always faithfully recapitulates underlying structural considerations is not upheld.

	HON	HML	**pattern**
suru 'to do'	*nasaru*	*itasu*	ABC
iku 'to go'	*irassharu*	*mairu*	ABC
kuru 'to come'			ABC
iru 'to exist'		*oru*	ABC
iu 'to say'	*ossharu*	*mōsu*	ABC
shiru 'to find out'	*go-zonji de aru*	*zonjiru*	ABB
aru 'to possess'	*gozaru*	*gozaru*	ABB
kiru 'to wear (upper body)'	*mesu* (*o-meshi-ni naru*)	*	ABX
yaru 'to give$_{in \to outgroup}$'	*	*(sashi)ageru*	AXB
kureru 'to give$_{out \to ingroup}$'	*kudasaru*	*	AXB
morau 'to receive$_{out \to ingroup}$'	*	*itadaku*	AXB
taberu 'to eat'	*meshiagaru*		ABC
nomu 'to drink'			ABC
V	X	*o*-V *suru*	*ABA
V	*o*-V-*ni naru*	X	*AAB

Table 3.1: Suppletive honorifics

3.2 Suppletion

This section begins by gathering all the verbs with suppletive honorific and humilific forms relevant to this study in Table 3.1. It then delves more deeply into dynamics of suppletion, using the case study of the verb 'to eat' in §3.2.1) In a break from traditional grammar and some generative studies, Table 3.1 excludes certain forms that have been described as suppletive, but are argued here to be better treated as registral alternations or courteous verbs. It ends by providing three (not infallible, but highly effective) diagnostics for suppletion: compound intersubstitutability, maintenance of irregularity under grammaticalisation, and maintenance of truth-conditionality in §3.2.2.

A cursory inspection of Table 3.1 brings to light a number of facts. First, honorific suppletion targets basic vocabulary. Second, honorific suppletion is characterised by many-to-many relations: for instance, *mairu* is the humilific form for both *iku* 'to go' and *kuru* 'to come', whereas *irassharu* is the honorific form for 'to go', 'to come', and *iru* 'to exist'. This suggests that the grammaticalisation of honorific forms is associated with some degree

of semantic de-differentiation. Third, ABC patterns seem to be more common in honorific suppletion than ABB patterns, which contrasts with what is observed in the domains of comparatives and case. In spite of these differences, what makes this domain an *ABA environment is that there are no verbs with a regular honorific and a suppleting humilific, or a suppleting honorific and a regular humilific.

3.2.1 Suppletion, retroregularisation, & desuppletivisation: 'eat'

This section describes the suppletive behaviour of 'eat', with discussion of exceptional cases of retroregularisation (i.e., semantically differentiated re-emergence of a regular allomorph) and desuppletivisation (i.e., semantically undifferentiated re-emergence of a regular allomorph). As seen in Chapter 2, a Yamato verb such as *kaku* 'to write' has the regular honorific *o-kaki-ni naru* 'to honorably write' and *o-kaki suru* 'to humbly write'. The behaviour of a suppleting verb such as *taberu* 'to eat' is otherwise.

(78) **Suppletive honorification of 'to eat'**

    a. *kono puroguramu-de-wa isshoni ranchi-o tabe-mas-u*
       this programme-on-TOP together lunch-ACC eat-POL-NPST
       'We will eat lunch together on this programme.'

    b. *genmai-udon-wa*   *arerugi-o*   *o-mochi-no*   *kata*
       brown.rice-wheat.flour.noodle-TOP allergy-ACC HON-possess-GEN person.HON
       demo anshin shi-te meshiagar-u kotogadeki-mas-u
       even relief do-GER eat.HON-NPST can-POL-NPST
       'Even persons with allergies can safely eat our brown rice udon; the speaker respects the eaters.'

    c. *dezaato-ni-wa chiizukeeki-o itadaki-tai*
       dessert-DAT-TOP cheesecake-ACC eat.HML-DES
       'I want to have cheesecake for dessert; the speaker humbles him/herself.'

Datum (78a) exemplifies the pragmatically neutral form of the verb *taberu* 'to eat'. Datum (78b) contains the suppletive honorific *meshiagaru*, blocking the expected **o-tabe-ni naru*. Notably, it contains a reduced regular honorific *o-mochi(-ni naru)* 'to possess': in modifying

clauses, the *o-* prefix and the verbal stem are sufficient to convey the honorific meaning. Reduced honorification is further discussed in §3.3.3. Additionally, it uses *kata* 'person (honorific)' instead of the more common *hito* 'person', and this honorification is maintained in the free translation with the use of *persons*, a form associated with highly formal registers in English. Crucially, *kata* should not be thought of as a suppletive alternant of *hito*: these are rather independent, register-differentiated lexical items that pick out the same kind of object. Lastly, datum (78c) contains the suppletive humilific *itadaku*, blocking the expected **o-tabe suru. Itadaku* is also the suppletive humilific of *morau* 'to receive (from outgroup to ingroup)' and *nomu* 'to drink', and such one-to-many mappings are commonly observed in honorific suppletion.[2]

There are edge cases in which the blocked regular honorifics may re-emerge. The first is retroregularisation, in which suppletive and regular forms coexist under a division of semantic labour:

(79) **Retroregularisation across domains**

    a. **Comparative suppletion: 'bad'**

        i. *vond – verre – verst* 'bad; evil'   (Norwegian, Sverre Stausland p.c.)

        ii. *vond – vondere – vondest* 'bad-tasting; painful'

    b. **Humilific suppletion: 'to eat'**

        i. o-*kashi-wa*   *itadaki-mas-en*
          HON-candy-TOP eat.HML–POL–NEG
          'I do not eat sweets at all.'

        ii. **Context**: The wife of the speaker's boss packs the boss a lunch every day. The boss does not like the food, but his wife will get angry if he brings the lunch home and he hates wasting food. The speaker, who likes the kind of food prepared by the wife, offers to trade lunches and eat the boss's lunch instead (Thompson 2011).

---

2. The RECEIVE meaning of *itadaku* is the most basic and precedes the semantic extension under honorification to EAT and DRINK.

% *Watashi-ga o-bentō-o   o-tabe   shi-ma-shō ka*
   I-NOM   HON-lunchbox-ACC HON-eat do-POL-CJT Q
'Shall I eat your lunch for you (instead)?'

In (79a), the suppletive comparative and superlative convey the standard meaning of badness, whereas the retroregularised forms convey a different, more specialised meaning. In (79b), Thompson claims that both the suppletive (*itadaku)* and regular humilific (*o-tabe suru*) can be used here with no change in meaning (i.e., free variation). No speaker consulted in the course of this investigation agreed with this judgement, and all rejected the use of the regular honorific outright. When pushed, at least one suggested that the use of the regular honorific would stress the *eating* of the food, whereas the use of the suppletive honorific would stress the *receiving* of the food from the superior. This (very forced) interpretation would be in keeping with the logic of retroregularisation. Hereinafter, only the grammars in which **o-tabe suru* is indeed Poser-blocked by *meshiagaru* will be treated as relevant to the investigation, but certainly (79b-ii) suggests that interspeaker variation on this dimension is worth further exploration.

Another case in which the regular honorific unexpectedly emerges is child and child-directed speech:

(80)   **Desuppletivisation in child and child-directed speech**

   a. *boku-o o-tabe-ni   nar-u-no   desu   ka*
      I-ACC HON-eat-DAT become-NPST-NMLZ COP.POL Q
      'Are you [honourable monsters] going to eat me?'

   b. *itsuka   kimi-ga   mago-o   mot-ta-ra   beddo-ni tobinoru yōni*
      someday you-NOM grandchild-ACC have-PST-after bed-DAT jump   QUOT
      it-te   kyandi-o   o-tabe-tte   iu n   da
      say-GER candy-ACC HON-eat-QUOT say NMLZ COP
      'Someday, when you have a grandchild, [make sure to] tell her/him to jump on

      the bed and eat candy.'

Datum (80a) is a sentence spoken by a child to a group of monsters. The use of *o-tabe-ni naru* here is roughly analogisable to such forms as *gooder* in English, in which a

94

suppletive form that would be present in normative speech is replaced by the regular form. Desuppletivisation is likewise observable in datum (80a), a sentence spoken by an adult to a child. In both cases, the child has not learnt, or is not expected to have learnt, the suppletive allomorph *meshiagar-*.

One significant difference between these two sentences deserves commentary. Datum (80a) exemplifies a 'typical' honorification context, in which the speaker wishes to exalt the actions of an outgroup member. This is certainly not the case in datum (80b), in which the honorific form appears in an indirect speech context and neither the addressee (i.e., the speaker's grandchild) nor the addressee's addressee (i.e., the speaker's grandchild's hypothetical grandchild) are referents that would be normally need to be honorificated. That is, the use of *o-tabe* here is less about honorification than it is about creating an embedded imperative using a verb form that would be recognisable to a child—both with respect to the avoidance of the suppletive allomorph and more conventional imperative morphology (i.e., the multiply-suppletive imperative *meshiagatte kudasai* 'please eat' would be inappropriate for child-directed speech).

Excepting these marginal cases of retroregularisation and desuppletivisation, by and large *meshiagaru* should be thought of as the contextually conditioned, Poser-blocking suppletive form of **o-tabe-ni naru*.

3.2.2   Diagnosing suppletion

In this subsection, three suppletion diagnostics are identified such that allomorphs with a relationship similar to *taberu∼meshiagaru∼itadaku* 'eat∼eat.HON∼eat.HML' can be identified. The diagnostics in question are compound intersubstitutability, suppletion maintenance under auxiliarification, and differential truth-conditionality. Crucially, the application of these diagnostics leads this study to exclude from consideration particular alternations that have been considered suppletive in prescriptive grammar.

For instance, the alternation *shinu∼o-naku nari-ni naru* 'die∼to honourably die' has

been claimed to be suppletive, with *nakunar-* being the honorific allomorph of *shin-*. This analysis is not maintained here: rather, *nak-u naru* 'exist.NEG-ADV become; lit. to become nonexistent' is treated as a euphemism that fills in the gap for the regular honorific **o-shini-ni naru*, which may be ineffable for extralinguistic, cultural reasons (cf. English 'to pass on' or 'to no longer be with us'). Other alternations that work this way include *neru∼o-yasumi-ni naru* 'to sleep∼to honourably sleep', in which *yasumu* 'to rest' fills in for **o-ne-ni naru*, although the ineffability of this form is more likely to result from a bimoraic minimality constraint than from cultural prohibitions on being too blunt about death.

Although determining whether an irregular honorific form is suppletive or a euphemistic alternant may seem to be more art than science, intersubstitution within compounds can be used as a diagnostic, as seen below for the humilific form of 'to say'.

(81) **Compounds of 'to say'**

iu 'to say'	*mōsu* 'to humbly say'
ii-wake 'excuse'	*mōshi-wake* 'excuse, apology'
ii-bun 'case'	*mōshi-bun* 'objection'
ii-yō 'a mode of expression'	*mōshi-yō* 'how to express oneself'

When combined with *wake* 'reason', *bun* 'part', and *yō* 'manner', both the citation and humilific forms yield licit, semantically similar compounds. This diagnostic is not perfect, as not all allomorphs can freely intersubstitute in compounds: for instance, there is no **osshai-wake* 'honourable excuse' (cf. *ossharu/*o-ii-ni naru* 'to honourably say'). Nevertheless, the existence of the forms in (81) suggest that the relationship between *iu* and *mōsu* is 'stronger' in some derivationally significant sense than the relationship between *shinu* 'to die' and *o-naku nari-ni naru* 'to pass on/to honourably die', which share no compounds. Specifically, *waka-jini* 'early death (lit. young death)' does not have a corresponding honorific **waka-nakunari*, nor does *hiru-ne* 'nap (lit. afternoon sleep)' have a corresponding honorific *hiru-yasumi*, which is an entirely different word meaning 'lunch break, noon recess'.

Forms are also likely to be realisational alternants to one another are if suppletion persists

in non-lexical uses of the root. More concretely, the verb *iru* 'to exist' can be used lexically to denote existence, location, and possession, but it also has a second life as the progressive auxiliary (the complex behaviour of this auxiliary is discussed further in §3.3.1). Suppletion is maintained even when *iru* is used grammatically:

(82) **Maintenance of suppletion across lexical & grammatical uses**

    a. *yūrei-ga   ir-u*
        ghost-NOM exist-NPST
        'Ghosts exist.'

    b. *sensei-ga   kiji-o   yon-de   {i-mas-u   / irasshai-mas-u}*
        professor-NOM article-ACC read-GER PROG-POL-NPST   PROG.HON-POL-NPST
        'The professor is reading a newspaper.'

    c. *posuto-haadokoa-o kii-te   {i-mas-u   / ori-mas-u}*
        post-hardcore-ACC listen-GER PROG-POL-NPST   PROG.HML-POL-NPST
        'I am listening to post-hardcore (a subgenre of punk rock).'

In (82a), *iru* is used as a main verb. In (82b,c) the *iru∼irassharu∼oru* 'exist∼exist.HON∼ exist.HML' alternation is shown to be maintained even under auxiliarification (i.e., non-main verb usage).

One set of verbs traditionally described as suppletive humilifics, the *hai*-mulifics (i.e., humilifics that begin with *hai*-), can be excluded from consideration on the grounds of compound non-intersubstitutability. A *hai*-mulific is a Sino-Japanese nominal compound composed of the morpheme *hai*- 'perform obeisance, bow, kowtow' and another Chinese-origin verbal morpheme. As nominals, they must co-occur with some form of the light verb *suru* in order to be used predicatively and/or honorifically. Given that *miru* has an ineffable humilific

citation form	*hai*-mulific form
miru 'to see'	*haiken suru* 'to humbly see'
yomu 'to read'	*haidoku suru* 'to humbly read'
kiku 'to hear'	*haichō suru* 'to humbly hear'
kariru 'to borrow'	*haishaku suru* 'to humbly borrow'
ukeru 'to get'	*haiju suru* 'to humbly get'
ogamu 'to pray'	*hairei suru* 'to humbly pray'

Table 3.2: *Hai*-mulific verbs

97

(*_o-mi suru_), pedagogical grammars have tended to argue that _haiken suru_ is the suppletive humilific allomorph of _miru_. This argument does not obtain for the other _hai_-mulifics, for which regular humilifics are all possible: _o-yomi suru, o-kiki suru, o-kari suru_ for 'read', 'hear', 'borrow', etc.

Certainly, all the _hai_-mulifics fail the compound intersubstitutability test: _yomimono_ 'reading materials' does not have a humilific equivalent in the form of *_haidoku shimono_. But even more importantly, the _hai-_ verbs are truth-conditionally distinct from both the citation form and the regular humilific, as seen in the triplet below:

(83) **Differential truth-conditionality in the humilific forms of 'to read'**

    a. _hon-o   yon-da_
       book-ACC read-PST
       '[I] read the book.'

    b. _moji-ga   chiisa-sugi-mas-u-node,   hon-o   o-yomi   shi-mash-ō_
       letters-NOM small-exceed-POL-NPST-because book-ACC HON-read do-POL-CJT
       _ka_
       Q
       'Since the letters are so small, shall I read the book for you?'

    c. _go-hon   haidoku itashi-mashi-ta_
       HON-book read   do.HML-POL-PST
       'I read your book.'

In (83a), the citation form of 'to read' is used. Nothing can be assumed about the nature of the book or the discourse context, given that the citation form necessarily has the widest distribution of any form. In (83b), the regular humilific, _o-yomi suru_, appears in its polite conjectural form. Recall that humilifics can only be licensed if the action 'affects' a higher-status referent in some way: although no explicit context has been presented, one could imagine that (83b) could be uttered by a younger speaker offering to read a text aloud to an elderly speaker who has misplaced her glasses. As in (83a), nothing can be assumed about the nature of the book. This is in striking contrast with (83c), in which the _hai-_ form of 'to read' is used. Similar to the case of the regular humilific, the writer (the absence of the accusative marker on the noun is a characteristic of formal written registers) is likely

to be a younger person addressing a higher-status individual. Unlike the regular humilific, however, the *hai*-mulific commits the reader to having read a text *written by the addressee* (or, imaginably, by someone in the addressee's ingroup). In many situations, this requirement of direct connexion can superficially resemble the 'affectedness' criterion of regular honorifics, but ultimately *o-yomi suru* and *haidoku* are simply different predicates. The relationship between *yom-* and *haidoku* is certainly not as derivationally close as that between *iw-* and *mōs-*; rather, it seems closer to the relationship observed between different forms of 'to eat' in languages like German and Russian:

(84) **Different predicates, not realisational alternants**

    a. **Japanese humilifics**

        i. *o-yomi suru* 'to humbly read: to read in a way that affects a higher-status individual'

        ii. *haidoku suru* 'to humbly read: to read a text written by or otherwise associated with a higher-status individual'

    b. **German verbs of eating**

        i. *fressen* 'to eat: used for animals'

        ii. *essen* 'to eat: used for humans'

    c. **Russian verbs of eating** (Jessica Kantarovich p.c.)

        i. *žrat'* 'to eat: used for animals'

        ii. *kušat'* 'to eat: used for young children'

        iii. *est'* 'to eat: used for humans'

That is, *haidoku suru* is a verb of reading that selects for a certain kind of theme, whereas *(fr)essen* is a verb of eating that selects for a certain kind of agent. Sensitivity to argumental properties is also reported for verbs of eating in Lithuanian, as well as verbs of dying in Russian and Czech (Yaroslav Gorbachov p.c.).

Furthermore, alleged *hai*-mulific suppletion is not maintained in non-lexical usage of the root. *Miru* 'to see' has a grammatical usage as an attemptive auxiliary, 'to try to V and see':

(85)   **Non-maintenance of *hai*-mulific suppletion**

    a. *tabe-te   mi-ru*
        eat-GER see-NPST
        'I'll try eating it and see.'

    b. *tabe-te   go-ran   nasa-i*
        eat-GER HON-see.HON do.HON-IMP
        'Try eating this and see!'

    c. **tabe-te haiken   su-ru*
        eat-GER see.HML do-NPST
        Intended: 'I'll (humbly) try eating it and see.'

In (85a), the citation form of the attemptive auxiliary follows the gerund of the main verb, creating the meaning 'try eating (something) and see'. In (85b), it can be seen that the attemptive auxiliary can be suppletively honorificated. In contrast, (85c) shows that *haiken suru* cannot be substituted for *miru*, suggesting strongly that *go-ran* is indeed a suppletive alternant of *mi-*, whereas *haiken* is not so. Despite being an honorific form, however, (85b) is by no means something one could say to a superior. It would seem that the honorific attemptive has become a frozen expression that has lost some of its honorific meaning. An alternative analysis is that the imperative mood attenuates the honoriic meaning. Although much more could be said about this, what is most relevant for the purposes of this investigation is that honorific suppletion persists in contexts where *hai*-mulific 'suppletion' does not, shoring up the case that *hai-* forms are separate lemmata and not contextually conditioned alternants of the citation form.

Crucially, the claim that *haiken suru* 'to humbly see' is not a suppletive alternant of *miru* is merely a claim that these two forms do not share a context-sensitive realisational relationship. It is *not* a claim that *haiken suru* and other *hai*-mulifics are not humilific verbs, which they are—that is, they are verbs that cannot describe the actions of nonfirst persons (or more generally, outgroup members). In other words, the argument being advanced here

is that the *hai*-mulific verbs are defective verbs that do not contrast a pragmatically neutral or honorific form (i.e., **go-haiken nasaru* is not possible).

Moving beyond the *hai*-mulifics, the three suppletion diagnostics described here permit the exclusion of many other verbs, even ones that are not *hai*-initial, that have been argued to be suppletive honorifics in the context of traditional and pedagogical grammars. For instance, *ukagau* is often claimed to be the suppletive humilific of *iku* 'go' and *kuru* 'come' (as well as *kiku* 'to ask' and *tazuneru* 'to visit'), but it fails all three tests:

(86) **Applying the diagnostics to *ukagau***

a. Compound-nonsubstitutable: *iki-machigai* 'to just miss one another, a misunderstanding' cannot be expressed as **ukagai-machigai*.

b. Non-maintenance of suppletion in non-lexical uses: V + *-te iku* 'to go on V-ing' cannot be expressed as **V + -te ukagau*.

c. Differential truth-conditionality: *iku* is semantically freer and contains no implications with respect to where the agent of the verb is going, whereas *ukagau* is restricted to cases in which the goer is headed to a location specific to a higher-status outgroup member (e.g., a professor's office).

Additionally, another point against the claim that *ukagau* is a suppletive honorific is that it undergoes regular humilification by itself quite easily as *o-ukagai suru*, although highly prescriptivist speakers may chafe at this.

In summary, some verbs have suppletive (i.e., unpredictable) honorific forms. Three diagnostics can be used to see whether particular morphs are in a suppletive alternation with one another: compound intersubstitutability, maintenance of irregularity in non-lexical contexts, and maintenance of truth-conditionality.

3.3 The Honorific-Humilific Generalisation

As shown in §2.3–4, Japanese verbs have (at minimum) a pragmatically neutral citation form, a referent-exalting honorific form, and a speaker-degrading humilific form. This section considers verbs for which the honorific and humilific forms are suppletive (i.e., unpredictable from the pragmatically neutral form), Empirically, it shall be established that the irregularity observed in this system is not completely unpredictable, but is rather subject to at least one restriction on co-suppletion:

(87) **The Honorific-Humilific Generalisation** (HHG)

If a verb contrasts all three categories of honorification (citation, honorific, and humilific forms), and the honorific form of a verb is suppletive, then the humilific is also suppletive.

§3.3.1 discusses the behaviour of the ABB-suppleting verb 'find out', with special attention paid to the aspectual particulars of the 'know' vs 'find out' contrast. The subsequent sections consider the behaviour of 'know' and 'do'. §3.3.2 discusses the behaviour of the ABC-suppleting verb 'do', with special attention paid to the humilific (i.e., non-subject-exalting) vs courteous (i.e., addressee-exalting) verbs. §3.3.3 presents some arguments in favour of the elevated representational complexity of the humilific category, relative to the honorific (and by extension, relative to the pragmatically neutral form as well).

3.3.1 ABB suppletion: 'know'

By way of example, consider the doubly-suppletive verb *shir-u* 'to find out', associated with the forms *go-**zonji** dearu* 'to honourably know' and ***zonji**-ru* 'to humbly know'. As a consequence of the HHG, a verb with a suppletive honorific form cannot have a regular humilific form—in this case, **o-shiri suru*. This can be schematised as *ABA, effectively a prohibition on non-contiguous suppletion. 'Know' is an important paradigm to discuss for three reasons. First, it is one of two unambiguous cases of ABB suppletion, in which

A represents the citation form, and B represents the contiguously suppleting honorific and humilific forms. Second, it observes multiple formal irregularities beyond root allormorphy: namely, the obligatory co-presence of the honorific prefix and incompatibility with the *naru* 'become' auxiliary. It is worthwhile to consider this maximally complex case in order to see the fullest picture of honorific licensing. Thirdly, and most importantly, an argument from transparent containment alone would lead a naïve analyst to propose that humilifics are contained by honorifics, as *go-zonji dearu* appears more morphologically complex than *zonji-ru*.

Note that although *shiru* is glossed as 'find out', honorific *go-zonji dearu* and humilific *zonjiru* are glossed as 'know'. At this time, it becomes necessary to contrast the behaviour of three verb types in Japanese with respect to how they combine with the *-te iru* auxiliary.[3]

(88)   **Verb classes & the interpretation of the *-te iru* auxiliary**

    a.   **Stative verbs**: *i-ru* 'to exist'∼**i-te iru* (i.e., auxiliarification not possible)

    b.   **Durative verbs**: *tats-u* 'to stand'∼*tat-te iru* 'to be standing' (i.e., indicating the progressive aspect)

    c.   **Punctual verbs**: *shir-u* 'to find out'∼*shit-te iru* 'to know' (i.e., indicating a continuing state after some action)

Jacobsen (1982) calls durative verbs 'continuative' and punctual verbs 'instantaneous', but nothing seems to turn on this terminological choice. Datum (88a) shows that stative verbs such as 'exist', conceptually closest to Vendlerian (1957) states, cannot be used with the *-te iru* auxiliary. Datum (88b) shows that for durative verbs, conceptually closest to Vendlerian activities, *-te iru* functions as the progressive marker. Datum (88c) is of particular interest here. 'Find out' is a punctual verb, conceptually closest to Vendlerian achievements. Affixing

---

3. These are not the only verb classes in Japanese, but they do represent three major contrasts with respect to differential interpretations under *-te iru* auxiliarification. There is a fourth type of verb, stative verbs which that takes *-te iru* (contrasting with stative verbs that do not, such as [88a]), such as **sobieru∼sobiete-iru* 'to tower over', but since these cannot be honorificated, they are of minor importance to this study. For completion's sake, the *-te iru* auxiliary is composed of the gerundive *-te*, the auxiliary verb *i-* (active elsewhere in the language as the main verb *i-* 'to exist'), an epenthetic liquid *-r*, and *-u*, the nonpast marker.

-te iru to 'to find out' does not create 'to be finding out', but rather 'to know'—that is, to have found out and to still be in the state of having found out, a sort of resultative meaning. What is important for the purposes of this chapter is that the honorific forms *go-zonji dearu* and *zonji-ru* are honorific forms for the meaning associated with *shitte iru*.

Interestingly, although the regular humilific *o-shiri suru is wildly unacceptable, the regular honorific *o-shiri-ni naru* is marginally acceptable to some speakers, but only when it means 'to honourably find out' (i.e., and not 'to honourably know'). In other words, for speakers who observe this contrast, there is a division of labour between the suppletive honorific, which honorificates the resultative meaning ('to find out and to still have that knowledge; to know') and the regular honorific, which honorificates the punctual meaning ('to find out').

(89) **Marginal regular honorification of 'know'**

> *kono saito-wa donoyōni shi-te   o-shir-i-ni   nari-mashi-ta   ka*
> this   site-TOP how   do-GER HON-find.out-NMLZ-DAT become-POL-PST Q
> 'How did you come by this website?; the speaker respects the discoverer.'

It is worth mentioning that the event-structural particularities of the 'find out~know' alternation likely interface with auxiliary selection under honorification. Recall from (63) in §2.3.1 that most verbs can be honorificated with either *dearu* 'to be' or *(ni) naru* 'to become', with some aspectual consequences attending each choice. In the prescriptive system, 'to find out' only permits honorification with *dearu*.

(90) **Honorific 'know' is exclusively compatible with copular honorification**

> a. *go-zonji   desu   ka*   (adapted from Konomi 2018:§9.2.3)
>   HON-know.HON COP.POL.NPST Q
>   'Do you know?; the speaker respects the knower.'

> b. * *go-zonji-ni   nari-mas-u   ka*
>   HON-know.HON-DAT become-POL-NPST Q
>   Intended: 'Do you know?; the speaker respects the knower.'

> c. *sensei-wa   go-zonji   janai   desu*
>   professor-TOP HON-know.HON COP.NEG COP.POL.NPST

104

'The professor does not know; the speaker respects the professor.'[4]

d. * *sensei-wa*   *go-zonji-ni*   *nari-mas-en*
    professor-TOP HON-know.HON-DAT become-POL-NEG
    Intended: 'The professor does not know [the speaker respects the professor].'

Sentences (90a,b) shows that unlike verbs such as *kaeru* 'return' which are compatible with both copular and auxiliary honorification, permitting both *o-kaeri dearu* and *o-kaeri-ni naru*, 'know' permits only the former strategy. Sentences (90c,d) are included to confirm that negation of honorific 'know' appears identical to copular negation more generally. Interestingly, although (90b,d) are in general degraded in prescriptivist grammar, some speakers do permit the use of *go-zonji-ni naru*, almost always under conditions of highly marked multiple honorification.

(91)   **Marginal exceptional auxiliarification of 'know'**

a. *kare-wa anata-gata-ga shir-anai koto-o   go-zonji-ni   nar-i,*
   he-TOP you-PL-NOM   know-NEG fact-ACC HON-know.HON-DAT become-NMLZ
   sonomae-ni   chikai shōri-o   o-sadame-ni   nar-are-ta-no-da
   before.that-DAT close   victory-ACC HON-decide-DAT become-PASS-PST-NMLZ-COP
   'He knew what you did not [the speaker respects the knower] and it is the case

   that he had already decided on a close victory [the speaker highly respects the

   decider].'

b. *dore-ga   saikō-no waiyaresurūtaa ka-o   go-zonji-ni   nari-tai*
   which-NOM best-GEN wireless.router Q-ACC HON-know.HON-DAT become-DES
   baai,   kochira-no   WiFi-rūtaa-no   erabi-kata-no   kiji-o
   in.case   this-GEN   WiFi.router-GEN   chose-how.to-GEN   article-ACC
   o-susume   shi-mas-u
   HON-recommend do-POL-NPST
   'In case you wanted to find out which wireless router is the best [the speaker re-

---

4. The glossing here abstracts away from significant morphological concerns that lie far beyond the scope of this study. Recall that the citation form of the copula is *de aru* or *da*. In (90c), the negative copula *janai* contracts *de wa nai* and polite copula *desu* contracts *de arimasu*. The use of two copulae to carry negation and politeness separately is regarded by highly conservative speakers as an error or at the very least a redundancy. Such speakers would recommend the use of a singular copula *ja ari-mas-en* 'COP exist-POL.NEG' that is able to carry both negation and politeness. Speakers without this peeve would hear (90c) as having something of a 'Of course the professor wouldn't know' sort of nuance and *Sensei-wa gozonji de wa arimasen* as a more objective statement of the facts.

spects the finder-outer], I recommend reading this article about how to choose a WiFi router [the recommendation targets a higher-status individual; the speaker respects the recommendee].'

Datum (91a) exhibits a number of notable characteristics. First, although the *shir-u~shitte i-ru* 'find out~know' contrast operates in the affirmative polarity, it does not in the negative. Consequently, *shiranai* is 'don't know' and not 'won't find out'.[5] That *shir-* by itself can convey 'know' in certain morphological texts means that *zonji* 'know (honorific)' is indeed suppleting for *shir-* and not *shitte i-*. Second, both honorific verbs in this sentence are nonstandardly honorificated. The expected forms are *go-zonji de* 'HON-know.HON COP.GER; honourably know and...' and *o-sadame-ni nat-ta* 'HON-decide-DAT become-PST; honourably decided'. 'Know' appears here with the 'incorrect' auxiliary ('become' instead of the copula) and 'decide' is marked with both regular and passive honorific morphology. This exemplifies constructional iconicity: that is, the longer the forms, the politer the utterance.

Datum (91b) includes a nonstandard honorific desiderative form. Reiterating, honorific 'know' can prescriptively only appear with the copula (*dearu*, *da*, and related forms). But desiderativising the copula would create an extremely marked form: */?*go-zonji deari-tai* (intended: 'wants to know; the speaker respects the wanter'). This is wildly ungrammatical to most speakers and exceedingly archaic to the most permissive speakers. The use of *naru*, which readily desiderativises as *naritai*, avoids this problem.[6] In any case, both sentences in (91) are highly marked, casting into relief the exceptional behavior of the ABB-suppletive verb 'know'.

This section ends with a restatement of the claim that inspection alone would lead one to conclude that honorific *go-zonji dearu* 'to honourably know' is more representationally complex than *zonji-ru* 'to humbly know'. Although the honorification of 'know' is in fact

---

5. There are other signs that the 'won't find out' meaning is not available: in many casual contexts, *shiranai* is used to mean 'I don't know, and I don't care [to find out]'.

6. Although doing so would be beyond the scope of this work, this could be modelled Optimality-Theoretically, in terms of ranked constraints that weigh well-formed auxiliarification against well-formed desiderativisation, for instance.

highly irregular in its co-presence of suppletion, overt prefixation, and overt auxiliarification, it is argued here that this does not pattern with transparent comparative containment in Polish but rather with pleonastic comparatives in Appalachian English.

(92)   **Transparent containment in Polish comparatives** (Bobaljik 2012:106)

    a. *dumn-y*   *dumn-szy*   *naj-dumn-szy*
      proud-M.NOM proud-CMPR SPRL-proud-CMPR
      'proud, prouder, proudest'

    b. *dobr-y*   *lep-szy*   *naj-lep-szy*
      good-M.NOM good-CMPR SPRL-good-CMPR
      'good, better, best (lit. betterest)'

The paradigms in (92) demonstrate that in Polish (as in Giazza Cimbrian, Bosnian-Serbian-Croatian-Montenegrin, Slovenian, Ukranian, Georgian, Cherokee, Persian, *inter multa alia*), the overt morphology of the superlative is built on top of the comparative. This obtains for both regular adjectives (e.g., 'proud') and suppletive adjectives (e.g., 'good'). Evidence of this sort is deployed to shore up the claim that the feature-cumulating architecture is [[[POS] CMPR] SPRL]. If the honorific paradigm for 'know' were judged similarly, then one would conclude the honorific *go-zonji dearu* is contained by humilific *zonji-ru*, yielding the undesirable and counterintuitive [[[V] HML] HON] architecture. Arguments against this containment relation are stated more fully in §3.3.3.

(93)   **Pleonastic comparatives in Appalachian English** (Wolfram & Christian 1976)

    a. ...a little bit more older.   double regular comparative

    b. ...it's more easier to prepare food.

    c. ...got more closer and more closer.

    d. ...more stricter than my father.

    e. ...most stupidest thing.   double regular superlative

    f. She got worser.   suppletion with overt regular inflection

    g. ...the mostest people.

h. Things are getting worser anymore.

Although forms in which periphrastic and inflectional comparativisation coexist are commonly attested in the speech of children and English language learners, they do not often reach the level of pervasiveness and systematicity observed in Appalachian English, particularly in the varieties used by younger speakers (Wolfram & Christian 1976:102). A number of morphological redundancies are present in (93), including simultaneous periphrasis and inflection (e.g., *more older*) and simultaneous suppletion and inflection (e.g., *worser*). This study proposes that forms like *go-zonji dearu* 'to honorably know' (cf. *shiru* 'know') or *o-meshi-ni naru* 'to honourably wear' (cf. *kiru* 'wear', although non-auxiliarificated *mesu* is attested for older speakers) merely represent idiosyncratic interactions between root allomorphy and regular honorific morphology (i.e., *o*-prefixation and auxiliary selection), and crucially bring nothing to bear on the abstract structural relationship between honorification and humilification.

3.3.2   ABC suppletion: 'do'

Next, consider an ABC-suppletive verb, 'do'. Unlike the case of 'know', this is a fairly straightforward case of ABC suppletion, in which suppletive allomorphs appear under conditions of honorification and humilification in the absence of the honorific prefix or an auxiliary verb. In these forms, *-(r)u* represents the nonpast marker.

(94)   **Alternations of *su-ru* 'to do'**

    a.   *su-ru* '(someone) does (something)' (citation form)

    b.   *nasar-u* '(someone not the speaker or not part of the speaker's ingroup) does (something); the speaker respects the doer' (honorific form)

    c.   *itas-u* '(the speaker or someone in the speaker's ingroup) does (something); the speaker humbles her/himself; the addressee and/or some high-status third party is affected by the action' (humilific form)

108

The glosses for the non-citation forms of 'to find out' supra used the adverbs *honourably* and *humbly* for the sake of brevity. The fuller glosses in (94), adapted from Yamada (2019), take into account possible and impossible external arguments, as well as treat the honorific and humilific meanings as additional propositions. This is believed to result in a much more descriptively and theoretically adequate characterisation of the facts. Datum (94a) is the monopropositional citation form. Datum (94b) is the bipropositional suppletive honorific form, blocking the regular **o-shi-ni nar-u*. It contains the propositional content of the citation form, as well as an additional proposition that the speaker respects the doer (this could be the addressee but need not be, as long as it is not the speaker or a member of the speaker's ingroup).

Datum (94c) is the tripropositional suppletive humilific, blocking the regular **o-shi su-ru*. It is necessary to note that there is a structurally consequential distinction between humilifics and so-called courteous forms. In this study, humilifics are verbs in which all three propositions are recoverable: the basic semantic content of the verb shared with the citation form; an additional proposition that the speaker (or an ingroup member to the speaker) is humbling her/himself; and, a final proposition that the action performed by the speaker (or an ingroup member to the speaker) somehow affects or benefits a higher-status individual, which could be the addressee or a third party. This is not the only possible framing of humilifics: although this study prefers to contrast honorifics vs humilifics, other writers may prefer to contrast subject vs non-subject honorifics, in which case the second proposition here would be something closer to 'the speaker respects the addressee and/or some higher-status individual'. At this stage, not much turns on the choice between these two approaches, as both exhibit the incremental representational complexity required to defend the claim that the honorific subsystem constitutes a morphological contiguity domain. That is, the citation form expresses the fewest propositions (indeed, it only expresses one), the honorific form expresses two, and the humilific form expresses three.

There are times in which a verb that otherwise appears to humilific is not associated with

all three propositions (i.e., the basic semantic content, the acknowledgement of differential status, and the acknowledgement of 'affectedness' or benefactivity). These are termed courteous verbs (*teichōgo*). In this study, in stark contrast to what has been argued in prescriptive and pedagogical grammars, they are crucially conceived to be outside of the honorific system. Courteous verbs take on the same form as humilific verbs, but are structurally and interpretively distinguishable therefrom. In one sense, they are a 'more grammaticalised' humilific verb associated with laxer licensing conditions, as a result of the loss of second and third propositions associated with humilifics, yielding a form that behaves as an addressee-oriented honorific or a politeness marker. Very broadly, when *itasu* is used courteously, the addressee and/or the discourse context is being exalted; when it is used humilifically, a higher-status referent who is affected by the action is being exalted. The two examples below exemplify the humilific vs courteous contrast with *mair-u*, the suppletive humilific of *ku-ru* 'to come'.

(95) **Humilific vs courteous use of *mair-u* 'to come'**

    a. *honjitsu-wa yūmeina gakufu   dearu koko Waseda Daigaku-ni*
       today-TOP famous academic.institution COP here W University-DAT
       mair-imashi-te,   seinen-shokun-to   sho-sensei-gata-to   ichidōnikai
       come.HML-POL-GER young-friends-and various-professor-PL-with meeting
       su-ru   kikai-o   e-mashi-ta   koto-o   taihen ureshi-ku
       do-NPST opportunity-ACC have-POL-PST NMLZ-ACC very happy-ADV
       omoi-mas-u
       think-POL-NPST
       'I think very well of the fact that I had the opportunity to come here to the esteemed institution that is Waseda University today to meet with young colleagues and various professors; the speaker respects the colleagues and professors; the speaker believes the colleagues and professors to be affected by her/his coming.'

    b. *mamonaku 3-ban-sen-ni   Shibuya-yuki-ga mair-imas-u*
       shortly   3-number-line-DAT S-bound-NOM   come.HML-POL-NPST
       'The Shibuya-bound train will be arriving shortly at platform 3.'

Although datum (95a) may appear needlessly complex, it is a perfectly natural discourse and its length allows for the demonstration of certain properties of humilifics. First, note that there are four verbs in this sentence: *mair-u* 'go', *ichidōnikai su-ru* 'meet, assemble', *e-ru*

'obtain, acquire', and *omo-u* 'think'. Only the formermost, suppletive *mair-u*, is humilific (cf. citation form *ku-ru*), and crucially, humilification of any of the other verbs would produce an ungrammatical sentence. 'Meet, assemble' cannot appear as humilific **ichidōnikai itasu*, as the set of meeters contains higher-status people, and humilific verbs can only be licensed by first-person (or ingroup) subjects. 'Obtain, acquire' and 'think' cannot appear as humilific **o-e su-ru* and *o-omoi su-ru*, as obtaining and thinking in this context are not tasks that affect, let alone benefit, any discursively salient higher-status individuals. Only *mair-u* can be licensed here, as it fulfills all three requirements of a humilific verb: it describes an action by a first person (or an ingroup member), the action plausibly involves higher-status individuals in some way (in this case, going to their university), and the speaker wishes to express her/his humility (or her/his respect to the colleagues and professors).

Datum (95b), an automated announcement, is much simpler in comparison, and exemplifies the courteous use of *mair-u*. The first proposition (that is, the 'come' meaning) is certainly expressed, but it is not clear that the other two are, as the 'speaker' is a nonhuman speaker. The appearance of ostensibly humilific forms in the absence of a first-person or ingroup subject is a tell for courteous usage. It is best to think of this form as an addressee- or discourse-oriented honorific, and no calculations of speaker or hearer status are being made. For this reason, Yamada (2019) calls these *addressee-honorific upgraders*, and they represent a grammaticalisation of humilific verbs into politeness markers. Not coincidentally, grammaticalisation of a humilific verb *mawirasuru* 'to humbly do something for a superior' was precisely what gave rise to the polite auxiliary *-mas*. In any case, this person-insensitive usage is decidedly not honorificatory, and further treatment of it is left for future work.

Another relevant form that lies outside the scope of this work but still deserves a mention for completion's sake is the *antihonorific form* of 'do', *shi-dekas-u~shi-yagar-u* '(someone not the speaker) does (something); the speaker disrespects the doer'. These forms are composed of the stem[7] of 'do', *shi-*, one of two antihonorificating auxiliaries. The first, *dekasu*

---

7. Other authors may call this the *rentaikei* 'continuative form'.

'to accomplish, to achieve, to manage [to do something]' exemplifies COMPLETIVE > DE-PRECIATIVE grammaticalisation pathway, active elsewhere in the grammar of Japanese and many other languages besides. This auxiliary is much less productive than the -*yagaru* auxiliary, which attaches to many more verbs. These forms are noteworthy for two reasons. First, antihonorifics have been largely undertheorised in the study of honorification, but authors such as Minami (1987), contend that the system cannot be fully understood if they are not incorporated. Second, their brief incorporation here sheds light on another isomorphism between comparative and honorific suppletion. Crucially, suppletion is never observed in antihonorifics, mirroring Bobaljik (2012:4)'s claim that suppletion is never observed in comparatives of inferiority. That is, there cannot be a suppletive English adjective **geass* 'less good', nor a suppletive Japanese verb **kotaru* 'to do; the speaker disrespects the doer'. Bobaljik explains this in terms of a constraint on monomorphemicisation: the meaning 'less good' is simply too complex to be monolexicalised, and it is likely that an equivalent constraint blocks monolexicalised antihonorifics.

3.3.3   Representational complexity of the humilific

Having considered in detail an ABB-suppletive verb and an ABC-suppletive verb, and having excluded registral alternants and courteous verbs as irrelevant to the study, it is now possible to discuss the containment relationship that holds between the honorific and humilific categories. If the containment relation in honorifics is isomorphic to what is observed in comparatives, then the structure of the relation can be written as [[[V] HON] HML]. At this time, this toy structure only commits to a claim that the humilific is featurally and derivationally more complex than the honorific, which is itself featurally and derivationally more complex than the citation form. A variety of markedness-based criteria, both non-syntactic and syntactic, point in the direction of the relative featural complexity of the humilific.

(96)   **Non-syntactic arguments in favor of the markedness of the humilific**

a. **Relative marginality in intra-Japonic perspective**: There are western dialects of Japanese (e.g., Kyōto, Ōsaka, Kōbe, amongst others) and Japonic varieties (e.g., Yaeyama) with HON but not HML. Regular honorifics in Kyōto Japanese take the form *o*-V *yasu* (e.g., *taberu*∼*o-tabe yasu* 'to eat∼to honourably eat', cf. Murakami-Smith 1997), but there is no humilific. The Hateruma subvariety of Yaeyama uses the -*o(ru)* and -*taboru* auxiliaries to express honorification, but has no strategy to express humilification (Aso 2015).

b. **Later emergence**: Some contemporary humilific forms were used as honorific forms at earlier stages of the language: for instance, *mairu* means 'go.HML' in the contemporary language, but formerly meant 'fix (one's hair).HON', as demonstrated below in (96), taken from the *Gakken Zenyaku Kobun Jiten* 'Gakken Fully Translated Classical Japanese Dictionary':

(96) a. *konata-nite mi-gushi-nado   mair-u   hodo-ni*
        here-at   HON-hair-such.as fix.HON-NPST when-DAT
        'by the time you fix your hair...; the speaker respects the fixer'

    b. *kochira-de o-kami-nado   o-totonoe-ni nar-u   koro-ni*
        here-at   HON-hair-such.as HON-fix-DAT become-NPST when-DAT
        'by the time you fix your hair...; the speaker respects the fixer'

d. **Defectivity-proneness**: The HML category is subject to defectiveness much more often than the HON category. Specifically, the inability to humilificate many intransitive verbs is discussed in §2.4. Additionally, there is a class of doubly-defective 'inherently humilific' verbs that lack neutral and honorific forms: *shōchi suru* 'to understand', *kashikomaru* 'to sit upright, to express assent', *chōdai suru* 'to receive', *sanjō suru* 'to come', *inter alia*. Within the context of this study, these are mere registral alternants of semantically related neutral verbs. That the HML category is associated with many more registral alternants (cf. §3.2.2) itself constitutes another HON/HML asymmetry.

e. **Pragmatic complexity**: The licensing requirements for HML are more complex

than those for HON. HON needs only an agent of higher status; HML needs an agent of lower status who is *additionally* behaving in such a way that intrudes on the territory of someone of higher status. This incremental licensing complexity is discussed in detail in §3.3.4.

f. **Asymmetric reanalysis**: When (native) speakers misuse or reanalyse honorifics, they are more likely to convert HML into HON, rather than HON to HML (Okamoto & Shibamoto-Smith 2016).

(97)   a. * *itadai-te   kudasa-i*
             eat.HML-GER give$_{out \rightarrow ingroup}$-IMP
             Intended: 'Please eat; the speaker respects the eater.'

        b. * *o-mach-i   shi-te kudasa-i*
             HON-wait-NMLZ do-GER give$_{out \rightarrow ingroup}$-IMP
             Intended: 'Please wait; the speaker respects the waiter.'

g. **Diachronic stability**: There are more ongoing changes in the HML domain than in the HON domain (e.g., the emergence of the causative-autobenefactive as a humilific form, discussed in §2.4.1).

Several of these eight non-syntactic arguments are corollaries to one another: the fact that humilifics are associated with stricter licensing requirements is in part why they occur at a lower frequency, for instance. They all seem to triangulate on a sort of relative precarity or marginality exhibited by the humilific in contrast to the honorific. Jessica Kantarovich (p.c.) offers a testable prediction that humilifics should be loss and/or reanalysed at greater rates relative to honorifics in the speech of heritage speakers.

Syntactic evidence for the relative markedness (and therefore containedness) of the humilific in relation to the honorific comes in two forms: first, the contrast in behaviour of the HON and HML auxiliaries under relativisation, and second, the structure of the auxiliaries themselves. The examples below share a context in which 'I' am reading a book written by 'the professor'.

(98) **Honorification under relativisation**

a. *sensei-ga   hon-o   o-kak-i-ni   nat-ta*
   professor-NOM book-ACC HON-write-NMLZ-DAT become-PST
   'The professor wrote a book; the speaker respects the professor.'

b. *sensei-ga   haya-ku o-kak-i-no   hon*
   professor-NOM quick-ly HON-write-NMLZ-GEN book
   'the book the professor quickly wrote; the speaker respects the professor.'

c. *watashi-ga hon-o   o-yom-i   shi-ta*
   I-NOM   book-ACC HON-read-NMLZ do-PST
   'I read the book; I respect the professor of the book; my reading of the book

   affects the professor.'

d. *watashi-ga o-yom-i   *(shi-ta) hon*
   I-NOM   HON-read-NMLZ do-PST   book
   'the book I read; I respect the professor of the book; my reading of the book

   affects the professor.'

Sentences (98a,c) represent canonical honorific and humilific constructions, whereas sentences (98b,d) are object relativisations of *hon* 'book'. In (98b), the honorific auxiliary *naru* 'become' need not appear (although it may optionally appear, e.g., *o-kaki-ni naru sofutouea* 'the software that you write; the speaker respects the coder') in order to create a licit honorific relativisation. The adverbial *hayaku* 'quickly' has been included to make certain that (98b) is indeed a verbal construction (and not a nominal one, which would require adjectival *hayai* 'fast, quick'). In contrast, in (98d), the humilific auxiliary *suru* 'do' *must* appear. This makes intuitive sense, as the basic meaning of *o-* is honorific, and therefore it makes sense that an *o*-prefixed verb alone should suffice to signal honorification. (That the basic meaning of *o-* is honorific and is extended to convey humilific meanings only when co-occurring with *suru* counts as another non-syntactic argument in favour of the relative markedness of the humilific.) The upshot is that honorifics under relativisation are associated with less obligatorily overt morphosyntactic structure than humilifics under relativisation.

A second and more subtle argument for the containment of the humilific within the honorific relates to the structure of the auxiliaries themselves. It is not a coincidence that *naru* 'become' is the honorific auxiliary whilst *suru* 'do, make' is the humilific auxiliary.

115

After all, *naru* and *suru* participate in alternations outside of the honorific subsystem as well, in particular as main verbs that express changes in state:

(99)   **'Do' and 'become' as main verbs of change**

    a. *terebi-ga   ooki-ku nat-ta*
         television-NOM big-ADV become-PST
         'The television got louder (spontaneously, on its own; lit. the television became

         bigly).'

    b. *terebi-o   ooki-ku shi-ta*
         television-ACC big-ADV do-PST
         '(I, or some discursively salient agent) turned the television up (lit. made the

         television bigly).'

    c. *Hanako-ga isha-ni   nat-ta*   (Kuroda 2003:454)
         H-NOM   doctor-DAT become-PST
         'Hanako became a doctor.'

    d. *ryōshin-ga   gan-de   shin-da koto-ga   Hanako-o isha-ni   shi-ta*
         both.parents-NOM cancer-INS die-PST NMLZ-NOM H-ACC   doctor-DAT do-PST
         'That her parents died of cancer (was what) made Hanako a doctor.'

They also alternate in the *koto ni naru~suru* 'to end up~to decide' construction. Just as the honorific use of *naru* emphasises the effortlessness of exalted agents, whereas the humilific use of *suru* emphasises the intention and effortfulness of deferential agents, the *koto ni naru~suru* construction contrasts in agentivity.

(100)   **'Do', 'become', & agentivity**

    a. *nihon-ni   modor-u   koto-ni   nat-ta*
         Japan-DAT return-NPST NMLZ-DAT become-PST
         '{It turns out/it has been decided} that I will go back to Japan.'

    b. *nihon-ni   modor-u   koto-ni   shi-ta*
         Japan-DAT return-NPST NMLZ-DAT do-PST
         'I decided that I will go back to Japan.'

Taking stock, when used as verbs of change, both *naru* 'become' and *suru* 'do, make' are compatible with *ku*-adverbials and *ni*-marked nominals. On the basis of the contrast in

(99c,d), Kuroda argues that *suru* is the causative equivalent of inchoative *naru*, forming a pair of the sort documented by Jacobsen (1981). Under this analysis, *suru* 'cause to become' is the lexical causative of *naru* 'become': a monoclausal, idiomaticity-permitting, non-productive causative not created from overt suffixation by *-sase* (Harley 2008a:9), patterning with pairs such as *agaru*~*ageru* '(inchoative) rise ~ (causative) raise'. Following Miyagawa (1998) and *pace* Harley (2008a), this study argues that lexical causatives are associated with additional structure (namely, a causativising v_{CAUS} projection atop an inchoativising v_{INCH} projection) relative to inchoatives (which only have the v_{INCH} projection), and that this crucial containment relationship allows for the derivation of the *ABA effect. Miyagawa's model is adapted below for two simple sentences (101a,b) and their partial phrase markers (101c,d):

(101) **Causative containment of inchoatives**

    a. *doa-ga   ak-∅-u*
       door-NOM open-INCH-NPST
       'The door opens (by itself, spontaneously).'

    b. *(dareka-ga)   doa-o   ak-e-∅-ru*
       someone-NOM door-ACC open-CAUS-INCH-NPST
       'Someone opens the door.'

    c.

d.

```
                              vP
                         /         \
                      DP              v'
                       |            /    \
                someone-NOM       vP       v⁰
                                /    \      |
                             VP       v⁰   v_CAUS
                            /  \       |
                          DP    V    v_INCH
                          |     |
                     door-ACC  open
```
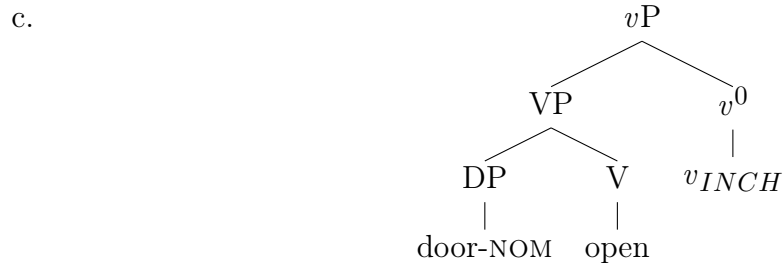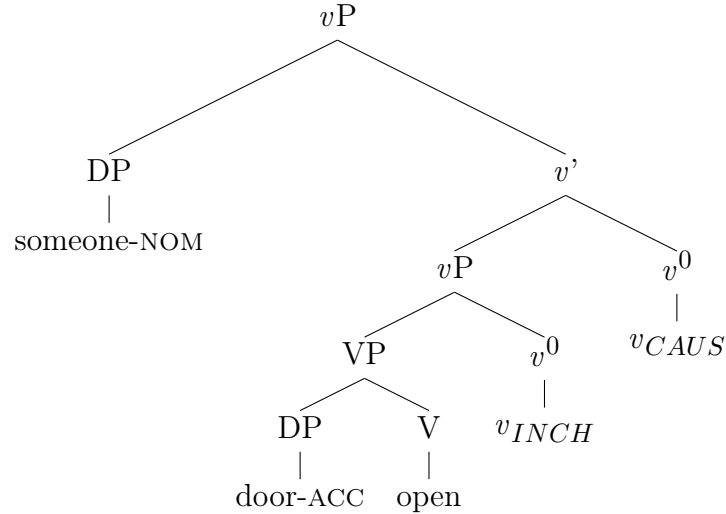
Partial phrase marker (101c) proposes that there is an inchoative projection above VP—realised as null in the case of *ak-∅-u* 'open' but overtly as *-ar* in *ag-ar-u* 'raise'. Partial phrase marker (101c) builds on this structure by adding a causative projection—realised as *-e* in the case of *ak-∅-e-ru*. If *naru* 'become' and *suru* 'do, make, cause to become' can be modelled this way, it means that humilification is always associated with more structure—and crucially, incrementally complex structure—relative to honorification. Note that unlike *agaru~ageru* 'raise~raise' and *aku~akeru* 'open', which share root identity, the *naru~suru* 'become~make' alternation is highly irregular, as expected of a lexical causative.

It becomes necessary to think about how to generate this allomorphy. First, one can preliminarily categorise the *naru~suru* pair as an especially aberrant case of Jacobsen (1981)'s Class V, in which inchoativity is realised by *-r* and causativity is realised by *-s*, as exemplified by *ama-∅-r-u* 'to remain (intransitive)' and *ama-s-∅–u* 'to have remaining (transitive)'. Reasoning by analogy, *na-* can be isolated as 'become', *-r* as the inchoative marker, and *-u* as the nonpast tense marker. If *s-* is likewise assumed to realise the causative projection, then forms like *suru* 'do (lit. cause to become)' in fact contain a zero inchoative morph and a zero root.[8]

---

8. Itamar Francez (p.c.) is troubled by the notion of zero roots. Similar analyses have been to account for the behaviour of the infinitive of Spanish *ir* 'go', ostensibly composed of a theme vowel, the infinitival ending, but crucially no root content. For an example of a zero root in Japanese, consider *nai* 'does not exist', discussed later in §4.2.1:(128j).

(102) **Vocabulary fragment for 'become'**

    a. $na \leftrightarrow \sqrt{BECOME}$ elsewhere form of root

    b. $\varnothing \leftrightarrow \sqrt{BECOME} \; / \; \underline{\quad} \; v_{INCH} \,] \, v_{CAUS} \,]$ zero root under causativisation

    c. $s \leftrightarrow v_{CAUS} \; / \; V_{Class:V} \; \underline{\quad}$ Class V form of causative

    d. $r \leftrightarrow v_{INCH} \; / \; V_{Class:V} \; \underline{\quad}$ Class V form of inchoative

    e. $\varnothing \leftrightarrow v_{INCH} \; / \; V_{Class:V} \; \underline{\quad} \,] \, v_{CAUS}$ zero inchoative under causativisation

    f. $u \leftrightarrow$ NPST $/ \; [+\text{consonantal}] \; \underline{\quad}$ regular nonpast for consonant-final roots

    g. $ru \leftrightarrow$ NPST $/ \; [-\text{consonantal}] \; \underline{\quad}$ regular nonpast for vowel-final roots

    h. $uru \leftrightarrow$ NPST $/ \; \sqrt{BECOME} \,] \, v_{INCH} \,] \, v_{CAUS} \,] \; \underline{\quad}$ irregular nonpast for 'do'

It is worth going over parts of this fragment closely. First, rules (102a,d,g) generate the basic form *na-r-u* 'become-INCH-NPST' (i.e., there is an inchoative but no causative layer associated with 'become'). Rules (102b,c,e,i) generate the basic form *∅-∅-s-uru* 'become-INCH-CAUS-NPST' (i.e., there is a zero morph for the root and the inchoative layer, an overt morph for the causative layer, and irregular morph for the tense layer). There are both dia- and synchronic reasons to consider the form to be only *s-* and not *su-*. Diachronically, *suru* developed from *s-u* 'do-NPST' (*Shōgakukan's Japanese Dictionary, Revised Edition*), which would be inadmissible as a free-standing word in the modern language as a result of minimality constraints. Synchronically, the post-*s* vowel is extremely variable depending on the conjugation: cf. nonpast negative *sh-i-na-i* 'do-IRR-NEG-NPST', negative adverbial *s-e-zu* 'do-IRR-NEG.ADV', passive *s-are-ru* 'do-PASS-NPST', etc. It is more likely that the *u* in *s-u-ru* is an epenthetic vowel intended to join the uniconsonantal root with the nonpast tense marker, but for ease of exposition, rule (102h) has been proposed, which simply treats it as another allomorph of the nonpast marker specific to 'cause to become'. Rules (102b,e) prevents *na-r-s-uru (i.e., co-occurrence of the causative allomorph with an overt root or overt inchoativising morphology).

Note that this fragment only addresses the Class V *naru*∼*suru* 'become∼cause to become'

alternation, in which the inchoative/causative alternation is realised as *-r/-s*, and further rules would need to be listed for other classes (e.g., Class I, in which the inchoative/causative alternation is *-e/-∅*: *hag-e-ru* 'peel-INCH-NPST; [the tree bark] peels off [on its own]') vs *hag-∅-∅-u* 'peel-INCH-CAUS-NPST; [I] peel off [the tree bark]'). These particulars are left to future work.

There is an alternative analysis in which *s-* is treated as an allomorph of the 'become' root, yielding the alternative morphological parse *s-∅-∅-uru* 'become-INCH-CAUS-NPST'. In other words, the *naru∼suru* contrast can be implemented in terms of a contrast between an overt and non-overt root (*na-* vs ∅) or between a root and its overt suppletive allomorph (*na-* vs *s-*). This investigation prefers the root-level contrast for two reasons. First, a root-level contrast would reject the phonologically unpredictable *na-∼s-* alternation at the level of the root (relatively rare) to the phonologically unpredictable *-r/-s* alternation at the level of the *v* heads (relatively common). Two other verb classes alternate between a liquid inchoativiser and a sibilant causativiser, namely Class VI (*arawa-re-ru* 'show-INCH-NPST; [someone] shows [up]' vs *arawa-∅-s-u* 'show-INCH-CAUS-NPST; [I] show [something]') and Class VII (*ka-ri-ru* 'borrow-INCH-NPST' vs *ka-∅-s-u* 'borrow-INCH-CAUS-NPST; lend'). Second, it maintains a *Familienähnlichkeit* with causative morphology elsewhere in the language.

(103) **Five allomorphs of the causative in Japanese**

     a. *tabe-sase-ru* 'eat-CAUS-NPST; cause to eat'   V-final root + neutral suffix

     b. *ik-ase-ru* 'go-CAUS-NPST; cause to go'   C-final root + neutral suffix

     c. *tabe-sas-u* 'eat-CAUS-NPST; cause to eat'   V-final root + colloquial suffix

     d. *ik-as-u* 'go-CAUS-NPST; cause to go'   C-final root + colloquial suffix

     e. *∅-∅-s-uru* 'become-INCH-CAUS-NPST; cause to become'   Class V root

Depending on the phonology of the verb (i.e., whether it is consonant-final or vowel-final) and the formality level of the discourse context, the canonical causativiser can take a variety of forms: *-ase, -sase, -sas* and *-as*. The analysis proposed here simply argues that Class V

verbs use a maximally reduced -*s* for the causative marker.

Partial phrase markers (101c,d) and Vocabulary fragment (102) together characterise the behaviour of *naru*∼*suru* 'become∼cause to become' when used as main verbs. For the purposes of this section, it is hoped that this suffices to show that *suru* 'cause to become' contains *naru* 'become', and that this containment relationship is expected to be maintained in their auxiliary guises. Note that if *s-* 'cause to become' is seen as a suppletive alternant of *na-* 'become', then the *o*-V-*ni naru*∼*o*-V *suru* alternation passes the maintenance of suppletion under grammaticalisation test proposed in §3.2.2.

Miyagawa proposes that in forms such as *iya-gar-ase-ru* 'hate(ful)-INCH-CAUS-NPST; to harass, to annoy', both the inchoative and causative morphs are overt, although he notes that the -*gar* suffix only co-occurs with non-first person subjects. Harley, who prefers an analysis in which INCH and CAUS are simply different flavours of v^0 that competes for the same slot, suggests -*gar* might be better characterised in terms of evidentiality, instead of as an overt marker of inchoativisation. This study provides counterevidence to this claim in the form of a *gar*-suffixed predicate that is compatible with both first-person subjects and overt causativisation.

(104)   **Simultaneous overt inchoativisation & causativisation**

    a.   *tsuyoi* 'strong'

    b.

Yowa-sa-o	*mi-se-ta-ku-na-ku-te*				*muda-ni*	
weak-NMLZ-ACC	see-CAUS-DES-ADV-NEG-ADV-GER				*pointless*-ADV	
tsuyo-gar-u.	*Kono*	*boku-wa*	*kimi-no*	*me-ni*	*donna*	*fū-ni*
strong-INCH-NPST	this	I-TOP	you-GEN	eye-DAT	which	way-DAT
utsut-ta-no						
reflect-PST-Q						

'Not wanting to show weakness, I put on a show of transparent bravado. How did this version of me reflect in your eyes?'

    c.

seiippai	*tsuyo-gar-ase-te*	*kure*
as.much.as.one.can	strong-INCH-CAUS-GER	give_out→ingroup.IMP

'Just let me grin and bear it as much as I can!'

In (104a), the basic form is the adjective *tsuyoi* 'strong' (strictly speaking, this is an

stative verb, as the final -*i* marks tense and polarity, and could just as easily be glossed as 'to be strong'). This can be combined with an overt inchoative -*gar* to create a word that would be expected to mean 'to become strong, to show signs of strength', but actually has the idiosyncratic meaning of 'to bluff, to put on a brave face', as in (104b), which crucially co-occurs with a first-person subject. This form can be further suffixed by an overt causative -*ase* (the co-presence of a benefactive auxiliary *kureru* 'an outgroup member gives [something] to me or an ingroup member' forces a 'let'—rather than 'make'—interpretation). Such forms suggest that separate projections for causativisation and inchoativisation are necessary, for reasons independent of person or evidentiality.

In other words, the existence of *tsuyo-gar-ase-ru* 'to let/make bluff' provides evidence for the containment of inchoativisation by causativisation. Even more striking evidence could come in the form of so-called transparent containment, in which humilific forms contain honorific morphology. In the comparative domain, forms such as Polish *naj-lep-szy* 'SPRL-good.CMPR-COMPR; best (lit. betterest)' give evidence of overt containment of the comparative of the superlative. There are two cases in which a similar configuration can be observed within the honorific domain: the suppletive honorific of *shiru* 'to find out' and the passive honorific of *iru* 'to exist'.

(105) **Co-occurrence of honorificating & humilificating morphology**

    a. *shir-u – go-**zonji** dear-u – **zonji**-ru*

        'to know – to honourably know – to humbly know'

    b. *i-ru – **or**-are-ru – **or**-u*

        'to exist – to honourably exist – to humbly exist'

By casual inspection of (105a), these data seem to work against the claim that the humilific contains the honorific, given that it appears as if the medial *honorific* form is the most complex: specifically, it takes the suppletive humilific and builds a copular honorific thereon. Both the doubly-regular honorific (i.e., a combination of the regular allomorph of the main verb and the regular auxiliary), *o-shiri-ni naru*, and the singly-regular honorific,

go-zonji-ni naru (i.e., a combination of the suppletive allomorph of the main verb and the regular auxiliary), are nonstandard but attested in natural speech, as discussed in §3.3.1. Similarly, (105b) looks to be the passive honorification of the humilific form: it contains the suppletive allomorph of the main verb and the passive *-are*.

These data caution against using transparent containment as a smoking gun, as differentials in overt form may not be isomorphically recapitulated by differentials in underlying structure. That is, there is a sense in which one can posit an allomorphically rich Vocabulary fragment that generates *go-zonji dearu* instead of (the expected and doubly-regular) *o-shiri-ni naru* for the honorific form of 'to know'. *Zonji-ru* 'to humbly know' may be on the surface simpler than *go-zonji dearu*, but it may be underlyingly more complex: specifically, it is HON-know-INCH-CAUS-NPST, with the honorific, inchoative, and causative all surfacing as zero morphs—and blocking the maximally regular but wildly ungrammatical **o-shiri-ni nar-ase-ru*. That is, the humilific form in (105a) is still maximally structurally complex, but on the level of overt form, the honorific appears more complex. The differential complexity of the phonetic form fails to recapitulate the differential complexity of the syntactic structure.

At this point, it may be worthwhile to make clear that that inchoative morphology in the context of honorifics and causative morphology in the context of humilifics should *not* be interpreted as canonical or literal inchoativisation and causativisation, in the exact same way that passive and causative-passive morphology in the context of honorifics as described in §2.3.2 should not be interpreted as canonical or literal passivisation and causative-passivisation. Although these morphs have been glossed in terms of their functions of origin (INCH and CAUS), they could just as easily be glossed in terms of their exapted honorific functions, yielding ∅-*zonji*-∅-∅-*ru* 'HON-know-HON-HML-NPST; to humbly know'. This study shall continue to gloss in terms of the functions of origin where possible, in order to emphasise that honorific domain engages in systematic reuse and refurbishment of functional heads from *v* and Voice.

Returning now to the case of (105b), the regular forms **o-i-ni naru* and **o-i suru* are not

possible as a result of minimality constraints. The humilific *oru* is associated with extensive covert structure, and realises HON-exist-INCH-CAUS-NPST. By analogy with *go-zonji-ni naru* 'to honourably know', it seems as though a 'sensible' suppletive honorific for 'exist' would be *o-ori-ni naru, which is not possible, as the honorific prefix *o-* strongly resists attachment to *o*-initial roots. Lacking the possibility to attach *o-* in order to potentiate auxiliarification by *naru* 'become', there needs to be another strategy to further differentiate 'to honourably exist' from 'to humbly exist'. Enter passive honorification. Datum (105) suggests that there are complex interactions between restrictions on phonological well-formedness and the desire to have the honorific contain more overt structure—even as the humilific contains more covert structure. Although it has been made clear that the humilific is more marked and more representationally complex than the honorific, on the level of form, suppletive honorifics are always longer than suppletive humilifics (cf. *meshiagaru*∼*itadaku* 'eat.HON∼eat.HML', *irassharu*∼*mairu* 'go.HON∼go.HML', *ossharu*∼*mōsu* 'say.HON∼say.HML', etc.).

One critique of this analysis that putatively simple humilific forms actually contain layers of unpronounced structure is that it is needlessly stipulative and merely calls into existence the exact number of zero morphs necessary to maintain an *a priori* belief that the humilific must be more complex than the honorific. But aside from the aforementioned cases of transparent containment of inchoatives by causatives, one welcome side effect of seeing the humilific auxiliary as being the honorific auxiliary combined with an additional causative projection is the unification of the 'passive honorific'—so often the odd man out in most analyses of honorifics—with the 'regular humilific'. It is not surprising that (overt) passive morphology is honorificatory whilst (covert) causative morphology is humilificatory. Recall from §2.3.2 that in earlier forms of Japanese, the causative-passive functioned as a high honorific, and that in highly innovative varieties, the causative-autobenefactive functions as a humilific for intransitive verbs that would otherwise be defective in this part of the paradigm. If the honorific auxiliary is thought of as 'become', and the humilific auxiliary as 'cause to become' (or even 'let become'), then it emerges that valency-changing morphology

124

is systematically exapted into honorific meanings in Japanese. Inchoatives and passives, with their connotations of spontaneity and effortlessness, grammaticalise straightforwardly into honorifics, whereas causatives, with their connotations of volition and permission, grammaticalise straightforwardly into humilifics.

Interestingly, several suppletive honorifics contain -*ar* (e.g., *nasaru* 'to honourably do', *irassharu* 'to honourably go', *kudasaru* 'to honourably give [to me]', *ossharu* 'to honourably say'), historically a passive voice marker. (Via Hopperian [1991] persistence, these cannot further passivise in the synchronic language: e.g., **irasshareru.*) Likewise, *meshiagaru* 'to honourably eat' contains *meshi* 'meal' and the inchoative *agaru* 'to rise' (vs causative *ageru* 'to raise'). Although these forms are likely not decomposed in the synchronic language, they do shore up the association between inchoatives and passives with honorifics.

Additionally, it emerges from the consideration of these ABB forms why *AAB distributions are impossible in this domain, as this would require positing a rule targeting the complex environment of the causative layer without having one that targets the inchoative layer. This is discussed in further detail in §3.4.3.

3.3.4 Incremental propositional complexity of the citation-honorific-humilific sequence

Expanding on the early point made in §2.4, §3.3.2, and most imminently above in (96), honorifics are associated with one more proposition than pragmatically neutral forms (namely, 'the speaker respects the subject'), and humilifics are associated with two more propositions (namely, 'the speaker respects a non-subject' and 'the action somehow affects this non-subject'). This section demonstrates that this incremental propositional complexity is recapitulated by incremental distributional complexity. That is, it makes explicitly clear the claim that humilifics observe more stringent licensing properties, by contrasting *yomu*∼*o-yomi-ni naru*∼*o-yomi suru* 'to read∼to honorably read∼to humbly read'.

(106) **Context**: A is a student. B is a professor. A and B are talking at lunch.

1 **A**: *Sensei,   nanajū-nen-mae-ni   kak-are-ta   hon-no   Yukiguni-o*
professor seventy-years-before-DAT write-PASS-PST book-GEN Snow Country-ACC
{*yon-da / o-yom-i-ni   nat-ta   / *o-yom-i   shi-ta*} *koto-ga*
read-PST   HON-read-NMLZ-DAT become-PST   HON-read-NMLZ do-PST NMLZ-NOM
ari-mas-u   ka?
exist-POL-NPST Q
'Professor, have you ever read the book *Snow Country* that was written seventy years

ago (lit. Does the case of you having read *Yukiguni* exist)?'

2 **B**: *Iie, yūmei da   to   iu   koto-wa   shitteimasu ga, mada* {*yon-da   /*
no   famous COP COMP say NMLZ-TOP know   but yet   read-PST
%[*o-yom-i-ni   nat-ta*]   / *[*o-yom-i   shi-ta*]} *koto-ga   nai*
HON-read-NMLZ-DAT become-PST   HON-read-NMLZ do-PST   NMLZ-NOM exist.NEG
n   desu   yo.
NMLZ COP.POL EXCL
'No, even though I know that it's (said to be) famous, (it is the case that) I haven't

read it yet.'

3 **A**: *Watashi-mo,* {*yon-da   / *[*o-yom-i-ni   natta*]   / %[*o-yom-i-ni*
I-also   read-PST   HON-read-NMLZ-DAT become-PST   HON-read-NMLZ
shi-ta]} *koto-ga   nai   n   desu.*
do-PST NMLZ-NOM exist.NEG NMLZ COP.POL
'Nor have I (lit. It is the case that I also have not read it).'

In the first turn (line 1), in which the socially inferior A asks about the actions of the socially superior B, A can technically use *yomu* 'read' to refer to the actions of B. This would be pragmatically bizarre and result in an imposition, but the utterance would still be grammatical in the strict sense. A can also use the honorific *o-yomi-ni naru* to refer to the actions of B, and indeed this would be the most natural utterance. A cannot use the humilific *o-yomi suru* to refer to the actions of B: this would be extremely pragmatically bizarre.

In the second turn (line 2), in which the socially superior B talks about her own actions, she can use the socially neutral *yonda* 'read'. This produces the most natural utterance. Even though B is socially superior, she cannot normally use the honorific *o-yomi-ni natta* to refer to her own actions. Were she to insist on using an honorific form here, it would take

126

on a sarcastic meaning and communicate to A that she believes that he is being too formal. This would be similar to what occurs in the following English interaction:

(107)   **Sarcastic title usage**

   A: How are you doing today, sir?

   B: I'm fine, *sir.*

Given that B is socially superior, she cannot use the humilific *o-yomi shita* to refer to her own actions.

In the third turn (line 3), in which the socially inferior A talks about his own actions, he can use the socially neutral *yonda* 'read' to produce the most natural utterance. He cannot use the honorific *o-yomi-ni natta* to refer to his own actions, which would be pragmatically bizarre. It is possible for him to use the humilific *o-yomi shita* here, but it would imply that the object of the verb, in this case the (elided) book *Yukiguni*, bears some kind of connexion with B. This would be acceptable to do if, for instance, A knew that B was friends with or kin to the author. If A has no knowledge of such a connexion, then the use of the humilific would be extremely bizarre. The requirement that the object must bear a connexion with B is typical of all *hai*-initial humilific forms, was discussed earlier in §3.2.2. Humilifics that are not *hai*-initial—that is, regular honorifics—are subject to a similar requirement that the action 'affects' the higher-status referent in some manner.

In short, the licensing of honorifics and humilifics is not trivial, and cannot be reduced to person distinctions. In the second turn, it is possible to self-honorificate to achieve certain kinds of pragmatic effects. In the third turn, it is shown that humilifics are not simply licensed by a low-status speaker, but rather by a low-status speaker who performs an action that 'affects' a high-status referent in some way. The general thrust of these data is that honorification tracks (at least) one variable (the higher status of the referent), whereas humilification tracks at least two (the lower status of the speaker *and* the affectedness of some higher-status person in the discourse context). In distributional terms, humilific forms are simply less free than honorific forms.

Discourse (106) can be written in such a way that all three forms are licensed, with the honorificatory propositions noted explicitly in the free translation.

(108) 1 **A**: *Sensei,   nanajū-nen-mae-ni   kak-are-ta   hon-no   Yukiguni-o*
         professor seventy-years-before-DAT write-PASS-PST book-GEN Snow Country-ACC
       {*yon-da* / *o-yom-i-ni   nat-ta   / *o-yom-i   shi-ta*} *koto-ga*
       read-PST   HON-read-NMLZ-DAT become-PST   HON-read-NMLZ do-PST NMLZ-NOM
       ari-mas-u   ka?
       exist-POL-NPST Q
       'Professor, have you read the seventy-year-old book *Snow Country* [A respects B]?'

     B: *Iie, shinseki-ni   kak-are-mashi-ta   ga, mada yon-da koto-ga   nai*
         no   relative-DAT write-PASS-POL-PST but yet   see-PST NMLZ-NOM exist.NEG
       n   desu   yo.
       NMLZ COP.POL EXCL
       'No, even though it was written by a family member, I still haven't seen it [no

       supracontentful propositions].'

     A: *Watashi-mo, o-yom-i   shi-ta koto-ga   nai   n   desu.*
         I-also   HON-read-NMLZ do-PST NMLZ-NOM exist.NEG NMLZ COP.POL
       'Me, either [A respects B, A humbles himself in acknowledgement that the book is

       in the territory of B].'

In (108), a crucial change has been made. The professor is now related to the author of the book. The first two turns proceed as normal: A uses the honorific form to describe B's actions, and B uses the socially neutral form to describe her own actions. The third turn changes: the humilific is now the most socially appropriate choice here, as now the elided object (*Yukiguni-o* '*Snow Country*-ACC') emerges as something worth exalting, as a result of its connexion to the higher-status A. This example also suggests that it may be better to think of humilification in terms of speaker (or ingroup) humbling and *not* non-subject honorification. For the third turn in (108) to exemplify non-subject honorification, the elided object would have to be something like *sensei-no shinseki-ni kakareta hon-o* 'the book written by the professor's relative-ACC', in order for there to be a covert higher-status referent to license the honorification. But if humilifics are conceived in terms of the speaker's desire to position himself in a certain way, then *hon-o* 'book-ACC' or *Yukiguni-o* '*Snow Country*-ACC'

suffices to license humilification.

3.4 Deriving regular & suppletive honorification

Thus far, root suppletion of main verbs has been demonstrated to be active in the honorific domain (e.g., the honorific form of *iku* 'go' is not *o-iki-ni naru, but the unpredictable *irassharu*), and three diagnostics for suppletion have been identified. These diagnostics—compound intersubstitutability, maintenance of suppletion under conditions of semantic bleaching, and identity in truth-conditionality—permit the isolation of cases of bona fide suppletion, in which phonologically and etymologically unrelated forms are in a homoparadigmatic relation, excluding pairs of verbs from different registers and pairs that select for different classes of arguments. A number of extrasyntactic arguments (e.g., frequency, defectivity-proneness, crosslinguistic and intra-Japonic marginality, *inter alia*) and semantico-pragmatic (i.e., incremental propositional complexity), have been adduced in service of the claim that the humilific is more marked, and hence more representationally complex, than the honorific.

Crucially, two syntactic arguments—differential formal complexity under relativisation and *suru* as the causativisation of inchoative *naru*—are central to the analysis pursued here. Very broadly, the humilific is expected to be associated with additional structure, because the humilific auxiliary is built on the structure of honorific auxiliary. Analogous to the [[[POS] CMPR] SPRL] containment architecture proposed by Bobaljik, Japanese honorifics are associated with the [[[V] INCH] CAUS] architecture. In certain verbs, this structure is overt (e.g., *tsuyo-gar-ase-* 'strong-INCH-CAUS-; bluff'), but in general, humilification is characterised by many zero morphs, relatively poorer phonological content, and more elaborated hierarchical structure, whereas honorification is characterised by relatively fewer zero morphs, relatively richer phonological content, and less elaborated hierarchical structure. The relevant forms and alternations, as well as their differential licensing conditions have also been described in some detail. In this section, sample derivations for honorific constructions are presented.

129

3.4.1 Goals & assumptions

A theoretically adequate implementation of honorific suppletion must address a number of issues. First, given the panoply of arguments, syntactic (cf. §3.3.3:98–101) and nonsyntactic (cf. §3.3.3:96a–g), in favour of the relative representational complexity of the humilific, this study assumes the cumulating featural architecture below, a simplification of what has already been represented supra in (77):

(109) **Toy featural architecture for Japanese honorifics**
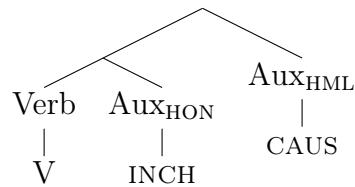
That is, phrase markers representing humilific sentences should be more structurally complex than those representing honorific sentences, and the HON and HML categories should be viewed as exaptations of inchoative *naru* 'become' and causative *suru* 'cause to become'.

Second, regular honorifics such as *o-kak-i-ni nar-u* 'HON-write-NMLZ-DAT v_{INCH}-NPST; to honourably write' and suppletive honorifics such as *∅-meshiagar-∅-∅-∅-u* 'HON-eat.HON-NMLZ-DAT v_{INCH}-NPST; to honourably eat (cf. citation form *tabe-ru*) should be isomorphic on the level of syntactic structure, even if they are extremely divergent on the level of morphophonological structure. Structural isomorphism between the regular and suppletive forms allows for the easy treatment of nonstandard microvariants such as *%o-meshiagar-i-ni nar-u*, in which zero morphs are replaced by pleonastic realisations. It shall be demonstrated that a realisational morphology with competition between differentially specific exponents provides sufficient flexibility to deal with a system in which there are many zero morphs (and many reanalyses of zero morphs).

Third, a postsyntactic linearisation component is necessary to account for the correct placement of the honorific prefix. Recall that *o-* in the verbal domain has different accentual and morphophonological properties relative to *o-* in the nominal domain (cf. §2.2.4), in ways

130

that suggest that verbal *o-* is farther away from the root than nominal *o-*. A desirable analysis should both capture and implement this contrast.

3.4.2   Honorification

As a point of departure, consider the minimal triplet in (110).

(110)   **A non-honorific vs honorific vs multiply-honorific minimal triplet**

    a. *Mariko-ga kiji-o   kai-ta*
        M-NOM   article-ACC write-PST
        'Mariko wrote an article.'

    b. *Sensei-ga   kiji-o   o-kak-i-ni   nat-ta*
        professor-NOM article-ACC HON-write-NMLZ-DAT become-PST
        'The professor wrote an article; the speaker respects the professor.'

    c. % *Sensei-ga   kiji-o   o-kak-i-ni   nar-are-ta*
         professor-NOM article-ACC HON-write-NMLZ-DAT become-PASS-PST
        'The professor wrote an article; the speaker greatly respects the professor.'

Datum (110a) represents a simple active, transitive, pragmatically neutral sentence. Datum (110b) represents a regular honorific, and (110c) a marginal doubly-honorific construction in which regular and passive honorific morphology co-occur. The honorific meaning is expressed in terms of a secondary proposition in the free translation.

    A phrase marker for (110b) follows.

(111)   **Regular honorification of *kaku* 'write'**

```
                                    TP
                    ┌────────────────┴────────────────┐
                  DP_i                                 T
                    │                        ┌─────────┴─────────┐
               sensei-ga                   VoiceP               T⁰
              professor-NOM          ┌───────┴───────┐           │
                                    vP            Voice⁰        -ta
                              ┌──────┴──────┐        │          PST
                            HonP           v⁰        ∅
                       ┌─────┴─────┐        │        ACT
                      nP        Hon⁰  ┌─────┴─────┐
                 ┌────┴────┐     │   nat-
                VP        n⁰    o-   v_INCH
            ┌────┴────┐    │    HON
           t_i       VP  -i-ni
                ┌────┴──┐ NMLZ-DAT
               DP      V⁰
                │       │
              kiji-o   kak-
            article-ACC write
```
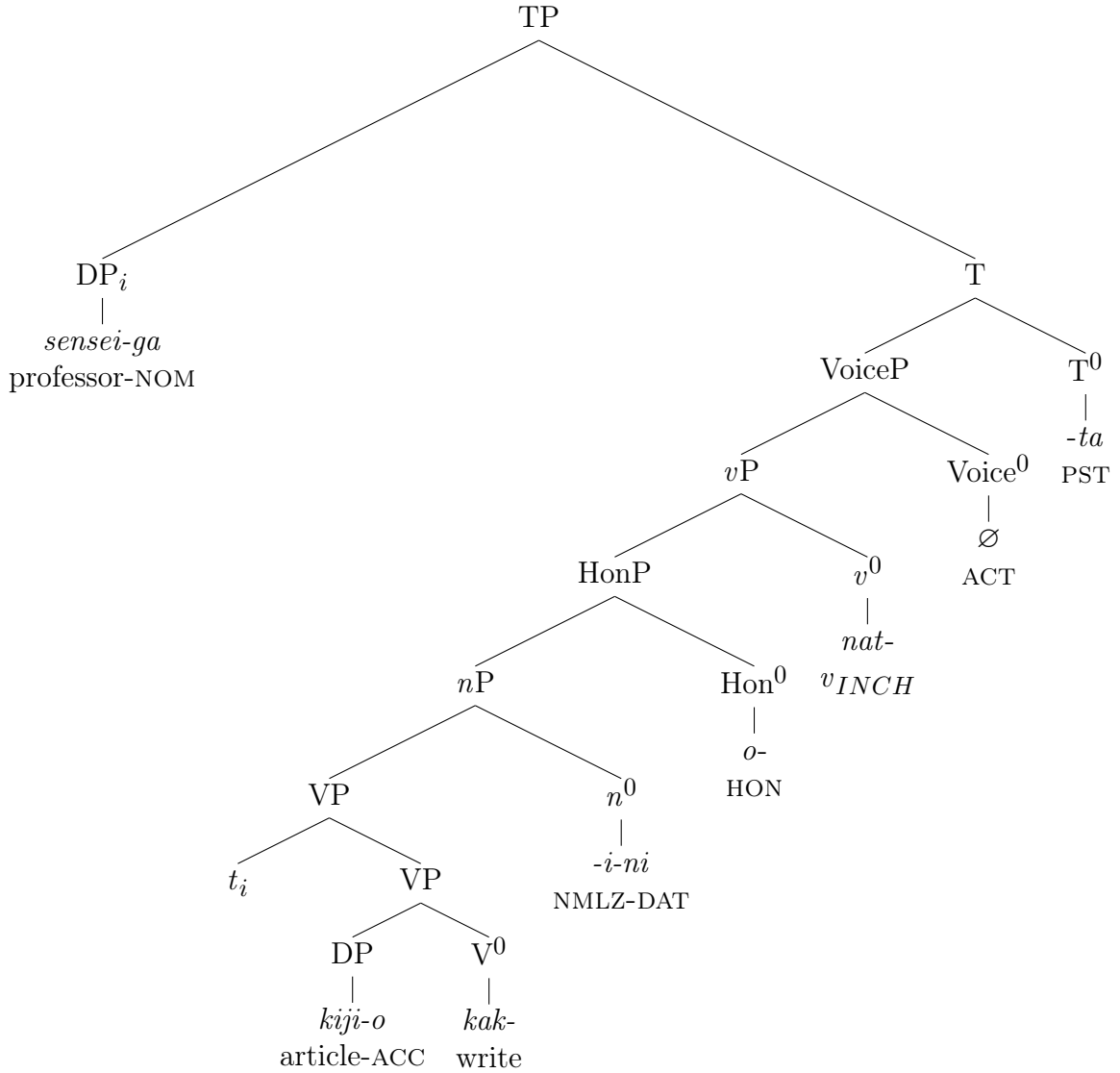
What follows is a number of justifications to the theoretical decisions made in the proposal
of phrase marker (111). First, the VoiceP projection is included, as this would be location
at which *-rare* is generated in the multiply-honorific construction (110c). Second, *nar-* (*nat-*
by assimilation to the tense marker), is treated as the realisation of *v*, distinguishing the
honorific auxiliary *naru* from the main verb *naru* 'become' (and from the humilific auxiliary,
which is associated with its own projection, v_{CAUS}). For additional syntactic evidence for
this claim, consider that main verb *naru* can be scrambled, whereas auxiliary *naru* cannot.

(112)   a.   *Mariko-ga kisha-ni   nat-ta*
             M-NOM   journalist-DAT become-PST
             'Mariko became a journalist.'

b. *Nat-ta-no-wa*   *kisha*   *da, Mariko-ga*
become-PST-NMLZ-TOP journalist COP M-NOM
'Became a journalist, that's what she did, Mariko.'

c. *Sensei-ga*   *kiji-o*   *o-kak-i-ni*   *nat-ta*
professor-NOM article-ACC HON-write-NMLZ-DAT become-PST
'The professor wrote an article; the speaker respects the professor.'

d. * *Nat-ta-no-wa*   *kiji-no*   *o-kak-i*   *da, sensei-ga*
become-PST-NMLZ-TOP article-GEN HON-write-NMLZ COP professor-NOM
Intended: 'Wrote an article, that's what he did, the professor; the speaker respects

the professor.'

Sentences (112a,b) demonstrate that main verb *naru* can be fronted past its dative-marked argument, whereas (112c,d) demonstrate that this is not possible for auxiliary *naru*. This underlies the decision to treat the honorific auxiliary as the realisation of *v*.

Chapter 2 argues extensively that the honorific prefix *o-* attaches to nouns. In phrase marker (111), it is treated as the realisation of an honorific functional head that selects a nominal element. Via some interface with the pragmatics, *o-* is sensitive to the social status of *Sensei-ga* 'professor-NOM'. The interaction between the honorific projection and the higher-status agent gives rise to the additional proposition that the speaker respects the writer. The nominalising stem marker, *-i*, is treated as the realisation of a categorising head that can turn the verb phrase into something that *o-* accepts. For reasons of simplicity, dative *-ni* is attached directly here to the *-i* nominaliser, as the dative-selecting and intransitive properties of main verb *naru* persist into its auxiliary guise.

Head movement of *kak-* 'write' up the phrase marker yields **kak-i-ni-o*, which may seem undesirable in theories that assume that structures generated by the syntax imply particular precedence relations. But in a more modular architecture of the grammar in which linearisation is independent from and follows syntactic structure-building, it suffices to assume an additional linearisation rule to yield the proper word order (adapted from Arregi & Nevins 2012:60 on the linearisation of Basque dative clitics):

(113) **Linearisation in regular honorifics**

a. **Honorific-fronting**: In a binary-branching node x with progeny y and z, where y is the honorific prefix (and the head of x) and z is the nominalised verbal complex, y precedes z.

b. **Standard linearisation**: In a binary-branching node x with progeny y and z, where y is the head of x, z precedes y.

Rule (113a) specifies that the partial structure *kak-i-ni-o* is syntactically and exceptionally linearised as *o-kak-i-ni*, and rule (113b) describes canonical linearisation more broadly. Although these rules may have the appearance of restating the empirical facts in a stipulative way, there are reasons to suppose that the *o-* in the honorific verbal complex is somehow computationally distinct. Recall from §2.2.1 that the honorific prefix that attaches to nouns has a much richer inventory of allomorphs (e.g., *o-*, *go-*, *mi-*, *omi-*, etc.) and creates accentual patterns typical of compounds. In contrast, the honorific prefix that attaches to (*i*-nominalised) verbs has a much poorer selection of allomorphs and can only create atonic (level pitch accent) forms. This is readily observable in the phrase marker: presumably, nominal *o-* is generated next to its root, and is therefore able to participate in a wider range of morphophonological phenomena. In contrast verbal *o-* must be head-moved and linearised before it surfaces as adjacent to its root, and therefore is relatively more morphophonologically inert.

This also allows for an intuitive account of the honorification of Sino-Japanese verbs. In the citation form, they are simply nouns that occur with the light verb *suru*, such as *benkyō suru* 'to study (lit. to do studying)'. As an honorific form, this becomes *go-benkyō nasaru*, with a special allomorph of *o-* sensitive to the Sino-Japanese etymology of the root, and a suppletive form of *suru*. One way of explaining this is by saying that there are two honorific prefixes here, one generated low immediately next to *benkyō*, and is therefore able to participate in allomorphy sensitive to properties of the root. The second honorific prefix is higher up the clause, and vanishes as a result of suppletion in *suru*. This can be schematised as follows:

134

(114) **Honorification of Sino-Japanese verbs**

    a. *benkyō su-ru* 'to study'

    b. **o-benkyō s-i-ni-o nar-u* / HON-study do-NMLZ-HON-DAT become-NPST

    c. *go-benkyō nasar-u* 'to honourably study'

Datum (114a) represents the citation form of 'study'. Datum (114a) is a representation of all the projections involved in the honorification of 'study' with the 'default' regular morphology filled in, yielding a wildly ungrammatical form. Datum (114c) represents the actual grammatical form, in which the lower honorific prefix resolves to Sino-Japanese-sensitive *go-*, and the *s-i-ni-o* span resolves to *nasar-* 'to honourably do'. There are two ways to implement this: the first is to say honorific suppletion truly does replace spans like **tabe-∅-ni-o nar-* 'eat-NMLZ-DAT-HON v_{INCH}-' (note that the nominaliser is zero when attaching to a vowel-final root) with suppletive roots *meshiagar-* 'eat.HON' when they are available. When they are not available, as in **kak-i-ni-o nar-* 'write-NMLZ-DAT-HON v_{INCH}-', the postsyntactic linearisation module moves the honorific prefix to the front of the verbal complex via a rule like (113a), yielding *o-kak-i-ni nar-*.

Another way is to write rules of exponence in which suppletive forms co-occur with zero morphs for the regular honorific morphology. This is exemplified with 'eat' in the Vocabulary fragment below:

(115) **Vocabulary fragment for honorific suppletion in 'eat'**

    a. *tabe* ↔ $\sqrt{EAT}$ elsewhere form of root

    b. *meshiagar* ↔ $\sqrt{EAT}$ / ___ NMLZ] HON]   suppletive form of root

    c. ∅ ↔ NMLZ / $\sqrt{EAT}$, $\sqrt{GO}$, ... ___   zero nominaliser under suppletion

    d. *i* ↔ NMLZ   elsewhere form of nominaliser

    e. ∅ ↔ HON / $\sqrt{EAT}$, $\sqrt{GO}$, ...] NMLZ] ___   zero honorific prefix under suppletion

    f. *o* ↔ HON   elsewhere form of honorific prefix

g. $\varnothing \leftrightarrow$ DAT $/ \sqrt{EAT}, \sqrt{GO}, ...$] NMLZ] HON] ___   zero dative under suppletion

h. $ni \leftrightarrow$ DAT   elsewhere form of dative

i. $\varnothing \leftrightarrow v_{INCH} / \sqrt{EAT}, \sqrt{GO}, ...$] NMLZ] HON] ___ zero auxiliary under suppletion

j. $nar \leftrightarrow v_{INCH}$ regular honorific auxiliary

k. $ru \leftrightarrow$ NPST $/$ [−consonantal] ___   nonpast for V-final roots

l. $u \leftrightarrow$ NPST   nonpast for C-final roots

Rules (115a,g) generate the citation form *taberu* 'to eat'. Rules (115b,c,e,g,i,j,l) generate *meshiagaru* 'to honourably eat', perhaps better represented as $\varnothing$-*meshiagar-$\varnothing$-$\varnothing$-$\varnothing$-u*. Although this may look inelegant, this maximally flexible system is able to handle the innovative speakers who *can* say multiply-honorificated forms like %*o-meshiagari-ni naru*—they simply use the system in (115), less rules (c,e,g,i). The upshot is that honorific suppletion necessarily co-occurs with covert structure, which may appear as overt in more innovative or less normative grammars. At this time, it could even be speculated that one reason that there is so much interspeaker variation in the honorific domain is because strings of multiple zero morphs are unstable and tend towards individual reanalysis.

3.4.3   Humilification

With the groundwork laid in the above section, the study now considers the derivation of regular humilification, associated with an additional humilificating v_{CAUS} projection on top of the honorificating v_{INCH} projection.

(116) **A non-humilific vs humilific minimal pair**

a. *Watashi-ga anata-o   mat-ase-ta*
    I-NOM   you-ACC wait-CAUS-PST
    'I kept you waiting (lit. caused you to wait).'

b. *Watashi-ga anata-o   o-mat-ase-$\varnothing$ shi-mashi-ta*
    I-NOM   you-ACC HON-wait-CAUS-NMLZ do-POL-PST
    'I kept you waiting; I humble myself; my actions affected you; I have respect for

    the addressee (which also happens to be you in this case).'

Datum (116a) is a simple transitive, causative, and pragmatically neutral sentence, whereas (116b) is a humilific polite sentence. The free translation of (116b) contains three additional propositions compared to (116a). The first and second are the self-humbling proposition and the other-affecting proposition associated with humilification. Note than *affectedness* is in fact a better conception of this proposition as opposed to *benefactivity*: being made to wait is generally not a benefit. The third proposition is an addressee-respecting proposition resulting from the presence of the politeness marker *mas-*. Although this study has thus far abstracted away from politeness, humilific forms used predicatively almost always co-occur with the politeness auxiliary, preventing a troublesome register clash: in most discourse contexts, it does not make sense to humble oneself while disrespecting the addressee. One of the very few contexts in which non-polite humilification can be licensed is in archaic registers characteristic of samurai, who need to signal both refinement (hence humilification) as well as masculinity (hence impoliteness):

(117)   **Exceptional nonpolite predicative humilification**

Context: A samurai is standing at lookout atop a tower. There are other soldiers around him, who mysteriously begin to collapse.

N? Mizu-no iro-ga? Kore-wa doku degozar-u / *da / *de-s-u
EXCL water-GEN colour-NOM this-TOP poison COP.HML-NPST   COP   COP-POL-NPST
/ *degozai-mas-u!
  COP.HML-POL-NPST
'Hmm? The colour of the water... This beeth poison!'   (Cyan, *Final Fantasy VI*)

In (117), *gozaru*, the suppletive humilific of *dearu* 'be, exist' outcompetes all other forms of the copula as optimal. The plain form, *da*, would be too curt. The polite form, *desu* (composed of the gerundive form of *da* and a reduced form of the polite auxiliary *mas-*) would be too coarse. The polite humilific form, *degozaimasu*, would be too formal. The nonpolite humilific, *degozaru*, hits a sweet spot of humility without supplication. Naturally, this is a highly marked, literary, and unusual performance, whose archaism is maintained in the free translation via the use of *beeth*, the obsolete third-person singular simple present

137

indicative of English *be*.

All this is to say that native speakers find predicative nonpolite humilifics (and indeed, many cases of predicative nonpolite honorifics as well) to be so bizarre that they are often judged ungrammatical out of the gate. For this reason, although it complicates the syntax, this study insists on deriving the polite humilific form in (116b).

(118)   **Regular humilification of *mataseru* 'keep waiting'**
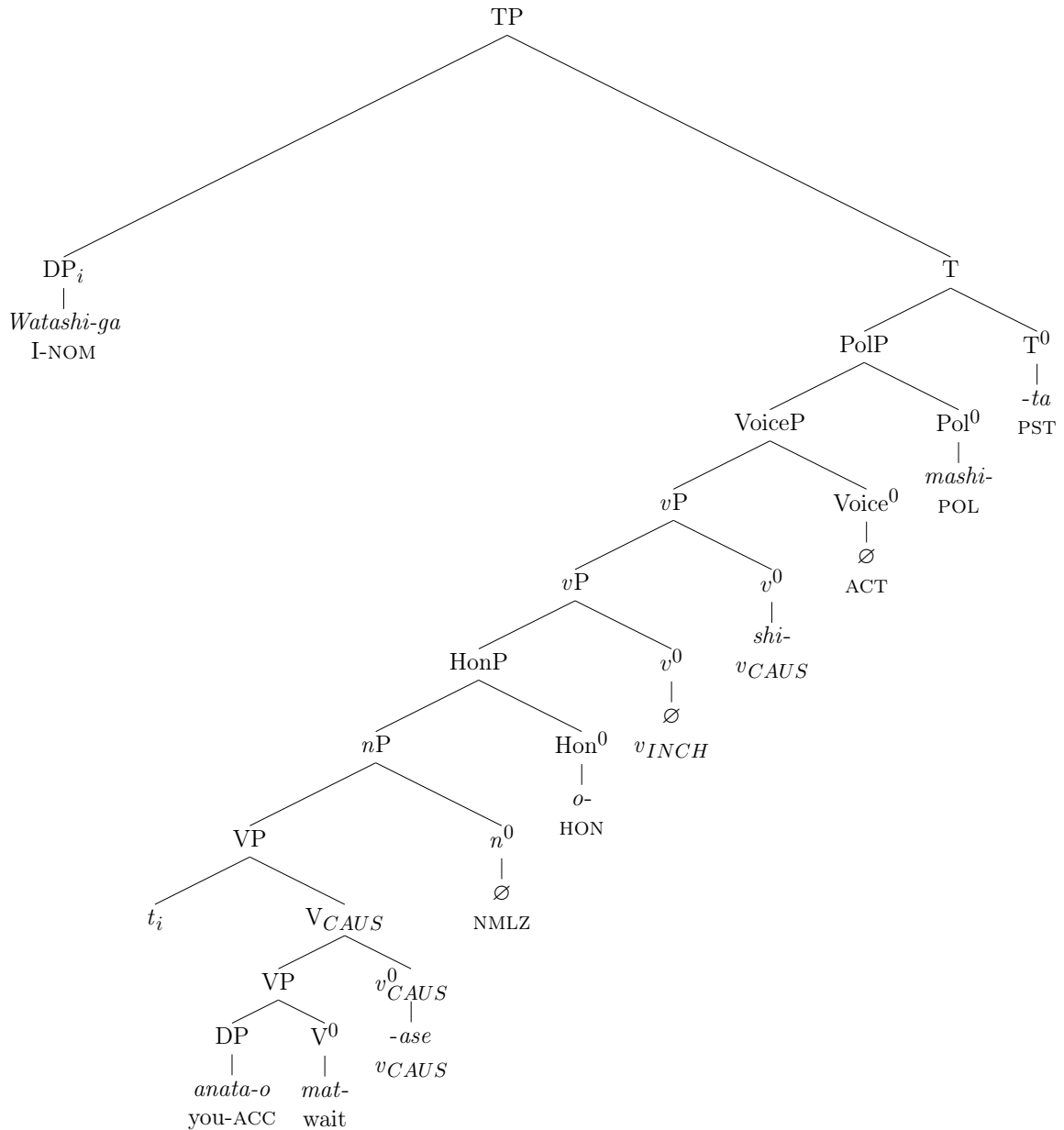
As before, it becomes necessary to justify some of the analytical choices that have been

made. First, politeness is assumed to occupy a position above Voice but below Tense. It is equally possible to place Politeness even higher, where other addressee-oriented phenomena have been theorised to reside, but the stakes of this debate are of little import to this investigation.

The verb raises via head movement to yield *mat-ase-∅-o-shi*, which is corrected postsyntactically to *o-mat-ase-shi* via the linearisation rule (113). Spans such as *tabe-∅-o-shi* can resolve to their suppletive alternants, in this case, *itadak-* 'eat.HML', given the right rules of exponence. An additional Vocabulary fragment follows that, in conjunction with (115), fully characterises the behaviour of 'eat':

(119) **Vocabulary fragment for humilific suppletion in 'eat'**

a. *tabe* $\leftrightarrow \sqrt{EAT}$ elsewhere form of root

b. *itadak* $\leftrightarrow \sqrt{EAT}$ / ___ NMLZ] HON] HML]   suppletive form of root

c. $\varnothing \leftrightarrow$ NMLZ / $\sqrt{EAT}$, $\sqrt{GO}$, ... ___   zero nominaliser under suppletion

d. $\varnothing \leftrightarrow$ NMLZ / [−consonantal] ___   zero nominaliser for V-final roots

e. *i* $\leftrightarrow$ NMLZ   elsewhere form of nominaliser

f. $\varnothing \leftrightarrow$ HON / $\sqrt{EAT}$, $\sqrt{GO}$, ...] NMLZ] ___   zero honorific prefix under suppletion

g. *o* $\leftrightarrow$ HON   elsewhere form of honorific prefix

h. *nar* $\leftrightarrow v_{INCH}$ regular honorific auxiliary

i. $\varnothing \leftrightarrow v_{INCH}$ / ___] HML]   zero honorific under humilification

j. $\varnothing \leftrightarrow v_{INCH}$ / $\sqrt{EAT}$, $\sqrt{GO}$, ...] NMLZ] HON] ___   zero HON under suppletion

k. *s-* $\leftrightarrow v_{CAUS}$ regular humilific auxiliary

l. $\varnothing \leftrightarrow v_{CAUS}$ / $\sqrt{EAT}$, $\sqrt{GO}$, ...] NMLZ] v_{INCH}] ___   zero HML under suppletion

m. *ru* $\leftrightarrow$ NPST / [−consonantal] ___   nonpast for V-final roots

n. *u* $\leftrightarrow$ NPST   nonpast for C-final roots

o. *uru* $\leftrightarrow$ NPST / v_{CAUS}] ___   irregular nonpast for 'do'

139

Rules (119a,m) yield the citation form *taberu* 'eat'. Rules (119b,c,f,i,l,o) yield $\varnothing$-*itadak*-$\varnothing$-$\varnothing$-$\varnothing$-*u* 'HON-eat.HML-NMLZ-INCH-CAUS-NPST; to humbly eat'. (For a form with fewer zeroes, compare *o-mach-i*-$\varnothing$-*s-uru* 'HON-wait-NMLZ-INCH-CAUS-NPST; to humbly wait', in which only the honorific auxiliary is non-overt.) Rules (119c,f,i,l) prevent multiply-humilificated forms such as **o-itadak-i s-uru*. Reminder that the HON/v_{INCH} projection is *always* zero under humilification, both in suppleting and non-suppleting contexts, and that the only evidence that this additional projection exists at all is the comparison of the behaviour of *naru* and *suru* in other domains (cf. [99–101]), as well as forms such as *iya-gar$_{INCH}$-ase$_{CAUS}$-ru* 'harass' and *tsuyo-gar$_{INCH}$-ase$_{CAUS}$-ru* 'to let bluff', in which there is simultaneous overt inchoativising and causativising morphology.

A comparison of fragment (115) and (119) accounts for the absence of *AAB patterns (e.g., **tabe**ru *– meshiagaru$_{HON}$ – o-**tabe** suru$_{HML}$ for 'eat')*, which are blocked in the same way that *AAB in comparative suppletion is ruled out: rules sensitive to humilification (i.e., the causativising projection) cannot be posited unless rules sensitive to honorification (i.e., the inchoativising projection) also exist. Although to flesh out this claim further would take this study too far afield, it can be speculated that the courteous verbs mentioned in §3.3.2—verbs that have the phonological form of humilifics but not the licensing requirements or propositional complexity of humilifics—lack one or both of these v^0 projections.

By way of a conclusion, this analysis of honorific suppletion in Japanese verbs has four principal parts. The first is a cumulating featural architecture in which the humilific contains the honorific, and the honorific contains the verbal root. The second is a recognition that the honorificatory and humilificatory auxiliaries represent exaptations of the functional heads associated with the inchoative/causative contrast. The third is a flexible realisational morphology that can handle the normative system in which there are many zeroes and other inter-root or interspeaker idiosyncrasies with respect to the overtness or non-overtness of regular honorific morphology (i.e., the honorific prefix *o-* and the *naru* 'INCH' and *suru* 'CAUS' auxiliaries). The fourth is a postsyntactic linearisation component that can front the

honorific prefix after structure-building has completed, thereby explaining morpho-accentual differences between canonical nominal *o-* (which is base-generated next to its root) and verbal honorific *o-* (which begins life farther away).

3.5   Conclusion

This chapter has accomplished several goals. First, it has demonstrated that suppletion is operative in the honorific system of Japanese (e.g., forms such as *meshiagaru* 'to honourably eat' block regular forms such as *o-tabe-ni suru). Secondly, it has argued that many forms identified as suppletive honorifics are not so, and identified three diagnostics to deselect them from consideration: compound intersubstitutability, maintenance of irregularity under grammaticalisation, and maintenance of truth-conditionality. In this way, one is able to exclude registral alternants (e.g., *o-nakunari-ni naru* 'to pass on'), courteous verbs (e.g., non-humilific uses of *mairu* 'go'), and semantically contiguous verbs with differential sensitivities to the properties of their arguments (e.g., *haishaku suru* 'to borrow an object from a superior'). Third, it has described a novel Honorific-Humilific Generalisation, in which a suppletive honorific predicts a suppletive humilific and vice versa (except in cases in which the verb is defective with respect to that form). Fourth, syntactic and non-syntactic evidence has been compiled to argue that the citation-honorific-humilific sequence is organised by increasing representational, distributional, and derivational complexity. Fifth, it has shown that the differential properties of main verb *naru* 'become' and *suru* 'do' persist in some important senses in their honorific guises. The upshot is that honorific suppletion in Japanese does exhibit a containment effect that patterns with Bobaljikian comparative suppletion, as a result of the manner in which causativising morphology contains inchoativising morphology, as exemplified transparently in such forms as *tsuyo-gar-ase-ru* 'to let bluff'. Sixth and last, a realisational morphology with a postsyntactic linearisation component has been demonstrated to serviceably derive the polyallomorphy and morphotactics specific to regular and suppletive honorification.

141

A number of theoretically significant consequences of this chapter merit re-emphasis. First, the casual inspection of overt morphological complexity, or lack thereof, is not a fool-proof diagnostic of containment (i.e., honorific *go-zonji dearu* 'to honourably know' might appear to contain humilific *zonji-ru* 'to humbly know', but this is not the case). Second, the fact that the honorific system is subject to such extensive interspeaker microvariation and reanalysis is no doubt tied to the extensive zero-marking specific to the normative system. Third, the semantic broadening of voice-related or voice-adjacent functional heads (e.g., causative, passive, causative-passive, inchoative, spontaneous, etc.) to honorific uses likely represents a robust grammaticalisation pathway, in which the logic of less vs more effortfulness (e.g., 'become' vs 'cause to become') is mapped onto low vs high social status.

CHAPTER 4

UNIVERSALS IN KINTACTIC MORPHOLOGY

For though she deyed, I wolde noon other make; I wol ben hirs, til that the deth me take.

Geoffrey Chaucer, *Parlement of Foules*

4.1   Introduction

Thus far, it has been demonstrated that Japanese honorifics constitute an *ABA domain that forms a natural class with feature-cumulating comparative suppletion, as described by Bobaljik (2012). The organising principle that underlies this study is that the emergence of *ABA configurations constitutes an unexceptional property of the human language faculty, across domains and languages. Therefore, it should be possible to pick any core subsystem of natural language morphology and trawl for *ABA patterns. This chapter elects to do so for kinship for three reasons. First, kin terminologies are a universal of language, and therefore lend themselves well to crosslinguistic analysis. Second, restrictions on possible kinship systems are well documented in both the linguistic and anthropological literature, although these restrictions have not been formulated in terms of prohibitions on *ABA distributions. Third, the formalisation of kin terms in terms of abstract features is not a straightforward task, and to many theorists it may even be an undesirable one.

This chapter considers two case studies, Héritier (1981)'s *unthinkable kinship terminologies* and *generation-sensitive pronouns* in Lower Arrernte, an indigeneous language of Australia. It is shown that the former exemplify a prohibition on co-lexicalisation that patterns with what is observed in Caha (2017b)'s study of oblique case subsequences, whereas the latter patterns with the type of containment relations observed in AAB-permitting pronominal suppletion (cf. Smith et al. 2019:24), but only if the correct categorial ordering is identified. It is demonstrated that prior descriptions of Arrernte have not organised the relevant categories in complexity-increasing order. §4.2 contrasts the Wierzbickian (i.e., emic and

anthropological, cf. Wierzbicka 2013a) perspective on kinship with the Arregi-&-Nevinsian (i.e., etic and formal, cf. Nevins 2010), before coming down on the side of the latter and proposing a number of crosslinguistically salient morphological contrasts within the kinship domain (for a review of the emic vs etic distinction, refer to Harris 1976). It identifies three core dimensions of morphokintactic contrast in kin terms—SEX, GENERATION, and SANGUINITY—as well as six other distinctions that represent special cases of, or interactions between, these three (laterality, age, descent, co-affinity, affinal laterality, parallel-cross, and address-reference). It further identifies four marginal extragrammatical distinctions that can be expressed periphrastically but not monolexically or monomorphemically: degree, removal, gradient consanguinity, and laterality of gradient consanguinity.

§4.3 uses Impoverishment—that is, feature-deletion rules that apply in a postsyntactic module prior to insertion—to generate Greenberg (2020)'s universals of kintax. It proposes that a combination of Impoverishment, underspecification, and referral (i.e., feature-modification rules) can generate the structural differences between Morgan (1871)'s classical hexapartite typology of kin terms: Hawaiian, Inuit, Sudanese, Iroquois, Omaha, and Crow. §4.4 argues that Héritier's Fundamental Laws of Kinship instantiate morphological contiguity, and presents formal and non-formal analyses of the impossible typologies, before proposing an additional impossible typology with respect to the lexicalisation of parallel cousins. It emerges that Greenberg's universals are statements about the markedness of certain features (e.g., *parent* is less marked than *grand-parent*, both in terms of overt morphology and in terms of the underlying generational features), whereas Morgan's typology identifies broad possible and impossible patterns of syncretism within the kinship domain. Whilst some restrictions surface as incidental facts about specific languages (e.g., English *cousin* is sex-neutral, but French *cousin(e)* contrasts masculine and feminine) and are best described in terms of underspecification, others constitute metasyncretisms across languages and are best described in terms of Impoverishment and referral.

§4.5 presents generation- and moiety-sensitive pronominal paradigms from Australian

languages in which morphological form is sensitive to syntactically active (i.e., accessible to agreement probes) kintactic features in a way that instantiates a *ABA domain. Specifically, in Lower Arrernte, the following containment architecture obtains for nonsingular pronouns:

(120)   **Feature cumulation in Arrernte nonsingulars**

NON-AGNATIC (e.g., characterising a group containing a woman and her mother) > AGNATIC-DISHARMONIC (e.g., characterising a group containing a woman and her father) > AGNATIC-HARMONIC (e.g., characterising. a group containing a woman and her brother)

Lower Arrernte pronouns are shown to be composed of at least three projections, in which privative features related to participanthood (i.e., first, second, and third person), kinship (i.e., agnation and generational harmony), and number (i.e., singular, dual, and plural) are realised. Fusion of kinship and number features occurs for agnatic-harmonic pronouns, and it is demonstrated the *ABA distribution—and the permissibility of AAB patterns—result from the fact that agnatic and harmonic features must always be co-exponed, and that agnatic and harmonic features act as co-triggers of root allomorphy.

(121)   **Structure of Lower Arrernte pronouns**

```
                    NumP
                   ╱    ╲
               KinP      Num⁰
              ╱    ╲
          PartP    Kin⁰
            |
          Part⁰
```
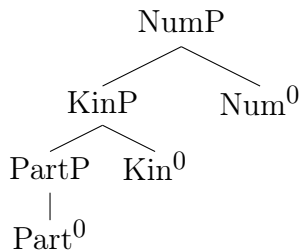
Although this chapter may appear disjointed at first glance, the major goals of each section do work in concert. §4.3.1 uses Greenberg's empirical generalisations as a springboard to identify a set of kintactic features to derive those generalisations. §4.3.2 and §4.4 apply those features to the analysis of broader kinship typologies, and use a combination of underspecification, Impoverishment, and referral to derive the six metapatterns of kinship. Once kintactic co-lexicalisation has been shown to pattern with the *ABA behaviour observed in

145

Caha's work on case, §4.5 uses the case of Lower Arrernte to show that some corners of kintax constitute an AAB-permitting containment domain, patterning in one respect with Bobaljik's analysis of Germanic ablaut. Thus the chapter contributes to the study of heterogeneity in morphological contiguity in two distinct senses: first by identifying kintax as a contiguity-rich domain, and second by identifying diverse types of contiguity within kintax. §4.6 concludes.

4.2   Motivating morphological contrasts in kinship

This section pursues two goals. First, it contrasts two theoretical emphases applicable to the linguistic study of kin terms: Natural Semantic Metalanguage (NSM), a theory of semantic analysis and representation that centres a limited set of universal (i.e., available in all languages) and primitive (i.e., not further decomposable) meanings; and Crossmodular Structural Parallelism (CSP; Nevins 2008, Arregi & Nevins 2012:133), a hypothesis of structural and computational isomorphism across modules of grammar (and perhaps cognition), as modelled within a structuralist (i.e., componential or feature-based) framework. It rejects the more emic NSM-based approach for two reasons: first, because consultant-plausibility and cross-translatability need not be desiderata of a theory of kintax, and second, because evidence exists (on which more in §4.5) that kintactic features are syntactically active in much the same way that more conventional phi-features are, and therefore Impoverishment (i.e., feature-deleting operations) are an elegant way to capture common neutralisations in kintactic morphology.

Second, it presents a broad view of crosslinguistically attested contrasts observed in kin terms that a theory of kintactic features must address, in the context of a number of universals of kintactic morphology.

146

4.2.1 Kin terms in the Natural Semantic Metalanguage research programme

Before any universals in kintactic morphology can be proposed, some attention must be given to the proposition that the formal study of kinship systems may be a fool's errand from the first. This view is cogently argued by Wierzbicka (2013a), who describes a variety of issues of 'formalocentric' (p.c. Itamar Francez, used here to refer to the privileging of formal over non-formal methodologies) approaches to culturally grounded domains of language and the human experience. Her strongest arguments are restated below.

(122)   **Problems with formal approaches to kintax**

    a. **Terminological anglocentrism**[1] (Goddard 2008:4): Concepts such as *odd number*, *generation*, or *sibling* do not exist (or cannot be expressed except by means of circumlocution) in many languages. Featural systems that make reference to categories or concepts that are of low salience or low expressibility to speakers are suspect.

    b. **Lossy decomposition** (Farrell Ackerman p.c.): Featural or morphological breakdowns of non-English kin terms—indeed, all attempts to restate a kin term in a more general or abstract way—yield analyses that are unrecognisable or unparsable to speakers. Crucially, they may fail to represent the cognitive operations speakers use to conceptualise and select kin terms.

    c. **Technicism** (Wierzbicka 2010): Descriptions of kin terms in technical English are inferior to explanations that use terms and concepts that exist in the language proper.

Wierzbicka gives the example of *kularrind*, a Kayardild (a moribund Tangkic language spoken on the South Wellesley Islands, Australia) word meaning 'opposite sex sibling'. She

---

1. This study distinguishes *anglocentrism*, which refers to analytical tendencies that centre the logics and concepts internal to the English *language*, from *Eurocentrism*, which refer to analytical tendencies that centre the logics and concepts internal to European and/or Western *culture* more broadly. Certainly, Wierzbicka believes that formal approaches to kintax commit both.

argues that since the Kaiadilt (i.e., speakers of Kayardild) lack words for 'opposite', 'sex', and 'sibling', this definition, however parsimonious or elegant, cannot represent how speakers conceptualise this word. Rather than an anglocentric, lossily decomposed, formalocentric gloss, she instead proposes the following *explication* (Goddard 2008 prefers *reductive paraphrase*) that uses only fully cross-translatable terms compatible with the inventory of atoms and molecules from NSM (cf. Wierzbicka 1996, *inter multa alia*):

(123)　**Kularrinda**: A child can say about another child, 'This is my *kularrinda*,' if it is like this: One of them can think about the other one, 'This someone's mother is my mother, and this someone's father is my father.' After some time, one of them can be a man, and the other one can be a woman.[2]

At this point, it becomes necessary to describe in part the logic of the NSM approach, which is best described as the formalisation of the Leibnizian *alphabetum cogitationum humanarum*, an alphabet of human thoughts in which all ideas can be represented in terms of discrete combinatorial building blocks. Although NSM is a decompositional approach to the analysis and representation of word meanings, it does not decompose words into abstract, listed, but unbounded morphosyntacticosemantic features. In its own words, NSM is decompositional but non-componential (Goddard & Wierzbicka 2013:25): although it does build up meanings from other meanings, it does not conceive of these meanings in terms of, for instance, binary features, which are understood by NSM adherents to be algebraic formulae that model post-structuralist oppositions (cf. Saussure 1998:89). Componentialist approaches generate taxonomies and categories (Goodenough 1967:1204): *aunt* shares femaleness with *sister*, collaterality with *uncle*, ascending generation status with *mother*, consanguinity with *cousin*, etc., and crucially such categories (i.e., sex, descent, generation, sanguinity, etc.) may not even be expressible in the relevant language (until appropriate jargon is coined by the

---

2. Natural Language Metalinguists write such explications in terms of valency frame arrays (cf. Goddard & Wierzbicka 2013:14) that employ some conventionalised (but idiosyncratic to the outsider) spacing and capitalisation. These stylistic particulars shall not be dwelt on nor faithfully reproduced here, as what matters most for the purposes of this study is the broader theoretical and conceptual emphases of the system.

specialist). Another way of thinking about componentialism is in terms of the extension of the principles of linguistic (i.e., morphophonological) analysis to the analysis of cultural forms (Goodenough 1956:195). In this regard, componentialism is prefiguration of Crossmodular Structural Parallelism.

Rejecting the identification of higher-order categories and the exploitation of possible homologies to morphophonological structure, NSM instead centres a highly restricted set of 65 (increasing gradually from a low of 13, cf. Wierzbicka 1980) universal and indefinable semantic primes, on which all other meanings are built and described. These are represented in explication (123) by semantically atomic elements such as SAME, ONE, SAY, SAY, TIME, and LIKE, which purport to be fully cross-translatable between all languages and to be undefinable in terms of other words or other primes. Primes are identified from crosslinguistic study of genealogically distinct languages and are believed by NSM proponents to form a conceptual core for all human beings (Ye 2017).

(124) **Atoms of Natural Semantic Metalanguage** (Goddard & Wierzbicka 2013:12)

    a. **Substantives**: I-ME, SOMEONE, SOMETHING-THING, PEOPLE, BODY

    b. **Relational substantives**: KIND, PARTS

    c. **Determiners**: THIS, THE SAME, OTHER-ELSE

    d. **Quantifiers**: ONE, TWO, SOME, ALL, MUCH-MANY, LITTLE-FEW

    e. **Evaluators**: GOOD, BAD

    f. **Descriptors**: BIG, SMALL

    g. **Mental predicates**: KNOW, THINK, WANT, DON'T WANT, FEEL, SEE, HEAR

    h. **Speech**: SAY, WORDS, TRUE

    i. **Actions, events, movement, contact**: DO, HAPPEN, MOVE, TOUCH

    j. **Location, existence, possession, specification**: BE (SOMEWHERE), THERE IS, BE (SOMEONE)'S, BE (SOMEONE/SOMETHING)

    k. **Life & death**: LIVE, DIE

l. **Time**: WHEN-TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT

m. **Space**: WHERE-PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE

n. **Logical concepts**: NOT, MAYBE, CAN, BECAUSE, IF

o. **Intensifiers & augmentors**: VERY, MORE

p. **Similarity**: LIKE-WAY-AS

One level higher than these semantic atoms are a set of semantic molecules, complex concepts than can be defined in terms of the atoms but are saliently distinguishable as units in the construction of culturally variable complex ideas (Wierzbicka 2010). More concretely, Goddard (2012) exemplifies three molecules: 'bird' (used to explicate *sparrow* or *owl*), 'eat' (used to explicate 'fork' and 'plate'), and 'walk' (used to explicate 'feet' and 'ground'). This study shall give no treatment of whether and how 'bird', 'eat', and 'walk' can be defined in terms of the atoms listed in (124), as it only interested in characterising NSM just enough to contextualise the analytical emphases in explication (123).

Returning now to *kularrinda*, given that Kayardild is without 'opposite', 'sex', and 'sibling', Wierzbicka has chosen to explicate the word in terms of semantic molecules that do exist, namely 'child', 'father', 'mother', 'man', and 'woman'. What this explication sacrifices in terms of abstractness and concision, it gains in parsability and cognitive plausibility from the perspective of the native speaker. Wierzbicka cites Schneider (1984)'s claim that the descriptive and theoretical inadequacies rooted in anglo- and Eurocentric analysis of kin terms in traditional anthropology would eventually lead to the so-called 'death of kinship' studies. From her perspective, abstract restatements of *kularrinda* in terms of Kayardild-external categories—to say nothing of componential, structuralist approaches that appeal to, say, gender features—should be retired in favour of an approach that centres the 'four lexical pivots of kinship' (125a–d) and 'three mainstays of social cognition' (125e–g, Wierzbicka 2010). Universal (125) is a domain-specific application of the two principles in (126).

(125) **Wierzbicka's Universal of Kintactic Fission**

All kin terms are explicable in terms of the semantic atoms of the Natural Semantic Metalanguage listed in (124) in conjunction with the following universal (i.e., cross-translatable) semantic molecules:

 a. 'mother'

 b. 'father'

 c. 'wife'

 d. 'husband'

 e. 'man'

 f. 'woman'

 g. 'child'

(126) a. **Wierzbicka (1992:331)'s Principle of Indigenisation**: If a semantic formula (i.e., definition of a word) is to constitute a plausible hypothesis about a native speaker's meanings encoded in language A, then that formula must be translatable into language A.

   b. **Wierzbicka (1992:332)'s Principle of Translatability**: If the meanings encoded in language A (say, Pitjantjatjara) are to be made intelligible to people from a different cultural and linguistic background B (say, English), then those meanings have to be expressed in semantic formulae constructed in (simple and generally understandable) words from language B.

Certainly, Natural Semantic Metalinguists claim that the molecules in (125) are fully explicable in terms of the atoms in (124). An explication of 'child(ren)', adapted from Goddard & Wierzbicka (2013:31), is as follows:

(127) *Child*: Children are people of one kind. All people are people of this kind for a long time, [but] they can't be people of this kind for a long time. When someone is someone

is this kind, it is like this: This someone's body is small; this someone can do some things, [but] this someone can't do many other things, [and] because of this, if other people don't do good things for this someone at many times, bad things can happen to this someone.

Reductive paraphrases of semantic molecules tend towards the redundant, but Wierzbicka (2012) argues that this is more feature than bug, as concision itself as an anglocentric virtue. Putting this aside, a theory-internal desideratum of the NSM research programme is that these explications are speaker-parsable and cognitively plausible. It may not be clear to all readers that (127) is either of these—but even charitably allowing that it is both, this study rejects the anti-componential assumptions of NSM (and the anti-eticity of Wierzbicka specifically) for multiple reasons. First, it is not clear that a theoretically and empirically adequate theory of language broadly (let alone kin terms narrowly) need be speaker-parsable, especially if certain concepts or variables within the theory are precisely intended to represent speaker-unparsed (or -unparsable) elements or processes. For instance, a realisational rule of the form $\sqrt{CAT} \leftrightarrow$ /kæt/ should not be interpreted as an object that the linguistically untrained anglophone manipulates in the production of *cat*, but rather as an abstract representation of the neuromotor instructions so involved in such a production.[3] Crucially, the character, nature, and internal structure of these instructions are as distant from the anglophone's conscious awareness and expressibility as the notion of an 'opposite sex sibling' is to a Kaidilt speaker. At the farthest edge of epistemological constructivism (Kukla 2013), in the world in which linguistics is the study of how linguists model language (and not the study of how speakers model language, John Goldsmith p.c.), where speaker-parsability and cognitive plausibility fade completely from relevance, it does not follow that all linguistic theorising ceases to be useful (i.e., generative of empirically adequate generalisations and falsifiable predictions).

---

3. Strictly speaking, the rule characterises a correspondence relation between a set of neuromotor instructions and a bundle of syntacticosemantic features. The establishment and implementation of this relation is non-obvious, indeed mysterious, to the speaker.

One counterargument from the NSM perspective is that realisational rules, which are intended to model automatic or implicit processes, are different types of objects from words, the meanings of which should be fully accessible to speakers and representable in terms recognisable to them. There could be two responses to this: first, it is unclear that NSM-style explications are anything but highly defamiliarising to speakers, despite their exclusive usage of cross-translatable semantic atoms and molecules. Second, the claim that all words should be associable with a definition that consists of of maximally decomposed atoms and near-maximally decomposed molecules smacks of the self-same anglo- and Eurocentrism that emic approaches are trying to avoid. The literature abounds with cross-disciplinary characterisations of Western cultures, and often Anglo-American culture in particular, as atomistic instead of holistic (Nisbett et al. 2001), individualist instead of collectivist (Hofstede 1984), and low-context (i.e., emphasising explicit verbal communication) instead of high-context (Hall 1989). In short, NSM-based explications of kin terms falter with respect to the theory's own desiderata: their hyperreductionism renders them difficult to parse for speakers *and* reflects an inescapably Western sensibility.

It does not do merely to point out the flaws of the NSM-based approach. Two additional factors shore up the use of a realisational and componential approach. First, note that the atoms in (124) include a disproportionate selection of words that are highly likely to supplete in natural language morphology. By way of example, below are some examples of suppletion in NSM atoms in Japanese alone:

(128) **Suppletion in Natural Semantic Metalinguistic primes in Japanese**

    a. _hito_-_ri_ 'one person'   (*_ichi_-_nin_)

    b. _futa_-_ri_ 'two people'   (*_ni_-_nin_)

    c. _i_-_i_ 'good'; _yo-ku_ 'good-ADV'   (*_i_-_ku_)

    d. _i_-_i_ 'good'; _yoro-shii_ 'good.HON'   (*_o_-_i_-_i_)

    e. _shir_-_u_ 'know'; _go-zonji dearu_ 'to honourably know' (*_o_-_shir_-_i-ni naru_, cf. §3.3.1)

f. <u>mi</u>-ru 'see'; go-<u>ran</u>-ni naru 'to honourably see'   (*o-<u>mi</u>-ni naru)

g. <u>i</u>-u 'say'; <u>osshar</u>-u 'to honourably say'   (*o-<u>i</u>-i-ni naru)

h. <u>s</u>-uru 'do'; <u>nasaru</u> 'to honourably do'   (*o-<u>sh</u>-i-ni naru, cf. §3.3.2)

i. <u>i</u>-ru 'be (somewhere)'; <u>irassharu</u> 'to honourably be (somewhere)' (*o-<u>i</u>-ni naru)

j. <u>ar</u>-u 'be (someone)'s'; <u>na</u>-i 'not be (someone)'s'   (*<u>ar</u>-anai)

k. <u>deki</u>-ru 'can'   (*<u>shi</u>-rare-ru)

l. <u>go</u>-motto-mo 'HON-more-even; most, absolutely correct'   (*<u>o</u>-motto-mo)

Suppletion is observed in the following NSA primitives: quantifiers (124d & 128a,b); evaluators (124e & 128c,d); mental predicates (124g & 128e,f); speech (124h & 128g); action, events, movement, contact (124i & 128h); location, existence, possession, specification (124j & 128i,j); logical concepts (124n & 128k); and intensifiers and augmentors (124o & 128l). In the examples above, underlining has been used in order to facilitate matching of the regular and suppletive roots. Although several of these cases have already been discussed in detail in earlier chapters (e.g., [128e–i]), a few merit brief notes of explanation.

First, (128a,b) represent examples of ordinal suppletion, equivalent to English *first* and *second* (**oneth* and **twoth*), in which sets of one or two human beings have a suppletive Yamato form for the numeral, whereas sets of greater than three use the regular Sino-Japanese numerals (e.g., *san-nin* 'three people'). Note that the classifier suffix also suppletes as *-ri* for sets of one and two people, surfacing as *-nin* elsewhere. Examples (128c,d) show that 'good' suppletes in the adverbial and honorific forms (although the honorification of adjectives is given short shrift in this study, it is discussed briefly in §2.2.1). Example (128j) demonstrates negative suppletion: in the regular case, consonant-final verb stems are negated by the addition of the irrealis suffix -*a*, the negative suffix -*na*, and the nonpast tense suffix -*i*. In the case of 'be (someone)'s; exist, possess', this would yield the ungrammatical *ar-a-na-i, but the root (and the irrealis) appear as zero morphs instead: ∅-∅-*na-i*.[4] Example (128k)

---

4. In Kansai Japanese, in which negation is -*hen*, this verb is fully regular: *ar-u* 'exist-NPST'∼*ar-a-hen* 'exist-IRR-NPST'.

154

represents a case of potential suppletion: 'can' is expressed by means of attachment of the -*rare* 'POT; be able to' suffix to 'do', but the expected **shi-rare-ru* surfaces as suppletive *dekiru*. Lastly, (128k) exemplifies the exceptional co-occurence of a Yamato root *mottomo* 'most' with the *go-* variant of the honorific prefix, which normally selects for Sino-Japanese roots (similar cases are discussed in §2.2.1).

That exponents of universal semantic primitives should tend towards suppletion is unsurprising, as these tend to be high-frequency core lexical items (Bobaljik 2012:108 finds 38 examples of suppletion in a genealogically diverse sample for 'good' alone). But suppletophilic categories call for a realisational-componential morphology for two reasons: for one thing, such a morphology is able to capture the many complexities that attend the derivation of unexpected surface forms, as well as the tendency towards diachronic and interspeaker variation inherent to suppletive paradigms. For another, the very fact of morphological contiguity domains—that is, restrictions on possible patterns of suppletion that go un(der)considered by linguistically untrained speakers—means that important theoretical generalisations may be missed by approaches like NSM that prioritise meaning over form and speaker-parsability over abstraction. There is more to linguistic structure than (limits to) a speaker's understanding of that structure, especially if certain levels of structure only emerge from the consideration and analysis of inter-form, inter-speaker, and cross-genealogical dynamics.

4.2.2   Dimensions of contrast in kin terms

If kinship is a domain in which morphological contiguity is observable, kinship must be decomposable into abstract, manipulable formal features. Before such features can be proposed, kinship systems must be shown to be homologous to other systems of featural contrast, and the dimensions of contrast must be identified. This section accomplishes both, by identifying several isomorphisms between kinship and phonology, as well as a panoply of axes of contrast in kinship. It emerges from this work that kinship distinctions are of two types: grammatically active (i.e., monolexicalisable, monomorphemicisable, or targetable by agree-

ment processes) and grammatically inert (i.e., jargonistic contrasts specific to high-register discourses such as law and medicine).

Nevins (2010) observes that kinship systems and phonological systems are homologous in multiple senses:

(129)   **Kinship-phonology homologies**

   a. **Non-usage of the entire contrast space**: Certain sounds (e.g., the nasal-ingressive voiceless velar trill) are never contrastive in any natural language; certain imaginable kin distinctions (e.g., *taller brother* vs *shorter brother*) are never (mono)lexicalised.

   b. **Markedness asymmetries**: A language with phonemic voiceless nasals (e.g., Hmong) must also have phonemic voiced nasals; a language that contrasts gender for cousins (e.g., French *cousin* [M] vs *cousine* [F]) must also contrast gender for siblings (*frère* 'brother' vs *sœur* 'sister').

   c. **Tendency towards symmetric organisation**: The maximally perceptually differentiated vocalic inventory /i a u/ is commonly attested, but a heavily fronted and imbalanced /i ɪ y/ inventory would be untenable. Likewise, laterality neutralisation in the grandparental generation (e.g., English *grandfather* refers to both paternal and maternal grandfathers) is common, but a system in which *grandparynt 'paternal grandfather, maternal grandfather, or paternal grandmother' contrasts with *grandmothyr 'maternal grandmother' is unattested (Greenberg 2020:85).

Under Crossmodular Structural Parallelism (CSP), a uniform cognitive architecture underlies the homologous dynamics of contrast and neutralisation that occur within phonology and kinship. The formal study of morphological contiguity domains relies on precisely this logic: that the realisational machinery that builds representations (and relationships between representations epiphenomenally represented as paradigms) exhibits uniform restrictions on

156

the emergence of incrementally complex forms, prohibiting non-contiguous patterns of suppletion. If kin terms are constructed from the same or similar structure-building and realisational principles as comparatives and case are, then it stands to reason that *ABA effects should also be observable within kintax. Indeed, later sections demonstrate that certain long-observed impossible kinship typologies are a type of *ABA effect.

If kinship systems are homologous to phonological systems, then what features are co-occurrence restrictions and/or deletion operations targeting? One way to start identifying the featural distinctions active in kin terms is to reconsider the Wierzbickian Kintactic Universal, in which all kin terms can be restated by means of a combination of the semantic atoms in (124) and two sets of semantic molecules: the four lexical pivots of kinship, 'mother', 'father', 'wife', and 'husband'; and the three mainstays of social cognition, 'man', 'woman', and 'child'. In the NSM approach, these molecules can be decomposed into explications that contain only the primes from (124); beyond that, they are without abstract internal structure (and without relationships to one another). But in a CSP-based approach, they hint at some of the basic contrasts constitutive of kin distinctions: sex ('man' vs 'woman'), generation ('mother' and 'father' vs 'child'), laterality ('mother' vs 'father'), and sanguinity ('mother' vs 'wife').[5] *Sanguinity* refers the general contrast between *consanguineous* kin (i.e., relations by blood) and *affinal* kin (i.e., relations by marriage). A broad-spectrum view of kintactic categories follows:

(130) **Monolexicalisable distinctions in kin terms**

    a. **Sex**: *father* (male) vs *mother* (female)

    b. **Generation**: *father* (ascending) vs *son* (descending)

    c. **Laterality**: Old English *fædera* 'paternal uncle' vs *eam* 'maternal uncle' (Helmig 1992:156)

    d. **Sanguinity**: Old English *sunu* 'son' vs *snoru* 'son-in-law' (Helmig 1992:157);

---

5. Note that by Wierzbicka (2010)'s approach, these abstractions are untenable, as hundreds if not thousands of languages lack terms for 'sex' and 'sanguinity'.

this study also considers alternations such as *son* vs *stepson* to be affinal

e. **Age**: Japanese *ani* 'elder brother' vs *otōto* 'younger brother'

f. **Descent**: *grandfather* (lineal) vs *great-uncle* (collateral)

g. **Co-affinity**: Hindi *bhasura* 'brother-in-law (i.e., the brother of one's husband)' vs *bhābī* 'co-sister-in-law (i.e., the wife of the brother of one's husband)' (Iram Arefin p.c.)

h. **Affinal laterality**: Hindi *dēvara* 'one's husband's younger brother' vs *sālā* 'one's wife's younger brother'

i. **Parallel-cross** ('sex of connecting relative' to Kroeber 1909): Seneca *akyã́:ʔseːʔ* 'cross cousin (i.e., the offspring of a paternal aunt or a maternal uncle)'

j. **Address-reference**: Japanese *chichi* 'father (as a term of reference)' vs *otōsan* 'father (as a term of address)'

A distinction is *monolexicalisable* if there is at least one language in which a non-decomposing kin term makes use of the distinction. It is worthwhile to go through each of these in turn. SEX is fairly straightforward and captures the difference between minimal pairs (on the level of toy kintactic features) such as *mother* vs *father*, *brother* vs *sister*, and *nephew* vs *niece*. In these English examples, SEX refers to SEX OF REFERENT, but Kroeber (1909) notes that SEX OF SPEAKER (i.e., the sex of the person producing the utterance) and SEX OF PROPOSITUS (i.e., the sex of the person who is acting as the locus of relatedness)[6] can also be important axes of contrast, as exemplified below by Acoma, Titan, Basque, and a number of Australian languages.

(131) **Non-referent sex distinctions**

a. **Acoma** (isolate, New Mexico; Mickey 1956)

---

6. Another way of thinking about the propositus is as the person from whom a line of descent is traced. In general, a kinship term is a relational noun that functions as a two-place relation between the referent and the propositus. It is often possible to additionally represent the propositus syntactically in some way: in *his father*, the referent of *his* is the propositus, and the referent of *father* is he who begat the propositus.

      i. *sa·watc* 'brother to a speaker of either sex'

     ii. *ša²u* 'sister to a female speaker'

   iii. *sa·kuitc* 'sister to a male speaker'

b. **Titan** (Oceanic, Eastern Admiralty Islands; Mead 2002:34)

      i. *asaun* 'to a male speaker: daughter, mother's sister's son's daughter; to a female speaker: brother's daughter, younger sister, younger parallel cousin'

c. **Western & Batua Basque** (isolate, Basque Country; Karlos Arregi p.c.)

      i. *anaia* 'brother of a male propositus'

     ii. *neba* 'brother of a female propositus'

   iii. *arreba* 'sister of a male propositus'

   iv. *ahizpa* 'sister of a female propositus'

d. **Australian languages** (Wierzbicka 2016)

      i. **Yolngu** (Pama-Nyungan, Arnhem Land): *gatu* 'child of a male propositus' vs *waku* 'child of a female propositus'

     ii. **Warlpiri** (Pama-Nyungan, Northern Territory): *ngalabi* 'child of a male propositus' vs *guḍu* 'child of a female propositus'

   iii. **Nyulnyul** (Nyulnyulan, Western Australia): *wal* 'child of a male propositus' vs *bap* 'child of a female propositus'

The Acoma terms of address for siblings in (131a) contrast speaker sex for 'sister' but neutralise this distinction for 'brother'. There is one sense in which these data merely exemplify a special case of SEX OF PROPOSITUS, in which the propositus happens to be the speaker. In contrast, datum (131b) exemplifies a form that is associated with different referents depending on the sex of the speaker: namely, *asaun* to a male speaker is a daughter or the daughter of a male parallel cousin, whereas *asaun* to a female speaker is a fraternal niece, younger sister, or younger parallel cousin. In other words, male speakers use this term to promote a first cousin once removed to the level of a daughter, whereas female speakers use it

to demote younger sisters to fraternal nieces. These syncretisms between generationally distinct kin terms exemplify so-called *skewness*, on which more later in §4.3.2. (Note that as an Austronesian language, Titan exhibits some Hawaiian-type tendencies in grouping siblings with parallel cousins, also discussed later.)

Continuing, the data in (131c) show that some varieties of Basque observe a propositus sex (i.e., the sex of the person whose genealogy is being traced or called attention to in the discussion) contrast for sibling terms. Lastly, the contrast between 'child of a woman' and 'child of a man' appears to be an areal feature of Australian languages.

GENERATION is mostly straightforward, and characterises the contrast between, for instance, *cousin* (same generation) vs *uncle* (ascending generation) vs *nephew* (descending generation). Australian languages additionally contrast harmonic and disharmonic generations, discussed in further detail in §4.5.

LATERALITY (elsewhere called *descent*, *line*, *lineality*, *matri- vs patrikin*, or *agnatic vs uterine*, although some authors may use these terms to refer to distinctions othr than what is described here) characterises the contrast between, for instance, Swedish *farfar* 'paternal grandfather' and *morfar* 'maternal grandfather'. It can be thought of as a special case of *sex of connecting relative*, with the connecting relative set to a parent. More complex calculations of laterality occur in the agreement system of Lower Arrernte, discussed in further detail in §4.5.

SANGUINITY contrasts kinship by blood from kinship by marriage, allowing speakers to distinguish *sister* from *sister-in-law*. Along with sex and generation, this dimension seems to be active in one way or another in all kinship systems.

AGE relative to the propositus (e.g., Japanese *ane* 'elder sister' vs *imōto* 'younger sister') is commonly contrasted in many kinship systems. As with sex, sometimes *age relative to connecting relative* is contrasted, as in Vietnamese *bác*, 'parent's older sibling' vs *dí* 'mother's younger sister'. Vietnamese kinship is discussed in further detail in §4.3.

DESCENT (elsewhere called *lineality*, often producing extreme terminological confusion

160

with what is called LATERALITY in this study) tracks whether a kin is *lineal* (or *direct*) vs *collateral*. Lineal kin include all direct ancestors and descendants of the propositus (e.g., parents, children, grandparents, grandchildren, etc.). Collateral kin include all kin that are linked via something other than a parent-child relationship (e.g., siblings, cousins, uncles, etc.). Descent and laterality are considered together in the calculation of patrilines, which constitute a morphologically active category in some Australian languages, discussed further in §4.5.

CO-AFFINITY can be thought of as a special case of affinity, permitting the recognition of in-laws of in-laws. Kinship inventories in which co-affinity is widely and systematically monolexicalised are commonly found in Indo-Aryan languages, although Latin and English do have marginal ways of realising this distinction:

(132)   **Co-affinity in Latin & English**

    a. *Numquid   moleste   fers de illo qui se   solet   anteferre*
       is.it.possible annoyance carry for he who REFL accustomed give.preference.to
       patruo   sororis   tuae fili?
       paternal.uncle sister.GEN your son
       'Do you get annoyed with he who is given to preferring the **paternal uncle of the son of your sister**?'   (Cicero, *Epistulae ad Atticum* 6.8.3)

    b. Cicero continued however to write anxiously to Atticus, his **co-uncle**, about the young man's remarkable gifts and unsatisfactory character. (Rawson 1983:195)

Extract (132a) is from Cicero's letters to Atticus. Cicero's brother had married Atticus's sister and raised a son, Quintus. Therefore Cicero was *patruus* (paternal uncle) and Atticus was *avunculus* (maternal uncle) to Quintus. Although Quintus is related to both Cicero and Atticus by (collateral) consanguinity, Cicero and Atticus are related to each other by co-affinity. In the original text, Cicero describes his co-affinal relationship to Atticus periphrastically, as *patruo sororis tuae fili* 'the paternal uncle of your sister's son'. In the anglophone secondary literature, Cicero and Atticus are termed *co-uncles*. Interestingly, in that *co-uncle* tracks the relationship between a pair (Cicero and Atticus) with respect to

their shared relationship to a propositus (Quintus), it would seem to pattern with the trirelational dyadic kin terms found in some Australian, Amazonian, and Patagonian languages (cf. Blythe 2018), of which this study can give but the shortest shrift. The relationship between Cicero and Atticus can be expressed birelationally, of course, as *co-brothers-in-law*.

Affinal laterality represents an interaction between the sanguinity and laterality dimensions, and may also represent another special case of sex of connecting relative. This dimension creates contrasts between virile affines (i.e., in-laws through the husband) and uxorial affines (i.e., in-laws through the wife). As in the case of co-affinity, the monolexicalisation of this distinction is widespread in Indo-Aryan languages.

Parallel-cross is yet another special case of *sex of connecting relative*, and describes systems that distinguish cousins through a parent's same-sex sibling (i.e., maternal aunts and paternal uncles, or less commonly *parallel auncles*) from cousins through a parent's opposite-sex sibling (i.e., maternal uncles and paternal aunts, or less commonly *cross auncles*). Interestingly, although languages in which parallel-cross is active have terms for cross cousins, none seems to have terms for parallel cousins, which are simply grouped with siblings. This dimension is discussed in detail in §4.5.

Lastly, address-reference describes contrasts between how a propositus should talk *to* vs *about* a particular kin. In some American households, children may address their begetter with *Pop*, *Dad*, or *Papa*, whereas *father* remains a term of reference, perhaps reserved for more formal contexts.

It should be clear at this point that some of these dimensions are more elemental than others. Sex, generation, and sanguinity seem to be the foundational dimensions on which other dimensions are built and/or analogised. In particular, laterality and parallel-cross are related to sex; descent and age are related to generation, and co-affinity is related to sanguinity. Affinal laterality represents an interaction between sex and sanguinity. (For completeness's sake, address-reference does not track distinctions between kin but rather distinctions between registers and/or discourse contexts.)

162

Recall from §3.3.2 that there does not seem to be suppletion in antihonorifics (although Japanese does contrast a regular antihonorific in -*yagaru*). This is argued to be analogous to Bobaljik (2005:214)'s Lesslessness, a generalisation that states that synthetic comparatives of inferiority do not exist, proposed to result from a constraint on the monomorphemicisation of too complex a category. Analogously, this study proposes that there are at least three additional *expressible but not monolexicalisable* kin distinctions.

(133) **Hypothetically non-monolexicalisable distinctions in kin terms**

    a. **Degree & removal**: *(first) cousin* (i.e., the child of an uncle or an aunt) vs *first cousin once removed* (i.e., the child of a first cousin *or* the first cousin of a parent)

    b. **Degree**: *first-degree* vs *second-degree relatives*

    c. **Gradient consanguinity**: *brother* vs *half-brother*

    d. **Laterality of gradient consanguinity**: *agnatic brother* (i.e., a half-brother through one's father) vs *uterine brother* (i.e., a half-brother through one's mother)

Distinctions (133a–d) are all broadly related and rely on a shared notion of incremental genetic similarity. In order to define *degree*, *removal*, and *gradient consanguinity*, it is necessary to explicitly define cousinhood. A consanguineous pair consist of *cousins* if 1) neither are ancestors of the other, 2) neither are siblings, *and* 3) neither are in an auncle-nibling relationship. In more formal terms, cousins comprise all non-fraternal (and -sororal), non-avuncular (and -materteral) collateral kin. English cousin terms are notoriously complex, and track *degree* (a special case of GENERATION, expressing extent of separation from the shared ancestor of the cousins) and *removal* (likewise a special case of GENERATION, expressing the extent of separation between the cousins themselves). Two *cousins*, *first cousins*, or *cousins germans* (< Fr. *germaine* 'having the same parents' < Lat. *germānus* 'of siblings; full') share the same grandparents (i.e., two degrees of separation from the common ancestor and zero degrees of removal). For a pair (*j, k*) of *first cousins once removed*, the grandparents of one

are the great-grandparents of the other (i.e., two degrees of separation between cousin$_j$ and the common ancestor and one degree of separation between cousin$_j$ and cousin$_k$). Note that *first cousin once removed* is ambiguous can be further disambiguated as *cousin-nibling* (i.e., a first cousin's child) or *cousin-auncle* (i.e., a parent's first cousin).[7] Two points are of note here: first, this system is trirelational in nature (in that the relatedness of two people is calculated with respect to a third); and second, the system is highly formal, stilted, and rarely perfectly acquired by linguistically, anthropologically, or genealogically untrained speakers in the contemporary era. It is not expected that fine-grained distinctions of degree and removal, likely emerging in legalistic or religious contexts in order to manage inheritance and incest prohibitions, should tend towards monolexical- or monomorphemicisation.[8]

A second and overlapping conception of degree appears in (133b) and is widely used in legal and medical contexts, as evidenced below by this excerpt from the Genetic Information Nondiscrimination Act of 2008.

(134)   **Electronic Code of Federal Regulations, Title 29, §1635.3**

    a. First-degree relatives include an individual's parents, siblings, and children (50% shared DNA on average).

    b. Second-degree relatives include an individual's grandparents, grandchildren, uncles, aunts, nephews, nieces, and half-siblings (25% shared DNA on average).

    c. Third-degree relatives include an individual's great-grandparents, great-grandchildren, great-uncles/aunts, and first cousins (12.5% shared DNA on average).

    d. Fourth-degree relatives include an individual's great-great-grandparents, great-great-grandchildren, and first cousins once removed (i.e., the children of the individual's first cousins; 6.25% shared DNA on average).

---

7. Sensitivity to gradient consanguinity seems to co-occur with ambiguity: *half-sibling-in-law* can mean either 'the half-sibling of one's spouse' or 'the spouse of one's half-sibling'.

8. For a typical context in which removal is relevant, consider such sentences as, *All the relatives, down to several-times-removed cousins appeared at Frank's home for the funeral and the reading of the will* (Bossard & Boll 1946).

The non-monolexicalisable notion of *first-degree relative* is much more complex than these definitions would let on, especially in genetic counselling contexts. Given that degree in this sense is *degree of consanguinity*, the spouse or adopted parent of a propositus would *not* be a first-degree relative (i.e., *first-degree* is not the same as *nuclear*), whereas an aunt of the propositus would be a first-degree relative if the aunt is an identical twin to the mother of the propositus. When two sets of siblings marry one another, their offspring are *double first cousins*[9] and second-degree relatives, not third.

The upshot is that both notions of degree are highly technical (*technicist* in Wierzbickian terms) and unlikely to be grammatically active in any language—where grammatical activity is understood to refer to monolexicalisability, monomorphemicisability, or accessibility to agreement probes. In general, processes that 'count' in certain ways tend towards non-grammaticalisability: there are no phonological rules that target, say, every third segment in a word and changes its voicing specification, for instance. The fine-grained counting of generations in cousin formulae and the heritability estimates of degree contrasts may be similarly extragrammatical.

Recall that Wierzbicka deems illegitimate any semantic formula (read *translation* or *definition*) of a non-English kin term using anglo- or Eurocentric concepts such as 'opposite', 'sex', or 'sibling'. This barely scratches the surface of her argument, which also rejects "artificial terms such as *consanguineal, cross-sibling*, or *parent-in-law* as genuine English words" (Wierzbicka 1992:332). That is, technicist and overgeneralised kin categories in English also fail to emically represent English kin terms. Although her twin principles of indigenisation and translatability in (126) may be too strong if applied across the board, it *does* seem clear that *removal* is a dimension that is quite different from DESCENT (i.e., descent can be monomorphemicised as English *grand-*, but removal can only be expressed as complex, high-register, and low-frequency periphrases). There appears to be *gradiences of technicism*:[10]

---

9. Complex kin ties such as this one or *bruncle* 'a simultaneous brother and uncle' are left to future work.

10. Wierzbicka herself hints at the possibility of gradiences of technicism in her differential treatment from *parent, sibling*, and *child* vs *matrikin, generation*, and *sex*. The former three are anglocentric (i.e., reflective

the parallel-cross distinction is understood to be grammaticalisable, as morphological processes that target 'parallel cousins' exist (i.e., in Seneca, they are turned into siblings). But something like removal is never monomorphemicised, monolexicalised, or targeted for featural modification and agreeement. Therefore parallelness—or more specifically, the feature bundles that constitute parallelness—is a grammatically active category that is worth considering in formal analysis of kin terms, whereas removal may be a technicist generalisation of a grammatically inert category. This is discussed in further detail in §4.4.1.

Note that the classification of certain applications of degree as extragrammatical puts this study at odds with Jones (2010)'s componentialisation of kinship, in which a highly complex and counting-based approach to degree—which he calls DISTANCE—is central:

(135) **Jones (2010:372)'s conception of distance**: A distance function for consanguineal kin types can be defined as follows: Let a consanguineal chain consist of (1) any number of parent types, followed by (2) at most one sibling type, followed by (3) any number of child types. Formulas fitting this format include Younger Brother, Father's Daughter, Mother's Sister, and Older Mother's Mother's Brother's Son's Son. Count as one link each of the following: Parent, Sibling, and Child, except that Parent's Child, if present, counts as one link not two. Then Older Brother and Father's Daughter are one link from Ego, Mother's Sister two links, and Older Mother's Mother's Brother's Son's Son five links.

Indigenisation and translatability aside, any grammatical function that counts up to five or more is suspect, if only for reasons of cognitive plausibility (cf. Hiraiwa 2017 on the manner in which the grammaticalisation of number relies on a core system of precise representation of distinct small numbers, in which cardinalities of greater than 3 do not find easy expression). Jones's conception would appear to fall under the banner of a technicist generalisation:

---

of the conceptual structure of a specific speech community), whereas the latter three are metaterms with a "dubious claim to conceptual reality" (i.e., reflective of the conceptual structure of possibly no one in particular, 2010:403).

an empirically adequate description of the facts, but one that fails to apprehend the underlying representations, be this in terms of morphosyntactic features or indigenised semantic formulae.

4.3 Deriving kintactic universals via underspecification & Impoverishment

This section has two principal goals. First, it reformulates Greenberg (2020)'s universals of kinship morphology as consequences of underspecification or Impoverishment-derived metasyncretisms (Harley 2008b). Crucially, it suggests that metasyncretisms are not merely syncretisms across paradigms, but also syncretisms across a genealogically diverse sample of languages. Second, it defines Morgan (1871)'s hexapartite typology of kinship (i.e., Hawaiian, Sudanese, Inuit, Iroquois, Crow, and Omaha) and demonstrates how these differences are reducible to microvariation in the inventory of Impoverishment rules. Lastly, it characterises a heretofore uncharacterised impossible typology of kinship: a true three-way contrast between sibling, parallel cousin, and cross cousin (a form of *ABC).

4.3.1 Greenberg's kintactic universals

Although he is better known for his work on language universals more broadly (Greenberg 1963), Greenberg has made an excellent compilation of a number of universals in the kintactic domain. In the empirical generalisations below, markedness here refers both to the likelihood of being represented by overt morphology, as well as a relative paucity of morphological distinctions relative to the less marked category (Greenberg 2020:74). Where possible, terminology has been modernised and harmonised with what has appeared in this study.

(136) **Greenberg (2020)'s Universals of Kintactic Grammar**

    a. All languages distinguish 'father' and 'mother' (2020:74).

    b. All languages contrast generation, sanguinity, and sex (2020:87).

c. No language contrasts sex in cousin terms without also contrasting it in sibling terms (2020:72).

d. No language contrasts sex in younger siblings without also contrasting it in elder siblings (2020:75, cf. Malay *abang* 'elder brother' & *kakak* 'elder sister' vs *adik* 'younger sibling').

e. No language contrasts sex in grandprogenial terms without also contrasting it in grandprogenitorial terms (2020:82).

f. Collateral kin are more likely to be marked than lineal kin (cf. Old English *fæder* 'father' vs *fæder-a* 'paternal uncle' or Latin *pater* 'father' vs *patr-uus* 'paternal uncle').

g. Affinal kin are more likely to be marked than consanguineous kin (*brother-in-law* vs *brother*).

h. More remote generations are always more marked than less remote generations (2020:72, *father* vs *great-great-great-grandfather*;[11] Venda *makuhlu* 'second ascending generation kin' is neutralised with respect to sex [i.e., can be male or female] as well as descent [i.e., can be lineal or collateral] vs the first ascending generation terms *khotsi* 'father' and *mme* 'mother').

i. No language groups 'father' and 'maternal uncle' together under one term that contrasts with a separate term for 'paternal uncle' (2020:84).

Promisingly, several of these are consistent with claims made in this study. First, Greenberg agrees with Wierzbicka that 'father' and 'mother' (respectively equivalent to 'begetter' and 'birth-giver', in Wierzbicka 2016:412's formulation) are the only universal contrasts. Second, Greenberg agrees with this study that GENERATION, SANGUINITY, and SEX have a special status—he observes that they are found in all systems. This study goes further by proposing that more complex dimensions (e.g., LATERALITY, PARALLEL-CROSS, DESCENT,

---

11. Note that English does contrast the archaic *be-saiel* 'great-grandfather', *tre-sayle* 'great-great-grandfather', and *quatrayle* 'great-great-great-grandfather'.

AGE, CO-AFFINITY, AFFINAL LATERALITY, etc.) constitute special cases or interactions of these core dimensions.

This section argues that implicational universals such as (136c–h) can be restated in terms of metasyncretism-producing Impoverishment (i.e., feature-deleting) rules. For instance, consider (136c), in which a sex contrast for cousins implies one for siblings. Representative data from English and Latin follow:

(137) **Sex & cousinhood**

    a. **English**

        i. *brother*, *sister*

        ii. *cousin* (M or F)

    b. **Latin**

        i. *frater* 'brother', *soror* 'sister'

        ii. *patruelis* 'father's brother's child (M or F)'

        iii. *amitin-us/-a* 'father's sister's son/daughter'

        iv. *consobrin-us/-a* 'mother's brother's son/daughter'

        v. *matruelis* 'mother's sister's child (M or F)'

It is possible to propose the following toy features to account for these contrasts:

(138) **Sex, descent, & laterality features**

    a. Gender:[±feminine]: If +, referent is female; if −, referent is male.

    b. GenderofLink:[±feminine]: If +, linking relative is female; if −, linking relative is male.

    c. Laterality:[±feminine, ±masculine]: if ++, referent is related both patri- and matrilaterally; If −+ or −+, referent is related either patri- or matrilaterally. (*−− is a logical impossibility, as a kin must be either from at least one side.)

    d. [±lineal]: If +, referent is lineal; if −, referent is collateral.

e. $[\mathbb{G} : ... -2, -1, 0, 1, 2, ...]$: If -2, referent is in the second descending (i.e., grand-progenitorial) generation relative to the propositus, etc.[12]

Observe that the same gender features are active at three different dimensions of contrast (perhaps at three different projections in a feature geometry, cf. Harley & Ritter 2002). This is argued to be more parsimonious than an account that includes an additional [±patrilateral] feature, for instance. Although it may appear at first glance that this feature system is highly redundant, it can be demonstrated that all of these dimensions, if not more, are necessary to generate the full range of contrasts in the crosslinguistic grammatical encoding of kinship. To see why this is so, consider the feature bundles associated with the Vocabulary entries below for sibling terms in English:

(139) **Sibling terms in English**

a. $\begin{bmatrix} \text{Gender:}-\text{feminine} \\ \text{Laterality:}+\text{feminine,}+\text{masculine} \\ -\text{lineal} \\ \mathbb{G} : 0 \end{bmatrix} \leftrightarrow \text{b.ɹʌðɹ̩}$

b. $\begin{bmatrix} \text{Gender:}+\text{feminine} \\ \text{Laterality:}+\text{feminine,}+\text{masculine} \\ -\text{lineal} \\ \mathbb{G} : 0 \end{bmatrix} \leftrightarrow \text{sɪstɹ̩}$

English sibling terms (i.e., *brother* and *sister*) describe a sex-distinguishing bilateral collateral kin in the same generation as the propositus. For *brother*, sex of referent is expressed by [Gender:−feminine]. There is no value for the GenderofLink dimension, because in the

---

12. This study is not committed to the idea that generation is computed or represented in this way. Generational contrasts could be handled by some sort of iterating binary function (i.e., great-grandparents have three iterations of something like [+ascending] or [+lineal]). In systems such as Harbour (2014)'s, in which sets of identical features resolve to a single valuation (e.g., [+ascending, +ascending] would resolve to an [+ascending] bundle appropriate to parental terms, not grandparental terms), this would be unworkable. How best to implement generational contrasts is a significant concern left to future work.

case of siblings, the referent *is* the linking relative. (Nothing seems to turn on whether Gen-derofLink is redundantly included or parsimoniously excluded at this stage of the analysis.) In the case of full siblings, Laterality is specified for both [+feminine,+masculine], because both parents are shared with the propositus.[13] Contrast this with the feature bundle associated with *cousin*, a sex-nondistinguishing monolateral collateral kin in the same generation as the propositus.

$$(140) \quad \begin{bmatrix} \text{Laterality}{:}\pm\text{feminine},\mp\text{masculine} \\ -\text{lineal} \\ \mathbb{G} : 0 \end{bmatrix} \leftrightarrow \text{kʌzn̩}$$

The notation above means that a cousin is by definition an isogenerational kin that is either patrilateral ([Laterality:−feminine,+masculine]) or matrilateral ([Laterality:+feminine, −masculine]). GenderofLink is not an active dimension, as English is an Inuit-type system and does not recognise the parallel-cross contrast. One might counter that defining cousin-hood in terms of isogenerationality, collaterality, and monolaterality—i.e., a non-descendant, non-ancestor, and non-sibling—fails to capture the English speaker's intuition that a *cousin* is a 'parent's sibling's child'. One response to this criticism is that such an appeal to psychological plausibility seems more appropriate to an NSM-based approach, which has been explicitly rejected here. Another response is that this particular set of cousin features permits natural treatments of cousin promotions and demotions in Omaha- and Crow-type languages, on which more later in §4.3.2. In any case, underspecification is preferred over Impoverishment to capture the sex neutralisation in *cousin* for two reasons. First, this theoretical choice emphasises that the absence of sex contrasts in *cousin* is an incidental fact about English. Second, it acknowledges that gender features could still be syntactically active in some way at the terminal at which *cousin* is realised, in order to derive coreference:

(141)   My cousin$_i$ drove her$_i$ new car to Austin.

---

13. The use of *brother* to refer to half-brothers or stepbrothers in some families can be straightforwardly handled by referral, in which minus values for Laterality are replaced with plus values. Referral is further described and exemplified in the analysis of skewness in §4.3.2.

In order to see why GenderofLink is needed in addition to Laterality, it is necessary to consider the behaviour of a more complex system, such as Latin.

(142) **Cousin terms in Latin**

    a. 'father's brother's child; patrilateral parallel cousin'

$$\begin{bmatrix} \text{GenderofLink:}-\text{feminine} \\ \text{Laterality:}-\text{feminine,}+\text{masculine} \\ -\text{lineal} \\ \mathbb{G}:0 \end{bmatrix} \leftrightarrow \textit{patruelis}$$

    b. 'mother's sister's child; matrilateral parallel cousin'

$$\begin{bmatrix} \text{GenderofLink:}+\text{feminine} \\ \text{Laterality:}+\text{feminine,}-\text{masculine} \\ -\text{lineal} \\ \mathbb{G}:0 \end{bmatrix} \leftrightarrow \textit{matruelis}$$

    c. 'father's sister's child; patrilateral cross cousin'

$$\begin{bmatrix} \text{GenderofLink:}+\text{feminine} \\ \text{Laterality:}-\text{feminine,}+\text{masculine} \\ -\text{lineal} \\ \mathbb{G}:0 \end{bmatrix} \leftrightarrow \textit{amitin}$$

    d. [Gender:$-$feminine] $\leftrightarrow us$[14]

    e. [Gender:$+$feminine] $\leftrightarrow a$

In the Sudanese-type Latin data, the Gender dimension is necessary to expone sex of referent (e.g., *amitin-us* 'male patrilateral cross cousin'). The GenderofLink dimension is necessary expone the sex of the linking relative: a *patruelis* 'patrilateral parallel cousin' is related through a *patruus* 'paternal uncle', whose sex is male. In contrast, an *amitinus* is related through an *amita* 'paternal aunt', whose sex is female. Both *patruus* and *amita* are patrilateral, and therefore specified for [Laterality:$-$feminine,$+$masculine]. Given the

---

14. These bundles abstract away from case, number, and declension features.

independence of sex of referent, sex of the linking relative, and laterality (i.e., sex of the linking relative in which the linking relative is a parent to the propositus), it becomes clear that all three dimensions are necessary. That Laterality is a special case of GenderofLink is likewise further evidence that these gender features are likely somehow related in ways more complex than what these unstructured attribute value matrices may suggest.

As in the case of English, underspecification is preferable here, as forms like *patruelis* 'patrilateral parallel cousin' can still control gender agreement:

(143)   **Syntactic activity of gender features on *patruelis***

  a. *patruelis suus* (=M.SG) 'his male patrilateral parallel cousin' (Suetonius' *Domitianus*)

  b. *patruelis nulla* (=F.SG) 'no female patrilateral parallel cousin' (Persius' *Satires*)

In general, underspecification is preferred for cases in which a language incidentally fails to contrast a certain distinction, such as the absence of gender contrasts in English *cousin*.[15] Impoverishment is preferred in cases in which a contrast is systematically neutralised, but the features relevant to the contrast still manifest syntactic activity observable in agreement. A neutralisation is systematic if it targets marked configurations and/or (but usually and) is widely attested in crosslinguistic perspective. For an example of such a neutralisation, consider these data from Hanunoo, which exemplify universal (136h), in which more remote generations are more marked (i.e., contrast fewer distinctions) than less remote generations.

(144)   **Hanunoo: Generation-tracked progressive neutralisation** (Greenberg 2020:74–5)

---

15. Certainly, it is possible to describe the sex neutralisation in English *cousin* in terms of an Impoverishment rule that deletes Gender in the context of [Laterality:±feminine,∓masculine, −lineal, $\mathbb{G} : 0$]. This de-emphasises the neutralisation as an incidental fact about the morphology of English, and emphasises that the neutralisation of sex in cousin terms is a fact about Language broadly, perhaps as a consequence of Universal (136c). In other words, the presence of gender features on isogenerational collateral kin is a marked configuration that is repaired prior to insertion. But under approaches in which metasyncretic features are syntactically inactive (cf. Harley 2008b:293), more would have to be said about the licensing of such sentences as (141).

a. [$\mathbb{G} : +1$]: *qāmaq* 'father', *bāpaq* 'uncle', *qīnaq* 'mother', *bāyih* 'aunt'

b. [$\mathbb{G} : +2$]: *lakih* 'grandfather, great-uncle', *qiduh* 'grandmother, great-aunt'

c. [$\mathbb{G} : +3$]: *qumput* 'great-grandparent, great-great-auncle'

These data are remarkable in their systematicity. In the parental generation ($\mathbb{G} : +1$), kin terms contrast sex (e.g., male 'father' vs female 'mother') as well as descent (e.g., lineal 'father' vs collateral 'uncle'). In the grandparental generation ($\mathbb{G} : +2$), kin terms neutralise descent and contrast only sex (e.g., *lakih* 'second ascending generation male kin' vs *qiduh* 'second ascending generation female kin'). Finally, in the great-grandparental generation ($\mathbb{G} : +3$), sex is neutralised as well, leaving only a single generation-expressing term (i.e., *qumput* 'third ascending generation kin'). This can be represented in terms of the following Impoverishment rules:

(145)   **Hanunoo metasyncretism: Generation-triggered progressive neutralisation**

a. *Neutralisation of descent for grandparental terms*

i. Structural description: A kin term specified as [Gender:±f, ±lineal, $\mathbb{G} : +2$].

ii. Structural change: Delete [±lineal].

b. *Neutralisation of descent & sex for great-grandparental terms*

i. Structural description: A kin term specified as [Gender:±f, ±lineal, $\mathbb{G} : +3$].

ii. Structural change: Delete Gender.

These rules apply in concert: *qumput* is both gender- and descent-neutral because both (145) have applied. There is a separate question here, left to future work, about whether the rules in (145) apply postsyntactically or presyntactically. Given the theoretical apparatus assumed in (6), and the standard understanding of Impoverishment more broadly, this study assumes that markedness-driven feature modification operations apply postsyntactically, but in an agreement-poor language in which the features targeted for modification are not syntactically visible, more must be done to determine modular ordering. Similarly, given

174

Person	Singular			Plural		
	M	F	N	M	F	N
1	*I*			*we*		
	me			*us*		
	my			*our*		
2	*you*					
	you					
	your					
3	*he*	*she*	*it*	*they*		
	him	*her*	*it*	*them*		
	his	*her*	*its*	*their*		

Table 4.1: Metasyncretism in English pronouns (adapted from Harley 2008b:274–5)

that Hanunoo does not exhibit gender agreement, let alone descent agreement, the choice between underspecification and Impoverishment rests solely on whether a neutralisation can be said to be metasyncretic—in other words, a syncretism across paradigms, as exemplified in Table 4.1 supra for English pronouns, in which the paradigmatic shapes of the nominative, accusative, and genitive are identical, even if their morphosyntactic specifications and phonological exponents are distinct.

Although the progressive neutralisation in Hanunoo is not observable across *paradigms*, it is indeed observable across genealogically distinct *languages*, as shown below with data from Iñupiaq (Inuit–Yupik–Unangan, Alaska), which perfectly match the system of progressive neutralisation observed in Hanunoo. Note that these forms have an even wider semantic range than the Hanunoo data, in that, for instance, *amaulua* can even apply to the cousin of a great-grandparent (i.e., a first cousin twice removed to the propositus). Given that Hanunoo is a Hawaiian-type language in which classificatory kinship (i.e., high levels of syncretism) is pervasive, it is likely that this is true of Hanunoo as well, but since Greenberg makes no mention of this, verification of this hypothesis is left to future work. In any case, the upshot is that crosslinguistic attestation may indeed be a criterion for classification of a neutralisation as a metasyncretism, and metasyncretisms are better handled with Impoverishment than with underspecification.

(146) **Generation-tracked progressive neutralisation in Northwestern Alaskan Iñupiaq** (Heinrich 1960:114–6)

    a. [$\mathbb{G}:+1$]: *aapaŋa* 'father', *aqaŋa* 'uncle', *aakaŋa* 'mother', *atcaŋa* 'aunt'

    b. [$\mathbb{G}:+2$]: *ataaŋa* 'grandfather, great-uncle', *aanaŋa* 'grandmother, great-aunt'

    c. [$\mathbb{G}:+3$]: *amaulua* 'great-grandparent, great-great-auncle'

In this subsection, four crosslinguistically widespread kintactic metasyncretisms have been analysed in terms of underspecification (the non-association of Vocabulary items to be every single feature appropriate to the syntactic terminal they realise) and Impoverishment (a feature-deleting operation triggered by certain marked configurations). In particular, sex neutralisation in English *cousin* and Latin patrilateral parallel cousin terms are handled by means of underspecification, whereas sex and descent neutralisation in Hanunoo and Northwestern Alaskan Iñupiaq ascending generation kin terms (triggered by the marked configuration [Gender:$\pm$f, $\pm$lineal, $\mathbb{G} > 2$]) manifest metasyncretisms—systematic syncretisms observable across paradigms within a single language or across multiple genealogically distinct languages—that are handled by means of Impoverishment.

4.3.2 Morgan's hexapartite typology of kinship systems

This subsection extends the Impoverishment-based approach to handling Greenbergian metasyncretisms to Morgan (1871)'s typology of kinship systems, which can be best thought of as systematic patterns of kintactic metasyncretisms that recur across genealogically distinct languages. Summarised in Table 4.2, Morgan's typology has stood the test of time and remains widely taught and cited: cf. Vivelo (1978), Kottak (2015), Nanda & Warms (2019) for representative treatments in textbooks, and Jones (2003), Dupanović (2010), Read (2013), Fortes (2017), *inter infinita alia* for examples of current research that make reference to or expand on the typology. This section begins by explicating the system before demonstrating that Hawaiian- and Iroquois-type patterns can be described in terms of Impoverishment

Traditional	Modern	Representative Syncretisms	Pattern
Hawaiian	Generational	mother = maternal aunt = paternal aunt	AAA
Inuit	Collateral merging	mother ≠ maternal aunt = paternal aunt	ABB
Sudanese	Bifurcate collateral	mother ≠ maternal aunt ≠ paternal aunt	ABC
Iroquois	Bifurcate merging	mother = maternal aunt ≠ paternal aunt	AAB
Crow	Patrilineal bifurcate merging	mother = maternal aunt ≠ paternal aunt maternal aunt's children raised 1 generation	
Omaha	Matrilineal bifurcate merging	mother = maternal aunt ≠ paternal aunt paternal aunt's children raised 1 generation	
*	*	mother = paternal aunt ≠ maternal aunt	*ABA

Table 4.2: Exemplification of Morgan's typology in terms of ascending generation female kin

rules targeting descent and sex features respectively; that less syncretic Sudanese- and Inuit-type patterns are best described in terms of underspecification; that Crow- and Omaha-type patterns require referral (i.e., feature modification).

It is worthwhile to include a terminological note. By and large, this study prefers Morgan's traditional usage (i.e., Hawaiian, Inuit, Sudanese, Iroquois, Crow, and Omaha), but more recent work on kinship tends to prefer Lowie (1928)'s more opaque usage (i.e., generational, collateral merging, bifurcate collateral). Recall from §4.2.2 that a propositus's lineal kin include all her direct ancestors and descendants (e.g., her parents, children, grandparents, grandchildren, etc.). Her collateral kin include all non-lineal blood relations (e.g., her siblings, cousins, auncles, niblings, etc.). A system that does not recognise the lineal-collateral contrast is *generational*, whereas one that does is *lineal* or *collateral merging* (because the two different types of collateral kin, patrilateral and matrilateral, are not contrasted).

By definition, collateral kin are separated from the propositus by one or more linking relatives, who may be male or female (i.e., bifurcated by sex). *Bifurcate merging* describes systems in which the linking relative is syncretic with the bifurcator. (There are no languages in which syncretism only obtains when the linking relative and the bifurcator are of different sexes.) Lastly, *bifurcate collateral* describes systems in which no merging occurs (i.e., kin are specified for generation, descent, and sex).

For constraints of time and space, this study does not seek to summarise centuries of anthropological and linguistic work on Morgan's extremely complex, rich, and contested

typology. Rather, it intends to characterise it in sufficient enough detail to demonstrate that kinship terminology constitute a morphological contiguity domain. One way of going about this would be to imagine what an absolutely minimalist system of kintactic contrasts would look like, and then slowly adding in further and further contrasts to approach a maximalist system.

Certainly, the simplest system would be a Schmittian (2008) absurdity in which only two terms exist, one meaning 'kin' and the other meaning 'non-kin'. The first would apply to all persons related to the propositus (i.e., the locus from which 'relatedness' is being calculated), and the second would apply to everyone else. Human social organisation in cross-cultural perspective is certainly too complex for any natural language to have such a broad-spectrum contrast, but consideration of this absurd system allows the determination of which features are necessary to posit for a complete picture of morphokintax.

A binary kin/non-kin contrast cannot distinguish between the propositus's mother vs father (sex), father vs son (generation), older vs younger sibling (age), paternal uncle vs maternal uncle (laterality), cousin vs sibling (descent), brother vs brother-in-law (sanguinity), etc. Particular languages may have even more specific contrasts, to be exemplified and discussed further in §4.5, but these six major axes suffice to justify the existence of formal kintactic features. Languages differ in the extent to which they overtly contrast these distinctions, and although the Schmittian minimalism of kin vs non-kin does not exist, so-called Hawaiian-type systems are by far amongst the least contrastive.

(147)   **Hawaiian kin terms for a male propositus**

      a. *makua-kāne* 'father, uncle'

      b. *makua-hine* 'mother, aunt'

      c. *kaikua-'ana* 'brother, male cousin'

      d. *kaikua-hine* 'sister, female cousin'

      e. *keiki-kāne* 'son, nephew'

f. *kaika-mahine* 'daughter, niece'

These terms appear to be compositional, containing -*kāne* 'man, male' and -*(wa)hine* 'woman, female'. This means that strictly speaking, the morpheme *makua* only means 'kin of the parental generation'. Likewise, *keiki* (and its allomorph *kaika*) only means 'kin of the child generation'—it can also refer to 'child' in general. Extrapolating, *kaikua* means 'kin of the same generation of the propositus', and -*'ana* means 'of the same sex of the propositus' (if the propositus were female, *kaikua'ana* would mean 'sister, female cousin'). Crucially, only generationality is monomorphemicised, sex distinctions are expressed suffixally, and finer distinctions (e.g., age, laterality, descent, etc.) not at all. Although synchronic Hawaiian is reported to observe an iconic age contrast between *kaikua'ana* 'elder brother or male cousin of a male propositus' and *kaikana* 'younger brother or male cousin of a male propositus' (iconic because the term for the younger kin is merely a truncation of the term for the older kin), this is believed to be a recent development, and *kaikua'ana* is historically age-neutral.

Morgan describes Hawaiian-type systems as broadly *classificatory*, in that several diverse types of relationships (e.g., motherhood, fatherhood, unclehood, aunthood) are grouped under one classification. From a morphokintactic perspective, classificatory systems can be described as exhibiting large, systematic absolute syncretisms. There appear to be limits on what types of absolute syncretisms are possible. An additional impossibly minimalist kinship system is one in which sex distinctions are maintained, but generation distinctions are not: such a language might have a word that means 'mother, sister, or daughter' and another that means 'father, brother, or son'. This speaks to an understandable, even obvious, primacy of the generation feature in kinship systems, which is something to keep in mind if ever hierarchies or geometries of kintactic features were ever to be proposed. For the purposes of simplicity, Hawaiian kinship can be proposed to result from the generation-triggered deletion of descent features:

(148)   **Generation-triggered Impoverishment of descent in Hawaiian**

a. Structural description: A kin term specified as [±lineal, $\mathbb{G} : n$].

b. Structural change: Delete [±lineal].

Contrasting with classificatory (i.e., highly syncretic) systems, in which many relationships are grouped together in one term, are descriptive (i.e., minimally syncretic) systems, in which a single term describes only one or very few specific relationships. Vietnamese is a particularly stark example of so-called Sudanese-type kinship.

(149) **Vietnamese kinship terms**

    a. *ba* 'father'

    b. *mẹ* 'mother'

    c. *bác* 'parent's older sibling; parent's older sibling's spouse'

    d. *chú* 'father's younger brother'

    e. *thím* 'father's younger brother's wife'

    f. *cô* 'father's younger sister'

    g. *dượng* 'parent's younger sister's husband'

    h. *dì* 'mother's younger sister'

    i. *cậu* 'mother's younger brother'

    j. *mợ* 'mother's younger brother's wife'

    k. *anh* 'elder brother'

    l. *chị* 'elder sister'

    m. *em* 'younger sibling'

    n. *cháu* 'nibling'

    o. *con* 'child'

These data come from the author's own variety of Vietnamese: given that my matrilateral kin are Northerners, whereas my patrilateral kin are Southerners, this particular combination of terms is nonstandard, and more or less granular systems exist (for a componential analysis of the normative system, refer to Luong 1984). This complication aside, it is clear

that multiple axes of kintactic contrast are being monomorphemicised here: a term like *mợ* communicates information about sex (female), generation (first ascending generation), laterality (matrilateral), descent (collateral; i.e., cannot be described in terms of vertical progression up and down a line of descent), sanguinity (affinal), and relative age to parent of the propositus (younger). As in the case of Hawaiian, *trai* 'male' and *gái* can be added to the sex-neutral terms, yielding composite terms such as *bác gái* 'parent's older sister; parent's older sibling's wife' and *em trai* 'younger brother'. Although there are a few syncretisms here and there—*bác* 'parent's older sibling; parent's older sibling's spouse' neutralises laterality, descent, sanguinity, and sex, expressing only generation and higher relative age to the parent of the propositus—the system as a whole recognises many more distinctions and monomorphemicises much richer feature bundles than do Hawaiian-type systems. As before, the possible neutralisations and/or absolute syncretisms are systematic: *dượng* is insensitive to laterality and can refer to the husband of the younger sister to either parent; *cháu* is insensitive to sex, laterality, and relative age and can refer to a nibling (i.e., a niece or nephew) born to either paternal or maternal aunts or uncles, who can be either older or younger than the connecting parent. But it would be bizarre for there to be syncretisms of terms whose feature bundles conflict too strongly, such as a word that means both 'mother's younger sister's husband' *and* 'father's elder brother'.

Latin is another Sudanese-type language, but one in which *nepos* is both 'grandson' and 'nephew' (i.e., sex is still distinguished, but descent is neutralised). The contrasting behaviour of Latin *nepos* and Vietnamese *cháu* forces a re-examination of Morgan's typology. First, one could state that Latin and Vietnamese simply fail to exemplify Sudanese-type kinship, because they have a limited number of syncretisms. Alternatively, one could conceive of the Sudanese type as an ideal to which Vietnamese and Latin tend more closely than does Hawaiian. The incidental, language-particular syncretisms in these languages at the level of second-degree kin should be treated in terms of underspecification (e.g., Vietnamese *cháu* realises [−lineal, $\mathbb{G} : −1$], whereas Latin *nepos* realises [Gender:+masculine, −lineal, $\mathbb{G} :< 0$])

instead of metasyncretism-producing Impoverishment rules. In general, only syncretisms across paradigms (e.g., number and gender in English pronouns as in Table 4.1) or across genealogically diverse languages (e.g., Morgan's typology as depicted in Table 4.2) should be dealt with in terms of feature deletion. Put otherwise, it is a fact about natural language kintax writ large that only certain kinds of syncretisms between mothers and aunts; it is a fact about Vietnamese individually that it does not observe sex contrasts in nibling terms.

Intermediate to the highly classificatory (i.e., more syncretic) Hawaiian and the highly descriptive (i.e., less syncretic) Vietnamese are bifurcate merging systems, or so-called Iroquois-type systems. In such systems, paternal uncles are grouped with fathers, and maternal aunts are grouped with mothers. The children of paternal uncles and maternal aunts are therefore treated as siblings—strictly speaking, they are *parallel cousins*. Terms for 'uncle' and 'aunt' are limited to the maternal uncle and the paternal aunt, and the children of such are *cross cousins*. Maintenance of the parallel vs cross distinction requires for the grammar to be able to adjudicate whether multiple kintactic features are matched or mismatched: paternal uncles are matched in sex with the parent of propositus, whereas maternal uncles are not. Paternal uncles can pattern with maternal aunts only in terms of this matching, as they do not otherwise share sex features. This sensitivity to (mis)matching is exploited later on in §4.5 in the treatment of generational harmony. An Iroquois-type system is exemplified below by terms from Seneca (Lounsbury 1964).

(150) **Seneca kinship terms**

      a. *haʔnih* 'father, paternal uncle'

      b. *noʔyẽh* 'mother, maternal aunt'

      c. *hakhnóʔsẽh* 'maternal uncle'

      d. *akeːhak* 'paternal aunt'

      e. *hatsiʔ* 'elder brother, elder male parallel cousin'

      f. *heʔkẽːʔ* 'younger brother, younger male parallel cousin'

182

g. *ahtsiʔ* 'elder sister, elder female parallel cousin'

h. *kheʔkẽːʔ* 'younger sister, younger female parallel cousin'

i. *akyã́ːʔseːʔ* 'cross cousin'

Note that these glosses have been somewhat simplified: *haʔnih* can also apply to 'father's parent's brother (i.e., a great-uncle)', for instance. Exhaustive glossing is not necessary here, as long as it is clear that parents are grouped together with their same-sex siblings. Similarly, parallel cousins are grouped with siblings using a more elaborated set of terms that contrast sex and age, whereas cross cousins have a single sex- and age-neutral term. This is consistent with Greenberg's second kintactic universal (136c): languages should not contrast more kintactic distinctions in cousins than they contrast in siblings, nor more in parallel cousins as they do in cross cousins. Crossness can be derived in terms of the following Impoverishment rule:

(151) **Crossness in Seneca**

a. *Neutralisation of sex & age for cross cousins*

i. Structural description: A kin term specified as [Gender:±f, GenderofLink:±f, Laterality:∓f±m, −lineal, $\mathbb{G}$: 0, ±older].

ii. Structural change: Delete Gender and [±older].

b. *Neutralisation of cousinhood for parallel cousins*

i. Structural description: A kin term specified as [Gender:±f, GenderofLink:±f, Laterality:±f∓m, −lineal, $\mathbb{G}$: 0, ±older].

ii. Structural change: Delete GenderofLink and Laterality.

Rule (151) is subtle and requires further characterisation. A cross cousin is the child of a maternal uncle or a paternal aunt, expressed in terms of a mismatch between the [±feminine] values on the GenderofLink and Laterality axes: [GenderofLink:±f, Laterality:∓f±m]. This marked configuration triggers the deletion of Gender and age features.

Similarly, a parallel cousin is the child of a maternal aunt or a paternal uncle, expresed in terms of a match between the [±feminine] values on the GenderofLink and Laterality axes: [GenderofLink:±f, Laterality:±f∓m]. This marked configuration is deleted, creating a bundle that is only compatible with sibling terms.

Following Nevins (2008), observe that the neutralisation of sex and age for cross cousins is an example of a markedness-triggered Impoverishment, whereas the neutralisation of cousinhood for parallel cousins is an example of a markedness-targeted Impoverishment.

Simpler than Iroquois-type systems but more complex than Hawaiian systems are Inuit-type systems, of which English is an example. These are languages that do not contrast laterality: the GenderofLink and Laterality axes simply do not exist in these languages.

Impoverishment (feature deletion) is insufficient to handle the final two types of systems, Crow and Omaha (Trautmann & Whiteley 2012). These systems represent complementary elaborations on Iroquois-type systems: they recognise the parallel vs cross distinction, but with laterality-sensitive *skew*. In Crow-type languages, maternal cross cousins pattern with children and paternal cross cousins pattern with 'father' and 'aunt'. In Omaha-type languages, maternal cross cousins pattern with 'uncle' and 'mother', whereas paternal cross cousins pattern with niblings. These very complex patterns are summarised below, with English glosses for maximum comprehensibility.

	Iroquois	Crow	Omaha
mother's brother's son	'cousin (M)'	'son'	'uncle' (= mother's brother)
mother's brother's daughter	'cousin (F)'	'daughter'	'mother' (also mother's sister)
father's sister's son	'cousin (M)'	'father' (also father's brother)	'nephew'
father's sister's daughter	'cousin (F)'	'aunt' (= father's sister)	'niece'

Table 4.3: Skewness in Crow- & Omaha-type systems

It is worthwhile to re-emphasise that these terms delineate broad types, and individual languages exhibit a wide range variation with respect to how these contrasts are realised.

As listed, Iroquois has two cross cousin terms that distinguish sex. Seneca (an Iroquoian language), as already discussed above, has a single term covering all four types of cross cousins: *akyáː?seː?*. Ojibwe is a fair bit more complex, and takes into account the sex of the propositus:

(152) **Cross cousins in Ojibwe** (Amy Dahlstrom p.c.)

  a. *indaangoshenh* 'female cross cousin to a female propositus'

  b. *niitaawis* 'male cross cousin to a male propositus'

  c. *niinimoshenh* 'cross cousin of the opposite sex'

In any case, although Iroquois, Seneca, and Ojibwe may differ in the number of cross cousin terms (Ojibwe has a few additional cross cousin terms for first- and second-person propositi that have been left out for ease of exposition), the point is that the Iroquois-type languages do not exhibit skew.

Very broadly speaking, the treatment of parallel cousins as siblings as modelled in Impoverishment rule (151b) is a type of skew, in which relations of one class (parallel cousins) are transformed into a more intimate class (siblings). Skew in Crow and Omaha follow a similar logic. Maternal cross cousins in Crow-type systems are made more intimate and lower in generation (e.g., the maternal uncle's son is a son, not a cousin), whereas paternal cross cousins are made more distant and higher in generation (e.g., the paternal aunt's son is a father, not a cousin).

Omaha-type languages follow a similar logic. Maternal cross cousins in such languages are raised in status (e.g., the maternal uncle's son is an uncle, not a cousin), whereas paternal cross cousins are lowered in status (e.g., the paternal aunt's son is a nephew, not a cousin). In both cases, the crossness bundle [GenderofLink:±f, Laterality:∓f±m] triggers a very complex repair, in which descent has to be toggled and generation has to be changed, in order to turn collateral cousins into lineal sons and daughters.

(153) **Modelling skew via rules of referral**

a. *Skew in Crow*

    i. **Filialisation of maternal cross cousins**

        A. Structural description: A kin term specified as [GenderofLink:−f, Laterality:+f−m, −lineal, $\mathbb{G}:0$].

        B. Structural change: Change [−lineal, $\mathbb{G}:0$] to [+lineal, $\mathbb{G}:-1$].

    ii. **Paternalisation of male paternal cross cousins**

        A. Structural description: A kin term specified as [Gender:−f, GenderofLink:+f, Laterality:−f+m, −lineal, $\mathbb{G}:0$].

        B. Structural change: Change [−lineal, $\mathbb{G}:0$] to [+lineal, $\mathbb{G}:+1$].

    iii. **Materteralisation of female paternal cross cousins**

        A. Structural description: A kin term specified as [Gender:+f, GenderofLink:+f, Laterality:−f+m, −lineal, $\mathbb{G}:0$].

        B. Structural change: Change [$\mathbb{G}:0$] to [$\mathbb{G}:+1$].

b. *Skew in Omaha*

    i. **Avuncularisation of male maternal cross cousins**

        A. Structural description: A kin term specified as [Gender:−f, GenderofLink:−f, Laterality:+f−m, −lineal, $\mathbb{G}:0$].

        B. Structural change: Change [$\mathbb{G}:0$] to [$\mathbb{G}:+1$].

    ii. **Maternalisation of female maternal cross cousins**

        A. Structural description: A kin term specified as [Gender:+f, GenderofLink:−f, Laterality:+f−m, −lineal, $\mathbb{G}:0$].

        B. Structural change: Change [−lineal, $\mathbb{G}:0$] to [+lineal, $\mathbb{G}:+1$].

    iii. **Nepotisation of paternal cross cousins**

        A. Structural description: A kin term specified as [GenderofLink:+f, Laterality:−f+m, −lineal, $\mathbb{G}:0$].

B. Structural change: Change $[\mathbb{G}:0]$ to $[\mathbb{G}:+1]$.

The rules in (153) treat interactions between crossness and sex as triggering modifications to descent and generation. This section has modelled Greenberg's kintactic universals in terms of Impoverishment, as well as pursued a componential-realisational analysis of Morgan's hexapartite system of kinship.

(154)   **Morgan's typology reconsidered**

a. Hawaiian: GENERATION-triggered Impoverishment of descent (e.g., uncles are treated as fathers).

b. Sudanese: Low frequencies of of idiosyncratic syncretisms best handled by underspecification.

c. Inuit: Inactivity of GenderofLink and Laterality as axes of contrast.

d. Iroquois: PARALLELNESS-triggered Impoverishment of laterality (e.g., parallel cousins are treated as siblings).

e. Crow & Omaha: CROSSNESS- and SEX-triggered referral of generation and descent (e.g., maternal cross cousins treated as children).

Note that languages with kin syncretisms are not without disambiguation strategies. As a Crow-type language, Titan uses the same word for 'mother' and 'aunt', but 'mother as birth-giver'[16] is still differentiable from 'maternal aunt as syncretic to mother' with respect to the use of possessive morphology.

(155)   **Possession in Titan** (Mead 2002:32)

a. *yaye-m*   / *mata-m*
   mother-2SG.GEN / eye-2SG.GEN
   'your mother (= birth-giver); your eye'

b. *yaye-m*   *e*   *oi* / *um*   *e*   *oi*
   mother-2SG.GEN GEN 2SG / house GEN 2SG
   'your aunt (= a mother of yours, one of those whom you call mother); your house'

---

16. *Yaye* 'mother' in Titan is also syncretic with 'elder sister' and 'grandmother's younger sister', suggesting some very interesting interactions with generation and age left to future work.

'Mother as birth-giver' and 'eye' are both marked with -*m*, the second person inalienable possession marker. The alienably possessed house is marked with *e oi*, which could be thought of as a prepositional phrase meaning 'of yours'. 'Maternal aunt as syncretic to mother' is expressed with the co-occurrence of alienable and inalienable possessive marking. Naturally, non-morphological disambiguation is also possible, as demonstrated below by Central Australian Aboriginal English (Eades 2012:476):

(156)   Charcoal Jack properly his father (i.e., not a paternal uncle)

Although English is an Inuit-type language, Central Australian Aboriginal English is an bifurcate merging language, as a result of contact with Kaititj (Arandic) and Warlpiri (Ngarrkic). This means that *father* means both 'father' and 'paternal uncle', and can be disambiguated with modifiers like *properly*.

In the next section, impossible typologies of kinship are considered.

4.4   Héretier's Fundamental Laws of Kinship

As demonstrated in the last section, Iroquois-type languages like Seneca treat the father's brother as a father. It has been long observed, first by Héritier, that no language can treat the mother's brother as a father (whilst lexicalising the father's brother as something distinct).

(157)   **Héritier's First Fundamental Law of Kinship**
        Cross-solidarity is never stronger than parallel solidarity and a cross-relation between individuals or groups is never the implicit basis of equivalence or identity.

In plainer English, this law forbids co-lexicalisation of the father and maternal uncle to the exclusion of the paternal uncle. These facts are exemplified in Table 4.4 with a sample of genealogically diverse languages. (Greenberg has also independently noted this empirical generalisation, which appears supra as [136i].) By extension, this also extends to co-lexicalisation of the mother and paternal aunt to the exclusion of the maternal aunt, but Héritier does not dwell on this, for reasons to be discussed later.

	'father'	'father's brother'	'mother's brother'	
Malay (Amirah Binti Wan Usamah p.c.)	*bapa*			AAA
English	*father*	*uncle*		ABB
Seneca (Jones 2010)	*hanih*		*hocnoseh*	AAB
Turkish	*baba*	*emme*	*dayi*	ABC
*Fake English	*father*	*uncle*	*father*	*ABA

Table 4.4: Contiguity in parental generation male kin

Note that in the Malay case, 'uncle' can be intentionally differentiated from 'father' by the disambiguating formulation *bapa saudara* (lit. 'father friend'). It is likely that Héritier's generalisation is intended to apply to monomorphemes (cf. Bobaljik 2008's concession that certain important morphological universals fail to obtain if multimorphemic pronouns are included).

Similarly, law (157) prevents the co-lexicalisation of siblings and cross-cousins to the exclusion of parallel cousins. It is important to note that describing kinship typologies in terms of formal patterns (e.g., AAA, ABB, *ABA, etc.) is not at present a claim that there is a containment relationship between these categories, in which 'mother's brother' somehow contains the representation of 'father's brother', which contains the representation of 'father'. Rather, it is intended to emphasise that kinship co-lexicalisation functions homologously to case co-lexicalisation as observed in Blansitt's generalisation by Caha (2017b), in which certain configurations are possible or impossible as a result of the features shared and unshared between contiguous categories. From inspection alone, it can be proposed that bifurcate merging languages assimilate 'father's brother' to 'father' by deleting collateral features; collateral merging languages assimilate 'father's brother' to 'mother's brother' by deleting, or failing to contrast, GenderofLink features; and generational languages assimilate all three by deleting, or failing to contrast, both descent and GenderofLink features.

(158)   **Contiguity in kinship: Same generation kin** (Hage 1997:657)

       'sibling' – 'parallel cousin' – 'cross cousin'   Pattern

    a. A – A – A   Hawaiian kinship

    b. A – B – B   Inuit kinship

   c. A – A – B   Iroquois kinship

   d. A – B – C   Sudanese kinship

   e. (*A – B – A)   unattested

It is difficult to put the relevant data in tabular form without heavy oversimplification. For instance, English, an Inuit-type language, contrasts two sibling terms, differentiated by sex: *brother* and *sister*. It has one cousin term, which is neither differentiated for sex nor for the parallel/cross distinction: *cousin*. Seneca, as described by Jones (2010), is an Iroquois-type language that contrasts four sibling terms: *ahje* 'elder sister', *kaga* 'younger sister', *haje* 'elder brother', and *haga* 'younger brother'. (Note that these are largely the same forms that appeared in §4.3, with some minor discrepancies between Lounsbury and Jones's transcriptions, with the latter abstracting away from segmental fidelity.) These terms can also describe parallel cousins (i.e., children of a propositus's parent's same-sex sibling; a maternal aunt's children or a paternal uncle's children). But children of the paternal aunt or the maternal uncle are described only by one term, regardless of sex or relative age: *ahgaraseh* 'cross-cousin'. That is, this *ABA effect operates not only on the level of the forms, but on the level of the number and types of contrasts recognised. It would be, for instance, typologically bizarre for a language to recognise a sex distinction in siblings and cross-cousins, but not in parallel cousins.

For Héritier, these gaps are not merely linguistic, but cultural. 'Father' cannot be co-lexicalised with 'maternal uncle', because it is "unthinkable that the relationship between two men linked through a woman, sister of one, wife of the other, could be closer than the relation between two brothers" (1981:42, as translated by Hage 1997). She observes that no known human society practices patrilineal amitalocality. This describes a system of descent and postmarital residence in which a wife would take her husband to live with the wife's paternal aunt (= Latin *amita*)'s household. The clan head, the father's sister, would be succeeded by her brother's daughter. In such a system, a 'father' could be culturally— and presumably, linguistically—mapped to a 'mother's brother'. But since such a system

does not exist, whereas the inverse of matrilineal avunculocality does, Héritier deduces the Second Fundamental Law of Kinship: male dominance, in terms of a preference to ascribe more weight, residential stability, and superiority to male relatives.

Other anthropologists such as Terray (1986) caution that one cannot predict kinship terminology from social practice or vice versa. Indeed, one could imagine a matrilineal-avunculocal society that uses Hawaiian-type kinship terms, and not the 'expected' Iroquois-type terms. Indeed, many Austronesian societies function precisely this way (Jordan et al. 2009). The obvious counterargument here would be that Héritier is foregrounding a theoretically significant co-non-attestation: an unattested absolute syncretism that matches an unattested clan structure. She is making no claims about possible theoretically nonsignificant mismatches between attested systems, which a matrilineal-avunculocal society that uses Hawaiian terms would be. That kinship terminologies do not perfectly predict social practice does not take away from the fact that, taken together, Héritier's Fundamental Laws act as a filter on possible outcomes of linguistic and/or cultural change, preventing the emergence of 'father'-'maternal uncle' co-lexicalisation and/or patrilineal amitalocality.

Certainly, there could be linguistic and/or formal accounts of this (cf. Nevins 2010), in terms of markedness and/or the processing and mental representation of gender mismatches. That is, the entity picked out in the world by 'mother's brother' may in some sense be more computationally or representationally complex than 'father's brother'. Salazar (2010) suggests that the primary kinship systems—Iroquois, Sudanese, Inuit, and Hawaiian[17]—are "specific developments of the same-sex/opposite-sex sibling relationship." Crucially, same-sex siblings are seen as 'closer' than opposite-sex siblings.

What would it mean to formalise the claim that 'maternal uncle' is somehow more representationally complex than 'paternal uncle'? One way of doing this would be by thinking of sex and laterality as being somehow 'related' features (be this geometrically and/or hier-

---

17. He includes Dravidian, Crow, and Omaha as subtypes of Iroquois. This study would propose Vietnamese as a subtype of Sudanese.

archically or merely semantico-conceptually) that can have two values, M(ale) or F(emale). (This could also be easily described in terms of a [±M] feature.) When the values for sex and laterality are matched (e.g., in the case of 'paternal uncle'), the category is syncretisable with 'father' by Impoverishment of the descent feature. Reminder that lineal descent describes the relationship between a propositus and his direct ancestors and descendants (e.g., grandparents, parents, children, grandchildren, etc.), whereas collateral descent describes the relationship between a propositus and all other kin. For 'maternal uncle' to co-lexicalise with 'father', not only would the descent feature need to be impoverished, but the laterality feature would also need to change its value (or be deleted), which is computationally more expensive. Certainly, there are languages that can perform this impoverishment as well, yielding Malay-type forms like *bapa* which mean 'father; paternal uncle; maternal uncle'. A formalisation of Hèritier's Fundamental Law could say that this impoverishment cannot exclusively target the marked value of laterality, which would produce the *ABA pattern. If descent is Impoverished and laterality maintained, this creates the Seneca pattern. If laterality is Impoverished and descent maintained, this creates the English pattern. More broadly, this means that possible and impossible patterns of kinship co-lexicalisation can be thought of in much the same way as possible and impossible patterns of metasyncretism in other domains of grammar.

(159)   **Toy features for kinship terms**

      a. Propositus {sex: M; generation: 0}

      b. Father {sex: M; generation: −1; laterality: M; descent: lineal}

      c. Paternal Uncle {sex: M; generation: −1; laterality: M; descent: collateral}

      d. Maternal Uncle {sex: M; generation: −1; laterality: F; descent: collateral}

The implementation in (159) is intentionally distinct from what has been proposed for §4.3.2 in order to underscore that the metafeatures of this system (e.g., whether features are binary, privative, or something else entirely) are not fully decided at this time.

4.4.1 The unlexicalisability of parallelness

Recall that the table in (158) constitutes a stupefying oversimplification. Although it suffices to demonstrate Héritier's law, it mischaracterises the kinship systems of particular languages in way that impede useful theorising. In particular, it fails to fully characterise the range of variation of cousin terms in Sudanese systems. Even more importantly, it obscures an impossible typology discussed by neither Héritier nor Greenberg.

First, consider the case of a well-behaved Sudanese-type language like Latin, which contrasts six cousin terms:

(160)   **Cousin terms in Latin** (Schwimmer 2003)

      a. *patruelis* 'father's brother's child (M or F)'

      b. *amitin-us/-a* 'father's sister's son/daughter'

      c. *consobrin-us/-a* 'mother's brother's son/daughter'

      d. *matruelis* 'mother's sister's child (M or F)'

It is worth noting that these represent the *sensu stricto* interpretations of these terms as found in a maximally contrastive conservative variety. Less discerning writers can use *(con)sobrinus* to refer to any male cousin (or nephew), not just the mother's brother's son. In any case, Latin can be described as a well-behaved Sudanese-type system, because all four types of cousins have their own descriptive (i.e., non-syncretic) term.

Vietnamese, in contrast, represents a much less well-behaved Sudanese-type language within the cousin domain:

(161)   **Cousin terms in Vietnamese**

      a. *anh họ* 'male elder cousin'

      b. *chị họ* 'female elder cousin'

      c. *em họ* 'younger cousin'

Vietnamese merely uses the words for siblings (*anh* 'elder brother', *chị* 'elder sister', and *em* 'younger sibling') and adds *họ*. Although Vietnamese seems to regard cousins as a type of sibling *à la iroquoienne*, it is decidedly not a parallel-cross system, because it does not distinguish between laterality or sex of linking relative. The upshot is that systems called Sudanese have a wide variety of ways to contrast cousin terms.

What is never observed to happen in any Sudanese-type language is the lexicalisation of the parallel-cross distinction. This would look something like the below:

(162) ***Impossible Latin**

    a. *frater* 'brother, *soror* 'sister'

    b. *atruelis* 'parallel cousin: mother's sister's child or father's brother's child'

    c. *sobrinus* 'cross cousin: mother's brother's child or father's sister's child'

That is, whereas Iroquois-type languages use Impoverishment to transform parallel cousins into siblings, and Sudanese-type languages use a richer inventory of Vocabulary items to contrast different types of cousins, no language has been observed to lexicalise the notions of parallel or cross *as such*. Crucially, these facts speak to a certain kind of incongruity, in which the feature bundles that represent parallelness or crossness can be grammatically active (i.e., they can be targets and triggers of feature deletion and modification rules) while remaining lexicalisationally inert. More concretely, consider the partial bundles associated with parallelness and crossness.

(163) **Cousin features**

    a. *Parallelness*: [GenderofLink:±f, Laterality:±f∓m, −lineal, $\mathbb{G}$:0]

    b. *Crossness*: [GenderofLink:±f, Laterality:∓f±m, −lineal, $\mathbb{G}$:0]

A parallel cousin is the offspring of a mother's sister or a father's brother—that is, she is a collateral (i.e., [−lineal]) kin in the same generation of the propositus (i.e., [$\mathbb{G}$:0]) and whose laterality is matched with the sex of the linking relative (i.e., [GenderofLink:±**f**,

194

Laterality:±**f**∓m]). A cross cousin is the offspring of a mother's brother or a father's sister. A language that recognises the parallel-cross distinction is one that targets the marked *[GenderofLink:±**f**, Laterality:±**f**∓m] for deletion in a process of Gender Dissimilation. If what it means for a language to be a cross-recognising language (i.e., an Iroquois-type language) is for it to delete this bundle using an operation like (151b), then this bundle can never be used to realise a kin term, and therefore 'parallel cousin' can never exist—*except as a semantic extension of sibling terms*. The correct theory of features allows for natural treatments of crosslinguistically robust syncretisms, as well as identifies impossible terms and patterns.

This section has argued that Héritier's Fundamental Laws of Kinship suffice to identify the lexicalisation of kin terms as a morphological contiguity domain, patterning with Caha (2008)'s work on case. It has also identified an impossible cousinhood typology that identifies a disjunction between the grammatical activity of a feature bundle (i.e., the possibility of so-called 'parallelness' to be an object of morphological processes) and its inability to be lexicalised.

4.5   Kinship in Lower Arrernte

The previous section described kinship-based contiguity as it interfaces with co-lexicalisation or *absolute syncretism*, and proposed the use of underspecification, Impoverishment, and referral to generate the attested patterns. This section, a recuperation of Truong (2020), argues that there is additionally kinship-based contiguity that interfaces with *allomorphy*. Specifically, it will be shown that generation- and moiety-sensitive nonsingular pronouns in Arrernte (Arandic, Pama-Nyungan, 4,500 speakers across all varieties according to the 2016 Australian census), as characterised by descriptive grammars, are subject to an apparent allomorphy-constraining contiguity effect associated with a containment structure. *Moiety* is understood here to refer to the categorisation of individuals by lineage, and can be thought of a very special case of GenderofLink (i.e., two individuals share the same patrimoiety if

195

they can trace their ancestry back to a shared male ancestor).

A fuller characterisation of these categories is left to later subsections. It suffices now to say that the two dimensions of generation and moiety are active as private AGNATIC and HARMONIC features. An agnatic pronoun refers to a set of referents that all share the same patrimoiety (e.g., a man and his father), whereas a harmonic pronoun refers to a set of referents that all belong to even-numbered generations (e.g., a man and his brother). These categories are independent of each other, and therefore pronouns (and the sets to which they refer) can be agnatic-disharmonic (e.g., a man and his son) or agnatic-harmonic (e.g., a man and his grandson). Crucially, both these categories are active in the Vocabulary as privative features, in the exact same way that COMPARATIVE and SUPERLATIVE are privative—but unlike adjectival grade features, they do not each occupy their own projection, but rather share a projection. It is argued that these categories are best accounted for by means of privative features, as their negative values do not seem to be associated to any overt realisations (i.e., Vocabulary items do not seem to refer to 'non-agnatic' and 'disharmonic' features). The containment architecture is schematised below. Note that in this implementation, person and number are also privative, and plural is more marked than dual, on which more later.

(164) **AAB-permitting containment in Arrernte nonsingular pronouns**

$$
\begin{array}{l}
\text{NumP} \\
\quad \diagdown \\
\text{KinP} \qquad\qquad \text{Num}^0 \\
\qquad\qquad\qquad \text{plural: [DUAL, AUGMENTED]} \\
\qquad\qquad\qquad \text{dual: [DUAL]} \\
\qquad\qquad\qquad \text{singular: [ ]} \\[1em]
\text{PartP} \qquad \text{Kin}^0 \\
\quad | \qquad\quad \text{agnatic-harmonic: [AGNATIC, HARMONIC]} \\
\text{Part}^0 \qquad\quad \text{agnatic: [AGNATIC]} \\
\text{first person: [PARTICIPANT, AUTHOR]} \quad \text{non-agnatic: [ ]} \\
\text{second person: [PARTICIPANT]} \\
\text{third person: [ ]}
\end{array}
$$
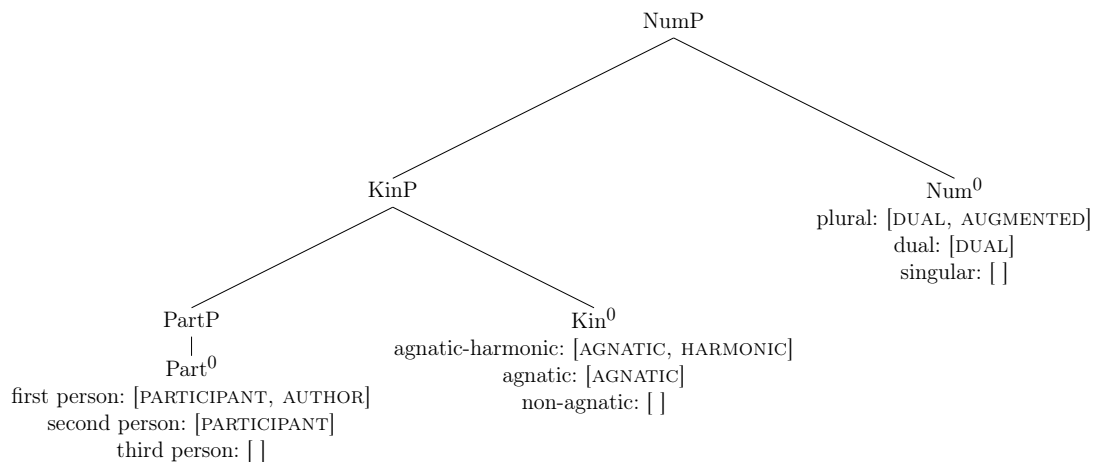
AAB patterns are therefore permissible, because both AGNATIC and HARMONIC can be

a trigger for root suppletion (if HARMONIC occupied its own projection, it would be too far away from the root). The co-occurrence of agnation and harmony features on the same node broadly patterns with Bobaljik (2012:162)'s analysis of ablaut in Germanic (in which past tense and finiteness feature inhabit the same node), but differs from this analysis in one crucial regard. Namely, it is argued that fusion (or alternatively, realisation of a span, cf. Merchant 2015's analysis of voice and aspect in Greek) of Kin^0 and Num^0 occurs for agnatic-harmonic pronouns. The fact that agnatic and harmonic features are always realised together means that contiguity in Lower Arrernte is *not* a result of hierarchical relationships between features, but rather a byproduct of fusion creating a constant conjunction of two features prior to late insertion. This ultimately shores up the importance of studying each surface *ABA environment on its own terms. That is, Arrernte nonsingulars instantiate an AAB-permissive containment structure that is distinct from the straightforwardly cumulating architecture observed in comparative suppletion (Bobaljik 2012) and Japanese honorifics.

Before the structure in (164) can be fully accepted, an analytical misstep that recurs in traditional descriptions of Arandic languages must first be rectified. In particular, previous work by multiple authors (namely Hale 1966, Yallop 1977, and Strehlow 1942b) has arranged the categories in a way that this study identifies to be *markedness-decreasing*: in other words, in a way that would pattern with SUPERLATIVE > COMPARATIVE > POSITIVE. Naturally, this study corrects that error, and only after doing this can Arrernte pronouns be identified as an AAB-suppleting morphological contiguity domain, underscoring the necessity of establishing a coherent theory of features before the underlying containment relations can be diagnosed.

The roadmap for this section is as follows. §4.5.1 describes some basic aspects of the grammar and orthography of Arrernte, as well as introduces the notions of harmony and agnation in broad perspective. §4.5.2 discusses the Principle of Generational Cyclicity from both componential (i.e., formal) and Natural Semantic Metalinguistic perspectives. §4.5.3

197

defines the notion of a moiety and its relevance to the Principle of Agnatic Kinship. §4.5.4 present data from Lower Arrernte, with the categories arranged as they are by Hale (1966), Yallop (1977), and Strehlow (1942b), in which the agnatic-harmonic pronouns are listed first, before the agnatic-disharmonic and non-agnatic sets. §4.5.5 presents a formal account of pronominal features. §4.5.6 present the same data in reverse order, starting with non-agnatic and ending with agnatic-harmonic, thereby revealing this domain to instantiate an AAB-permitting contiguity effect.

4.5.1 Structure of Arrernte

Arrernte (also Aranda, Arunta, or Arirnta) describes a cluster of varieties spoken in the Northern Territory, Australia. This section focuses on the Lower Arrernte variety (also Alenjerntarrpe, dormant as of 2011),[18] in which nonsingular pronouns are sensitive to generation (harmonic vs disharmonic) and moiety (agnatic vs non-agnatic). At this early stage in the analysis, one can preliminarily conceive of harmonic vs disharmonic in terms of even- or odd-numbered generations: a propositus is harmonic to her grandparents ($+2$) or grandchildren (-2), and disharmonic to her parents ($+1$) and children (-1). A group of people is harmonic if all of its members are harmonic (i.e., if they all belong to even-numbered generations), and disharmonic if even a single member belongs to an odd-numbered generation. (The 'polluting' effect of disharmony patterns with that of masculine gender in Indo-European: French *elles* can only be used in reference to a group of all women, ands *ils* must be used for even a group of one million women and one man.)

Moiety is even harder to define in brief, but fortunately, only one minor aspect of moiety—agnation—is active in the language. A propositus is agnatic with respect to a kinsman if they both share a patriline (i.e., if they share at least one paternal ancestor and precisely zero

---

18. Yallop (1982:38) observes that although Arandic varieties are largely similar in terms of phonology and syntax, they are extremely diverse on the level of vocabulary, as a result of cultural prohibitions on naming deceased individuals and using words that sound like their names, similar to what is observed in Datooga (Nilotic, Tanzania; Mitchell 2015) women's speech, in which words that are near-homophones to the names of affines are scrupulously avoided.

maternal ancestors). More concretely, for a male propositus, this includes his father (and all male direct ancestors), siblings, paternal (great-)auncles, patrilateral parallel cousins, fraternal niblings, children, and grandchildren begat by his sons.[19] In this regard, it can be regarded as a special case of GenderofLink. As before, this category can be applied to groups. A group is agnatic if all of its members share a patriline, and non-agnatic if there is even one member who does not.

Given these preliminary definitions, it becomes possible to state the containment relation active in this domain as follows: {PLURAL} < {PLURAL, AGNATIC} < {PLURAL, AGNATIC, HARMONIC}. There are no cases in which suppletion targets the two endpoints of this relation to the exclusion of the medial category.

Where possible, data from Arrernte and other Australian languages have been normalised to the standard orthography following Yallop (1982:22), in which all glyphs are associated with their IPA pronunciation except for the following: <th> = /t̪/, <tj> = /tʃ/, <ny> = /ɲ/, <rr> = /r/, <r> = /ɹ/, <rC> = retroflex version of that consonant.[20] All words in Arrernte end in -a except for exclamatives and imperatives (e.g., *parrpayi* 'hurry up', Yallop 1982:70). Further details on the phonetics and phonology of multiple varieties of Arrernte can be found in Strehlow (1942c). With respect to morphosyntax, Arrernte is ergative-absolutive in its alignment and uses SOV order in pragmatically neutral declarative clauses:

(165) **Morphosyntactic alignment in Arrernte** (Yallop 1982:90)

    a. *arrukutja-la kitijiya   ri-ka*
        woman-ERG child.ABS see-PST
        'The (ergative) woman saw the (absolutive) child.'[21]

---

19. For completeness's sake, his mother, maternal grandmother, maternal (great-)auncles, matrilateral parallel cousins, and sororal niblings are *uterine*, or sharing a matriline. His cross cousins, maternal grandfather, paternal grandmother, and grandchildren begat by his daughters are *non-unilineal*, or sharing neither a patri- or matriline. Only agnation is grammatically active, and therefore uterine and non-unilineal kinship are de-emphasised in this study.

20. Where multiple retroflex segments co-occur, orthographic <r> is notated but once: that is, *Arre*[ɳʈ]*e* is not written *Arrernrte*.

21. Alignment in *Western* Arrernte (Hermannsburg) is tripartite for animate objects (Yallop 1982:94):

    b. *arrukutja   angiki-ka*
       woman.ABS speak-PST
       'The (absolutive) woman spoke.'

4.5.2   Two types of generational cyclicity

With the above structural preliminaries out of the way, it is now possible to talk about generational cyclicity in Arrernte. In Indo-European languages, generations are conceived as proceeding without bound into the past (e.g., my mother, grandmother, great-grandmother, etc.) and the future (e.g., my daughter, my granddaughter, my great-granddaughter, etc.). In Arrernte and in many other Australian languages more broadly, they are cyclic, and associated with the generational syncretisms listed above in Table 4.5 for Western Desert[22] terms. It may be necessary to provide some guidance as to how to navigate this table. The leftmost 'Term' column gives the linguistic form and a basic gloss. The 'Core meaning' column gives a paraphrase of the gloss. The first 'Generational offset' column counts the number of generations between the propositus and the core meaning: for instance, the offset for 'father' is +1, because a first ascending generation kin is one generation higher than the propositus. The 'Cyclic meaning' column gives an additional meaning to which the relevant term is syncretic. Finally, the second 'Generational offset' column counts the number of generations between the propositus and the cyclic meaning: note that in all cases, the generational offset of the core and cyclic meanings are separated by a difference of four generations.

    Although this table depicts the general Australian pattern, there are some language-particular differences in the way generational cyclicity is handled. In Arrernte, for instance, additional interactions with sex and laterality are observable. More concretely, only grand-paternal terms syncretise to sex-neutralised grandprogenial terms (indeed, the fact that

---

(1)   *arrukutja-la* { *kitijiya-nha* / *pmara*   } *ri-ka*
      woman-ERG   child-ACC   / camp.ABS   see-PST
      'The (ergative) woman saw the (accusative) child / (absolutive) camp.'

22. Dousset uses *Western Desert* to group together speakers of Ngaatjatjarra, Ngaanyatjarra, and Pintupi.

Term	Core meaning	Generational offset	Cyclic meaning	Generational offset
ngunytju 'father'	'begetter'	$+1$	'great-grandson (son's son's son)'	-3
tjamu 'grandfather'	'father's father'	$+2$	'grandson (son's son)'	-2
katja 'son'	'male offspring'	-1	'great-grandfather (father's father's father)'	$+3$
kurta 'brother'	'male sibling'	0	'great-great-grandson (son's son's son's son)'	$+4$

Table 4.5: Generational cyclicity & syncretism in Western Desert male kin terms (adapted from Yallop 1982:147 & Dousset 2011)

arranga is specifically male when referring to an ancestor but sex-neutral when referring to a descendant is strong evidence that 'grandfather' is the core meaning).

(166) **Grandparent-grandchild syncretisms in Arrernte** (Yallop 1982:153)

    a. *arranga* 'father's father; grandchild from a son'

    b. *tjimiya* 'mother's father; grandchild from a daughter'

    c. *pirla* 'father's mother'

    d. *ipminha* 'mother's mother'

In a theoretical apparatus that permits referral, the transformation of *grandfather* to *grandson* is straightforward:

(167) **Parent–great-grandchild syncretism**

    a. Structural description: A kin term specified as [+lineal, $\mathbb{G} : -2$].

    b. Structural change: Change [$\mathbb{G} : -2$] to [$\mathbb{G} : +2$].

Not only does this seem too powerful, it seems to miss the point that for all forms, the difference between the two offsets (i.e., the number of generations between the core meaning and the syncretic meaning) is four. The following rules capture this:

(168) **Deriving generational syncretisms**

    a. *Referral of generation*

i. Structural description: A kin term specified as [+lineal, $\mathbb{G} : n$].

ii. Structural change: Calculate [$\mathbb{G} : -|n| + 4$].

b. *Fraternalisation of great-greatgrandchildren*

i. Structural description: A kin term specified as [+lineal, $\mathbb{G} : +4$].

ii. Structural change: Change [+lineal] to [−lineal].

Rule (168a) states that in order to figure out which core term can be extended to which generation, one takes the negative absolute value of the $\mathbb{G}$ feature and add 4 to it. This turns great-grandchildren into parents ($-|-3| + 4 = 1$), grandchildren into grandparents ($-|-2| + 4 = 2$), great-grandparents into children ($-|3| + 4 = 1$), and great-great-grandchildren into siblings. Note that (168a) by itself when applied to a great-great-grandchild creates *[+lineal, $\mathbb{G} : 0$], which is incoherent—it is not possible to be [+lineal] (i.e, an ancestor or a descendant of the propositus) *and* in the same generation as the propositus. This impossible configuration is repaired by rule (168b), creating an isogenerational collateral kin (i.e., a sibling).

As always, this study is not committed to the maximal claim that representations like (168) accurately characterise the psychological reality of the calculations being performed—it is only committed to the minimal claim that such things as generational features are morphokintactically active in a genealogically diverse sample of Australian languages, and to an additional claim that manipulations of these features occur in order to generate the crosslinguistically attested syncretisms represented in part in Table 4.5. Outside of intergenerational syncretisms, generational features are also active in determining harmony, as described by the principle below:

(169) **Principle of Generational Cyclicity** (Hale 1966)

a. A male propositus is **harmonic** with respect to members of his own generation and members of all even-numbered generations counting away from his own.

b. A male propositus is **disharmonic** with respect to members of all odd-numbered

generations counting away from his own.

By principle (169), a man is harmonic to his grandparents and grandchildren. He is disharmonic to his children and parents. Note that this understanding of cyclicity is distinct from the syncretic cyclicity of Table 4.5, but otherwise still makes use of the dimensions and/or features associated with GENERATION.

This study would be remiss not to mention that Wierzbicka (1992:358, 2013b:13) finds the harmonic-disharmonic and odd-even contrasts to be hopelessly non-cross-translatable and non-indigenised. Crucially, she believes that abstract formulations like Hale's distort the indigenous perspective, which is based on prototypes such as 'father' and 'mother' and their semantic extensions. The Principle of Generational Cyclicity is a lossy decomposition of an indigenous perspective on kin-making, in which so-called disharmonic relations are analogised to parent-child relations, and so-caled harmonic relations are analogised to sibling relations. She notes that a Dalabon (Gunwinyguan, Arnhem Land) consultant of Alpher (1982)'s explictly states that 'disharmonic' relationships are "like mother and father". The fact of the matter is that harmonic and disharmonic are themselves analogies, made by Hale between the domains of kinship and music. But in Wierzbicka's view, there is no reason to impose this etic analogy when a more intuitive and emic one that does not cross disciplinary boundaries is available. She provides these two explications of Hale's conception of *harmonic* and *disharmonic*. (As always, the stylistic particulars of NSM have not been maintained at a high level of fidelity.)

(170) **NSM-compliant semantic formulae for alternating generations**

   a. **Harmonic**

   I think about these people like this: They are people of the same kind. They are like two people are if the father of one of them is the father of the other one, [and/or] if the mother of one of them is the mother of the other one.

   b. **Disharmonic**

   I think about these people like: They are not people of the same kind. They are

like two people are if one of them is the father of the other one, [or] if one of them is the mother of the other one.

These explications do not make use of anglocentric concepts such as 'harmony' or 'odd numbers', as well as maintains the aboriginal analogy of disharmonic pairs with the parent-child and harmonic pairs with the sibling-sibling relationship. Another point in its favour is that it allows for a relatively natural treatment of why syncretic cyclicity is so systematic—a term is always exactly four generations removed from the meanings to which it syncretises. One could imagine that from the perspective of the arrerntephone, the question *If my grandfather is like my grandson [in that I relate to both in a sibling-like way], whom is my father like [i.e., to whom does he relate in a sibling-like way]?* can be answered with *My great-grandson [who is the same number of generations away]*. In any case, this study shall continue to use the harmonic-disharmonic contrast, although it concedes that understanding generational cyclicity in this way is both less anglo- and Eurocentric *and* more suggestive of the emergence of this contrast in crosslinguistic perspective.

4.5.3   Moieties & the determination of agnation

Operating alongside the generational cyclicity is moiety-sensitivity. Moiety ($>$ Lat. *medietās* 'half', also *skin* or *section*) refers to the division of a community into subgroups, for the purposes of determining marriageability. Yallop (1982:28) describes the simplest case, observed by numerous aboriginal groups in Cape York Peninsula, Far North Queensland, in which each member belongs to one of two moieties, White Cockatoo or Black Cockatoo. A division of a community into moieties can include multiple ethnolinguistic groups. For instance, for Yolngu speakers, the Black Cockatoo moiety is called *Dhuwa*, whilst the White Cockatoo is called *Yirritja*, whereas for Jardwadjali speakers, the same moieties are Gamadj and Grugidja (McConvell et al. 2018). These delineate patrilines—two people from the same moiety share an agnatic (i.e., male) ancestor at some point in their family tree. In general, members of one's own moiety are not marriageable: a Dhuwa/Gamadj man must marry a

Yirritja/Grugidja woman.

The Arrernte system is more complex and tracks both lineages across four moieties. First, consider that the community is divided into two sexes, male and female. Second, the men are further divided into two groups (patrimoieties A and B), as are the women (matrimoieties C and D). Each person has two lineages: a patriline (i.e., all of one's male ancestors) and a matriline (i.e., all of one's female ancestors)—a child inherits the patrimoiety of the father and the matrimoiety of the mother. If A/B status is paternally inherited, and C/D status is maternally inherited, then each person belongs to one of four moieties: AC, AD, BC, and BD. Marriages are only possible between fully contrastive moieties: AC members marry BD members, and AD members marry BC members.[23] This guarantees that marriages do not occur between people who share either agnatic (= male) or uterine (= female) ancestors. Reiterating, this means that children do *not* belong to the same moiety as their parents (though they do share a patriline with their father and a matriline with their mother).

(171) **Moietal combinatorics**

    a. AC father + BD mother produce AD children.

    b. AD father + BC mother produce AC children.

    c. BD father + AC mother produce BC children.

    d. BC father + AD mother produce BD children.

(172) **Principle of Agnatic Kinship** (Yallop 1977, 1982)

    a. AC is **agnatic** with respect to AD and itself (i.e., sharing a patrilineal descent line).

    b. AC is **non-agnatic** with respect to {BC, BD}.

      i. AC is uterine (i.e., sharing a matrilineal descent line) to BC.

      ii. AC is marriageable to BD.

---

23. Individual Arrernte languages use different terms for these moieties; an abstract notation has been selected here for maximum generalisability. In Western Arrernte, AC = Pinangka, BD = Purula, AD = Piltarra, and BC = Kimarra.

c. AC is **non-agnatic** with respect to all outgroup members (e.g., Westerners).

Naturally, Wierzbicka offers her own indigenised semantic formulae for the notion of a patriline.

(173)   **Someone's patriline** (Wierzbicka 2015:74)

There are many people, and all these people are like one something. Some of these people are men, some are women, some are children. This someone can think about these people like this: I am one of these people because my father is one of these people, [and] my father's father is one of these people. All these people can [also] think like this.

In other words, Wierzbicka is proposing that Arrernte speakers do not regulate marriage in terms of the combinatorial formulae in (171), nor do they recognise such categories as agnatic vs uterine. Rather, patrilineality is calculated by the semantic broadening of the father-child relationship. Although this is an excellent way of conceiving of the patriline using only emic categories, this study shall continue to use the more formal categories, given their *grammatical activity*. It does not seem necessary for grammatical categories and processes to be fully expressible in and/or reducible to emic categories—certainly English speakers cannot do this for their own language, either. That is, there is a sense in which some types of formal analysis impose equivalent or nearly equivalent burdens on both Western and non-Western languages, in that they are trying to model systems and processes that are beneath the consideration of the linguistically untrained speakers.

4.5.4   Generation- & moiety-sensitivity in pronouns

Arrernte pronouns contrast six cases (ergative-instrumental-locative *-la*, absolutive *-∅*, accusative *-nha* [animates only], dative *-ka*, allative *-wurna*, and ablative *-nga*), three numbers (singular, dual, plural), but not clusivity or gender. Strictly speaking, the forms below are from Western Arrernte, but Arandic singulars are fairly uniform across all varieties (cf. Yal-

lop 1982:98, and although his transcription system is quite different, Strehlow 1942b gives identical forms for Northern and Southern Arrernte as well). As singulars, they do not take into account principles (169,172).

(174) **Western Arrernte singular pronouns**

        a. *atha* '1SG; I' (Strehlow 1942b:179 also lists *tha* as a variant)

        b. *unta* '2SG; thou'

        c. *irra* '3SG; she/he'

Arrernte only has independent pronouns (i.e., no clitics). Pronouns can but need not replace their antecedent:

(175) *kitijya irra arrtjani-ka*   (Yallop 1982:125)
       child   3SG run-PST
       'The child ran (lit. child he ran).'

Arrernte nonsingulars come in three sets, which Hale (1966), Yallop (1977), and Strehlow (1942b) call set I, set II, and set III. Set I is used when all referents are agnatic and harmonic (e.g., a group containing a man and his brothers). Set II is used when all referents are agnatic, but at least one is disharmonic (e.g., a group containing a father and his children). Set III is used when at least one referent is non-agnatic (e.g., a group containing a man and his grandmothers); it is additionally generation-insensitive. This ordering implies that set III is somehow maximally complex—that is, set III is analogous to the superlative grade or the humilific conjugation. Certainly, it does appear to be maximally complex with respect to the diversity of the referents: set III forms can be used to refer to non-agnatic–harmonic and non-agnatic–disharmonic groups, as well as groups containing non-kin and ethnolinguistic outsiders. But with respect to the featural or representational complexity of the category, this following section demonstrates that the non-agnatic forms are minimally complex—that is, the referential promiscuity of set III nonsingular pronouns is simply a result of the fact that these are the elsewhere forms.

	AGNATIC-HARMONIC (e.g., 'my brother & I')	AGNATIC-DISHARMONIC (e.g., 'my father & I')	NON-AGNATIC (e.g., 'my mother & I')	
1DU	*ili-rn*	*il-ak*	*il-anth*	AAA
2DU	*ang-athir*	*mpil-ak*	*mpil-anth*	ABB
3DU	*il-athir*	*al-ak*	*al-anth*	ABB
1PL	*un-ar*	*un-aki-r*	*un-anthir*	AAA
2PL	*ang-arrii*	*ar-aki-r*	*ar-anthir*	ABB
3PL	*il-arrii*	*inn-aki-r*	*inn-anthir*	ABB

Table 4.6: *ABA in Lower Arrernte nonsingular pronouns

Data in Table 4.6 are from Hale (1966), and have been retransliterated. Yallop (1977:99) reports slightly different forms for this variety, which could either signify interspeaker variation or mistranscription on the part of either party. In particular, Hale's Lower Arrernte is characterised by significant apocope: he lists consonant-final forms where Yallop lists vowel-final (and typically *a*-final) forms. Whatever hay one makes of such phonological minutiae, the allomorphic generalisation remains the same: if the agnatic-disharmonic formant is suppletive, then the non-agnatic formant is also suppletive.

As in the case of singulars, pronouns need not completely replace their antecedent, but can surface as what Hale calls reduced compound noun phrases:

(176) *Colin mpula   pmara-la   ni-ma*
       C   2DU:AGNATIC-HARMONIC camp-LOC stay-PRS
       'You and Colin (lit. Colin you-dual) are staying in camp; you and Colin share a
       patriline and belong to even-numbered generations.' (Yallop 1982:127)

Note that Yallop has regular *mpula* where Hale would have suppletive *angathir*: In Eastern Arrernte and Lower Southern Arrernte, the agnatic-harmonic∼agnatic-disharmonic∼non-agnatic paradigm is fully regular: *mpula∼mpulaka∼mpulantha* (Strehlow 1942b:180). The acknowledgement of intra-Arandic variation is necessary for two reasons: first, it serves to emphasise that the analysis to be pursued here is limited in scope to Hale's variety of Lower Arrernte. Second, in order to motivate some of the less convincing morphological parses in Table 4.6, appeals are made to varieties of Arrernte in which there is less phonological reduction.

4.5.5 Featural decomposition

Returning to the methodological puzzle presented above, there is no principled reason to organise these data in the order of AGNATIC-HARMONIC > AGNATIC-DISHARMONIC > NON-AGNATIC, other than to harmonise with traditional descriptive practice. This section argues that the use of toy features, even those that stretch the bounds of both emic and etic plausibility, may still be useful in the determination of relative markedness within a proposed contiguity domain. Specifically, it concludes that the correct markedness ordering is precisely the reverse of what Hale and Yallop have preesented: NON-AGNATIC > AGNATIC-DISHARMONIC > AGNATIC-HARMONIC.

For a start, the analysis proposes the privative system below to account for the person and number contrasts.

(177) **Person & number features** (adapted from McGinnis 2005 with differences noted)

    a. **first**: [PARTICIPANT, AUTHOR][24]   (McGinnis: [PARTICIPANT, SPEAKER])

    b. **second**: [PARTICIPANT]

    c. **third**: [ ]

    d. **singular**: [ ]

    e. **dual**: [DUAL]   (McGinnis: [GROUP, MINIMAL])

    f. **plural**: [DUAL, AUGMENTED]   (McGinnis: [GROUP])

The person features largely follow the logic of McGinnis's system (itself an elaboration of Harley & Ritter 2002), but not necessarily all aspects of the geometry (in favour of the architecture proposed in [164]). Third person is associated with no features.[25] Second

---

24. McGinnis prefers SPEAKER, but AUTHOR is preferred here to be more inclusive of non-verbal and signed contexts. The somewhat bizarre implementation of the number features here are such that further differentiation from McGinnis via the use of AUTHOR seems at once appropriate and desirable.

25. Strictly speaking, third person and singular number for McGinnis are not without features—rather, third person still has the features appropriate to a referring expression (i.e., a pronoun), and singular still has an Individuation node. If it were the case that third person had no features at all, this would create problems of the analysis of situations in which the features of the third person trigger certain kinds of effects (cf. Nevins 2007).

person is associated with a [PARTICIPANT] feature. First person is associated with both [PARTICIPANT] and [AUTHOR], the so-called primary dependent of [PARTICIPANT], and serves to specify it (i.e., an author [first person] is a particular kind of participant [first or second person]). In McGinnis's system, PARTICIPANT is a node, and SPEAKER and ADDRESSEE are respectively the primary and secondary dependents. In the system here, McGinnis's PARTICIPANT node is $Part^0$, and although [AUTHOR] is the primary dependent, there is no secondary dependent, as Arrernte does not observe clusivity contrasts.

The number features deviate from McGinnis's system substantially. First and least problematically, singular number is associated with no features, although it does have an Individuation node (Num^0 in this study). Second, for McGinnis, dual is the most representationally complex number: a dual set is a plural set, denoted by the primary dependent [GROUP], and in particular the smallest plural set, denoted by the secondary dependent [MINIMAL]. Plural is less complex than dual, being characterised only by [MINIMAL]. That dual is more marked than plural is suggested by the presence of languages in which the dual marker looks like an elaboration of the plural marker, such as Modern Hebrew.

(178) **Transparent containment of plural by dual**

    a. *shana* 'year'

    b. *shna-tayim* 'two years'

    c. *shan-im* 'years'

In Lower Arrernte, this generalisation is not upheld. Rather, dual *-anth* appears to be contained by plural *-anthir*. For this reason, plural is treated as the most representationally complex. There are two ways of thinking about the semantics of the number features here. First, [DUAL] can be thought of as simply referring to sets of two referents (i.e., dual sets), and therefore [DUAL, AUGMENTED] refers to sets of greater than two (i.e., plural sets). Another way of thinking about is it that [DUAL] actually refers to plural sets (and is only called *dual* for ease of comprehension), but is restricted to referring to dual sets because [DUAL,

AUGMENTED] outcompetes it in the context of sets of greater than two. The semantic details of this system are left to future work.

With the person and number contrasts accounted for, the study now turns to the harmony features. Following §4.3.1, suppose that a male propositus has a generational specification of $[\mathbb{G} : 0]$. From the perspective of the propositus, his father would be $[\mathbb{G} : 1]$, and his son would be $[\mathbb{G} : -1]$. Counting one more generation away, his grandfather would be $[\mathbb{G} : 2]$, his grandson would be $[\mathbb{G} : -2]$, and so on. Modular arithmetic can be used to group harmonic generations together.

(179) **Harmony features**

    a. **harmonic**: [HARMONIC] if all members in the group have the following generational specification: $[\mathbb{G} : n \equiv 0 \pmod 2]$

       (possible values of $n = 0, \pm2, \pm4 \ldots$)

    b. **disharmonic**: [ ] if at least one member of the group has the following generational specification: $[\mathbb{G} : n \equiv 1 \pmod 2]$

       (possible values of $n = 1, \pm3, \pm5 \ldots$)

First, observe that this is a privative system, in which the HARMONIC feature is only active when all members of a group belong to even-numbered generations. Second, the notation above describes a system of arithmetic in which the number line 'circles back' to the beginning once a maximum value is reached, in this case 2 (the *modulus*). A more familiar application of modular arithmetic involves the calculation of twelve-hour time: the fact that one o'clock (and not thirteen o'clock) follows noon can be represented as $[13 \equiv 1 \pmod{12}]$. 13 is equivalent to 1 because the 'maximum' time is 12. More formally, a generation n is harmonic if n and 0 are congruent modulo 2 (i.e., if there is an integer k such that $n - 0 = kn$), and disharmonic if n and 1 are congruent modulo 2 (i.e., if there is an integer k such that $n - 1 = kn$).

Crucially, these features characterise individuals, and their interaction could be analogised to what is observed with gendered plural pronouns in Romance.

211

(180)   **Interactions between feminine & masculine in French**

      a. *ils* 'they (used of a group of men/boys or a mixed-sex group)'

      b. *elles* 'they (used of a group of women)'

If a group consists of 999,999 women and one man, the correct pronoun is *ils*, never **elles*. Likewise, a group consisting of 999,999 agnatic-harmonic referents and one Westerner, the correct pronoun is *innanthir*, never **ilarrii*.

The proposal and/or notation in (179) may seem bizarre and unworkable. It should not be interpreted as a claim that morphological representations have access to the concept of a modulus. Rather, it should be taken as a placeholder, an implementational post-it note of sorts that amounts to a statement that generational cyclicity may be a category to which the grammar is sensitive. Recalling the implementation of GENERATION in §4.3.1, another way to do this without making use of modular arithmetic would be to associate harmony with even-numbered iterations of [+lineal], the feature value associated with direct descendants and ancestors (and disharmony with odd-numbered iterations). This has the added benefit of maintaining the indigenised analogy between disharmonic generations and the parent-child relationship. But in any case, the fact that harmony-sensitivity can be observed outside of the pronominal domain, in particular within the switch-reference system of Mparntwe Arrernte (Wilkins 1988), points to the necessity of something like (179).

(181)   *Urreye kweke artne-lape-ke   itne lhe-rlenge   / -mele*
       boy   small cry-along-PFV 3PL go-DIFF.SBJ   SAME.SBJ
       'The little boy cried as they walked along.'

In both variants of (181), there is a group of people walking together, of whom one is a crying boy. When *lhe-rlenge* is used, all members of the group are generationally harmonic, except for the boy, who is disharmonic. When *lhe-mele* is used, all members of the group are harmonic. This datum strongly suggests that the grammar needs access to some implementation of formal harmonic features, whether or not they resemble anything like (179).

Third, suppose that each individual is further specified for a moiety feature. Outsiders are underspecified for moiety. Agnatic groups are groups in which the moiety features of all members agree. Non-agnatic groups are all other groups. (As uterine and cognatic kinship do not play a role in the grammar, there is no need to propose a [±C] feature.)

(182) **Gender & moiety features**

    a. **moieties AC, AD**: [+A]

    b. **moieties BC, BD**: [−A]

    c. **agnatic**: [AGNATIC] if all members in the group have the same value of [±A]

    d. **non-agnatic**: [   ] if at least one member in the group has a different value of [±A] from the rest, or if at least one member lacks a specification entirely ([∅A])

It is important that the moiety feature be binary. Suppose there is a propositus of moiety AC with a son of moiety AD. If this propositus were to use a first person dual form to refer to himself and his son, he would need to use an agnatic form, as both he and his son are [+A], and therefore the set that contains the both of them is AGNATIC. But this exact same propositus could use a second person dual agnatic form to refer to a pair of BC and BD moieties, both of whom would have [−A] specifications for the moiety feature. If the moiety feature were privative, it would not be possible to calculate agnation for sets of people who do not share a patriline with the propositus, but do share one with one another.

In contrast, AGNATIC can be left privative, as the grammar does not seem to make reference to non-agnatic features, nor does non-agnation act as a trigger for allomorphy. The Arrernte data strongly suggests that natural language may well need access to both binary and private features.

One final detail is necessary to mention. The logic of primary and secondary dependence is also active for the kintactic features. The [AGNATIC] feature is the primary dependent of the KinP, and the [HARMONIC] feature is the secondary. This means that harmonic and disharmonic are specifications of agnatic kin.

(183) **Kintactic features**

    a. **Non-agnatic**: [   ]

    b. **Agnatic**: [AGNATIC]

    c. **Agnatic-harmonic**: [AGNATIC, HARMONIC]

4.5.6 Non-agnatic as unmarked

As suggested by the feature structures in (183), this study rejects Hale, Yallop, and Strehlow's ordering, in which non-agnatic is the most representationally complex category. The set of entities that can be categorised as non-agnatic to a given male propositus is very large indeed, containing his mother, maternal auncles, matrilateral parallel cousins, cross kin, as well as all non-kin, ethnolinguistic outsiders, non-Australians, and even non-human animals (e.g., first person non-agnatic dual *ilanth* could refer to a set containing the speaker and his dog). In contrast, the set of entities that can be categorised as agnatic-disharmonic to a given male propositus is much smaller, containing only odd-numbered generation kin who share his patriline, such as his father, his great-grandson, his great-grandfather, and his children (e.g., first person agnatic-disharmonic dual *ilak* could refer to a set containing the speaker and his son). Finally, the set of entities that can be categorised as agnatic-harmonic to a given male propositus is even smaller still, containing only even-numbered generation kin who share his patriline, such as his brother (e.g., first-person agnatic-harmonic dual *ilirn* could refer to a set containing the speaker and his great-great-grandson).

Given the referential promiscuity of the non-agnatic forms relative to the referential selectivity of the agnatic-disharmonic and agnatic-harmonic forms, the non-agnatic forms are assumed here to be the basic, elsewhere forms of the pronouns. Forms such as *un-anthir* 'first person non-agnatic plural' realise only person and number features. Forms such as *un-aki-r* 'first plural agnatic' realise person, agnation, number. Lastly, forms such as *un-ar* 'first person plural agnatic-harmonic' realise person and a fusion of number and kinship (i.e., a [DUAL, AUGMENTED, AGNATIC, HARMONIC] bundle).

	Non-agnatic	**Agnatic**	**Agnatic-harmonic**	
1DU	*il-anth*	*il-ak-∅*	*ili-rn*	AAA
	1-DU	1-AGN-DU	1-DU.AG.H	
2DU	*mpil-anth*	*mpil-ak-∅*	*ang-athir*	AAB
	2-DU	2-AGN-DU	2-DU.AG.H	
3DU	*al-anth*	*al-ak-∅*	*il-athir*	AAB
	3-DU	3-AGN-DU	3-DU.AG.H	
1PL	*un-anthir*	*un-aki-r*	*un-ar*	AAA
	1-PL	1-AGN-PL	1-PL.AG.H	
2PL	*ar-anthir*	*ar-aki-r*	*ang-arrii*	AAB
	2-PL	2-AGN-PL	2-PL.AG.H	
3PL	*inn-anthir*	*inn-aki-r*	*il-arrii*	AAB
	3-PL	3-AGN-PL	3-PL.AG.H	

Table 4.7: AAB suppletion in Lower Arrernte nonsingular pronouns

Put otherwise, this study proposes that Hale et al.'s set III and set I forms should be swapped, yielding a containment relationship NON-AGNATIC < AGNATIC-DISHARMONIC < AGNATIC-HARMONIC, that accords with one's intuition of cumulating complexity (or in this case, cumulating referential selectivity). One point in favour of this containment structure relates to the difficulty of grouping the non-agnatic category (i.e., not agnatic, but either harmonic or disharmonic) with the agnatic-harmonic category for the purposes of root-allomorphic selection, as these cannot form a natural class in terms of either of their shared features.[26] Obviously, no such problem arises in the grouping of agnatic-harmonic with agnatic-disharmonic.

It is now possible to propose a Vocabulary fragment for the account proposed so far. First, the data have been reproduced in Table 4.7 with the categorial ordering and morphological parse specific to this analysis. Second, agnation and harmony are represented as privative features: binary features are not necessary to account for these contrasts, as the system does not contain overt realisations for negative values of AGNATIC and HARMONIC, nor do negative values of these features act as conditioning environments for allomorphy.

---

26. In a binary system, the difficulty of forming a natural class that joins these two categories becomes even starker, as non-agnatic would be [−agnatic, ±harmonic], whereas agnatic-harmonic would be [+agnatic, −harmonic].

First, the singular pronouns are treated as the elsewhere realisations of the person features:

(184) **Singular pronouns**

    a. [PARTICIPANT, AUTHOR] ↔ *atha*   first person singular

    b. [PARTICIPANT] ↔ *unta*   second person singular

    c. [   ] ↔ *irra*   third person singular

The fragment below accounts for the root allomorphy of the first person, blocking **atha-il* and **un-il* for the first person dual and **atha-anthir* for the first person plural.

(185) **Allomorphs of the first person**

    a. [PARTICIPANT, AUTHOR] ↔ *un* / ____ [DUAL, AUGMENTED]

        allomorph of first person triggered by plural

    b. [PARTICIPANT, AUTHOR] ↔ *il* / ____ [DUAL]

        allomorph of first person triggered by dual

In the allomorphs of the second person, it is possible to witness whence containment. In particular, AAB allomorphy is possible because there is an allomorph of the second person specific to the agnatic-harmonic bundle, but there are no cases of [AGNATIC] or [HARMONIC] triggering stem allomorphy by themselves. Rule (186a) blocks **unta-anthir* and **mpil-anthir*. Rule (186b) blocks **unta-anth*. Rule (186c) blocks **unta-athir* and **mpil-athir*.

(186) **Allomorphs of the second person**

    a. [PARTICIPANT] ↔ *ar* / ____ [DUAL, AUGMENTED]

        allomorph of second person triggered by plural

    b. [PARTICIPANT] ↔ *mpil* / ____ [DUAL]

        allomorph of second person triggered by dual

    c. [PARTICIPANT] ↔ *ang* / ____ [AGNATIC, HARMONIC]

        allomorph of second person triggered by agnatic-harmonic

Note that a statement of extrinsic ordering may be necessary to ensure that (186c) takes precedence before (186a,b), blocking *mpil-athir* and *mpil-arrii*. Alternatively, it is possible to rewrite (186c) such that it is the most specificationally complex:

(187)   [PARTICIPANT] ↔ *ang* / ___ [DUAL, AGNATIC, HARMONIC]

      allomorph of second person triggered by nonsingular agnatic-harmonic

It has already been mentioned that there is a fusion of number and kinship in the agnatic-harmonic set, and therefore there is no adjacency issue here. This rule also underscores that the containment relationship here acts manifests in terms of the incremental specificational complexity of the associated Vocabulary items.

The allomorphy of the third person largely patterns with what is observed in the second person. Specifically, there is a plural-specific form (blocking *irra-anthir* and *al-anthir*), a dual-specific form (blocking *irra-ak*), and an agnatic–harmonic-specific form (blocking *irra-athir*, *al-athir*, and *inn-athir*.

(188)   **Allomorphs of the third person**

    a.   [   ] ↔ *inn* / ___ [DUAL, AUGMENTED]

       allomorph of third person triggered by plural

    b.   [   ] ↔ *al* / ___ [DUAL]

       allomorph of third person triggered by dual

    c.   [   ] ↔ *il* / ___ [AGNATIC, HARMONIC]

       allomorph of third person triggered by agnatic-harmonic

    d.   [   ] ↔ *il* / ___ [DUAL, AGNATIC, HARMONIC]

       alternative form of (188c): allomorph of third person triggered by nonsingular agnatic-harmonic

The kinship and number nodes undergo fusion in the agnatic-harmonic set. Rule (189a) blocks *ili-athir*, and rule (189c) blocks *un-arrii*.

(189) **Kinship-number fusion**

    a. [DUAL, AGNATIC, HARMONIC] ↔ *rn* / ___ [PARTICIPANT, AUTHOR]

       allomorph of dual agnatic-harmonic triggered by first person

    b. [DUAL, AGNATIC, HARMONIC] ↔ *athir*

       elsewhere form of dual agnatic-harmonic

    c. [DUAL, AUGMENTED, AGNATIC, HARMONIC] ↔ *ar* / ___ [PARTICIPANT, AUTHOR]

       allomorph of plural agnatic-harmonic triggered by first person

    d. [DUAL, AUGMENTED, AGNATIC, HARMONIC] ↔ *arrii*

       elsewhere form of plural agnatic-harmonic

In the agnatic forms, number and kinship are exponed separately. In the agnatic forms, only number is exponed.

(190) **Agnation & number**

    a. [AGNATIC] ↔ *ak*   elsewhere form of agnatic

    b. [DUAL, AUGMENTED] ↔ *r* / ___ [AGNATIC]   allomorph of PL triggered by agnatic

    c. [DUAL, AUGMENTED] ↔ *anthir*   elsewhere form of plural

    d. [DUAL] ↔ ∅ / ___ [AGNATIC]   allomorph of dual triggered by agnatic

    e. [DUAL] ↔ *anth*   elsewhere form of dual

The polyallomorphy of plural and dual may strike some as far too convenient, but these rules proposed here do not stray far from what is observed for these categories in cross-Arandic perspective. Strehlow (1942a:93) lists *-antatharra* 'both' as a low-frequency dual suffix available across all varieties of Arrernte. This suffix also has a reduced form *-thara* that attaches to pronouns in Lower Southern Arrernte: *era-thara* 'they two' (Strehlow 1942b:181). These forms are cognate with—and are not altogether too dissimilar from—*anth*∼*athir*∼ ∅, the strings associated with the dual in this analysis of Lower Arrernte.

Likewise, Strehlow (1942b:93) includes two archaic plural suffixes in Western Arrernte, *-irbera* and *-antirbera*. As before, the Lower Southern Arrernte cognate is notably reduced:

-rea following nouns and *-na* following pronouns (e.g., *et-na* 'they'). The plural alternation in Lower Arrernte is argued here to be *anthir*∼*r*∼ ∅.

At this point, it becomes possible to address the manner in which the observed pattern of root allomorphy rules against Hale, Yallop, and Strehlow's categorial ordering. Consider the *ang-*∼*mpil-* alternation in the second person dual forms. If this is indeed an ABB distribution, as it would be in the traditional ordering, then one could propose that *ang-* is the elsewhere form, and *mpil-* is the allomorph that appears in the agnatic-disharmonic (set II) and non-agnatic environments (set III). (Note that the alternation between *ili*∼*il* in the first person dual and *aki*∼*ak* for the agnatic marker are not consequences of morphologically-conditioned allomorphy, but result from language-specific hiatus-avoidance principles.)

(191)   **Elsewhere *ang-* joins agnatic-harmonic and non-agnatic in a non-natural class**

    a.   [PARTICIPANT, AUTHOR] ↔ *mpil* / AGNATIC-DISHARMONIC, NON-AGNATIC

    b.   [PARTICIPANT, AUTHOR] ↔ *ang*

Given the toy features in (177,179,182), however, this seems highly implausible. By definition, the two categories are discordant in terms of the agnation features: agnatic-disharmonic forms refer to groups in which all members have a matching value of the [±A] feature, whereas non-agnatic forms refer to groups in which there is at least one mismatched referent. Given that these feature specifications conflict, rule (191)—and in particular, the specificational context of (191a), which requires [AGNATIC] to be both present and not present—does not appear to be logically coherent.

Furthermore, the non-agnatic set is generation-insensitive: it applies equally to groups that are non-agnatic and harmonic (e.g., a man and his grandmothers) as well as groups that are non-agnatic and disharmonic (e.g., a man and his aunts). That is, non-agnatic forms are compatible with both harmonic and disharmonic referents, whereas agnatic-disharmonic forms are tautologically only compatible with the disharmonic referents. In other words,

Present [ ]	Participle [PAST]	Past [PAST, FINITE]	Pattern
hit	*hit*	*hit*	AAA
shine	*shone*	*shone*	ABB
run	*run*	*ran*	AAB
sing	*sung*	*sang*	ABC
shine	*shone*	*shone*	ABB
swell	*swollen*	*swelled*	ABA

Table 4.8: Putative AAB-permitting ablaut in English

there is no way to write a context of insertion that unifies the environments in (191): the agnatic-disharmonic and non-agnatic categories are neither in a containing or overlapping relationship. It would become necessary to propose two rules realizing the same form, each with a different context of insertion, or to propose an alternative featural architecture completely.

For this reason, the rules in (186), in which *mpil-* is a dual-specific form, and *ang-* is an agnatic–harmonic-specific form, is preferred. After all, it is compatible with agnatic–disharmonic, non-agnatic–harmonic, and non-agnatic–disharmonic groups. It is further compatible with groups of outsiders, for whom generational and moietal specifications are unknown, obscure, or irrelevant. Consequently, *ang-* would be the allomorph restricted to the highly specific agnatic-harmonic environment.

Crucially, this requires reversing the categorial orders given by Hale et al. in their grammatical descriptions. The non-agnatic forms should not be listed last in the paradigm as set III forms, but rather first as the least marked and distributionally freest forms. Likewise, the agnatic-harmonic forms should be listed last, as they are the most marked and most restricted forms. At this time, the ordering of the categories in Table 4.7 has been well defended.

In any case, given the AAB-permissibility of this contiguity domain, it may pattern with Bobaljik (2012:225)'s account of AAB-permitting ablaut in Germanic. A selection of the relevant data from English appears in Table 4.8. Note that although ABA patterns are extremely dispreferred in this domain, they are not unattested: Bobaljik himself volunteers

shear – shorn - sheared. But what particular concerns Bobaljik about these data is not so much the rarissima of a licit ABA pattern,[27] but rather the possibility that this domain may be associated with a different sort of cumulating architecture, in which the relevant features may be bundled together on one node. This is desirable, as the combination of PAST and FINITE can trigger stem readjustment, just as the combination of AGNATIC and HARMONIC can trigger stem allomorphy. Bobaljik's proposal, and its extension to Arrernte nonsingulars, are schematised below.

(192)   **Tense-finiteness & agnation-harmony bundling**

    a.

    b.
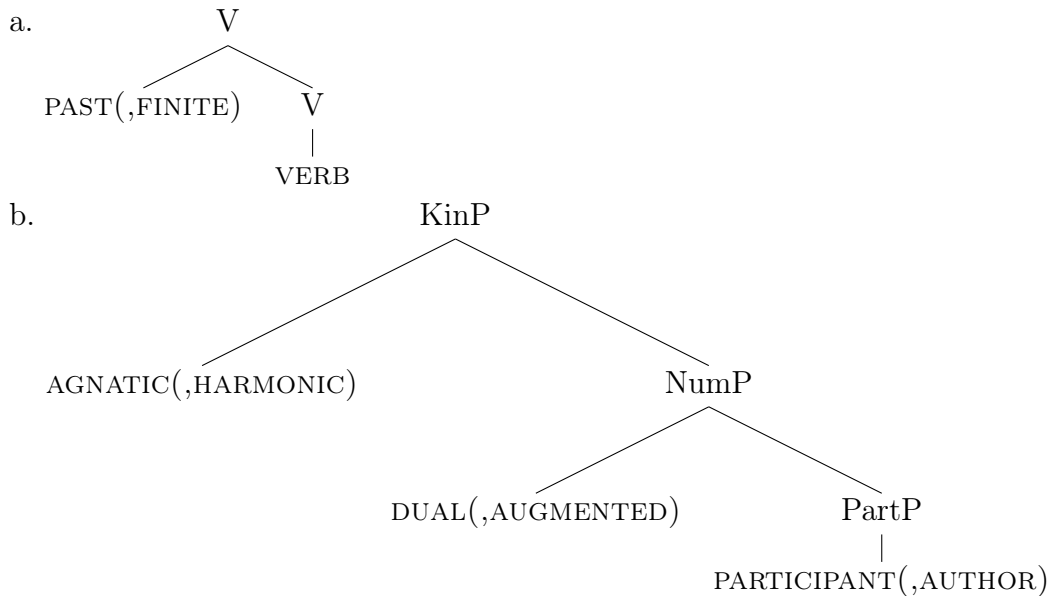
If indeed generation- and agnation-sensitive Arrernte nonsingulars form a *ABA configuration, the absence of ABB patterns may mystify. But this has been shown to be a byproduct of there being no special allomorphs of person triggered solely by [AGNATIC]. Rather, [AGNATIC, HARMONIC] must always trigger allomorphy together (perhaps alongside [DUAL] as well).

One piece of independent evidence in favour of this containment structure proposed here

---

27. That bona fide ABA patterns are observable in Germanic ablaut has led Andersson (2018) to pursue a diachronic explanation of these facts. This study does not seek to adjudicate which is better between these approaches, but it does seek to underscore that aetiological and derivational heterogeneity is the law of the land in the study of *ABA environments.

comes from transparent containment observable in Upper Arrernte (also known as Alyawarra, Yallop 1982:159). Specifically, the agnatic-harmonic form appears to contain elements of the agnatic-disharmonic form (i.e., *-kirra*).

(193) **Upper Arrernte third person plural**

    a. *aytn-anthirra* 'third person non-agnatic plural; three people or more'

    b. *aytn-ak-irra* 'third person agnatic-disharmonic plural; three people or more who all share the same patriline, but at least one of whom belongs to an odd-numbered generation with respect to the other members'

    c. *aytn-iyng-k-irra* 'third person agnatic-harmonic plural; three people or more who all share the same patriline, all of whom belong to an even-numbered generation with respect to all the other members'

Upper Arrernte *-(a)k* is argued here to be the exponent of the [AGNATIC] feature, cognate to the *-ak(i)* in Lower Arrernte agnatic-disharmonics. Likewise, plural *(anth)irra* in Upper Arrernte is cognate with *anthir∼ar∼r* in Lower Arrernte. Of course, Upper Arrernte also differs from Lower Arrernte in that the former does not have root allomorphy, and that harmony and agnation seem *not* to occupy the same projection. Furthermore, fusion of kinship and number has not occurred. This again speaks to the importance of characterising and analysing each particular putative contiguity domain on its own terms, even when closely related varieties are involved.

As long as there is no objection that Lower Arrernte nonsingulars do exemplify morphological contiguity, it bears re-emphasising that this study is by no means committed to the psychological reality or theoretical utility of the generational and moietal features proposed in (177–179). They are merely toy features used here to illustrate the difficulty of combining agnatic-disharmonic and non-agnatic (and generation-insensitive) forms into a natural class with a shared feature that could trigger co-suppletion. In the case of comparative suppletion, the ordering of POS > CMPR > SPRL is defensible on multiple grounds, not

the least semantic tractability and crosslinguistic morphological transparency. In contrast, generation- and moiety-sensitivity are typologically rare phenomena, providing few opportunities to observe transparent containment or overlap across many paradigms or languages. Consequently, more work has to be done to justify the categorial ordering onto which *ABA distributions are projected. Impressionistic surface inspection—as well as historical descriptive practices—may lead one to mistakenly conclude that non-agnatic forms belong to the 'final', most representationally complex category, even as it seems to be the 'initial', least marked category.

Even more importantly, these data suggest that *ABA patterns can be observed in a markedness-decreasing sequence (AGNATIC-HARMONIC > AGNATIC-DISHARMONIC > NON-AGNATIC). Even if Table 4.6 is flipped to yield a markedness-increasing sequence, it does not seem possible to analyze the data in terms of containment, if the non-agnatic is not properly contained by the agnatic-disharmonic (indeed, they are featurally and distributionally antagonistic categories). Although further syntacticosemantic analysis of these data and the features proposed here to derive them is left to future work, it does not seem premature to suggest that the task of setting up a paradigm to fish for *ABA domains is not always a simple one, and that *ABA domains are not uniform in terms of their underlying featural or cartographic architecture.

4.6   Conclusion

This chapter has accomplished a wide variety of goals with respect to the presentation of kintax as a morphological contiguity domain. First, it demonstrated that kintax can and should be modelled in terms of formal features, and proposed a number of dimensions of contrast for which a satisfying theory of features must fully account. Second, it proposed a system of toy features, which could be manipulated via Impoverishment, inactivation, and referral (i.e., deletion, lack of contrast, and modification) to yield crosslinguistically robust Greebergian kintactic metasyncretisms as well as the six types of kinship recognised

223

by traditional anthropology: Hawaiian (generational), Inuit (laterality-insensitive), Sudanese (minimally syncretic), Iroquois (cross-distinguishing), Omaha (patrilaterally promoting), and Crow (matrilaterally promoting). It has identified a disjunction between grammatical activity (e.g., the ability of the feature bundles associated with parallelness to participate in both markedness-targeted and -triggered Impoverishment) and lexicalisability (e.g., no language has a word that exclusively means 'parallel cousin' that is not an extension of sibling terms, instantiating an *ABC effect) and explained this disjunction in terms of the nature of the Impoverishment operation.

With this theoretical groundwork laid, this chapter has demonstrated that the impossible kinship typologies of Héritier's Fundamental Laws of Kinship can be thought of as morphological contiguity domains that forbid co-lexicalisations that would require improperly incremented feature bundle modifications. It has further argued that allomorphy in moiety-sensitive pronouns in Arrernte is also *ABA-sensitive. The Fundamental Laws seem to pattern with Caha's work on case subsequence co-lexicalisation at first glance, but may ultimately be amenable to something resembling a cumulating decomposition, providing that the right features are chosen. The latter case seems to pattern more naturally with comparative and honorific suppletion in its containment relations at first glance, but ultimately patterns with Germanic ablaut in its containment architecture. In summary, it would appear that the kintax is a rich source of contiguity effects that are heterogeneous in both aetiology and derivation.

CHAPTER 5

CONCLUSION

> *I am verrely conclude in þeese resons.*
>
> *The Cloude of Unknowyng*

This investigation has revealed two additional domains in which one can observe *ABA *configurations* (i.e., a theory-neutral description of pockets of natural language morphology in which non-contiguous formal isomorphism is unattested): honorifics and kinship. Specifically, it has characterised in some detail the behaviour of three *ABA *effects* (i.e., a theory-laden account of operations on and interactions between abstract morphological features that conspire to block non-contiguous formal isomorphism).

5.1   Honorifics & kinship constitute morphological contiguity domains

(194)   **Heterogeneity in morphological contiguity**

    a.   **Honorific-Humilific Generalisation**: Citation and humilific verbs cannot observe co-suppletion to the exclusion of honorific verbs.

    b.   **Héritier's Fundamental Laws of Kinship**: Kinship systems cannot observe absolute syncretisms between cross and nuclear kin to the exclusion of parallel kin.

    c.   **Principles of Generational Cyclicity & Agnatic Kinship**: Non-agnatic and agnatic-harmonic pronouns cannot observe co-suppletion to the exclusion of agnatic-disharmonic pronouns.

Generalisation (194a) describes the feature-cumulating morphological contiguity domain instantiated by Japanese honorifics, in which a suppletive honorific predicts a suppletive humilific, and vice versa, for verbs that contrast all three categories. Generalisation (194b)

describes the crosslinguistic prohibition on non-contiguous absolute syncretism of, for instance, cross cousin terms and sibling terms to the exclusion of parallel cousin terms. This has been shown to result from the postsyntactic deletion of kintactic features triggered by a marked feature combination (i.e., parallelness—a too-similar configuration in which gender features expressing the sex and laterality of the linking relative are matched). Lastly, generalisation (194c) describes the feature-cumulating morphological contiguity domain instantiated by Lower Arrernte nonsingular pronouns, in which formal identity between non-agnatic and agnatic-harmonic is not possible, but formal identity between non-agnatic and agnatic-disharmonic is. Major empirical and theoretical contrasts between these three case studies are contrasted in Table 5.1.

Restating, *ABA effects are observable in the two distinct domains of honorifics and kinship, neither of which at the time of this writing have been characterised as *ABA domains, even as the empirical generalisations with respect to suppletion (in the honorific domain) and to impossible typologies (with respect to kinship) have otherwise been relatively well characterised.[1] Second, these case studies straddle two distinct types of deviations from canonical form-meaning correspondence, namely suppletion (honorifics and kinship) and absolute syncretism (kinship only). Third, they vary in the dynamics that underlie the prohibition on non-contiguous formal identity specific to their domain: whereas suppletion-targeting *ABA effects are associated with feature-cumulating architectures in which the representation of more complex categories contain the representations appropriate to less complex categories, syncretism-targeting *ABA effects are associated with the extrasyntactic repair of marked feature bundles (in this case, the dissimilation of gender features associated with parallel kin, exemplified in the table supra in terms of kin related through a paternal uncle). Fourth, they vary in the permissibility of *AAB patterning, a known dimension of contrast in the

---

1. The discovery of new planets in astronomy works much the same way: often a newly discovered planet is noticed to have appeared in archival data of past observations, in which it was not described as a planet, because its movements were not charted over a period of time. This study has shown that there may be other well-known constraints and prohibitions that could be reframed as morphological contiguity effects.

Generalisation	Domain	Mechanism	*ABA	Other patterns	Analogue
Honorific-Humilific Generalisation	Honorifics	Suppletion	V > HON > HML	*AAB	Comparative suppletion
Fundamental Laws of Kinship	Kinship	Absolute syncretism	[Lat:+M±F] > [Lat:+M−F Link:−F] > [Lat:−M+F Link:−F] NUCLEAR > PARALLEL > CROSS	✓AAB	Case co-lexicalisation
Generational Cyclicity & Agnatic Kinship	Kinship	Suppletion	DUAL > AGNATIC > AGNATIC-HARMONIC	✓AAB *ABB	Germanic ablaut

Table 5.1: Heterogeneity in morphological contiguity

study of morphological contiguity.

This study contributes to the broader project of theoretical morphosyntax by deriving morphological contiguity by means of a modular grammar in which linearisation and alteration of marked feature combinations occurs after structure-building. The rich domanial and derivational diversity of these three case studies alone form part of the accumulating evidence that *ABA configurations are a pervasive, perhaps even unexceptional, consequence of the (crossmodularly structurally parallel) recombination of features to generate grammatical categories and basic vocabulary. Perhaps most importantly, this study has modelled an approach to *ABA environments that centres their rich empirical, aetiological, and derivational heterogeneity, in which each *ABA new configuration should be *not* immediately associated with a certain kind of structure or analysis, but rather studied in depth on its own terms, before being assigned to natural classes.

Although the identification of three novel *ABA domains—and the modelling by example a disposition by which additional ones may be identified, analysed, and classified—stand out as the major results of this work, a number of interesting, even counterintuitive secondary findings have made themselves apparent in the course of the investigation. The most important of these are summarised in the following sections.

5.2 Chapter 2: Re-evaluating honorific morphology in Japanese

Before Japanese honorifics can be characterised as an *ABA domain, the system itself must be carefully described in empirical terms, something that has rarely been done in the anglo-

phone primary literature. Much of what is said here about the system contains intentional and principled deviations from what has already been said in prescriptivist and pedagogical grammars.

5.2.1 Contrasting verbal & nominal o-

Nominal (and not always honorific) *o-* is distinct from verbal (and always honorific) *o-*. Nominal *o-* is associated with a richer pattern of allomorphy, allosemy, and phono-accentual consequences on the stem. Verbal *o-* is far less morphosemantically protean.

(195) **Morphosemantic stasis of verbal *o-***

> *o-kak-i-ni*   *nar-u*
> HON:V-write-NMLZ-DAT AUX:HON-NPST
> 'write; the speaker respects the writer'

(196) **Morphosemantic promiscuity of nominal *o-***

  a. *Multiple nominal honorification with obligatory contouring is possible*

     i. *o-mi-o-tsuke* 'HON:N-HON:N-HON:N-miso.soup'

     ii. *o-mi-kuji* 'HON:N-HON:N-lottery'

  b. *Nominal* o- *has more allomorphs, creates atonic forms, and does not potentiate sequential voicing*

     i. *koko↓ro*   downstep on second mora

     ii. *o-kokoro* (*o-gokoro) 'HON:N-heart'   atonic, honorific

     iii. *mi-kokoro* 'HON:N-heart'   atonic, archaic honorific

     iv. *mi-go↓koro* 'honourable-heart'   downstep on first mora, compound

  c. *Nominal* o- *is etymology-sensitive, ingroup-sensitive, and actually (and consistently) honorific*

     i. *shitsumon* 'question' vs *go-shitsumon* 'a question from the audience'

ii. *jōhin* 'refinement' vs *o-jōhin* (*go-jōhin) 'pretence, affectation, putting on airs'

Counterintuitively, under this analysis, the honorification of the Sino-Japanese verbs is *not* cued by an etymology-sensitive nominal *o-* that surfaces as *go-* next to the noun, but rather by a silent verbal *o-* closer to the light verb. *Nasar-* is the suppletive realisation of what would surface as **o-sh-i-ni nar-* if 'do' were a regular honorific.

(197) *go-benkyō*   *nasar-∅-∅*   *∅-u*
       HON:N-study do-NMLZ-HON:V AUX:HON-NPST
       'study; the speaker respects the studier'

5.2.2 Honorification as the grammaticalisation of voice

In Indo-European languages, T-V distinctions emerge from an analogy made between plurality and power (e.g., French *tu* vs *vous*) and/or between third person and deference (e.g., German *Sie*). Given that grammatical person and number are not well elaborated categories in Japanese on the level of pronominal[2] morphology (even as person-sensitivity is indeed observable elsewhere in the language, namely in the honorific system and with respect to such predicates as *-gar* 'show signs of'), another morphosemantic domain needs to serve as the source of honorific morphology.

In general, *naru* 'become' is the auxiliary associated with regular honorification, and *suru* 'do' with humilification. Passive morphology is used to express a weaker honorific; causative-passive morphology is used (historically) to express a stronger honorific; and causative-autobenefactive morphology is used (innovatively) to express humilific, in particular for intransitive verbs that are otherwise incompatible with transitive *suru* 'do'. When the system is considered across time in this way, it becomes clear that voice morphology is consistently selected as the source material for honorific morphology. In general, passives (which also mark

---

2. Japanese pronouns can be modified adjectivally, as in *kirei-na kare* 'the pretty he', and therefore there is some doubt about whether they can even be considered true pronouns at all.

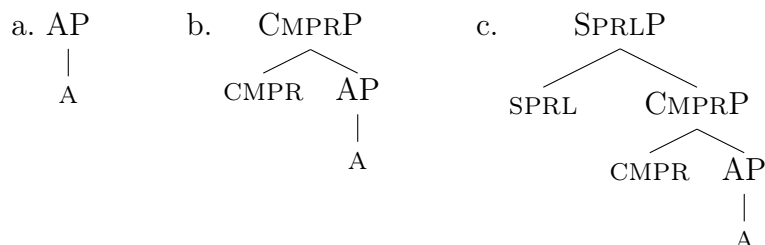| Form	Notes
kik-u	citation form
hear-NPST	'to hear'
o-kik-i-ni *nar-u*	regular honorific
HON-hear-NMLZ-DAT AUX:HON-NPST	'hear; the speaker respects the hearer'
kik-are-ru	passive honorific
hear-PASS:HON-NPST	'hear; the speaker respects the hearer'
kik-ase-rare-ru	(archaic) causative-passive honorific
hear-CAUS:HON-PASS:HON-NPST	'hear; the speaker greatly respects the hearer'
o-kik-i *su-ru*	regular humilific
HON-hear-NMLZ AUX:HML-NPST	'hear; the speaker humbles her/himself'
kik-ase-te *∅-itadak-∅* *∅-u*	(innovative) causative-autobenefactive humilific
hear-CAUS-GER HON-receive$_{out\rightarrow ingroup}$.HML-NMLZ AUX:HML-NPST	'hear; the speaker humbles her/himself; the hearing affects a higher-status person'

Table 5.2: Diachronic variation in the regular honorification of 'hear'

spontaneity in Japanese) and 'become' are analogised to effortlessness and thereafter grammaticalised into honorifics, whereas causatives and 'do' are analogised to effortfulness and thereafter grammaticalised into honorifics. In Table 5.2, *itadak-* is the suppletive realisation of what would surface as **o-morai-ni s-* if 'give' were a regular humilific.
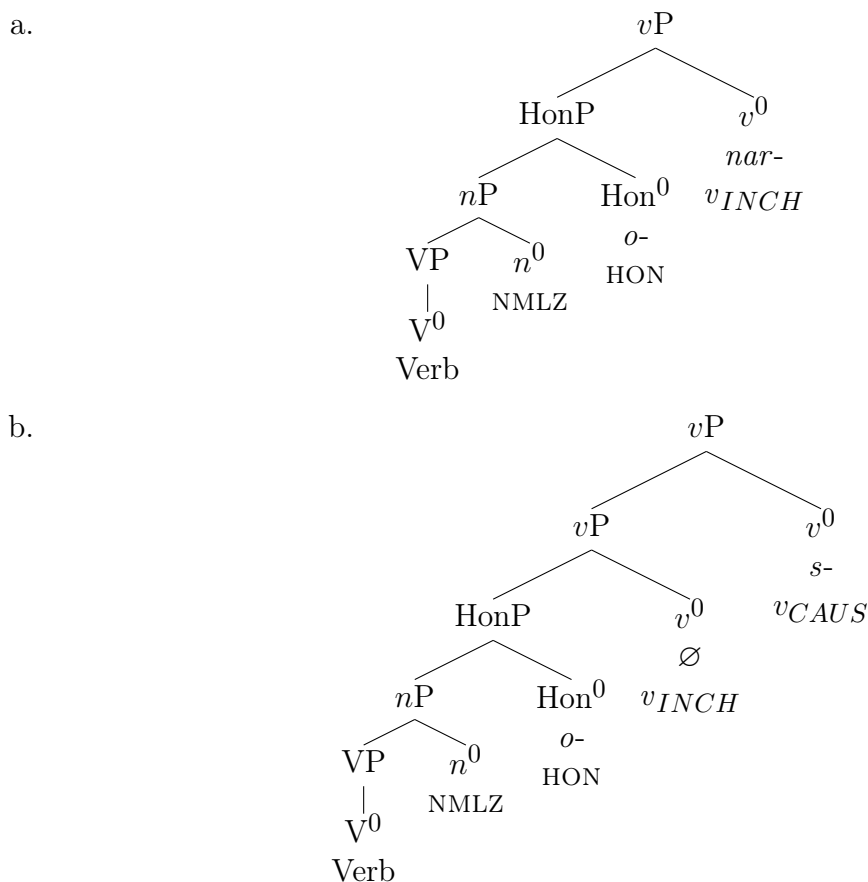
5.3   Chapter 3: Inchoative *naru* vs causative *suru*

The grammaticalisation of voice goes beyond the appearance of causative *-sase* and passive *-rare* in some honorific constructions. It has been demonstrated that *naru* 'become' and *suru* 'do; cause to become' themselves participate in an inchoative-causative alternation, both as main verbs and as auxiliaries within the honorific system. Crucially, the representation of *suru* 'v_{INCH}-v_{CAUS}' contains the representation of *naru* 'v_{INCH}', and it is this property that makes Japanese honorifics a feature-cumulating environment that patterns with comparative suppletion. Consequently, realisational rules cannot group the humilific and citation forms together as a class, excluding the honorific, for the purposes of co-suppletion. This study sides with Miyagawa (1998) and against Harley (2008a) that there are two vP projections. Overt morphological evidence for this structure comes from forms such as *iya-gar-ase-ru* 'hate(ful)-INCH-CAUS-NPST; to harass, to annoy'.

(198) **Containment in comparative suppletion**

a. AP
   |
   A

b. CMPRP
   CMPR AP
          |
          A

c. SPRLP
   SPRL CMPRP
          CMPR AP
                   |
                   A

(199) **Containment in honorific suppletion**

a.
```
                     vP
              HonP        v⁰
                          nar-
        nP        Hon⁰    v_INCH
                  o-
  VP    n⁰        HON
  |     NMLZ
  V⁰
  Verb
```

a. vP dominating $HonP$ and v^0 (*nar-*, v_{INCH}); $HonP$ dominating nP and Hon^0 (*o-*, HON); nP dominating VP and n^0 (NMLZ); VP dominating V^0 (Verb).

b.
```
                        vP
                 vP          v⁰
                             s-
          HonP       v⁰      v_CAUS
                     ∅
     nP       Hon⁰   v_INCH
              o-
  VP   n⁰     HON
  |    NMLZ
  V⁰
  Verb
```

b. vP dominating vP and v^0 (*s-*, v_{CAUS}); inner vP dominating $HonP$ and v^0 (∅, v_{INCH}); $HonP$ dominating nP and Hon^0 (*o-*, HON); nP dominating VP and n^0 (NMLZ); VP dominating V^0 (Verb).

5.3.1 *Traditional & prescriptive grammars overdiagnose suppletion*

Many forms called suppletive honorifics or humilifics are declassified as such. Four diagnostics of suppletion specific to Japanese are introduced. In general, a root and its suppletive alternants form semantically equivalent or related compounds. A root with a secondary grammatical meaning maintains that meaning under suppletion. A root and its suppletive

allomorph are expected to take the same types of complements. Finally, honorification of a root is expected to add one proposition to the root ('the speaker respects the V-er'), whereas humilification adds two ('the speaker humbles her/himself; the act of V-ing affects a person of higher status').

(200) **Diagnostics for suppletion**

    a. **Compound intersubstitutability**: *ii-wake* 'excuse' vs *mōushi-wake* 'apology'

    b. **Maintenance of suppletion under grammaticalisation**: *iru* 'exist; progressive marker' vs *irassharu* 'exist (honorific); progressive marker'

    c. **Maintenance of truth-conditionality**: *yomu* 'read' vs *o-yomi suru* 'read (humilific)' *haidoku suru* 'read (a work by a higher-status person)'

    d. **Maintenance of multipropositionality**: *mairu* as a courteous verb in *densha-ga mairimasu* 'the train comes' vs *mairu* as a humilific verb in *sensei-no o-taku-ni mairimasu* 'I come to the professor's house; I humble myself; my coming affects the professor'

5.3.2 *Honorific suppletion proliferates an unstable string of zero morphs*

The richly elaborated phrase markers in (199) mean that suppletive allomorphs tend to 'swallow up' (i.e., realise as zero morphs) a lot of structure. In general, the presence of a suppletive allomorph *meshiagar-* 'eat; the speaker respects the eater' means that the regular honorific *o-tabe-ni naru is not possible, as well as the doubly honorific form **o-meshiagari-ni naru*, in which the suppletive allomorph co-occurs with regular honorific morphology. That this latter possibility is attested (indeed, widely so) in non-normative speech suggests that the proliferation of zero morphology associated with prototypical suppletion is in some sense an unsteady state. Zero-rich (or equivalently, morphology-poor) strings are repaired as high-register roots that can be subject to regular honorification.

(201) **Reanalysis of a suppletive allomorph into a registral alternant**

a. *∅-meshiagar-∅   ∅-u*
  HON-eat.HON-NMLZ AUX:HON-NPST
  'eat; the speaker respects the eater'

b. *% o-meshiagar-i-ni   nar-u*
   HON-eat.HON-NMLZ-DAT AUX:HON-NPST
   'eat; the speaker greatly respects the eater'

5.4 Chapter 4: The unreasonable effectiveness of quasi-mathematics in the kintactic sciences

Emic approaches grounded in such approaches as the Natural Semantic Metalanguage research programme are deselected in favour of a componential approach. Componentialism describes a post-Saussurean view of morphological complexity that models variation in terms of abstract pseudoalgebraic features, and which permits natural treatments of pervasive implicational and/or markedness-based universals in kin terms, as well as larger metapatterns of kinship organisation across genealogically diverse languages.

(202) **Dimensions of kintactic contrast**: Sex (of referent, of propositus, and of linking relative), generation, laterality, sanguinity, age, descent, parallel-cross, address-reference

5.4.1 Underspecification, Impoverishment, and referral suffice to generate observed variation in kin systems

Underspecification permits parsimonious treatments of phenomena such as the neutralisation of sex in English *cousin*: gender features are simply not associated with the Vocabulary entry for *cousin*. With respect to systematic patterns of neutralisation that are well attested in genealogically diverse languages, and which instantiate markedness-based generalisations, Impoverishment is preferable. This is demonstrated below for the generation-triggered neutralisation of sex and descent, observed in both Hanunoo and Northwestern Alaskan Iñupiaq.

233

(203)   **Generation-tracked deletion of sex & descent features**

   a. *Neutralisation of descent for grandparental terms*

      i. Structural description: A kin term specified as [±feminine, ±lineal, $\mathbb{G}$: +2].

      ii. Structural change: Delete [±lineal].

   b. *Neutralisation of descent & sex for great-grandparental terms*

      i. Structural description: A kin term specified as [±feminine, ±lineal, $\mathbb{G}$: +3].

      ii. Structural change: Delete Gender and [±lineal].

Lastly, with the acknowledgment that the theoretical apparatus may now be too powerful, referral is available to deal with more drastic featural transformations, such as the treatment of paternal cross cousins as nephews in Crow:

(204)   **Nepotisation of paternal cross cousins in Crow-type languages**

   a. Structural description: A kin term specified as [GenderofLink:+f, Laterality:−f+m, −lineal, $\mathbb{G}$: 0].

   b. Structural change: Change [$\mathbb{G}$: 0] to [$\mathbb{G}$: +1].

Hèritier's Fundamental Laws of Kinship are reframed as an *ABA effect that prohibits the absolute syncretism of cross and nuclear kin to the exclusion of parallel kin (e.g., a language cannot have a word that means 'father' and 'maternal uncle' and a separate one that means 'paternal uncle').

5.4.2   *Nonsingulars in Lower Arrernte form an AAB-suppleting domain*

Nonsingular pronouns in Lower Arrernte constitute an AAB-permitting, feature-cumulating morphological contiguity domain. Two privative features are identified: [AGNATIC], which determines whether a group is composed of members in the same patriline (i.e., if they all share a male ancestor), and [HARMONIC], which determines whether a group is composed of members in even- or odd-numbered generations. Three sets of pronouns are contrasted:

non-agnatic, agnatic-disharmonic, and agnatic-harmonic. There are no cases in which there is co-suppletion of non-agnatic forms with agnatic-harmonic forms, instantiating an *ABA pattern. It has been demonstrated that previous work has consistently given the non-agnatic forms as the 'rightmost' form, thereby implying maximal featural or representational complexity. This study corrects this tendency, and argues that as the least marked and least referentially selective category, it should be listed first. Accordingly, the agnatic-harmonic forms, as the most marked and most referentially selective, are the most marked forms. The features have been represented privatively below to highlight the containment relationship.

(205) **Containment structure:** {DUAL} < {DUAL, AGNATIC} < {DUAL, AGNATIC, HARMONIC}

Crucially, this domain permits AAB distributions, and no ABB distributions are apparent. This peculiarity results from the fact that [AGNATIC, HARMONIC] always trigger allomorphy together, and there are no cases in which [AGNATIC] or [HARMONIC] trigger person allomorphy alone. This means that this containment effect is less about a hierarchical relationship between features or projections, and more about relationships between Vocabulary items of differential specificational complexity.

5.5   Future directions

Certainly, much work remains to be done. For a start, the analysis of honorific suppletion here is specific to Japanese, and the strongest studies of morphological contiguity are heavily crosslinguistic and genealogically diverse in nature. Unfortunately, honorific systems are rare, and honorific systems that include a humilific category even more so—to say nothing of the fact that some honorific systems may be products of areal diffusion, meaning that even a genealogically diverse sample may still be overrepresenting the logics of a small number of languages. Even so, at least three avenues of future investigation are possible. First, there are additional honorific auxiliaries in historical, ceremonial, and other non-mainstream registers

and varieties of Japanese (e.g., honorific *asobasu*, humilific *mōshiageru*, and honorific *-haru*) in which the inchoative and causative morphology may be more or less overt. Suppletive forms such as *irassharu* 'go' or *meshiagaru* 'eat' could be decomposed further into fossilised combinations of roots and voice morphology—certainly, *-agaru* in (honorific) *meshiagaru* and *-ageru* in (humilific) *mōshiageru* looks far too similar to the inchoative/causative main verb pair *agaru*/*ageru* 'rise/raise'. In other words, relationship between honorifics and voice may be even deeper and more theoretically significant than what has been presented here.

Secondly, it is certainly possible to study the handful of other multi-level honorific systems outside of Japanese in order to trawl for containment phenomena. Third, given that containment in Japanese honorifics reflects containment of inchoatives by causatives (and more marginally, of passives by causative-passives), investigation of containment phenomena in the domain of voice and valency, even in languages where this has not been exapted to honorification, could prove fruitful. The final word on honorification as a morphological contiguity domain has not been spoken.

With respect to the domain of kinship, the 'metafeatures' (cf. Nevins 2007) of the kintactic features proposed here could be characterised in further detail—by this, one refers to notions such as whether kintactic features form geometries (in light of overlapping dimensions such as sex of propositus, sex of referent, sex of speaker, sex of linking relative, and sex of parent [i.e., laterality]); whether generation is best expressed as an iterated binary feature or as an attribute-value structure that accepts numeric values; whether kintactic features can be subsumed into locative features, given the crosslinguistic commonality of spatial metaphors in the description of kin (e.g., *close* vs *distant* kin, *on my mother's **side***, etc.). Additionally, special attention should be paid to the languages in which kintactic features play a role in the management of switch reference and agreement, especially as this could provide insight with respect to whether the featural modifications that generate larger kin metapatterns occur pre- or postsyntactically. Given that the wider thrust of this study is that *ABA distributions constitute a common, unexceptional, and pervasive aspect of natu-

ral language morphology, the prospect of identifying additional domains conceptually distant from honorific and kinship doubtless tantalises.

References

Adamson, Luke. 2019. On containment and syncretism in English preterites and participles. *Proceedings of the Linguistic Society of America* 4:1–15.

Alderete, John. 2015. Updating the analysis of Japanese compound accent. In *Short'chrift for Alan Prince*, ed. Eric Baković.

Alpher, Barry. 1982. Dalabon dual-subject prefixes, kinship categories and generation skewing. In *Languages of Kinship in Aboriginal Australia*, ed. Jeffrey Heath, Francesca Merlan, and Alan Rumsey, 19–30. Sydney University Press.

Anderson, Mark. 2019. Ryukyu-substrate Japanese. In *Routledge Handbook of Japanese Sociolinguistics*. Routledge.

Andersson, Samuel. 2018. (*)ABA in Germanic verbs. *Glossa: A Journal of General Linguistics* 3.

Armstrong, Terence, and Hugh Brody. 1978. The term 'E****o'. *Polar Record* 19:177–180.

Arregi, Karlos, and Andrew Nevins. 2012. *Morphotactics: Basque Auxiliaries and the Structure of Spellout*. Springer Science.

Arregi, Karlos, and Andrew Nevins. 2013. Contextual neutralization and the Elsewhere Principle. In *Distributed Morphology Today: Morphemes for Morris Halle*, ed. Ora Matushanky and Alec Marantz, 199–222. MIT Press.

Arregi, Karlos, and Andrew Nevins. 2014. A monoradical approach to some cases of disuppletion. *Theoretical Linguistics* 40:311–330.

Aso, Reiko. 2015. Hateruma Yaeyama grammar. In *Handbook of the Ryukyuan Languages*, 423–448. De Gruyter Mouton.

Bachnik, Jane M. 2019. *Uchi/soto*: Challenging our conceptualizations of self, social order, and language. In *Situated Meaning: Inside and Outside in Japanese Self, Society, and Language*, ed. Jane M. Bachnik and Charles J. Quinn Jr, 3–37. Princeton University Press.

Barešova, Ivona. 2015. On the categorization of the Japanese honorific system *keigo*. *Topics in Linguistics* 15.

Baunaz, Lena, Eric Lander, Karen De Clercq, and Liliane Haegeman. 2018. Nanosyntax: the basics. *Oxford Studies in Comparative Syntax* 3–56.

Blansitt, Edward L. 1988. Datives and allatives. *Studies in Syntactic Typology* 1:73–191.

Blythe, Joe. 2018. Genesis of the trinity: The convergent evolution of trirelational kinterms. In *Skin, Kin and Clan: The Dynamics of Social Categories in Indigenous Australia*, ed. Patrick McConvell, Piers Kelly, and Sébastien Lacrampe, 431–471. Australian National University Press.

Bobaljik, Jonathan David. 2008. Missing persons: A case study in morphological universals. *The Linguistic Review* 25:203–230.

Bobaljik, Jonathan David. 2012. *Universals in Comparative Morphology: Suppletion, Superlatives, and the Structure of Words*. Cambridge, MA: MIT Press.

Bobaljik, Jonathan David, and Susi Wurmbrand. 2005. The domain of agreement. *Natural Language & Linguistic Theory* 23:809–865.

Boeckx, Cedric, and Norbert Hornstein. 2003. The varying aims of linguistic theory. Ms., University of Maryland, College Park.

Bonet, Eulália. 1991. Morphology after syntax: Pronominal clitics in romance. Doctoral Dissertation, Massachusetts Institute of Technology.

Bossard, James H.S., and Eleanor S. Boll. 1946. The immediate family and the kinship group: A research report. *Social Forces* 379–384.

Brown, Cecil H. 2013a. Finger and hand. In *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL `http://wals.info/chapter/130`.

Brown, Cecil H. 2013b. Hand and arm. In *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL `http://wals.info/chapter/129`.

Büring, Daniel. 2005. *Binding theory*. Cambridge: Cambridge University Press.

Caha, Pavel. 2008. The case hierarchy as functional sequence. In *Scales*, ed. Marc Richards and Andrej L. Malchukov, 247–276. Leipzig: Institut für Linguistik.

Caha, Pavel. 2013. Explaining the structure of case paradigms by the mechanisms of nanosyntax. *Natural Language & Linguistic Theory* 31:1015–1066.

Caha, Pavel. 2017a. Exploring linear contiguity: The overlapping decomposition. Presentation at the Forty-eight Annual Meeting of the North East Linguistic Society, University of Iceland.

Caha, Pavel. 2017b. How (not) to derive a *ABA: The case of Blansitt's generalisation. *Glossa: A Journal of General Linguistics* 2.

Calabrese, Andrea. 2008. On absolute and contextual syncretism: Remarks on the structure of case paradigms and on how to derive them. In *Inflectional Identity*, ed. Asaf Bachrach and Andrew Nevins, 156–205. Oxford University Press.

Carnie, Andrew. 2013. *Syntax: A Generative Introduction*. Hoboken, New Jersey: Wiley-Blackwell.

Chomsky, Noam. 1999. Derivation by phase. *MIT Occasional Papers in Linguistics* 18.

Chomsky, Noam. 2019. Remarks on nominalization. In *Studies on Semantics in Generative Grammar*, 11–61. De Gruyter Mouton.

Comrie, Bernard, Martin Haspelmath, and Balthasar Bickel. 2015. Leipzig glossing rules: Conventions for interlinear morpheme-by-morpheme glosses. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Cysouw, Michael, and Bernard Comrie. 2013. Some observations on typological features of hunter-gatherer languages. In *Language Typology and Historical Contingency: In Honor of Johanna Nichols*, ed. Balthasar Bickel, Lenore A. Grenoble, David A. Peterson, and Alan Timberlake, 383–94. Amsterdam: John Benjamins.

Dahl, Eystein, and Antonio Fábregas. 2018. Zero morphemes. In *Oxford Research Encyclopedia of Linguistics*. Oxford University Press.

Davis, Colin P. 2021. Case-sensitive plural suppletion in Barguzin Buryat: On case containment, suppletion typology, and competition in morphology. *Glossa: A Journal of General Linguistics* 6.

De Clercq, Karen. 2020. Negation in morphology. In *Oxford Research Encyclopedia of Linguistics*. Oxford University Press.

Dousset, Lauren. 2011. *Australian Aboriginal Kinship: An Introductory Handbook with Particular Emphasis on the Western Desert*. Marseille: Pacific-Credo Publications.

Dressler, Wolfgang U. 1985. Suppletion in word formation. In *Historical Semantics – Historical Word-formation*, ed. Jacek Fisiak, 97–112. Berlin: Mouton de Gruyter.

Dryer, Matthew S., and Martin Haspelmath, ed. 2013. *WALS Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL `http://wals.info/`.

Dupanović, Edin. 2010. Kinship vocabulary in L1 and L2: Surviving the differences. In *From Teaching to Learning: Current Trends in ELT*, ed. Vesna Dimitrieska. Tetovo: South East European University.

Eades, Diana. 2012. Communication with Aboriginal speakers of English in the legal process. *Australian Journal of Linguistics* 32:473–489.

Eberhard, David M., Gary F. Simons, and Charles D. Fennig, ed. 2021. *Ethnologue: Languages of the World, 24th edition*. Dallas, Texas: SIL International.

Eggan, Fred. 1950. *Social Organization of the Western Pueblos*. University of Chicago Press.

Fabricius, Johann Philipp, and Johann Christian Breithaupt. 1779. *A Malabar and English Dictionary: Wherein the Words and Phrases of the Tamulian language, Commonly Called by Europeans the Malabar Language, Are Explained in English by the English Missionaries of Madras*. Lutheran Mission Press.

Fortes, Meyer. 2017. *Kinship and the Social Order: The Legacy of Lewis Henry Morgan*. Routledge.

Franco, Ludovico. 2013. Before strikes back—An *ABA constraint on temporal expressions. *Acta Linguistica Hungarica* 60:265–301.

Ganenkov, Dmitry. 2018. The ABA pattern in Nakh-Daghestanian pronominal inflection. *Snippets* 11–12.

Goddard, Cliff. 2008. Natural Semantic Metalanguage: The state of the art. In *Cross-linguistic Semantics*, ed. Cliff Goddard. Amsterdam: John Benjamins.

Goddard, Cliff. 2012. Semantic primes, semantic molecules, semantic templates: Key concepts in the NSM approach to lexical typology. *Linguistics* 50:711–743.

Goddard, Cliff, and Anna Wierzbicka. 2013. *Words and Meanings: Lexical Semantics across Domains, Languages, and Cultures*. Oxford University Press.

Goodenough, Ward H. 1956. Componential analysis and the study of meaning. *Language* 32:195–216.

Goodenough, Ward H. 1967. Componential analysis: Kinship studies in cultural anthropology are producing a new tool for semantic analysis. *Science* 156:1203–1209.

Graf, Thomas. 2019. Monotonicity as an effective theory of morphosyntactic variation. *Journal of Language Modelling* 7:3–47.

Gray, James, and Tina Gregor. 2019. Gender/number syncretism in Yelmek verbal suppletion. In *Proceedings of GLOW in Asia XII & SICOGG XXI*, 111–125.

Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. *Universals of Language* 2:73–113.

Greenberg, Joseph H. 2020. Universals of kinship terminology. In *Language Universals*, 72–87. De Gruyter Mouton.

Hage, Per. 1997. Unthinkable categories and the fundamental laws of kinship. *American Ethnologist* 24:652–667.

Hale, Kenneth L. 1966. Kinship reflections in syntax: Some Australian languages. *Word* 22:318–324.

Hall, Edward Twitchell. 1989. *Beyond Culture*. Anchor.

Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. *The View from Building* 20:111–176.

Halle, Morris, and Alec Marantz. 1994. Some key features of distributed morphology. *MIT Working Papers in Linguistics* 21:275–288.

Harada, Shin-Ichi. 1976. Honorifics. In *Japanese Generative Grammar*, 499–561. Brill.

Harbour, Daniel. 2014. Paucity, abundance, and the theory of number. *Language* 185–229.

Harley, Heidi. 2008a. On the causative construction. In *Handbook of Japanese Linguistics*, ed. Natsuko Tsujimura, 20–53. Oxford University Press.

Harley, Heidi. 2008b. When is a syncretism more than a syncretism? Impoverishment, meta-syncretism, and underspecification. In *Phi Theory: Phi-features across Modules and Interfaces*, ed. Daniel Harbour, David Adger, and Susana Béjar, 251–294. Oxford University Press.

Harley, Heidi, and Rolf Noyer. 2014. Distributed morphology. In *The Second Glot International State-of-the-Article Book: The Latest in Linguistics*, ed. Lisa Cheng and Rint Sybesma, 463–496. De Gruyter Mouton.

Harley, Heidi, and Elizabeth Ritter. 2002. Person and number in pronouns: A feature-geometric analysis. *Language* 482–526.

Harris, Marvin. 1976. History and significance of the emic/etic distinction. *Annual Review of Anthropology* 5:329–350.

Hasegawa, Yoko. 2014. *Japanese: A Linguistic Introduction*. Cambridge University Press.

Heinrich, Albert. 1960. Structural features of northwestern Alaskan Eskimo kinship. *Southwestern Journal of Anthropology* 16:110–126.

Helmig, Thomas. 1992. Anglo-Saxon kin-class structure. *Mankind Quarterly* 33:155–162.

Héritier, Françoise. 1981. *L'Exercice de la parenté*. Gallimard.

Hiraiwa, Ken. 2017. The faculty of language integrates the two core systems of number. *Frontiers in Psychology* 8:351.

Hofstede, Geert. 1984. *Culture's Consequences: International Differences in Work-related Values*. Sage.

Hopper, Paul J. 1991. On some principles of grammaticization. In *Approaches to Grammaticalization*, ed. Elizabeth Closs Traugott and Bernd Heine, volume 1, 17–36. Amsterdam: John Benjamins.

Hopper, Paul J. 1994. Phonogenesis. In *Perspectives on Grammaticalization*, ed. William Pagliuca, 29–45. Amsterdam: John Benjamins.

Hopper, Paul J. 2003. *Grammaticalization*. Cambridge University Press.

Hume, David. 1993. *An Enquiry Concerning Human Understanding: with Hume's Abstract of A Treatise of Human Nature and A Letter from a Gentleman to His Friend in Edinburgh*. Cambridge: Hackett.

Hyman, Larry M. 2009. How (not) to do phonological typology: The case of pitch-accent. *Language Sciences* 31:213–238.

Itô, Junko. 1990. Prosodic minimality in Japanese. *Chicago Linguistic Society* 26:213–239.

Iwasaki, Shōichi. 2002. *Japanese*. Amsterdam: John Benjamins.

Jabłońska, Patrycja, and Svetoslav Marinov. 2011. Polish nominalization and the containment hypothesis. Presentation at the 5th Workshop on Nominalizations, University of Stuttgart.

Jacobsen, Wesley M. 1981. Transitivity in the Japanese verbal system. Doctoral Dissertation, University of Chicago.

Jacobsen, Wesley M. 1982. Vendler's verb classes and the aspectual character of Japanese. In *Proceedings of the Eighth Annual Meeting of the Berkeley Linguistics Society*, ed. Monica Macaulay, Orin D. Gensler, Claudia Brugman, Inese Čivkulis, Amy Dahlstrom, Katherine Krile, and Rob Sturm, 373–383.

Jasanoff, Jay H. 1987. The tenses of the Latin perfect system. In *Festschrift for Henry Hoenigswald on the Occasion of his Seventieth Birthday*, ed. George Cardona and Norman H. Zide, 177–183. Tübingen: G. Narr.

Jones, Doug. 2003. The generative psychology of kinship: Part 1. Cognitive universals and evolutionary psychology. *Evolution and Human Behavior* 24:303–319.

Jones, Doug. 2010. Human kinship, from conceptual structure to grammar. *Behavioral and Brain Sciences* 33:367–416.

Jordan, Fiona M, Russell D. Gray, Simon J. Greenhill, and Ruth Mace. 2009. Matrilocal residence is ancestral in Austronesian societies. *Proceedings of the Royal Society B: Biological Sciences* 276:1957–1964.

Kawahara, Shigeto, Atsushi Noto, and Gakuji Kumagai. 2018. Sound symbolic patterns in Pokémon names. *Phonetica* 75:219–244.

Konomi, Emiko. 2018. *Beginning Japanese for Professionals: Book 3*. Portland State University.

Kottak, Conrad Phillip. 2015. *Cultural Anthropology: Appreciating Cultural Diversity*. McGraw-Hill.

Kroeber, Alfred Louis. 1909. Classificatory systems of relationship. *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* 39:77–84.

Kukla, André. 2013. *Social Constructivism and the Philosophy of Science*. Routledge.

Kuroda, S-Y. 2003. Complex predicates and predicate raising. *Lingua* 113:447–480.

Lounsbury, Floyd. 1964. The structural analysis of kinship semantics. In *Proceedings of the Ninth International Congress of Linguistics*, ed. H. G. Hunt, 1073–1093. Mouton.

Lowie, Robert H. 1928. A note on relationship terminologies. *American Anthropologist* 30:263–267.

243

Luong, Hy Van. 1984. "Brother" and "uncle": An analysis of rules, structural contradictions, and meaning in Vietnamese kinship. *American Anthropologist* 86:290–315.

Luraghi, Silvia. 2012. Basic valency orientation and the middle voice in Hittite. *Studies in Language* 36:1–32.

Malkiel, Yakov. 1964. Each word has a history of its own. In *From Particular to General Linguistics: Selected Essays 1965–1978*, 217–228. Amsterdam: John Benjamins.

Mare, María. 2021. Syncretism of plural forms in Spanish dialects. *The Linguistic Review* 38:289–314.

Martin, Samuel E. 2003. *A Reference Grammar of Japanese*. University of Hawaii Press.

McClain, Yoko. 1981. *Handbook of Modern Japanese Grammar*. Tokyo: Hokuseido Press.

McConvell, Patrick, Piers Kelly, and Sebastien Lacrampe. 2018. *Skin, Kin and Clan: The Dynamics of Social Categories in Indigenous Australia*. Australian National University.

McFadden, Thomas. 2018. *ABA in stem-allomorphy and the emptiness of the nominative. *Glossa: A Journal of General Linguistics* 3.

McGinnis, Martha. 2005. On markedness asymmetries in person and number. *Language* 81:699–718.

Mead, Margaret. 2002. *Kinship in the Admiralty Islands*. New Brunswick: Transaction Publisher.

Merchant, Jason. 2015. How much context is enough? Two cases of span-conditioned stem allomorphy. *Linguistic Inquiry* 46:273–303.

Mickey, Barbara H. 1956. Acoma kinship terms. *Southwestern Journal of Anthropology* 12:249–256.

Middleton, Jane. 2021. Pseudo-ABA patterns in pronominal morphology. *Morphology* 31:329–354.

Miller, Roy Andrew. 1967. *The Japanese Language*. University of Chicago Press.

Minami, Fujio. 1987. *Keigo*. Tokyo, Japan: Iwanami Shoten.

Mitchell, Alice. 2015. Words that smell like father-in-law: A linguistic description of the Datooga avoidance register. *Anthropological Linguistics* 195–217.

Miyagawa, Shigeru. 1998. *(S)ase* as an elsewhere causative and the syntactic nature of words. *Journal of Japanese Linguistics* 16:67–110.

Miyake, Yoshimi M. 2000. The Japanese deferential prefix *o-*: A natural history. Doctoral Dissertation, University of Michigan.

Morgan, Lewis H. 1871. *Systems of Consanguinity and Affinity of the Human Family*. Smithsonian Institution.

Moskal, Beata. 2015. Limits on allomorphy: A case study in nominal suppletion. *Linguistic Inquiry* 46:363–376.

Murakami-Smith, Andrew Ladd. 1997. Dialects and place in modern Japanese literature. Doctoral Dissertation, Princeton University.

Nanda, Serena, and Richard L. Warms. 2019. *Cultural Anthropology*. Sage.

Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language & Linguistic Theory* 25:273–313.

Nevins, Andrew. 2008. Cross-modular parallels in the study of phon and phi. In *Phi Theory: Phi-features across Modules and Interfaces*, ed. Daniel Harbour, David Adger, and Susana Béjar, 329–368. Oxford University Press.

Nevins, Andrew. 2010. The applicability of theories of phonological contrast to kinship systems. *Behavioral and Brain Sciences* 33:398–399.

Nevins, Andrew. 2011. Marked targets versus marked triggers and impoverishment of the dual. *Linguistic Inquiry* 42:413–444.

Nisbett, Richard E., Kaiping Peng, Incheol Choi, and Ara Norenzayan. 2001. Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review* 108:291–310.

Nishina, Yoko. 2008. Grammaticalization of honorific constructions in Japanese. In *Studies on Grammaticalization*, ed. Elisabeth Verhoeven, Stavros Skopeteas, Yong-Min Shin, Yoko Nishina, and Johannes Helmbrecht, 283–302. De Gruyter.

Okamoto, Shigeko, and Janet S. Shibamoto-Smith. 2016. *The Social Life of the Japanese Language: Cultural Discourse and Situated Practice*. Cambridge University Press.

Oshima, David Y. 2006. Adversity and Korean/Japanese passives: Constructional analogy. *Journal of East Asian Linguistics* 15:137–166.

Pellard, Thomas. 2010. Ōgami (Miyako Ryukyuan). In *An Introduction to Ryukyuan Languages*, ed. Michinori Shimoji and Thomas Pellard, 113–166. Research Institute for Languages and Cultures of Asia and Africa.

Poser, William J. 1992. Blocking of phrasal constructions by lexical items. In *Lexical Matters*, ed. Ivan A. Sag and Anna Szabolsci, 111–130. Stanford: CSLI Publications.

Rawson, Elizabeth. 1983. *Cicero: A Portrait*. Bristol Classical Press.

Read, Dwight. 2013. A new approach to forming a typology of kinship terminology systems: From Morgan and Murdock to the present. *Structure and Dynamics* 6.

Richards, Norvin. 2016. *Contiguity Theory*. Cambridge, MA: MIT Press.

Rolle, Nicholas. 2020. In support of an OT-DM model. *Natural Language & Linguistic Theory* 38:201–259.

Ross, John Robert. 1967. Constraints on variables in syntax. Doctoral Dissertation, Massachusetts Institute of Technology.

Salazar, Carles. 2010. Genealogy (and the relationship between opposite-sex/same-sex sibling pairs) is what kinship is all about. *Behavioral and Brain Sciences* 33:401–402.

de Saussure, Ferdinand. 1998. *Course in General Linguistics*. Open Court.

Schank, Jeffrey C., and William C. Wimsatt. 1986. Generative entrenchment and evolution. In *Proceedings of the Biennial Meeting of the Philosophy of Science Association*, 2, 33–60. Philosophy of Science Association.

Schmitt, Carl. 2008. *The Concept of the Political: Expanded edition*. University of Chicago Press.

Schneider, David Murray. 1984. *A Critique of the Study of Kinship*. University of Michigan Press.

Schwimmer, Brian. 2003. Old English Kinterms. University of Manitoba. URL https://umanitoba.ca/faculties/arts/anthropology/tutor/kinterms/oldenglish.html.

Silverstein, Michael. 1981. The limits of awareness. Southwest Educational Development Laboratory, Austin, TX.

Smith, Peter W., Beata Moskal, Ting Xu, Jungmin Kang, and Jonathan David Bobaljik. 2019. Case and number suppletion in pronouns. *Natural Language & Linguistic Theory* 37:1029–1101.

Strehlow, T. G. H. 1942a. Aranda grammar. *Oceania* 13:71–103.

Strehlow, T. G. H. 1942b. Aranda grammar (continued). *Oceania* 13:177–200.

Strehlow, T. G. H. 1942c. Aranda phonetics. *Oceania* 12:255–302.

Stump, Gregory T. 1993. On rules of referral. *Language* 449–479.

Stump, Gregory T. 2001. *Inflectional Morphology: A Theory of Paradigm Structure*. Cambridge University Press.

Tabbert, Russell. 1991. *Dictionary of Alaskan English*. Denali Press.

Tanaka, Yu. 2017. The sound pattern of Japanese surnames. Doctoral Dissertation, University of California, Los Angeles.

Terray, Emmanuel. 1986. The practice of kinship. *Annales, economies, sociétés, civilisations* 41:259–270.

Thompson, Anie. 2011. Irregularity in Japanese honorifics. In *Morphology at Santa Cruz: Papers in Honor of Jorge Hankamer*, ed. Nicholas LaCara, Anie Thompson, and Matthew A. Tucker. University of California, Santa Cruz: Linguistics Research Center.

Thornton, Anna M. 2010. Towards a typology of overabundance. Presentation at Décembrettes 7: International Conference on Morphology, University of Toulouse.

Tippmann, Jenny, Katja Stärk, Miriam Ebersberg, Andreas Opitz, and Sonja Rossi. 2018. Developmental changes in neuronal processing of irregular morphosyntactic rules during childhood. Presentation at the 8th International Max Planck Research Schools NeuroCom Summer School, Leipzig.

Trautmann, Thomas R., and Peter M. Whiteley. 2012. *Crow-Omaha: New Light on a Classic Problem of Kinship Analysis*. University of Arizona Press.

Truong, Tran. 2019. Morphological typology of neopronouns. Presentation at They, Hirself, Em, & YOU 2019: Nonbinary Pronouns in Research & Practice, Queen's University.

Truong, Tran. 2020. *ABA effects in kinship allomorphy & syncretism. *Proceedings of the Linguistic Society of America* 5:345–353.

Truong, Tran. 2021. Reconciling underspecification with the overlapping decomposition. *Proceedings of the Linguistic Society of America* 6:728–733.

Ultan, Russell. 1972. Some features of basic comparative constructions. *Working Papers on Language Universals* 9:117–162.

Van Baal, Yvonne, and Jan Don. 2018. Universals in possessive morphology. *Glossa: A Journal of General Linguistics* 3:1–19.

Veblen, Thorstein. 1912. *The Theory of the Leisure Class: An Economic Study of Institutions*. Macmillan.

Vendler, Zeno. 1957. Verbs and times. *The Philosophical Review* 66:143–160.

Vivelo, Frank Robert. 1978. *Cultural Anthropology Handbook: A Basic Introduction*. McGraw-Hill.

Weintz, Henry J. 1904. *Hossfeld's Japanese Grammar: Comprising a Manual of the Spoken Language in the Roman Character, Together with Dialogues on Several Subjects and Two Vocabularies of Useful Words*. Hirschfeld Brothers, Limited.

Wierzbicka, Anna. 1980. *Lingua Mentalis: The Semantics of Natural Language*. Brill.

Wierzbicka, Anna. 1992. *Semantics, Culture, and Cognition: Universal Human Concepts in Culture-specific Configurations*. Oxford University Press.

Wierzbicka, Anna. 1996. *Semantics: Primes and Universals*. Oxford University Press.

Wierzbicka, Anna. 2010. Lexical universals of kinship and social cognition. *Behavioral and Brain Sciences* 33:403.

Wierzbicka, Anna. 2012. The history of English seen as the history of ideas: Cultural change reflected in different translations of the New Testament. In *Oxford Handbook of the History of English*, ed. Terttu Nevalainen and Elizabeth Closs Traugott, 434–445. Oxford University Press.

Wierzbicka, Anna. 2013a. Kinship and social cognition in Australian languages: Kayardild and Pitjantjatjara. *Australian Journal of Linguistics* 33:302–321.

Wierzbicka, Anna. 2013b. Translatability and the scripting of other peoples' souls. *Australian Journal of Anthropology* 24:1–21.

Wierzbicka, Anna. 2015. New perspectives on kinship: Overcoming the Eurocentrism and scientism of kinship studies through lexical universals. *Routledge Handbook of Linguistic Anthropology* 62–79.

Wierzbicka, Anna. 2016. Back to 'mother' and 'father': Overcoming the Eurocentrism of kinship studies through eight lexical universals. *Current Anthropology* 57:408–429.

Wiland, Bartosz. 2018. Ordering paradoxes in a cross-categorial paradigm: On syncretisms with the declarative complementizer. In *The Unpublished Manuscript: A Collection of Lingbuzz Papers to Celebrate Michal Starke's 50th Birthday*, ed. Pavel Caha, Karen De Clercq, and Guido Vanden Wyngaerd. Lingbuzz.

Wilkins, David. 1988. Switch reference in Mparntwe Arrernte (Aranda): Form, function, and problems of identity. In *Complex Sentence Constructions in Australian Languages*, ed. Peter Austin, 141–176. Amsterdam: John Benjamins.

Wolfram, Walt, and Donna Christian. 1976. *Appalachian Speech*. Center for Applied Linguistics.

Yallop, Colin. 1977. *Alyawarra, an Aboriginal Language of Central Australia*. Australian Institute of Aboriginal Studies.

Yallop, Colin. 1982. *Australian Aboriginal Languages*. André Deutsch.

Yamada, Akitaka. 2019. The syntax, semantics and pragmatics of Japanese addressee-honorific markers. Doctoral Dissertation, Georgetown University.

Ye, Zhengdao. 2017. The semantics of nouns: A cross-linguistic and cross-domain perspective. In *The Semantics of Nouns*, ed. Zhengdao Ye. Oxford University Press.

Zompì, Stanislao. 2019. Ergative is not inherent: Evidence from *ABA in suppletion and syncretism. *Glossa: A Journal of General Linguistics* 4:73.