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CONTENTS

ABBREVIATIONS	v
NOTE ON TRANSLATIONS	vi
ACKNOWLEDGMENTS	vii
ABSTRACT.....	ix
INTRODUCTION	1
§1 Psychic Parthood.....	1
§2 Historical Reflections	6
2.1 Ethical Conceptions.....	7
2.2 Theoretical Conceptions	11
§3 Scholarship on Aristotelian Psychic Parts.....	14
§4 The Plan of the Dissertation.....	17
I. THE PROBLEM OF PSYCHIC STRUCTURE	22
§1 The Problem of Psychic Parthood.....	23
1.1 The Homonymy of Life.....	23
1.2 Internal Complexity.....	31
1.3 Uniformity of Constitutive Capacities.....	34
1.4 Psychic Parthood	39
§2 The Problem of Psychic Unity	42
2.1 Soul as a Principle of Unity.....	43
§3 Tensions in the Aristotelian Conception of Psychic Structure.....	52
II. THE PHYSIOLOGICAL CONCEPTION OF PSYCHIC PARTHOOD.....	56
§1 The Physiological Conception of Psychic Parthood	59
§2 Examples of Physiological Conceptions	64
§3 The Physiological Picture and Aristotelian Psychology	72
§4 Arguments Against the Physiological Picture.....	75
4.1 The Explanatory Burden Argument	77
4.2 The Dissection Argument.....	79
4.3 The Separability of Intellect	83
III. PLATONIC BIPARTITION AND TRIPARTITION	86
§1 The Methodological Critique of Bipartition and Tripartition	87
1.1 Overview of the Argument.....	87
1.2 Platonic Ethical Bipartition and Tripartition	90

1.3	Ethical and Theoretical Psychology	94
1.4	Principles of Partitioning	96
1.5	The Unprincipled Character of Bipartition and Tripartition	101
1.6	Summary of Argument	115
1.7	Logical Difference	115
1.8	The Indefinite Proliferation of Psychic Parts	122
§2	The Argument from Opposites.....	127
2.1	The Platonic Argument for Tripartition.....	127
2.2	A Cognitive Analysis of Opposing Desires.....	129
§3	Conclusions	135
IV.	PSYCHIC PARTHOOD AND THE MAPPING OF THE SOUL.....	137
§1	The Aims of Psychic Parthood.....	140
§2	Dependency Arguments	142
2.1	Memory	144
2.2	Logical Priority.....	151
§3	Parthood Arguments.....	158
3.1	Intellect	159
3.2	Logical Primacy.....	165
3.3	Relation to Previous Conceptions of Psychic Parthood	172
3.4	Logical Separability and Logical Primacy	174
§4	The Mapping of the Soul.....	176
V.	ARISTOTLE'S UNIFIED SOUL.....	180
§1	The Problem of Psychic Unity	183
1.1	An Inconsistent Triad about the Soul	183
1.2	The Actualist Assumption	185
§2	Psychic Unity in <i>De Anima</i>	188
2.1	The Figure Analogy	188
2.2	Potential Presence.....	193
2.3	Potential Presence in the Figure Analogy.....	196
2.4	Embryology and the Temporal Priority of Psychic Parts.....	198
2.5	Against the Actualist Assumption	206
§3	Hylomorphic Unity	208
3.1	Material and Formal Parts	208
3.2	Matter and Form within Forms.....	212

3.3	The Unity of Actuality and Potentiality	218
3.4	The Figure Analogy, Reconsidered	221
VI.	DISJUNCTIVE AND HOLISTIC CONCEPTIONS OF PSYCHIC STRUCTURE	225
§1	Disjunctive and Holistic Conceptions of Psychic Structure.....	227
1.1	The Disjunctive Conception	227
1.2	The Holistic Conception.....	231
1.3	The Transformation of Lower Souls	235
1.4	The Tension	244
§2	Common and Particular Accounts.....	248
2.1	A Threat to the Unity of Psychology.....	249
2.2	The Common-Particular Distinction	254
2.3	Analogy to Holistic and Disjunctive Conceptions	260
	CONCLUSION.....	269
	APPENDIX.....	273
1	<i>Phantasia</i> is in the Perceptual Part of the Soul.....	273
2	Locomotion and Desire are Not Parts of the Soul	280
3	The Unity of Desire and the Argument from Opposites.....	289
§1	Unitary and Aggregative Accounts of Locomotion	290
§2	Desire as a Common Form	295
	BIBLIOGRAPHY.....	300
	Editions and Translations of Ancient and Medieval Texts.....	300
	Modern Texts	301

ABBREVIATIONS

<i>Categories</i>	<i>Cat.</i>	<i>De Divinatione per Somnum</i>	<i>Div.</i>
<i>De Interpretatione</i>	<i>DI</i>	<i>Parva Naturalia</i>	<i>PN</i>
<i>Prior Analytics</i>	<i>APr.</i>	<i>Historia Animalium</i>	<i>HA</i>
<i>Posterior Analytics</i>	<i>APo.</i>	<i>Parts of Animals</i>	<i>PA</i>
<i>Topics</i>	<i>Top.</i>	<i>De Motu Animalium</i>	<i>MA</i>
<i>Physics</i>	<i>Phys.</i>	<i>De Generatione Animalium</i>	<i>GA</i>
<i>De Generatione et Corruptione</i>	<i>GC</i>	<i>De Incessu Animalium</i>	<i>IA</i>
<i>De Caelo</i>	<i>DC</i>	<i>Metaphysics</i>	<i>Meta.</i>
<i>Meteorology</i>	<i>Mete.</i>	<i>Nicomachean Ethics</i>	<i>NE</i>
<i>De Anima</i>	<i>DA</i>	<i>Eudemian Ethics</i>	<i>EE</i>
<i>De Sensu et Sensibilibus</i>	<i>DS</i>	<i>Magna Moralia</i>	<i>MM</i>
<i>De Memoria et Reminiscentia</i>	<i>DM</i>	<i>Politics</i>	<i>Pol.</i>
<i>De Somno et Vigilia</i>	<i>DSV</i>	<i>Rhetoric</i>	<i>Rhet.</i>
<i>De Insomniis</i>	<i>Insomn.</i>	<i>Poetica</i>	<i>Poet.</i>
<i>De Juventute et Senectute</i>	<i>Juv.</i>	<i>De Sophisticis Elenchis</i>	<i>SE</i>
<i>De Longitudine et Brevitate Vitae</i>	<i>Long.</i>	<i>De Divinatione per Somnum</i>	<i>Div.,</i>

All references to Aristotle's texts are given in the following form: abbreviated title, book (if available), chapter, followed by page, column, and lines in Bekker's edition (e.g., *Meta.*, Z.7, 1032a20.)

NOTE ON TRANSLATIONS

All translations of Greek and Latin texts are taken or derived from existing English translations. Translations of *De Anima* are derived from Shields (2016); translations of *De Motu Animalium* are derived from Nussbaum (1986); translations from *De Memoria* are derived from Bloch (2007); all other translations of Aristotelian texts are derived from the *Revised Oxford Translation*, edited by Barnes (1984). All translations of Plato are derived from *Plato: Complete Works*, edited by Cooper (1997). Throughout, I alter these existing translations where I see fit, centrally for the sake of terminological consistency or stylistic concerns (e.g., I regularly translate δύναμις as “capacity”, and not “faculty”). Any further significant alterations to an existing translation are noted in the relevant footnote.

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ABSTRACT

My dissertation provides a novel interpretation of Aristotle's conception of the foundational notion of 'parts of soul' (*moria psuchēs*) in his *De Anima*. Interpreters have failed to explain how Aristotle can maintain two philosophically attractive and textually grounded claims: that there are multiple discrete parts of soul, and that soul is the unified and unifying form (*eidos*) of the living organism. Contrary to most interpreters, I argue that both claims are genuinely endorsed by Aristotle and, when correctly understood, compatible and crucial to the project of *De Anima* as a whole. First, psychic parts are not spatial parts, but are instead the definitionally basic or primitive capacities of an organism (nutrition, perception, intellect); these basic capacities, in turn, provide the explanatory foundation for understanding all other vital capacities. Second, Aristotle formulates a sophisticated account of psychic unity, according to which psychic parts are 'present potentially' within the soul: the soul, then, is no mere aggregate of parts, but is actually and essentially a whole, even while having parts.

INTRODUCTION

§1 Psychic Parthood

Ordinary language, and the concepts on which it depends, are penetrated throughout with metaphor. A powerful person, for example, is ‘above’ those who are ‘below’; an argument is a kind of battle, in which one can ‘win’ by ‘attacking’ a ‘position’. This omnipresence of metaphor is perhaps most pronounced in how we talk about our ‘inner’ lives—descriptions of the mind, soul, or person. To take a particularly ubiquitous example, we often talk as if the mind is a kind of ‘container’ (dating back at least to the aviary imagery of the *Theaetetus*),¹ from within which we ‘retrieve’ thoughts that are ‘inside’ the mind. In these cases, we transfer language originally reserved for one context—spatial containment—to illuminate another context—mental activity.

These metaphorical ways of speaking often attempt to describe something that is, in one way or another, beyond our immediate grasp. We replace some inaccessible literal description with the next best thing—a metaphorical description. This seems innocent enough, but a question remains: how should we relate to this metaphorical character? On one extreme, we might take an antagonistic view to it, being tempted to exorcise any non-literal language, whenever possible. Centrally, transferring one way of describing something to a new context can generate all sorts of problematic questions and implications. It can, for example, give rise to unwanted metaphysical baggage (e.g., how many thoughts can we fit inside a mind?). To avoid these issues, especially in strict scientific contexts, we might seek to achieve a perfectly literal and precise language. On the other, we might take a more tolerant approach and simply accept these metaphorical ways of

¹ *Theaetetus*, 196d–200d.

thinking and speaking. We could treat these metaphors not as problems to be overcome, but as reminders of the limits of our thinking or recalcitrant facts about human language. Although we recognize the metaphorical character of our speech and thought, we would feel no compulsion to fundamentally alter it.

As Aristotle himself exhibits throughout his corpus, one task of the philosopher is to critically confront and reflect on these metaphorical ways of speaking, which have become entrenched in language and thought. For Aristotle, this critical confrontation often involves charting a middle course between the two approaches described above: diagnosing the insufficiencies and failures of these metaphorical descriptions, while also recognizing and upholding their profound insights. We must neither immediately reject these metaphors, as the first approach would encourage, nor accept them uncritically, as the second would. This is the approach Aristotle articulates, for example, when discussing the plausibility that dreams could be prophetic: “we cannot lightly dismiss [prophetic dreams] with contempt nor give them confidence.”² These received ways of speaking and thinking are not intellectual dead ends, to be simply accepted or rejected. Instead, they are arenas and springboards for philosophizing, which can afford both deep insights into and critical reflections on received knowledge.

This dissertation is a reflection on one such metaphor, which has been and remains central to how we talk and think about our inner lives, minds, souls, and life in general. This is a family of phrases and concepts that includes “parts of soul”, “psychic parthood”, the “divided self”, “the structured psyche”, “modules of the mind”, etc., (for ease, I refer to this family collectively as “psychic parthood”). On its surface, psychic parthood appears to be entirely metaphorical. Chairs or cars have material, spatially extended parts (like legs or wheels);

² “οὔτε καταφρονῆσαι ῥάδιον οὔτε πεισθῆναι,” (*Div.* I, 462b13-4).

persons, minds, or souls presumably do not have parts in this most literal sense. Nonetheless, we feel tempted to describe persons, minds, or souls as if they could be divided and had such parts. We say that “a part of her wants that doughnut, even though she knows it’s unhealthy;” that “Hamlet’s soul was at war with itself”; that “what I saw with my eyes and what I knew in my heart began to come apart.” Such phrases all exhibit an underlying intuition: that humans, or their mental life, can somehow be divided into discrete episodes, parts, principles, agents, or forces, which take on various relations and manifest in different behaviors.

In this dissertation, I consider how one thinker—Aristotle—responded to this family of concepts and ways of speaking. The ancient Greek philosophical tradition, of which Aristotle was both a member and a founder, displayed a pervasive interest in questions about how a person could be divided. This interest ranged from ethical contexts (e.g., conflicting desires) and political contexts (e.g., conflicting duties) to epistemological contexts (e.g., conflicting beliefs) and biological contexts (e.g., physiological division). In the Platonic dialogues, a central strand of this interest became crystalized under the heading of “part of soul” (μόριον ψυχῆς), where it would remain for much of the subsequent philosophical tradition.³ It was through this and related concepts that much theorizing about the soul, and how the soul manifests in behaviors, patterns of thought, and character, was performed.

Accordingly, it stands to reason that Aristotle would take an interest in psychic parthood within a text dedicated to explaining the soul. His *De Anima (DA)* pursues a theoretical account of soul (ψυχή), in which he attempts to formulate an account of the nature and being of the soul, understood as the principle and cause of living (ζῆν). It is precisely in this scientific context, I

³ This tradition, especially as it developed after Plato and Aristotle, is explored in detail in Gill (2006).

argue, that psychic parthood becomes both a tool and a problem for Aristotle. As we will see, he recognizes deep problems with the very notion of psychic parthood, and the implications to which the notion gives rise. This tempts him to wholly reject the metaphor of psychic parthood. Yet he also sees the substantial explanatory power that the notion held for his predecessors, and could hold within his own theory of soul. Accordingly, the metaphor becomes an indispensable concept through which he advances his scientific psychology. It is this tension, between rejecting and embracing the metaphor of psychic parthood, that will be our central focus.

Before moving to its details in Chapter 1, we can lay out this tension in broad strokes now. On the one hand, because he shares many of the long-standing anxieties that motivate other Greek thinkers to reflect on psychic divisibility, Aristotle thinks there has been good reason that his predecessors talked about parts of soul. From empirical and theoretical reflection, and the weight of cultural and philosophical trends that precede him, Aristotle is pushed to recognize the existence of psychic parts. Accordingly, Aristotle explicitly employs psychic parthood throughout *DA* and his biological works. This employment most often arises within reflections on the diversity and complexity of the activities that constitute living, which, he thinks, should be reflected *internally* with a corresponding complexity within souls. Consequently, throughout those texts, Aristotle often works from the assumption that the soul can be divided into nutritive, perceptual, and intellectual parts—a doctrine that would become closely associated with the tradition to which he gave birth.

On the other, Aristotle also worries about the place that the metaphorical language of psychic parthood has in scientific thought, at times doubting whether we should ever even talk about psychic *parts*. In *DA*, he attempts to construct a science of the soul, which aspires and answers to the standards of a precise Aristotelian science. Within this strict context, the notion of

a part of soul might appear to be just a crude metaphor, having no legitimate role within a proper science of soul. In particular, Aristotle identifies metaphysical absurdities (centrally concerning the unity of the soul) that seem to result from attributing parts to the soul. If this is ultimately the case, it would then behoove Aristotle to deny psychic parts membership into the ontology recognized in *DA*.

Hence, Aristotle is faced with the same sorts of worries described above: he inherits a particularly captivating and tempting metaphor—psychic parthood—yet is unsure how to relate to it. He wishes to do justice to the intuitions that lead to positing psychic parts, recognizing the explanatory power psychic parthood has had. He also, however, sees clearly the problems that psychic parthood gives rise to, and so its apparent inability to be incorporated into *DA*'s theoretical psychology. Although this tension is clear and significant, and has at times been recognized by Aristotle's interpreters, there has to date been no sustained and detailed treatment of psychic parthood throughout *DA*. In this dissertation, I offer such a treatment.

I pursue this project for two central reasons. First, this project has systematic aims within the philosophy of mind. As I describe in the next section, psychic parthood has been and still is crucial to and ubiquitous in how we talk about the mind, both within and outside of theoretical contexts. Accordingly, I use Aristotle's reflections on psychic parthood to prompt further reflection on this notion in general. Indeed, turning to Aristotle on this front is not arbitrary. Beyond being a surprisingly modern thinker within the philosophy of mind,⁴ Aristotle is in a

⁴ Most recent attempts to rehabilitate an Aristotelian philosophy of mind have focused on Aristotle's approach to the relation of soul and body, and so the ways in which Aristotelian psychology prefigures contemporary functionalism. This is a central theme, for example, of many of the papers in *Essays on Aristotle's De Anima* (see Nussbaum and Putnam, 1992 for a sustained treatment of this connection between Aristotelian psychology and functionalism; see also Shields, 1991).

unique position with respect to psychic parthood. Writing just after the explicit emergence of psychic parthood in the Platonic dialogues, Aristotle sits close enough to psychic parthood's origin to see it as something quite *strange*,⁵ and so as an object worthy of critical interrogation and self-conscious reflection. Second, as I argue in the coming pages, psychic parthood in *DA* is not an isolated or arbitrary topic, but is central and foundational to Aristotle's psychology in *DA*. His conception of psychic parthood influences or is symptomatic of much of Aristotle's positive theory of soul. Hence, by getting a clear grasp of psychic parthood and its role within Aristotelian psychology, we also gain rich insights into other central Aristotelian concepts, like life, form, soul, and parthood.

§2 Historical Reflections

Before turning to this project directly, it will be helpful to dwell on the general notion of psychic parthood, as it has commonly and historically been used. I describe in broad strokes some central uses of psychic parthood—to bring out the richness of the general notion, as well as to distinguish and identify the distinctive lineage of Aristotle's use of the notion in *DA*. For our purposes, we can distinguish loosely between two central traditions of conceiving of psychic

⁵ This strangeness is also apparent in Plato's writings. Consider Socrates' description of "self-mastery" ("ἐγκράτεια") in the prelude to his account of psychic parthood: "Isn't the term 'self-mastery' ridiculous? For, of course, the one who is master of himself is also the one who is weaker, and the one who is weaker is also the one who masters. After all, the same person is referred to in all these descriptions... It seems to me, however, that what this term is trying to indicate is that within the same person's soul, there is a better thing and a worse one. Whenever the naturally better one masters the worse, this is called being master of oneself," (*Republic IV*, 430e-431e; see also Dorion, 2012).

parthood: anthropomorphic conceptions and theoretical conceptions.⁶ This distinction is not exhaustive nor strict, but will help us get an initial appraisal of psychic parthood.

2.1 Ethical Conceptions

The most common usage of psychic parthood has been to describe the complex or fractured character of human mental and emotional life. I call this an anthropomorphic or ethical conception because it is characteristically used to describe human minds, and their ethical states, characters, or activities.

We humans, the intuition goes, live complex lives, with variegated behaviors and internal mental dynamics. At any given time, I can feel within myself innumerable distinct motivations, drives, thoughts, emotions, passions; these all stand in a variety of relations to each other, from conflict to harmony to independence; they, in turn, can manifest in diverse actions and behaviors. Further, much as in the social or natural world we attribute distinct activities to distinct agents, in the mental world I attribute my own distinct activities to distinct causes or principles within myself. Consequently, because I have a complex internal life, there must be distinct things *in me* (or my mind or soul) that cause these various events: psychic parts. These psychic parts can then explain how humans behave, think, and desire.

The central phenomenon that exhibits this divisibility is mental *conflict*.⁷ It is a persistent fact about human consciousness that it can contain conflict. We can have motivations to take distinct lines of action, mutually exclusive desires, and inconsistent beliefs. The strongest version

⁶ I return to this distinction in Chapter 3, §1.2-3.

⁷ This is the central theme of Price's *Mental Conflict* (1995), which traces the frequent and deep engagement in the Ancient Greek and Roman tradition with internal psychic conflict and weakness of will.

of this is *akrasia*, in which a single person possesses desires that directly contradict each other. I desire the doughnut for its sweetness, believe it to be something good, and feel a pull towards it; yet I also desire health, believe the doughnut to be something bad, and pull back from it. To explain how such desiderative conflict is even possible, it seems necessary to posit distinct principles or causes that are responsible for each desire (in this case, a health-desiring part of me and a pleasure-desiring part of me). This leads to the variety of images of the soul and mind as an arena in which distinct forces or combatants battle for control over a person, their behavior, and their beliefs.

Reflection on this phenomenon reached the level of theory in Plato's theory of the divided soul and psychic parthood (centrally in the *Republic*, *Phaedrus*, *Timaeus*, and *Laws*). Plato most often explicitly maintains a psychic *tripartition* that posits distinct rational, spirited, and appetitive psychic parts. In the first instance, Plato heralds these psychic parts to explain the possibility of *akrasia* and internal psychic opposition, of the sort described above. My appetitive part desires the doughnut as pleasant, while my rational avoids it as ultimately unhealthy. In turn, Plato employs these parts to describe a wide range of phenomena within human mental, emotional, and desiderative lives (e.g., virtue, reactions to tragedy, perceptual illusions).⁸

Aristotle himself maintains a similar conception of psychic parthood in his practical works (centrally *NE*, *EE*, and *Pol.*), in the form of a bipartition that posits distinct rational and nonrational parts. The former part is responsible for rational planning and theoretical knowledge, while the latter part is responsible for desires, passions, emotions, and all organic behavior responsible for the maintenance of human life. As with Plato, for Aristotle this distinction arises

⁸ For a more detailed treatment, see Chapter 3, especially §1.2-3.

initially in considering psychic conflict and *akrasia*, and ultimately serves to explain virtue, moral character, and human action.⁹

Both before and after Plato and Aristotle, this picture of the human mind and soul—as comprised of distinct principles—had widespread use and influence. To note a few significant incarnations of this picture: this picture psychic parthood emerged in literary and poetic works, both ancient¹⁰ and modern,¹¹ describing or displaying the dynamism of our internal lives. It has widespread presence within religious and theological contexts, especially in those traditions which identify both divine and nondivine aspects within humans.¹² Within political thought, psychic parthood has been used to capture the psychological effects of political structures, especially oppressive institutions.¹³ Within therapeutic contexts, psychic parthood is

⁹ Aristotle’s bipartition is presented most explicitly and self-consciously in *NE* I.13. For a discussion of this bipartition, and its relation to *DA*’s scientific psychic partition, see Chapter 3, §1.2-3; Vander Waerdt (1987); Fortenbaugh (1983); Rees (1957); Moss (2017).

¹⁰ “Do not, my angry heart, do not do these... I know well what pain I am about to undergo, but my wrath overbears my calculation, wrath that brings mortal men their gravest hurt,” (*Medea*, 1057-1080).

¹¹ “Consider them both, the sea and the land; and do you not find a strange analogy to something in yourself? For as this appalling ocean surrounds the verdant land, so in the soul of man there lies one insular Tahiti, full of peace and joy, but encompassed by all the horrors of the half-known life. God keep thee! Push not off from that isle, thou canst never return!” (Melville, *Moby Dick*, 215).

¹² “For the flesh lusteth against the Spirit, and the Spirit against the flesh; and these are contrary the one to the other, so that ye cannot do the things that ye would,” (Galatians, 5:17).

¹³ “It is a peculiar sensation, this double-consciousness, this sense of always looking at one’s self through the eyes of others, of measuring one’s soul by the tape of a world that looks on in amused contempt and pity. One ever feels his two-ness—an American, a Negro; two souls, two thoughts, two unreconciled strivings; two warring ideals in one dark body, whose dogged strength alone keeps it from being torn asunder,” (Du Bois, *Souls of Black Folk*, 8).

foundational to the Freudian structural model of the psyche, which posits three interacting agents (id, ego, and superego) that serve as principles of different aspects of human mental life.¹⁴

We can note two common features of this use of psychic parthood: personalization and normativity. First, these psychic parts are often depicted as distinct persons or agents, and the intrapersonal dynamic between them as an interpersonal drama. This leads to the common picture of the soul as a kind of social setting: that, within a single person, we find a set of interlocutors, combatants, family members, or warring social classes. Consider the common trope of shoulder devils and angels, in which the opposing tendencies of a single human are represented by two competing agents. Consider as well the conceit of dramatic soliloquies, in which a character talks to herself—chastising, praising, doubting—as if confronted with another person. This same feature rears its head within Greek philosophical contexts from psychic parthood’s origin. Within the *Republic*’s city-soul analogy, Plato explicitly introduces the distinction between psychic parts as corresponding to the distinction between political classes. This is picked up by Aristotle, when he models the relationship between different members of a political community—fathers and children, humans and animals, masters and slaves, males and females—on that between the rational and desiderative parts of the soul.¹⁵

Second, the distinction between psychic parts is often couched in normative terms, especially in ethical contexts. Within a single person, one often distinguishes between “higher” and “lower” parts. We are said to have rational, divine, human, and superior elements; we are

¹⁴ “We picture the unknown apparatus, which serves the activities of the mind, as being really like an instrument constructed of several parts (which we speak of as 'agencies'), each of which performs a particular function, and which have a fixed, spatial relation to one another: it being understood that by 'spatial relation'—'in front of' and 'behind', 'superficial' and 'deep'—we merely mean, in the first instance, a representation of the regular succession of the functions,” (Freud, *The Question of Lay Analysis*).

¹⁵ *Pol.* I.5, 1254b2-15.

said as well to have distinct irrational, mortal, animalistic, and inferior elements. These better and worse parts are, in turn, used to explain how humans or their actions can be better and worse. These parts can take on better, more harmonious, and healthier relations, or worse and more destructive relations. Especially within Greek and Roman philosophy, this better relation is often thought to consist in the rule and dominance of the higher part, and the conformity of the lower part. In the *Republic*, Plato characterizes the various virtues as each part performing only its own distinctive role well, and so ultimately obeying the dictates of the highest part (reason). One aim of Platonic philosophical education, or indeed Aristotelian habituation, is to bring about this ascendancy of reason. In a contemporary setting, Freudian analysis aims as well to produce a healthier, more sustainable relationship between the various aspects of a person's psyche (e.g., their conscious and unconscious desires).

2.2 Theoretical Conceptions

In *DA*, the focus of this dissertation, Aristotle works with a different conception of psychic parthood. In fact, as I will argue,¹⁶ Aristotle himself expresses reservations about whether such an anthropomorphic and ethical conception of psychic parthood could ever be at home in a scientific approach to the soul or mind. Accordingly, we must bracket for the moment many of the natural and traditional associations with psychic parthood described above.

The role that Aristotle envisions for psychic parthood in *DA* picks up on a distinct, but not unrelated tradition of conceiving of psychic parthood. This tradition is to be found more frequently in theoretical psychology, biology, and philosophy of mind, than in ethics, literature, and ordinary language. It begins with the recognition that all living organisms have profoundly

¹⁶ Chapter 3, §1.3.

complex lives, and that what we call “living” is comprised of many distinct activities. To explain life and its diverse manifestations, one is pushed to call on distinct principles—psychic parts—that bring about these diverse activities. Hence, psychic parthood grounds a certain account of life: we explain the innumerable activities that an organism can perform through reference to some finite set of psychic parts or principles. All intellectual projects that employ this approach share a common frame, positing a basic connection between this finite set of psychic principles, and the infinite variety of organic and mental behaviors. This involves two closely related commitments:¹⁷ 1) the methodological commitment that we should explain psychic or organic phenomena through reference to a finite set of psychic principles; 2) the metaphysical commitment that the mind or soul itself possesses a particular structure—i.e., that it is divisible into these finite psychic principles or parts.

This approach has had a profound influence in the history of psychology and biology, centrally through the ubiquity of the notion of a mental or psychic “faculty”.¹⁸ Especially within the Aristotelian tradition, philosophers have sought to investigate the nature of a given organism through analyzing its distinctive faculties: articulating what they are, how many there are, how they enable the organism to perform all its activities, and how they work in coordination with each other. We can explain the nature of a cat, for example, by describing its basic powers to perceive, move, desire, digest, etc., both in terms of distinct organic principles and the physiology that allows for those powers to come about. Using this finite list of powers, we would explain a cat’s life and the innumerable behaviors it undertakes (e.g., how a cat chases after a

¹⁷ The relationship between these two kinds of commitments is a central focus of Chapter 6.

¹⁸ For a survey of central moments of this tradition, see *The Faculties: A History* (2015).

mouse). This general approach could, in principle, be used to explain the life of any organism, including humans.

In contemporary philosophy of mind, this approach has received a substantive, empirically-oriented defense within contemporary faculty psychology, which treats the mind as separated into discrete faculties. This leads to the “modularity of mind” thesis, which postulates discrete mental modules that cause particular mental activities and are localized throughout the brain.¹⁹ Faculty psychology hopes to explain some or all mental phenomena through reference to these discrete mental modules. Defenders of this position rely not on the sorts of metaphysical arguments that Aristotle deploys, but more often on evidence gathered in cognitive science and neuroscience. Fodor, the most influential defender of the modularity of mind, argues that, for example, perceptual input systems are modular—isolated computational mechanisms that transform raw sensory data into perceptual pictures of the world, usable by other cognitive capacities.²⁰ Yet he ultimately posits modularity only for such low-level processes. Others, coming after Fodor, have argued for “massive modularity”, according to which the entire mind is modular through and through, including distinct modules for reasoning, perception, decision-making, etc.

¹⁹ Acceptance of mental modularity in contemporary philosophy of mind arose following Fodor’s *The Modularity of Mind* (1983). In brief, the theory suggests that mind, at least in part, contains innate neural structures or modules, which have distinct and evolutionarily-developed functions. Different definitions of and criteria for modularity, as well as theories of the scope of modularity, have been proposed by different authors (e.g., the controversy between ‘massive modularity’ and Fodorian modularity). On the connection between contemporary faculty psychology and Aristotelian psychology, see Johansen (2012, especially Introduction).

²⁰ See Fodor (1983, 40).

Although there are fundamental differences between a contemporary mental module and an Aristotelian psychic part,²¹ Aristotle’s use of psychic parthood in *DA* falls within, and arguably begins, the tradition of which faculty psychology is the most recent representative. Aristotle uses the concept of “capacity” or “potentiality” (δύναμις) to explain the vast variety of organic behaviors. By attributing discrete capacities to an organism, like nutrition or memory, we can call on these capacities to explain the behavior of the organism. Psychic parthood, in turn, is *the* central concept within this project. On the reading I ultimately defend, psychic parts are the fundamental, basic, or primitive capacities, which the psychologist calls on to explain all of an organism’s life.

§3 Scholarship on Aristotelian Psychic Parts

I will examine Aristotle’s use of psychic parthood—its commitments, motivations, flaws, and achievements. Although there has not yet been a comprehensive and detailed treatment of these issues, a concern with Aristotle’s use of psychic parthood is by no means new. Before moving to our investigation proper, it will be helpful to introduce some previous approaches to Aristotelian psychic parthood, which will play central roles in what follows.

Psychic parthood has been a consistent issue in the Aristotelian tradition, perhaps most acutely in medieval Aristotelianism. On the one hand, this interest arises from foundational issues in mereology and the metaphysics of structure (e.g., what does it mean to be a psychic *part*?) that remained significant throughout this tradition.²² For Aristotle, living organisms “are substances

²¹ This difference centrally arises through opposed conceptions of the metaphysics of mind or soul, centrally concerning questions of psychic and mental *unity*. In brief, Aristotelian psychology has much stronger requirements for the unity of the soul (in line with Aristotle’s stronger conception of the unity of substances in general). See Chapter 5 for a detailed discussion of Aristotle’s conception of psychic unity.

²² See Pasnau (2011, 606-632).

most of all”²³—the basic, paradigmatically-unified things that populate nature. Like all substances, Aristotle thinks that an organism has a *form*—its soul—that is responsible for this unity. But, we might then ask, what makes this soul one, if it has parts?²⁴ On the other, this interest arises out of issues in Aristotelian psychology and biology. The soul, for Aristotelians, is the cause of life. Given that life manifests in a diverse range of activities, we might then ask: what are the basic principles that we must posit to explain *all* organic activity?²⁵ In response to these two sorts of questions, there were various attempts to articulate an Aristotelian picture of psychic parthood, as well as explicit rejections of it. As it came to be commonly understood, this picture holds centrally that there are three parts of the human soul (nutritive, perceptual, and rational parts), which are in some sense *unified* into one soul or form.²⁶

In modern scholarship, much of the interest in psychic parthood arose not with the notion of psychic parthood itself, but how an investigation of it could illuminate aspects of Aristotle’s thought in general: Aristotle’s relationship to other thinkers (especially Plato), Aristotle’s own intellectual development, and the connection between the different philosophical projects that Aristotle undertook. To take a few illustrative examples: Fortenbaugh identified a consistent Aristotelian conception of psychic parthood throughout his corpus, which emerged chiefly out of

²³ “...ἃ δὴ μάλιστα λέγομεν οὐσίας εἶναι,” (*Meta.*, Z.7, 1032a20).

²⁴ This, I argue, constitutes Aristotle’s *Problem of Psychic Unity*. See Chapter 1, §2 and Chapter 5.

²⁵ This, I argue, constitutes Aristotle’s *Problem of Psychic Parthood*. See Chapter 1, §1 and Chapter 4.

²⁶ An illuminating example is given by Suarez, who recognizes only these three parts, and so denies that desire is a distinct part (as I also argue in Appendix 2; see *Commentaria una cum quaestionibus in libros Aristotelis De Anima*, 3.2.35). Moreover, Suarez attempts to further develop the Aristotelian and Scholastic notion of a ‘virtual’ or ‘potential’ part of soul (of the sort I discuss in Chapter 5). See Shields (2014) for a compelling discussion of Suarez’s account of psychic structure.

a rejection of misguided Academic conceptions.²⁷ Rees saw a deep divide between the conception of psychic parthood found in *DA* and in Aristotle’s ethical and political works, seeing this as evidence of a development in Aristotle’s thought, from an early Platonist stage to a later scientific stage.²⁸ Vander Waerdt recognizes a similar divide, but takes it as evidence not of a change in Aristotle’s views, but of Aristotle’s awareness of the difference between moral psychology (such as we find in *NE* I.13) and *DA*’s scientific psychology.²⁹

There was a notable dip, however, within English-language scholarship in *direct* treatments of psychic parthood in *DA*. Often, interpreters were content to simply equate Aristotle’s talk of parts of the soul in *DA* with his talk of capacities. Any reference to a “part” of the soul, these interpreters suggested, could equally be replaced with reference to a “capacity” of the soul—an approach that I will criticize (and, I argue, Aristotle himself criticizes).³⁰ This trajectory changed, and there began a noted uptick in interest in psychic parthood, centrally with Jennifer Whiting’s “Locomotive Soul: The Parts of Soul in Aristotle’s Scientific Works” (2002). Beyond her substantial conclusions, which I treat later,³¹ Whiting showed that various locutions and concepts in Aristotle’s psychology—e.g., “part of soul”, “capacity of soul”, “difference in being”, “separability in account”, “separability in place”—had gone undertheorized, were themselves interesting aspects of Aristotle’s psychology, and so deserved a more sensitive interpretation. Her attentive reading and provocative conclusions prompted a renewed interest in the topic.

²⁷ Fortenbaugh (1983).

²⁸ Rees (1957).

²⁹ Vander Waerdt (1987).

³⁰ For a discussion, see Chapter 3, §1.6.

³¹ Chapter 2, §1 and §3.

In response, two camps of interpretive approaches have emerged. On the one hand, there have been those who have chiefly sought to articulate how and why Aristotle *unifies* psychic parts into whole souls. Central examples include Frey, Koslicki, and Leunissen.³² On the other, there are those who have chiefly sought to articulate how and why Aristotle *divides* the soul into parts. Central examples include Corcilius and Gregoric, Johansen, and Whiting.³³ Although this categorization is rough, and there is substantial disagreement between interpreters within each camp, this will be a helpful distinction going forward.

In my dissertation, I enter into this contemporary debate. In an Aristotelian fashion, I reject what I see as the interpretive extremes of these two camps, and attempt to find a middle path, recognizing what is insightful and dismissing what rings hollow in the interpretations offered by each camp. Most broadly, I argue that we can find in *DA* a sophisticated conception of psychic *structure*, which articulates how and why the soul could be divided into parts, while also illuminating why these parts are unified into a single soul.

§4 The Plan of the Dissertation

I will argue for two central theses about this conception of psychic structure. First, I contend that Aristotle understands psychic parts as the definitionally and conceptually *basic* capacities of an organism—nutrition, perception, and intellect. These are capacities that can be understood and defined independently of any other of an organism’s capacities—they are “logically primary”. Second, I contend that Aristotle formulates a sophisticated account of psychic unity, according to which psychic parts are present *potentially* within the soul. The soul,

³² Frey (2015); Koslicki (2006); Leunissen (2010).

³³ Corcilius and Gregoric (2010); Johansen (2012); Whiting (2002).

then, is not a mere aggregate of psychic parts, but is *prior* to and pre-exists its parts. Although I highlight apparent conflicts between these two theses, I argue that they ultimately constitute complementary aspects of Aristotle's science of soul.

My plan is as follows:

In **Chapter 1**, I introduce Aristotle's general approach to psychic parthood—his motivations for discussing the notion, and the issues from which those motivations arise. I contend that psychic parthood first and foremost constitutes a *problem* for Aristotle: he endorses commitments that imply that the soul is both a complex multiplicity and a simple unity. First, Aristotle affirms the irreducible diversity of the principles of an organism's vital activities. Human and animal souls are comprised of multiple distinct capacities: nutrition, perception, and (with humans) intellect. This compels him to admit the existence of psychic parts. Second, as part of his 'hylomorphic' theory of soul, Aristotle defines the soul as the *form* of the organism. Because form in general unifies its corresponding matter, the soul, too, must unify the organism's body. A form appears to perform this unifying function by itself constituting a simple, part-less unity. The soul, then, should also lack parts. Hence, the first commitment suggests that the soul *must* have parts, while the second suggests that the soul *cannot* have parts. Given their foundational place in his approach to soul, Aristotle is unable to abandon either commitment easily. In the subsequent chapters, I articulate a conception of psychic parthood and psychic unity that does justice to both commitments and shows their ultimate compatibility.

Some interpreters attribute 'psychic simplicity' to Aristotle: a total rejection of the existence of psychic parts altogether. I argue, in contrast, that Aristotle has a principled use of psychic parthood that is crucial to his project in *DA*. First, I detail how this positive use emerges out of rejections of Platonic conceptions of psychic parthood. In **Chapter 2**, I describe

Aristotle's rejection of 'physiological' conceptions of psychic parts (as in Plato's *Timaeus*) according to which psychic parts are spatially separable and differentiated by their location in the body. Aristotle argues that such a conception faces insurmountable empirical and theoretical counterevidence. In **Chapter 3**, I detail Aristotle's rejection of 'ethical' conceptions of psychic parts, in the form of a bipartition into rational and irrational parts, and the Platonic tripartition into rational, spirited, and appetitive parts. Such partitions lack the principled methodology required for a psychic partition to be at home within a genuine science of soul. Moreover, this leads to a more general critique of any approach that equates psychic parthood with psychic capacity, and is therefore obliged to posit indefinitely many psychic parts.

In **Chapter 4**, I offer a positive account of Aristotle's conception of psychic parthood. Psychic parts are the definitionally and conceptually basic—the "logically primary"—capacities of an organism. Nutrition, perception, and intellect can be understood and defined independently of any other of an organism's capacities; other capacities, like memory or *phantasia*, depend on and are "in" those basic parts. These psychic parts, in turn, are crucial to Aristotle's project within *DA*: he can explain and understand an organism's countless other capacities by relating them back to the three basic psychic parts. He explains a capacity like memory through its relation to, or its "logical dependence" on, perception.

In **Chapter 5**, I turn to the unity of the soul—how psychic parts constitute a single soul. The thought that parts are logically independent might lead one to assume that these parts are separate and independent, thereby attributing to Aristotle 'mereological actualism': that parts are actually distinct entities and prior to the whole. Mereological actualism suggests that the soul is a mere aggregate of parts, which would prevent Aristotle from providing a satisfactory account of psychic unity. If we reject this actualism, worries about psychic unity ultimately dissolve.

Aristotle, I argue, formulates an alternative conception of parthood within an analogy between souls and geometric figures. As simpler figures are present potentially within more complex ones, so lower souls are present potentially within higher souls. Lower parts of the soul (e.g., an animal's nutritive part) are not distinct and actual, but are 'potential parts' of higher souls (e.g., animal souls). This picture undermines mereological actualism, treating the soul not as a mere aggregate of psychic parts, but as essentially unified and prior to its potential parts.

In **Chapter 6**, I resolve the tension between the conceptions of psychic parts in Chapters 4 and 5. Chapter 4 presents a "disjunctive" conception of psychic parts, treating the soul as a sum of and posterior to logically independent psychic parts. Chapter 5 presents a "holistic" conception of psychic parts, treating the soul as essentially unified and prior to its potential parts. I argue that these two conceptions achieve distinct and complementary aims, which reflect Aristotle's distinction in *DA* II.3 between "common" and "particular" accounts of soul. Common accounts describe abstract features shared by all souls (e.g., "soul is the form of the organism"). Particular accounts describe the essential features of particular kinds of souls (animal souls, human souls, etc.). A common account is useful in describing general features of soul, but is empty if not supplemented with detailed particular accounts of specific kinds of souls. Particular accounts are useful in articulating the essences of specific kinds of souls, but fail to bring out the unity of psychic phenomena. Disjunctive and holistic conceptions, I argue, require common and particular accounts of psychic parts, respectively. On a disjunctive conception, we give one common definition of each psychic part, which abstracts from whether it is present in a plant, animal, or human soul; this allows Aristotle to describe the general features shared by all varieties of nutrition, perception, or intellect. On the holistic conception, we supply distinct,

proper accounts of a psychic part depending on whether it is present in a plant, animal, or human soul; this allows him to provide a robust and sophisticated metaphysics of soul.

In sum, Aristotle can recognize the existence of and also systematically use psychic parts (*contra* psychic simplicity), while maintaining the essential unity of the soul (*contra* mereological actualism). Aristotle thereby articulates a picture of the structure of the soul that does justice to both its unity and complexity.

CHAPTER I

THE PROBLEM OF PSYCHIC STRUCTURE

As I suggested in the introduction, psychic parthood centrally constitutes for Aristotle a *problem*, which his positive theory of soul must ultimately overcome. He shares with his predecessors a motivation to posit psychic parts, yet his sophisticated reflections on unity, form, and substance push him to question their existence. He sees the theoretical value of psychic parthood, yet worries that psychic parthood could not be incorporated into the scientific psychology of *DA*. In this chapter, I lay out in detail how psychic parthood comes to take on this problematic status for Aristotle: his motivations for worrying about psychic parthood, its place within his general theory of soul, and the problems that an account of psychic parthood seeks to overcome. I suggest that this dilemma can, at bottom, be understood as a particular version of the classic One-Many problem. This problem arises out of commitments of Aristotelian psychology that suggest that the soul is both a multiplicity and a unity. These claims, in turn, entail and undermine the existence of psychic parts, respectively. I call this general cluster of problems “The Problem of Psychic Structure” (*PPS*).

First, Aristotle characterizes the soul as a multiplicity (§1). He maintains that living is not a single activity, but a set of discrete heterogeneous activities (nutritive, perceptual, and intellectual activities) and so ‘life’ is homonymous. Aristotle thinks that this diversity should be reflected *internally*, with a corresponding complexity *within* souls. Because animals and humans are capable of two or three of these heterogeneous activities respectively, their souls contain multiple heterogeneous principles and so are internally complex. We then *need* a notion of

psychic parthood that explains this internal complexity. I call the search for an account of this internal complexity “The Problem of Psychic Parthood” (*PPP*).

Second, Aristotle characterizes the soul as an undivided unity (§2). He maintains that the soul is a form, and so the cause of unity for the organism. The soul performs this unifying function, Aristotle suggests, by itself constituting an immediate and basic unity—the soul does not require any further principle to unify it. Hence, because the soul serves as an ultimate unifying cause, it must be absolutely simple, without any internal division. I call the search for an account of the soul’s unity *The Problem of Psychic Unity* (*PPP*).

Accordingly, by the first commitment, Aristotle is motivated to acknowledge the existence of psychic parts; by the second, he is motivated to deny the existence of psychic parts. It is precisely the tension between these two commitments that Aristotle’s account of psychic structure (i.e., psychic parthood and psychic unity) must resolve.

§1 The Problem of Psychic Parthood

We begin with the first horn of this dilemma. Because of his commitment to the “homonymy of life”, Aristotle thinks that the soul must be internally complex. To account for this internal complexity, Aristotle’s psychological project in *DA* requires a notion of psychic parthood. The compulsion to provide a coherent account of psychic parthood gives rise to the *Problem of Psychic Parthood* (*PPP*).

1.1 The Homonymy of Life

Throughout *DA*, Aristotle juxtaposes his interest in psychic parthood with an interest in the generic diversity of *kinds* of soul. He notes correspondences between the structure of individual

souls and the generic structure of kinds of souls. We see this clearly in his first mention of psychic parthood in the agenda-setting opening page of *DA*:

(t1) One must...consider [1] whether [the soul] has parts or is without parts [μεριστή ἢ ἀμερής], and [2] whether or not all souls are one in kind [ὁμοειδής], or if not [3] whether they differ in species or in genus...And one must take care not to overlook the question of [4] whether there is one account of soul...or whether there is a different account for each type of soul...Further, if there are not many souls but rather the soul has parts, [5] one must determine whether it is necessary to inquire first into the soul as a whole or into its parts... [6] it is also difficult to determine which of the parts differ by nature from one another.¹

Aristotle formulates two sorts of questions. On the one hand, he asks about the structure of individual souls—[1] whether they possess ‘parts’, [6] how similar these parts are, and [5] whether whole or part comes first in inquiry. On the other, Aristotle asks about the relation between the souls of different organisms—[2] whether all souls share a single form, [3] how they differ, and [4] whether one account of soul can cover all of them.² In the former set, we consider the condition of particular souls; in the latter set, we consider the structure of the kind *Soul*. Given how he juxtaposes them, Aristotle clearly sees these questions as connected. Although Aristotle does not yet make explicit the motivations for connecting them, it is in working out this connection that he turns to the notion of psychic parthood. In brief, Aristotle argues *from* the generic diversity of life and soul *to* the existence of parts within individual souls. Because plant

¹ “σκεπτέον δὲ καὶ εἰ μεριστή ἢ ἀμερής, καὶ πότερον ὁμοειδῆς ἅπαντα ψυχὴ ἢ οὐ· εἰ δὲ μὴ ὁμοειδῆς, πότερον εἶδει διαφέρουσα ἢ γένει. νῦν μὲν γὰρ οἱ λέγοντες καὶ ζητοῦντες περὶ ψυχῆς περὶ τῆς ἀνθρωπίνης μόνης εὐοικασιν ἐπισκοπεῖν· εὐλαβητέον δ’ ὅπως μὴ λανθάνῃ πότερον εἰς ὁ λόγος αὐτῆς ἐστὶ, καθάπερ ζώου, ἢ καθ’ ἕκαστον ἕτερος, οἷον ἵππου, κυνός, ἀνθρώπου, θεοῦ, τὸ δὲ ζῶον τὸ καθόλου ἦτοι οὐθέν ἐστὶν ἢ ὕστερον, ὁμοίως δὲ κἂν εἴ τι κοινὸν ἄλλο κατηγοροῖτο· ἔτι δέ, εἰ μὴ πολλαὶ ψυχαὶ ἀλλὰ μόρια, πότερον δεῖ ζητεῖν πρότερον τὴν ὅλην ψυχὴν ἢ τὰ μόρια. χαλεπὸν δὲ καὶ τούτων διορίσαι ποῖα πέφυκεν ἕτερα ἀλλήλων,” (*DA* I.1, 402b1-11).

² Aristotle’s worry about whether a single common account can genuinely explain *all* souls resurfaces in *DA* II.3, 414b20-29 and is a central topic of Chapter 6.

and animal souls differ in kind, the nutritive and perceptual principles of a single animal are themselves heterogeneous and constitute distinct psychic parts.

These connections are made explicit in Aristotle’s reflections in *DA* II.2 on how “what is ensouled [ἔμψυχον] is distinguished from what is not ensouled [ἀψύχου].”³ What distinguishes a saxophonist from a non-saxophonist is some characteristic activity—presumably, making music with a saxophone. Likewise, there is a characteristic activity that distinguishes ensouled beings from non-ensouled beings: “living” (ζῆν). Anything that lives is, by definition, ensouled. Yet the analogy between saxophonist and soul, on Aristotle’s view, ends there. Even if there is difficulty in specifying it, the characteristic activity of a saxophonist could plausibly be conceived of as a *single* complex activity (e.g., making music through a particular kind of instrument). Aristotle contends that living, however, is not similarly monolithic, but comes in irreducibly many different forms. No single activity exhausts living, nor can we give a simple univocal definition of living. Instead, there are multiple discrete activities, each of which count as living. To characterize an activity as an act of living can mean different things, depending on the activity and organism characterized.

Hence, living is *heterogeneous*, and ‘life’ is *homonymous*: “living is spoken of in several ways [πλεοναχῶς...λεγομένου]...thought, perception, motion and rest with respect to place [i.e., locomotion], and further motion in relation to nourishment, decay, and growth [i.e., nutrition].”⁴

³ “διωρίσθαι τὸ ἔμψυχον τοῦ ἀψύχου τῷ ζῆν,” (*DA* II.2, 413a21-22). I translate “ἔμψυχον” as “ensouled” rather than as “alive” (more common in Attic usage) to bring out how Aristotle’s reasoning in this passage depends on the immediate and intuitive conceptual connection between having a soul and living.

⁴ “πλεοναχῶς δὲ τοῦ ζῆν λεγομένου...οἷον νοῦς, αἴσθησις, κίνησις καὶ στάσις ἢ κατὰ τόπον, ἔτι κίνησις ἢ κατὰ τροφήν καὶ φθίσις τε καὶ αὔξησις,” (*DA* II.2, 413a22-25).

These four (or perhaps three)⁵ activities are each distinct ways of living. Anything that performs any of these activities thereby lives—“should even one of these belong to something, we say that it is alive.”⁶ Even if they perform no other characteristic activities, plants can be said to live just because they consume nutriment and grow.⁷ Because these activities are sufficient conditions for attributing life, we can call them ‘constitutive activities’ of life.⁸

Amidst his general treatment of homonymy in the *Topics*, Aristotle connects this homonymy of living to the generic diversity of the lives of different organisms:

(t2) Dionysius’ definition of life [is] “a movement of a nutritive sort of being, innately present with it.” For this is found in plants as much as in animals; [but] life seems to be not one kind [ἐν εἶδος] of thing only, but one thing in animals and another in plants.⁹

⁵ In *DA* II.2, Aristotle counts locomotion as a basic vital activity, which suggests that the locomotive capacity is a distinct psychic part. Yet we have strong reason to think that this is only a provisional conclusion. As I argue in Appendix 2, in *DA* III.9-11 Aristotle concludes that neither locomotion nor desire is a basic psychic capacity (i.e., a psychic part), but both depend on and are in the perceptual and intellectual parts of the soul.

⁶ “κἂν ἐν τι τούτων ἐνυπάρχη μόνον, ζῆν αὐτό φαμεν,” (*DA* II.2, 413a22-23).

⁷ “Even plants, all of them, seem to be alive, since they seem to have in themselves a potentiality and a principle of such a sort through which they grow and decay in opposite directions,” (*DA* II.2, 413a25-27).

⁸ This might suggest that living is a disjunctive activity (a point I return to in Chapter 6, §1.1): living is thinking *or* perceiving *or* moving locally *or* receiving nourishment. For an analysis of this thought, see Matthews, 1995. Scholars have correctly pointed out that we need not feel pressure to understand this claim as a *definition* of living, but rather another sort of description of life. Shields, for example, describes this claim as providing “*ascription conditions* for our regarding something as alive,” (Shields, 2007, 181); Frey describes it as an “empirical test” for life (Frey, 2015, 140).

⁹ “πέπονθε δὲ τοῦτο καὶ ὁ Διονυσίου τῆς ζωῆς ὅρος, εἶπερ ἐστὶ κίνησις γένους θρεπτοῦ σύμφυτος παρακολουθοῦσα· οὐδὲν γὰρ μᾶλλον τοῦτο τοῖς ζώοις ἢ τοῖς φυτοῖς ὑπάρχει. ἡ δὲ ζωὴ οὐ καθ’ ἐν εἶδος δοκεῖ λέγεσθαι, ἀλλ’ ἕτερα μὲν τοῖς ζώοις ἕτερα δὲ τοῖς φυτοῖς ὑπάρχειν,” (*Top.* VI.10, 148a28-31). Though less explicitly, the disjunctive character of this view of life is suggested elsewhere, such as in *NE* XI.9: “Now living is defined in the case of animals by a capacity for perception and in the case of human beings by a capacity for perception *or* thinking [νοήσεως]...Living in the full sense, then, seems to be to perceive *or* to think [νοεῖν],” (*NE* IX.9, 1070a15-19).

Dionysius proposes a univocal definition of life, focusing on organisms' innate nutritive movements—presumably something akin to Aristotle's "motion in relation to nourishment, decay, and growth."¹⁰ Aristotle recognizes this definition's intuitive appeal. Insofar as they are found in plants, animals, and humans, these nutritive motions are coextensive with mortal life: "Being alive, then, belongs to living things because of [the nutritive] principle."¹¹ Accordingly, in *DA* II.4's account of nutrition, he describes nutrition as the first (πρώτη), most common (κοινοτάτη), and most natural (φυσικώτατον) psychic capacity:¹² every mortal creature performs nutrition. This allows Aristotle himself to sometimes suggest that living just *is* nutritive activity: "By 'life' we mean that which has through itself nourishment, growth, and decay."¹³ Moreover, Aristotle suggests that nutrition and reproduction also provide the *end* of living—sustaining one's form in oneself or another, thereby imitating the immortality of the divine.¹⁴ These considerations lend support to Dionysus' definition, and suggest that nutrition and its related motions have a special place within soul and life.

¹⁰ "κίνησις ἢ κατὰ τροφήν καὶ φθίσις τε καὶ αὔξησις," (*DA* II.2, 413a24-25).

¹¹ "τὸ μὲν οὖν ζῆν διὰ τὴν ἀρχὴν ταύτην ὑπάρχει τοῖς ζῶσι," (*DA* II.2, 413b1-2).

¹² *DA* II.4, 415a25-27.

¹³ "ζωὴν δὲ λέγομεν τὴν δι' αὐτοῦ τροφήν τε καὶ αὔξησιν καὶ φθίσιν," (*DA* II.1, 412a14). As Shields points out, this identification of life and nutritive activity would obligate us to endorse a "biological" definition of life, which would deny that non-nutritive entities, like Aristotle's God, live (Shields, 2007, 183). In contrast, Aristotle elsewhere unequivocally affirms that God, though immaterial and immortal, lives (*Meta.* Λ.7, 10732a1-3).

¹⁴ "To make another such as itself, an animal an animal and a plant a plant, so that it may, insofar as it is able, partake of the everlasting and the divine. That is what everything desires, and for the sake of that everything does whatever it does in accordance with nature... Since these things are incapable of sharing in the everlasting and the divine by existing continuously... each has a share insofar as it is able to partake in this, some more and some less, and remains not itself but such as it is, one in form but not in number," (*DA* II.4, 415a25-415b7).

Aristotle’s criticism of Dionysius’ definition does not concern the definition’s content, but its form. As I explore in more detail in Chapter 6,¹⁵ Aristotle resists a single common account of soul or life. Although he recognizes the possibility and utility of a common account of soul, he argues that it would not *properly* apply to any soul: “a common account...harmonizes with all [souls], though it will be particular [ἴδιος] to none.”¹⁶ Such a common account could supply true claims (e.g., ‘all mortal organisms take in nutriment’), and so would “harmonize” with them. Yet it would not capture the specific essences of the various souls and lives. For this, “one must ask individually what the soul of each is, for example, what the soul of a plant is, and what the soul of a human or a beast is.”¹⁷ To properly specify the nature of particular sorts of souls, one must consider those particular souls in detail, establishing what is essential and peculiar to them.

Aristotle responds to Dionysius’ definition of life along these very lines. In proposing a univocal definition, Dionysius suggests that the lives of different organisms must be, at bottom, essentially the same—nutrition and nutritive motions. Precisely because this definition has such wide application, it is too abstract and common, and so fails to grasp what is actually essential to the life of particular organisms. To say that a plant moves is to assert something different from saying that an animal moves. The movement of plants is exhausted by their nutritive activity—growing and taking in nourishment. Although animals likewise display these movements, animals also characteristically perceive and move locally. This is not a trivial fact, but essential to the animal’s life, as Aristotle forcefully emphasizes in *GA* I.23:

(t3) The function of the animal is not only to generate (which is common to all living things), but they all of them participate also in a kind of apprehension [γνώσεώς], some

¹⁵ Chapter 6, §2.

¹⁶ “λόγος κοινός, ὃς ἐφαρμόσει μὲν πᾶσιν, ἴδιος δ’ οὐδενός,” (*DA* II.3, 414b23-4).

¹⁷ “ὥστε καθ’ ἕκαστον ζητητέον, τίς ἐκάστου ψυχῆ, οἷον τίς φυτοῦ καὶ τίς ἀνθρώπου ἢ θηρίου,” (*DA* II.3, 414b26-8).

more and some less, and some very little indeed. For they have perception, and this is a kind of apprehension. If we consider the value of this, we find that it is of great importance compared with the class of lifeless objects, but of little compared with the use of the intellect. For against the latter the mere participation in touch and taste seems to be practically nothing, but beside plants and stones it seems most wonderful; for it would seem a treasure to gain even this kind of knowledge rather than to lie in a state of death and non-existence. Now it is by perception that an animal differs from those organisms which have only life [i.e., plants].¹⁸

When we say that an organism is an animal, we attribute to it a fundamentally *perceptual life*, or a life infused throughout with perception: “something is an animal *primarily* because of perception.”¹⁹ To describe an animal’s life solely in terms of nutritive movement misses the most essential and “wonderful” (θαυμάσιον) aspect of that animal. The life of an animal differs from the life of a plant, just as both differ from the life of a human (who primarily leads an intellectual life). Because plants, animals, and humans lead different sorts of lives, living in general can possess no univocal definition. Any univocal definition would cover over this fundamental difference. The activities that constitute living, then, come in different forms. The nutritive activity characteristic of plant-living, the perceptual activity characteristic of animal-living, and the intellectual activity characteristic of human-living, all constitute different ways of living. Living is itself a heterogeneous activity.

¹⁸ “τοῦ δὲ ζώου οὐ μόνον τὸ γεννηῆσαι ἔργον (τοῦτο μὲν γὰρ κοῖνον τῶν ζώντων πάντων), ἀλλὰ καὶ γνώσεώς τινος πάντα μετέχουσι, τὰ μὲν πλείονος τὰ δ’ ἐλάττονος τὰ δὲ πάμπαν μικρᾶς. αἴσθησιν γὰρ ἔχουσιν, ἢ δ’ αἴσθησις γνώσις τις. ταύτης δὲ τὸ τίμιον καὶ ἄτιμον πολὺ διαφέρει σκοποῦσι πρὸς φρόνησιν καὶ πρὸς τὸ τῶν ἀψύχων γένος. πρὸς μὲν γὰρ τὸ φρονεῖν ὡς περ οὐδὲν εἶναι δοκεῖ τὸ κοινωνεῖν ἀφῆς καὶ γεύσεως μόνον, πρὸς δὲ φυτὸν ἢ λίθον θαυμάσιον· ἀγαπητὸν γὰρ ἂν δόξειε καὶ ταύτης τυχεῖν τῆς γνώσεως ἀλλὰ μὴ κείσθαι τεθνεὸς καὶ μὴ ὄν. διαφέρει δ’ αἰσθήσει τὰ ζῶα τῶν ζώντων μόνον,” (GA I.23, 731a30-b5).

¹⁹ “τὸ δὲ ζῶον διὰ τὴν αἴσθησιν πρώτως,” (DA II.2, 413b2-3). See also *Juv.* I, 467b21-25: “as to being what is called an animal and a living thing, we find that in all beings endowed with both characteristics (viz. being an animal and being alive) there must be a single identical part in virtue of which they live and are called animals; for an animal qua animal cannot avoid being alive. But a thing need not, though alive, be an animal; for plants live without having perception, and it is by perception that we distinguish animal from what is not animal.”

We should note one further crucial aspect of this homonymy of life. Some activities might *appear* to be heterogeneous, but in fact are explainable with reference to a single activity or subsumable under a single form. Earlier, I suggested that saxophonists have a single distinctive activity: making music with a saxophone. Yet clearly a saxophonist can be described as performing many other activities. To maintain the unity of the saxophonist's distinctive activity, we should explain these different activities in terms of their connection to that distinctive activity. We can take these activities either as non-essential (e.g., driving to a performance) or as functional aspects of her single characteristic activity (e.g., exhaling air). If we can give such an explanation, playing the saxophone would then genuinely constitute a single complex activity, containing both accidental and essential aspects. Likewise, Aristotle suggests that many vital activities are explainable in a similar manner. Remembering or imagining, for example, can be understood as special kinds of perceptual activities (or, as I later argue, activities of the perceptual part of the soul).²⁰ Although we can conceptually distinguish the experience of remembering and imagining from mere perception, the former two activities are not heterogeneous. Instead, they constitute aspects of perception and are explainable in terms of it (or so I will argue).

The doctrine of the homonymy of life, however, requires that living is *irreducibly* many.²¹ The constitutive activities cannot be explained with reference to a single activity, as

²⁰ I discuss Aristotle's argument that memory is perceptual (*DM* 1, 450a14) in Chapter 4, §2.1. I discuss Aristotle's argument that *phantasia* is perceptual (*Insomn.* I. 459a14-18; *DA* III.2, 428b11-13) in Appendix 1.

²¹ Aristotle's most infamous example of homonymy is 'being'. In claiming that 'being' is homonymous (e.g., *Meta.* Γ.2, 1003a33-4) and not a genus (e.g., *APo.* II.8, 92b14; *Meta.* B.3, 998b22), Aristotle affirms that being cannot be subsumed under a single form, but is constituted by discrete categories of being (substance, quality, etc.). Likewise, he claims that living cannot be subsumed under any single univocal form, but is constituted by discrete activities.

Dionysius attempts to explain by reference to an innate nutritive motion. The apparent heterogeneity of constitutive activities cannot be analyzed away, as with playing saxophone or remembering. An account of the relationship of constitutive activities must then take a form that differs crucially from that of playing the saxophone. The constitutive activities are basic, heterogeneous, and explanatorily primitive, in contrast to non-basic activities (e.g., remembering) that are explainable in terms of these constitutive activities.

Aristotle's account of psychic parthood aims to specify exactly how psychic activities can be explainable in terms of others, and what distinguishes basic from non-basic activities. Although a full account must wait (Chapter 4), we can preview this account: the distinction between basic and non-basic activities rests on the definitional, conceptual, or explanatory roles that the accounts of the constitutive activities play within an account of life more generally. Aristotle characterizes the distinction between basic and non-basic activities in terms of the dependency and priority of the *accounts* (λόγοι) of the respective activities. Basic activities are logically or conceptually primary and separable from others, whereas non-basic activities are logically or conceptually dependent on and posterior to those constitutive activities.

1.2 Internal Complexity

From this heterogeneity of constitutive activities, Aristotle infers that there can also be complexity internal to the soul—a heterogeneity of the capacities that define the soul. Generally, for every activity, there is a corresponding capacity (δύναμις). To play the saxophone, the saxophonist possesses a technical capacity to produce sound in the appropriate way. Likewise, for each constitutive vital activity, the organism possesses a capacity responsible for that activity. Corresponding to “motion in relation to nourishment, decay, and growth”, for example, there is

“a capacity and a principle of such a sort through which [organisms] grow and decay”,²² i.e., nutrition.

An organism can perform a basic constitutive activity because it possesses the corresponding capacity. Consequently, just as the constitutive activities are heterogeneous, so the capacities corresponding to these activities are heterogeneous. What it is for the plant to have the power to live differs from what it is for an animal to have the power to live. Like their corresponding activities, the nutritive capacity differs in kind from the perceptual capacity. The capacity for living is not a single capacity, but is constituted by multiple distinct capacities: nutrition, perception, intellect (‘constitutive capacities’). Organisms, of course, have many more capacities than these three, such as the capacities for remembering or dreaming. Yet as before, these other capacities are not basic. Instead, they are (in some sense to be determined) explainable in terms of, dependent on, and posterior to the constitutive capacities.

Insofar as the soul is the principle (ἀρχή) and cause (αἴτιον) of life,²³ the soul can itself be understood as the organism’s basic power to live.²⁴ Because living consists in multiple discrete activities, the soul is then the capacity for these discrete activities: “the soul is the principle of the [activities] mentioned and is delimited by them: the nutritive, perceptual, intellectual, and motion.”²⁵ Because the soul is the capacity for these constitutive activities, it is fixed and

²² “δύναμιν καὶ ἀρχὴν τοιαύτην, δι’ ἧς αὐξήσιν τε καὶ φθίσιον,” (*DA* II.2, 413a26-28).

²³ “The cause and principle of living is the soul,” (*DA* II.4, 415b11-13; see also *DA* I.1 402a6-7).

²⁴ Soul is a first actuality, and so second potentiality or capacity, of an organic body (see *DA* II.1, 412a22-28).

²⁵ “ἔστιν ἡ ψυχὴ τῶν εἰρημένων τούτων ἀρχὴ καὶ τούτοις ὄρισται, θρεπτικῶ, αἰσθητικῶ, διανοητικῶ, κινήσει,” (*DA* II.2, 413b11-13). As Corcilius and Gregoric (2010) point out, three of the four capacities listed here have -ικόν endings, which Aristotle uses to designate parts of the soul (θρεπτικόν, αἰσθητικόν, διανοητικόν). The only capacity that does not have an -ικόν ending is local motion (κίνησις), suggesting that this latter capacity does *not* amount to a part.

determined by them. Yet, since the constitutive activities and capacities of life are heterogeneous, this heterogeneity should be reflected in the soul itself. If an individual soul can perform multiple constitutive activities, and so possesses multiple constitutive capacities, that soul will contain heterogeneous elements within itself. Plant souls perform a single constitutive activity and so are delimited by a single capacity. Animal and human souls, however, perform multiple constitutive activities and so possess multiple constitutive capacities. An animal both grows and perceives; these two activities are the basic, constitutive vital activities for the animal. The animal soul is then delimited by two distinct capacities, and responsible for these two distinct activities. Likewise, the human soul is determined by nutritive, perceptual, and intellectual capacities. In general, because these souls are determined by multiple heterogeneous capacities, the souls themselves are complex and contain heterogeneous elements.

This same inference from the heterogeneity of vital activities to the heterogeneity of capacities in the soul occurs in Aristotle's treatment of psychic parthood in *DA* I.5:

(t4) Since knowing belongs to the soul, as do both perceiving and believing, as do, further, being appetitive and wishing and desires in general, while motion in respect of place comes to be in animals as effected by the soul, as, further, do growth and maturity and decay, we should ask whether each of these belongs to the soul in its entirety [ὅλη τῇ ψυχῇ]. Is it by the whole soul that we think and perceive and are moved and both do and experience each of the others, or do we do different things with different parts of the soul [μορίοις ἑτέροις ἕτερα]? Again, does living depend on some one of these parts, or on several, or on all? Or is it due to some other cause?²⁶

Aristotle recounts the variety and diversity of the activities that organisms can perform, from knowing and perceiving to growing and moving. This recognition of the heterogeneity of vital

²⁶ “ἐπεὶ δὲ τὸ γινώσκειν τῆς ψυχῆς ἐστὶ καὶ τὸ αἰσθάνεσθαι τε καὶ τὸ δοξάζειν, ἔτι δὲ τὸ ἐπιθυμεῖν καὶ βούλεσθαι καὶ ὅλως αἰ ὀρέξεις, γίνεται δὲ καὶ ἡ κατὰ τόπον κίνησις τοῖς ζῴοις ὑπὸ τῆς ψυχῆς, ἔτι δ’ αὖξιν τε καὶ ἀκμὴ καὶ φθίσις, πότερον ὅλη τῇ ψυχῇ τούτων ἕκαστον ὑπάρχει, καὶ πάση νοοῦμέν τε καὶ αἰσθανόμεθα καὶ κινούμεθα καὶ τῶν ἄλλων ἕκαστον ποιούμεν τε καὶ πάσχομεν, ἢ μορίοις ἑτέροις ἕτερα; καὶ τὸ ζῆν δὴ πότερον ἐν τινὶ τούτων ἐστὶν ἐνὶ ἡ καὶ ἐν πλείοσιν ἢ πᾶσιν, ἢ καὶ ἄλλο τι αἴτιον,” (*DA* I.5, 411a26-411b5).

activities prompts Aristotle to wonder how the soul could be the principle of such diverse activities: should this diversity be reflected in the soul, so that the soul has distinct elements or parts to perform these many activities? Or should we maintain that a single whole soul acts as a unity when performing each of these activities? In *DA II.2*, Aristotle directly affirms his commitment to the former option, maintaining that the diversity of vital activities corresponds to a complexity and division within the soul itself.

Consequently, the heterogeneity of life requires that some souls contain irreducibly many elements, and so are internally complex. It is this complexity that Aristotle seeks to clarify through his notion of psychic parthood.

1.3 Uniformity of Constitutive Capacities

Crucial to this last line of reasoning is the ‘uniformity of constitutive capacities’—that constitutive capacities are common to and shared by multiple kinds of organisms. In particular, this reasoning assumes that plants, animals, and humans share a single sort of nutritive capacity, and that humans and animals share a single sort of perceptual capacity. When a dog, a tree, and a human consume nutriment, they all perform, at some level of generality, the same sort of activity, proceeding from the same sort of capacity. This claim guarantees not only that there are heterogeneous activities that each count as living, but that animals and humans can perform *more than one of these*. It is only by accepting this latter claim that we are obligated to recognize internal complexity within the soul.

There is a clear sense in which this claim must be true: all organisms are at least *described* as performing nutritive activities. Yet we might worry that this is merely a linguistic fact, which does not truly reflect how things actually are. This uniformity thesis might appear,

for example, to commit Aristotle to the claim that a tulip's nutritive and generative activity is wholly identical with that of a cat. Such a claim can be maintained only against massive empirical evidence that the reproduction of a tulip and of a cat differ significantly (e.g., a tulip's reproduction is asexual, whereas a cat's reproduction is sexual). More controversial is the uniformity of perception—whether the perceptual activities of humans and cats are actualizations of a single kind of capacity. Contemporary perceptual conceptualism, for example, holds that human perceptual activities are indelibly permeated with reason and their content is conceptual from the ground up. Although most forms of conceptualism in fact accept some version of the commonality thesis,²⁷ its most radical rendering would deny that perception is common in any sense—that a human's rationally-informed perception is the same sort of capacity as an animal's nonrational perception. According to such a position, treating animal and human perception as identical would obscure how human perception can play an essential role in rational thought. Most striking, however, is that the uniformity thesis appears to challenge Aristotle's own reasoning. Aristotle's justification of the heterogeneity of life-activities in *Top.* VI.10 relies on the claim that the lives of plants, animals, and humans are fundamentally different. He rejects any univocal definition of life precisely because it attempts to assimilate the vital activities of different organisms. This claim might seem to put in doubt any supposed commonalities between their respective lives (e.g., that they perform the same nutritive activity).

²⁷ In describing John McDowell's perceptual conceptualism, for example, Boyle argues that the concern is not *whether* there is commonality between human and animal perception, but what this commonality ultimately amounts to: "The crucial difference...is not that...[some] admit, whereas...[others] deny, that the minds of rational and nonrational creatures have something in common. As McDowell observes, the real dispute is about how to understand the idea of "something in common." (Boyle 2016, 532)

These sorts of criticisms of the uniformity thesis, combined with an endorsement of the heterogeneity of life, can lead to an extreme position, which we can call ‘radical heterogeneity’. On this view, plants, animals, and humans live in *absolutely* different ways. Although we use ‘nutrition’ or ‘perception’ to describe the activities of all three sorts of organisms, this is only a linguistic fact. There are actually three sorts of principles we happen to call ‘soul’, which perform three distinct activities we happen to call ‘living’. These souls and activities are neither univocal nor coextensive; there are no capacities that are actually shared between them. Many, including Aristotle, agree that human perception differs, in some sense, from animal perception.²⁸ ‘Radical heterogeneity’ suggests not merely that they differ, but that they have *nothing* in common at all. Just as a financial bank and a riverbank share only a name, so too would the souls of organisms radically differ, sharing only names. Perhaps to its credit, no problem about the internal complexity of souls would immediately arise on this view. The heterogeneity of vital activities is reflected in the soul only if we think that some organisms are capable of more than one of these activities. This latter claim, we have seen, itself depends on the truth of the uniformity thesis. Hence, if one rejects the uniformity thesis, one can likewise reject the existence of internal complexity within the soul.

That Aristotle does *not* endorse radical heterogeneity is beyond doubt. Although he notes important differences between the ways nutrition and perception are manifested in different organisms, he frequently and unambiguously affirms the uniformity and shared nature of nutrition and perception.²⁹ Aristotle consistently emphasizes the commonality of the nutritive

²⁸ I argue for this claim centrally in Chapter 6, §1.3.

²⁹ Aristotle even endorses the commonality of intellect between God and humans. The life of God consists in thinking, of which humans are also capable: “And life also belongs to God; for the actuality of thought is life, and God is that actuality; and God’s essential actuality is life that

capacity: “[The nutritive] is both the first and *most common* [κοινοτάτη] capacity of soul, in virtue of which living belongs to all living things.”³⁰ Likewise, even while recognizing differences between animal and human perception, Aristotle frequently affirms the commonality of perception. Perhaps the clearest endorsement comes in *NE*’s ‘Function Argument’, in which Aristotle is searching for an activity that is unique to humans: “There is some sort of perceptual living. But [for humans] this too is evidently *shared* [κοινή] with horse and ox and every animal.”³¹ Hence, Aristotle uncontroversially endorses the commonality of perception and nutrition. What this commonality actually amounts to, of course, remains controversial, and must be addressed in an account of psychic parthood.

Although Aristotle clearly endorses it, he never explicitly argues for the uniformity thesis. Yet Aristotle, if pushed, could offer multiple responses to radical heterogeneity. Because this will be most relevant later, we can focus on one possible response, which exploits Aristotle’s conception of the metaphysics of capacities. For Aristotle, a capacity (e.g., to burn) is a power for something (fire) to interact with appropriate objects (flammable things). Generally, Aristotle sees a crucial connection between a capacity, its activity, and its proper object. As we will see

is most good and eternal.” (*Meta.* Λ.7, 10732a1-3); “and [God’s] life is such as the best which we enjoy, and enjoy for but a short time,” (*Meta.* Λ.7, 1072b31-32).

³⁰ “ἡ γὰρ θρεπτικὴ...καὶ πρώτη καὶ κοινοτάτη δύνამις ἐστὶ ψυχῆς, καθ’ ἣν ὑπάρχει τὸ ζῆν ἅπασιν,” (*DA* II.4, 415a24-6). The commonality of nutrition is affirmed throughout *DA* (I.5, 411b28-9; II.2, 413b1-10; II.3, 414a29-414b1; III.12, 434a22-3), the ethical works (*NE* I.7, 1097b32-4; *NE* I.13, 1102a32-1102b2; *EE*. II.1, 1219b37; see also *MM* I.4, 1185a14-36), and the biological works (*Insomn.* I, 454a12-16; *GA* 2.3 736a33-736b11; II.4, 741a1-5).

³¹ “ἐπομένη δὲ αἰσθητικὴ τις ἂν εἴη, φαίνεται δὲ καὶ αὐτὴ κοινὴ καὶ ἵππῳ καὶ βοῖ καὶ παντὶ ζῴῳ,” (*NE* I.7, 1098a1-2). The commonality of perception is affirmed throughout *DA* (III.3, 427b6-7; *DA* III.11, 434a30-434b8), Aristotle’s biological works (*DS*, 1, 436b11-12), ethical works (*NE* III.10, 1181a23-25; *NE* III.10, 1118a34-1118b3; *NE* VI.2, 1139a18-20; *NE* IX.9, 1170a15-17), *Metaphysics* (A.1, 980a28-29), and *Posterior Analytics* (II.19, 99b35-38).

repeatedly, just as capacities are posterior to and individuated by their corresponding activities,³² so both capacities and activities are posterior to and individuated by their proper objects.³³

Nutritive capacities are powers of organisms to interact with (digest) nutritive objects (food). Perceptual capacities are powers to interact with (receive) perceptual objects (perceptible forms without matter). These objects explain, at bottom, what these capacities are and how they relate to each other.

To say that any perceptual capacity deals with perceptible objects is, of course, not particularly informative. It does not yet tell us anything about *how* a given organism apprehends the truth about such objects. Yet this claim does suggest a way of understanding whether animal and human perceptual capacities are the same sort of capacity—namely, whether they share proper objects. If two capacities share the same proper objects, then these capacities must be the same in kind; if the objects differ, then the capacities differ. Because practical intellect and theoretical intellect, for example, deal with different kinds of objects, they are different kinds of capacities.³⁴ The defender of radical heterogeneity, who thinks that animal and human perception

³² “Actuality is prior to all potentiality of this sort both in account and in substance; and in time in one way it is and in another way it is not,” (*Meta.*, Θ.8, 1049b10-12).

³³ “Actualities...are prior in account to capacities...their corresponding objects are prior to them,” (*DA* II.4, 415a19-20). Aristotle’s approach to capacity individuation, which will be a frequent topic of this dissertation, likely has its roots in Plato’s account of capacities in *Rep.* V, in which Socrates claims that a capacity (δύναμις) is distinguished by “what it deals with [ἐφ’ ᾧ...ἔστι] and...what it does [ὃ ἀπεργάζεται],” (*Rep.* V, 477c-d) similar to an Aristotelian object and activity, respectively. See Lear 2004, 95 (especially n.6).

³⁴ *NE* VI.1, 1139a15-6. The objects of these capacities are things with principles that do and do not admit of being otherwise, respectively. Aristotle also there suggests an intuitive reason for this connection: “When beings are of different kinds, the parts of the souls naturally suited to each of them are also of different kinds, since the parts possess knowledge by being somehow similar and appropriate [to their objects].” (*NE* VI.1, 1139a6-13) This similarity between object and capacity likely arises from Aristotle’s insistence on the identity of the actuality of the capacity and of the object (e.g., “the actuality of the object of perception and of the senses are one and the same.” [*DA* III.2, 425b26-7]). I return to these claims in Chapter 4, §3.1.

are two wholly different capacities, must then think they have two wholly different sorts of objects: perceptible-objects-for-animals and perceptible-objects-for-humans. But this splitting up of the perceptible world appears quite *ad hoc*, made solely in the service of theory. It is much simpler and more intuitive to suppose that animals and humans can perceive the same sorts of objects—a red ball, a sharp squeak.³⁵ Hence, if we are committed to the commonality of perceptible *objects*, we should think that humans and animals share a perceptual *capacity*. Again, this suggests neither that their capacities are identical or are identically expressed. This conclusion requires only the weaker claim that they are, at some level of generality, the same sort of capacity, no matter how different the particular ways in which this capacity is expressed.

1.4 Psychic Parthood

Consequently, the uniformity thesis, in combination with the heterogeneity of life, requires that human and animal souls are internally complex. This naturally prompts Aristotle to ask how we should characterize this internal complexity. In the subsequent argument of *DA* II.2, Aristotle begins this process by formulating two basic categories in which we can place constitutive capacities: “In some cases, it is not difficult to see whether each of [the constitutive capacities] is a soul or a part of a soul [ψυχὴ ἢ μέρος ψυχῆς].”³⁶ In a given organism, a constitutive capacity will be either the entire principle of that organism’s living (a soul) or one of

³⁵ One qualification is necessary: some animals have only contact senses (touch and taste), and lack distal senses (sight, hearing, smell). This gives some sense to the claim that some animals (e.g., slugs) do not perceive the same objects as humans. Yet, within the domains of the contact senses, they nonetheless perceive the same *sorts* of objects (temperature, firmness, etc.)

³⁶ “πότερον δὲ τούτων ἕκαστόν ἐστι ψυχὴ ἢ μέρος ψυχῆς. . . περὶ μὲν τινῶν τούτων οὐ χαλεπὸν ἰδεῖν,” (*DA* II.2, 413b13-14). This is the same distinction that we encountered earlier when Aristotle asks, “whether there are not many souls but rather the soul has parts,” (*DA* I.1, 402b9).

many distinct principles (a psychic part). In simple organisms like plants, a single constitutive activity exhausts their entire life and so they possess only a single constitutive capacity. Nutrition “can be separated from the other [capacities], but among mortal beings the others cannot be separated from this. This is evident in the case of plants. *For no other capacity of soul belongs to them.*”³⁷ All of a plant’s activities—growth, reproduction, the consumption of nourishment—are explainable in terms of this basic nutritive capacity. Hence, this single constitutive nutritive capacity is the entire soul of the plant.

We cannot give the same account in the case of complex organisms, like animals and humans. No single constitutive activity exhausts their lives; they possess multiple constitutive capacities that manifest in multiple constitutive activities. If the constitutive capacities of such organisms were each souls, then animals and humans would each possess multiple souls. What we call an animal soul would in fact be two separate souls (distinct nutritive and perceptual souls), that coincidentally happen to be in the same organism. Yet such a conclusion is, for Aristotle, impossible.³⁸ Because the soul is *the* principle of the organism and its life, if a cat had distinct nutritive and perceptual souls, and so multiple principles of life, the cat would not live a single life, and would not be a single organism. We would thereby lose the ability to treat

³⁷ “χωρίζεσθαι δὲ τοῦτο μὲν τῶν ἄλλων δυνατόν, τὰ δ’ ἄλλα τούτου ἀδύνατον ἐν τοῖς θνητοῖς. φανερόν δ’ ἐπὶ τῶν φυομένων· οὐδεμία γὰρ αὐτοῖς ὑπάρχει δύναμις ἄλλη ψυχῆς,” (*DA* II.2, 413a33-413b1). See also *DA* I.5, 411b27-30; Aquinas, *Commentary on De Anima*, §262. Likewise, the life of God consists entirely in thinking, and so the activity of a single intellectual capacity (*Meta.* Λ.7, 1072b26-28). Just after the quoted passage, Aristotle cryptically alludes to this fact: “intellect and the capacity for contemplation...seems to be a different genus of soul, and...alone admits of being separated, in the way the everlasting is from the perishable,” (*DA* II.2, 413b24-27).

³⁸ See *DA* I.5, 411b14-28, in which Aristotle argues that no organism has multiple distinct causes of unity. Some Medieval Aristotelians denied these claims, as shown by the debates between Unitarians (holding that all organisms have one soul and form) and non-Unitarians (holding that some organisms have multiple souls and forms).

animals and humans as individuals. Accordingly, we must take the other option with complex organisms: rather than being souls, the constitutive capacities of complex organisms are psychic *parts*. Animal nutritive and perceptual capacities are not souls, but are parts of animal souls.

One distinction is important to note before proceeding. For Aristotle, nutrition, perception, and intellect can be parts of the soul. We have proceeded as if this means that the constitutive capacities themselves—i.e., the nutritive, perceptual, and intellectual capacities—are psychic parts. Strictly speaking, however, this is not the case. Psychic parts are not capacities, but are sets or groupings of capacities. For reasons that will become clear, taking constitutive capacities to *be* parts would prevent us from seeing how other, non-basic capacities could be *in* psychic parts. In contrast, we can distinguish between constitutive capacities and parts of the soul. The perceptual *capacity* is, for Aristotle, a particular psychic principle that allows for receiving perceptible forms. The perceptual *part* is a set of psychic capacities that are all ‘perceptual’, broadly speaking, including the perceptual capacity. There are also innumerable non-basic capacities *in* the perceptual part—memory, *phantasia*, dreaming, etc.,—which are not identical with the perceptual capacity. This part is called the *perceptual* part (and not the remembering or dreaming part) because perception is this grouping’s distinguishing, characteristic, and most basic capacity. In general, a psychic part is not identical with any particular capacity, but is a grouping of capacities. It is defined and distinguished by its most basic, constitutive capacity—the nutritive part by nutrition, the perceptual part by perception, and the intellectual part by intellect. As Aristotle himself sometimes does, we can for convenience ignore this distinction, treating a constitutive capacity as a kind of synecdoche for the whole part. Nonetheless, constitutive capacities are not equivalent to entire psychic parts; all claims about psychic parthood must ultimately respect this distinction.

Although this picture of the internal condition of the soul is still imprecise (e.g., in what way are psychic parts distinct or separable?), it has clear advantages. Insofar as the soul can have multiple parts, this picture acknowledges internal heterogeneity and complexity within animal and human souls, which mirrors the heterogeneity of constitutive activities. Yet insofar as these are all parts of a single soul, this picture preserves the intuition that each organism has a single soul. This is the chief promise of an account of psychic parthood: to recognize and explain both the complexity and the unity of the soul. This philosophical technique is by no means unique to Aristotelian psychology, but constitutes a standard way of recognizing that something is both a unity and a multiplicity. Although America is comprised of fifty states, it is a single country; each state is merely a part of the whole nation. Each act of a play is not itself a distinct play, but rather a part of a single play.

In sum, psychic parthood has a place within Aristotelian psychology—indeed, psychic parthood is *necessary*, if Aristotle maintains both the homonymy of life and the uniformity thesis. Though we have not yet formulated an actual account of psychic parts, we can see the role that such an account would play, and why a theory of psychic parthood is a crucial component of Aristotelian psychology. We have then reached one horn of our central dilemma: to account for the heterogeneity of life, Aristotle *must* possess a notion of psychic parthood. The need to explain the nature of these psychic parts constitutes the *Problem of Psychic Parthood (PPP)*.

§2 The Problem of Psychic Unity

We now turn to the second horn of the central dilemma of psychic parthood: because the soul is a form, and so a principle of unity, it appears to be wholly indivisible and lack parts. This

commitment to the soul as unified form, and the tension of these commitments with the existence of psychic parthood, gives rise to the *Problem of Psychic Unity (PPU)*.

2.1 Soul as a Principle of Unity

Despite formulating compelling reasons to think that the soul has parts, Aristotle also expresses reservations about attributing parts to the soul. To posit psychic parts involves the more basic claim that the soul is the sort of thing that can have parts. This kind of claim is true of most things: a body (limbs and organs), a number (units), a play (acts). Yet Aristotle thinks that some things, like units or God, do not have parts.³⁹ Given that the soul is thought to be a special sort of being,⁴⁰ Aristotle naturally worries that the soul might also lack parts. In particular, this worry emerges out of a foundational claim of Aristotelian psychology: the organism is a hylomorphic compound, in which the “form” (εἶδος) and “first actuality” is the soul, and the matter is the organic “natural body potentially having life.”⁴¹ When claiming that the soul can have parts, then, one claims that an Aristotelian form can have parts. In the argument to which we now turn, Aristotle expresses doubts about the plausibility of this last claim, and so about whether the soul is even the sort of thing that can have parts.

Generally, Aristotle characterizes form as what brings together matter into a determinate unity, and not just a heap of material bits. Form thereby acts as the cause and principle of unity in its corresponding matter:

(t5) The question is why the matter is some individual thing, e.g., why are these materials a house? Because that which was the essence of a house is present. And why is this individual thing, or this body in this state, a human? Therefore, what we

³⁹ *Meta.*, Λ.7, 1073a6; *Phys.* VIII.10, 266a10; 267b26; *DA* I.4, 409a2.

⁴⁰ See *DA* I.1, 402a3.

⁴¹ “σώματος φυσικοῦ δυνάμει ζῶην ἔχοντος,” (*DA* I.1, 412a19-20).

seek is the cause, i.e., the form [τὸ εἶδος], by reason of which the matter is some definite thing; and this is the substance [οὐσία] of the thing.⁴²

Form (or “essence” or “substance”) makes the relevant matter a single definite individual. The housebuilder imposes the form of the house onto bricks and wood, and thereby brings them together into a single artifact—*one* house. The presence of this form distinguishes a heap of bricks and wood or a destroyed house from a genuine, determinate house. Likewise, an organism’s form organizes and unifies the organism’s matter. Once unified, we have not merely a heap of flesh and bones, but a determinate individual organism. Aristotle’s hylomorphic psychology maintains that the organism’s form is the soul and its matter is the body.⁴³ Thus, the soul (as form) is the cause and principle of unity for the organism.

Aristotle’s doubts about psychic parts arise from an apparent incongruity between the soul having parts and its role as a principle of unity. He ends the first book of *DA* by describing this incongruity:

(t6) Some⁴⁴ say that the soul has parts [μεριστήν] and that thinking is by means of one part and desiring by means of another. What, then, holds the soul together [συνέχει],

⁴² “δῆλον δὲ ὅτι τὴν ὕλην ζητεῖ διὰ τί τί ἐστίν· οἷον οἰκία ταδὶ διὰ τί; ὅτι ὑπάρχει ὃ ἦν οἰκία εἶναι. καὶ ἄνθρωπος τοδί, ἢ τὸ σῶμα τοῦτο τοδί ἔχον. ὥστε τὸ αἴτιον ζητεῖται τῆς ὕλης (τοῦτο δ’ ἐστὶ τὸ εἶδος) ᾧ τί ἐστίν· τοῦτο δ’ ἡ οὐσία,” (*Meta. Z.17, 1041b5-9*).

⁴³ The closest Aristotle comes to giving an explicit argument for the claim that soul is form comes at *DA* II.1, 412a15-22: given that soul is thought to be substance in some sense (either as matter, as form, or as compound), and cannot be substance-as-matter or substance-as-compound, soul must be substance-as-form.

⁴⁴ As with the references in his criticism of psychic bipartition and tripartition (*DA* III.9, 432a25-7) we cannot identify with certainty the exact targets of his critique (i.e., the reference of ‘τινες’). The plural suggests that Aristotle is concerned with a view shared by either an entire school or multiple different thinkers. I share the common opinion that Plato and his Academic followers are likely targets (e.g., Polansky 2010, 136; Themistius *On Aristotle on the Soul*, 37.1-6; Averroës *Middle commentary on Aristotle's De anima*, 100; Hicks 1907, 300, who points to “*Republic* 434-441 [especially 435c, 439b], 442c, 444b, *Timaeus* 69c sqq.; cf. *Phaedrus* 246a”). I also share Ross’ (1961) opinion that this critique applies to the bipartition given in *NE* I.13. Aristotle there distinguishes between an irrational part that is “appetitive and generally desiderative [τὸ ἐπιθυμητικὸν καὶ ὅλως ὀρεκτικὸν]” and “a rational part τὸ λόγον ἔχον,” (*NE* I.13, 1102b29; 1102a27). These are strikingly similar to the parts mentioned in *DA* I.5: “a part

if it naturally has parts [μεριστή πέφυκεν]? For it is surely not the body; on the contrary, the soul seems rather to hold the body together. At any rate, when the soul has departed, the body disintegrates and putrefies. If, then, something else makes the soul one, that, more than anything else, would be soul; and then one will again need to inquire whether it is one or many-parted. For if it is one, why will the soul too not be one straightaway? If it has parts, the argument will once again inquire into what it is which holds it together, and thus it will proceed *ad infinitum*.⁴⁵

Aristotle here entertains two competing claims. Given that the soul is a form, it should function as a principle of unity. Yet, if the soul has parts, such as appetitive and intellectual parts, the soul itself would stand in need of a principle of unity—something to “hold together” (συνέχειν) the parts of soul. The tension between these two claims presents a deep problem for an account of psychic parthood, both those of his predecessors and his own. It provisionally suggests that we must either deny that the soul has parts (against the conclusions of §1) or deny that the soul can function as a basic cause of unity (against the conception of soul as form and psychological hylomorphism in general).⁴⁶

Central to Aristotle’s argument is an unformulated principle. If a whole contains parts, there must be a cause or principle of that whole’s unity that is distinct from those parts: “Whenever anything which has several parts is such that the whole is something beyond its parts,

by which we think and a part by which we desire [ἄλλω μὲν νοεῖν ἄλλω δὲ ἐπιθυμεῖν], “(DA I.5, 411a26-7)

⁴⁵ “λέγουσι δὴ τινες μεριστήν αὐτήν, καὶ ἄλλω μὲν νοεῖν ἄλλω δὲ ἐπιθυμεῖν. τί οὖν δὴ ποτε συνέχει τὴν ψυχὴν, εἰ μεριστή πέφυκεν; οὐ γὰρ δὴ τό γε σῶμα· δοκεῖ γὰρ τοῦναντίον μᾶλλον ἢ ψυχὴ τὸ σῶμα συνέχειν· ἐξελθούσης γοῦν διαπνεῖται καὶ σήπεται. εἰ οὖν ἕτερόν τι μίαν αὐτὴν ποιεῖ, ἐκεῖνο μάλιστα ἂν εἴη ψυχὴ. δεήσει δὲ πάλιν κάκεινο ζητεῖν πότερον ἔν ἢ πολυμερές. εἰ μὲν γὰρ ἔν, διὰ τί οὐκ εὐθέως καὶ ἡ ψυχὴ ἔν; εἰ δὲ μεριστόν, πάλιν ὁ λόγος ζητήσῃ τί τὸ συνέχον ἐκεῖνο, καὶ οὕτω δὴ πρόεισιν ἐπὶ τὸ ἄπειρον,” (DA I.5, 411a26-411b13).

⁴⁶ Irwin characterizes Aristotle’s target here as a particular materialist theory of soul (that “the soul [is] simply a material stuff distributed through parts of the body,” Irwin 2002, 281). Aristotle clearly has his sights on more than this, formulating a metaphysical problem for psychic partition *in general*, as my argument shows. Moreover, Aristotle has already argued against the sort of materialist proposal that Irwin describes (e.g., DA I.5, 410b10-16).

and not just the sum of them all like a heap, then [the whole] always has some cause [of its unity].”⁴⁷ The existence of parts within a whole requires an explanation of the whole’s unity—an account of how and why these parts fit together to form one individual. A stack of bricks and wood can be either a heap or a house. If they happen to form a house, there must be some reason and cause that explains their doing so. The existence of material parts in a house requires an explanation of the unity of these parts. As we saw above, this explanation would concentrate on the form of the house and the activity of the housebuilder that brings about that form (and not on any of the parts themselves).⁴⁸ Equivalently, the explanation would focus on the functional end (τέλος) of houses—the single purpose they serve (e.g., providing a protective dwelling), which stands as a stabilizing aim in the construction of houses.

Likewise, if the soul “naturally” has parts (i.e., the parts do not arise through some external action), we find a similar situation. Just as the bricks must be unified in the house, so a human’s appetite and intellect must be unified in a single soul. We should then expect to locate a cause that brings about and explains the unity of these parts—how psychic parts are held together in a single soul. This cause stands above these parts and unifies them. In *DA* I.5, Aristotle takes our apparent inability to find such a cause to initially cast doubt over the whole notion of psychic parthood.

Aristotle entertains two candidates for this external cause of psychic unity. First, we might think that psychic parts are held together by the organism’s body, like birds in a cage. On this account, the animal’s perceptual and nutritive capacities form a single soul precisely because

⁴⁷ “πάντων γὰρ ὅσα πλείω μέρη ἔχει καὶ μὴ ἔστιν οἶον σωρὸς τὸ πᾶν ἀλλ’ ἔστι τι τὸ ὅλον παρὰ τὰ μέρη, ἔστι τι αἴτιον,” (*Meta.* H.7, 1045a7-9). In discussing (t6), Lorenz argues for a similar point by distinguishing two kinds of unity: derivative and non-derivative unity (Lorenz, 39). See also Simplicius (*On Aristotle On the Soul*, 78.22-3).

⁴⁸ See *Meta.* Z.17, 1041b11-1042a2.

they are instantiated in the same continuous matter—the animal’s body. The unity of the soul would then be parasitic on the unity of the body. A Swiss army knife, for example, possesses this sort of unity. The knife’s various capacities (to saw, to cut, etc.) are unified because they are located within a single material frame. The unity of these capacities has no formal basis, but is grounded in their physical continuity. Likewise, we might think that the continuity or proximity of psychic parts within the body explains how these parts are held together to form a single soul. As Hicks suggests, this view could plausibly be attributed to ancient atomists.⁴⁹ The material atoms that are responsible for different psychic activities (i.e., psychic parts) form a single soul precisely because they are bound together by a single material container—the body.

Unsurprisingly, Aristotle rejects this proposal, suggesting that it reverses the true causal order and stands in direct opposition to hylomorphism. It is rather the soul (as form), and not the body (as matter), that acts as the organism’s cause of unity. Yet because (t6) comes before the full articulation of his hylomorphic psychology in *DA* II.1, Aristotle also offers an empirical observation to undermine this proposal. Because the presence of the soul distinguishes the living from the non-living, death involves the absence of the soul from the body. When a creature dies and only a soulless ‘body’ remains,⁵⁰ the body decays and falls apart, thereby losing its unity. Hence, the soul’s presence or absence tracks the unity or disunity of the body. The body itself, conceived simply as a compound of non-organic elements (earth, fire, etc.), independent from its

⁴⁹ Hicks proposes that “Democritus amongst A.’s predecessors (cf. 404a9-16) and after him Epicurus held this opinion,” (Hicks 1907, 300). Aristotle reports that Democritus (along with “some Pythagoreans”, *DA* I.2, 404a17) identifies the soul with “fire and heat”, and so with “spherical [atoms], like the so-called motes,” (*DA* I.2, 404a1-2).

⁵⁰ For Aristotle, this fleshy matter could only homonymously be called the body of a living creature (*DA* II.1, 412b19-22).

connection to soul and life, cannot account for the unity of the organism. This suggests that the soul itself must be responsible for the unity of the body.

Aristotle further develops this claim in his anti-materialist account of organic growth:

(t7) What is it that holds the fire and earth [in the body] together [συνέχον], even though they are borne in opposite directions? For they will be torn apart [διασπασθήσεται] if there is nothing which hinders them. If there is something, however, this will be the soul—the cause of growing and being nourished.⁵¹

Because the elements of the organic body naturally tend in opposite directions (e.g., fire goes up, earth goes down), they do not naturally form unities, but are said to be naturally “torn apart” (διασπᾶσθαι), if nothing prevents this.⁵² Something must impede this tendency and unify the material elements. The soul performs this function insofar as it is “a limit and an organization [λόγος].”⁵³ Hence, the body is unable to act as a cause of unity for psychic parts. Instead, the soul and its parts hold the body together.

If we are unable to explain the unity of psychic parts through anything material, we might then posit a further non-material cause of unity (“something else”, ἕτερόν τι).⁵⁴ Just as matter generally stands in need of a cause of unity beyond itself, so the parts of the soul appear to require a cause of unity beyond themselves. As form unifies material parts, so we can simply posit an additional formal principle that would stand above and unify psychic parts (and so also

⁵¹ “τί τὸ συνέχον εἰς τὰναντία φερόμενα τὸ πῦρ καὶ τὴν γῆν; διασπασθήσεται γάρ, εἰ μὴ τι ἔσται τὸ κωλύον· εἰ δ' ἔσται, τοῦτ' ἔστιν ἡ ψυχὴ, καὶ τὸ αἴτιον τοῦ ἀυξάνεσθαι καὶ τρέφεσθαι,” (*DA* II.4, 416a6-9).

⁵² See also *DA* III.9, 432a5, where Aristotle uses “διασπᾶν” to describe what happens to the desiderative capacity (τὸ ὀρεκτικόν) if we endorse psychic bipartition or tripartition. See Chapter 3, §1.5 for a discussion.

⁵³ “For fire's growth is without limit, so long as there is something combustible. By contrast, for all things naturally constituted, there is a limit and an organization of both size and growth. These things belong to the soul, and not to fire, and to the organization rather than to the matter,” (*DA* II.4, 416a15-18).

⁵⁴ *DA* I.5, 411b9.

the body). Hence, this principle functions in the manner that we originally supposed soul would: as the ultimate unifying cause of the living being and its diverse activities. This principle then “would, more than anything else, be soul” (or ‘soul₂’).⁵⁵ Accordingly, this soul₂ would act as a cause of unity for the psychic parts (soul₁) and the body.

Aristotle contends, however, that soul₂ is also unable to explain psychic unity successfully. As with soul₁, soul₂ has an internal condition or structure: either soul₂ has parts or is without parts. If soul₂ has parts (e.g., for unifying each part of soul₁), we encounter the same problem we faced just before: any whole that has parts must have a cause of its unity. Hence, “the argument will once again inquire into what it is which holds [the parts of soul₂] together.”⁵⁶ We would again be forced to posit a further unifying cause, which again would most properly be called the true soul (‘soul₃’). This soul₃ would be the basic cause of unity for the organism. As with soul₂, we can ask whether soul₃ has parts or not. If we continue to admit that each posited unifying principle has parts, the need for a further cause of unity will repeat indefinitely. We will never locate an *ultimate* cause of unity (i.e., a unifying cause that itself requires no further unifying cause). Because the soul is taken to be such an ultimate cause, we will then not be able to properly identify the soul. Moreover, this argument provisionally suggests a more general conclusion: anything that has parts cannot serve as an ultimate cause of unity. To identify an ultimate cause of unity, we must, it seems, find something absolutely simple. If the soul at every level has parts, then the soul seems to be unable to serve as an ultimate cause of unity. This possibility would be unacceptable to Aristotle, undermining *the* basic commitment of his psychological hylomorphism—soul as form.

⁵⁵ *DA* I.5, 411b10.

⁵⁶ “εἰ δὲ μεριστόν, πάλιν ὁ λόγος ζητήσει τί τὸ συνέχον ἐκεῖνο,” (*DA* I.5, 411b12-13).

To prevent this regress, we need a basic cause of unity, about which there is no need to ask how or why *it* is unified.⁵⁷ Within the present context, we might guarantee this result by maintaining that some formal principle—soul₂ (or soul_{n+1})—has no parts. If soul₂ has no parts, we have no need to seek a further cause of its unity. Like Aristotle’s God, soul₂ would be essentially and absolutely simple. We would then have a psychic principle that can successfully serve as an ultimate cause of unity. Yet this strategy also fails: “if [soul₂] is one, why will [soul₁] not also be one straightaway?”⁵⁸ If we accept that soul₂ lacks parts, Aristotle suggests, we are obligated by the same argument to accept that soul₁ lacks parts.

Aristotle’s reasoning here is clearly quite condensed, but can be understood by reflecting on the original motivations for attributing parts to soul₁—the irreducible diversity of the activities (perceiving, thinking, etc.) for which the soul is responsible.⁵⁹ Because soul₁ is originally taken to be the principle and unifying cause of these diverse activities, we found that there should likewise be complexity within soul₁. Yet we now take some further formal principle—soul₂, the true soul—to play this same role, functioning as the principle of soul₁, and so ultimately also of those many constitutive activities. Hence, as with soul₁, soul₂’s role as the principle of those activities suggests that it should also have parts. In denying that either soul₂ or soul₁ has parts, we would be doing the same thing: claiming that ‘soul’—a formal principle of unity, a cause of diverse vital activities—wholly lacks parts. If, even in the face of this pressure, we claim that soul₂ lacks parts, we are also obligated to assert that soul₁ lacks parts.

⁵⁷ This is what Koslicki calls a “true mereological atom” (Koslicki 2006, 729).

⁵⁸ “εἰ μὲν γὰρ ἓν, διὰ τί οὐκ εὐθέως καὶ ἡ ψυχὴ ἓν;” (DA I.5, 411b11-12).

⁵⁹ This point is emphasized just before (t6) and our present argument, in Aristotle’s reflections on the diversity of organic activity in (t4) (DA I.5, 411a24-b4).

Hence, we cannot simply posit a further formal principle to guarantee psychic unity, without also denying that the soul itself has parts. Yet if we maintain that the soul has parts, we find an infinite regress, in which each cause of unity itself requires a further cause of unity. Consequently, there appears to be a profound tension between the soul being a form and having parts. We cannot, then, have our cake and eat it too: we can only maintain that *either* the soul has parts, *or* it is a form and ultimate principle of unity. This tension between the internal complexity and the unity of the soul constitutes *PPU*.

Alternatively, if Aristotle wishes to maintain that the soul both has parts and is a form, he must identify an alternative conception of parthood that avoids this tension. Aristotle, I argue, *does* provide such an alternative conception. To foreshadow what is to come (Chapter 5): Aristotle attacks an assumption about parthood that lies at the heart of the tension between psychic parthood and psychic unity. The aporia of *DA* I.5, I suggest, assumes a problematic ‘actualist’ picture of parthood, according to which psychic parts are actually distinct, and so pre-exist and are conceptually prior to the whole soul. An account of psychic unity would then be tasked with searching for an additional cause that unifies these free-standing parts. Aristotle argues in *DA* I.5 that such a search would be futile. In contrast, he formulates in *DA* II.3 a distinct notion of parthood—‘potential parthood’. Potential parts, he contends, are present potentially within the whole, and so are posterior to and conceptually dependent on their wholes. Hence, if psychic parts are indeed potentially present in the whole soul, they require no further principle to guarantee their unity, but are instead essentially and already unified.

§3 Tensions in the Aristotelian Conception of Psychic Structure

The two arguments that we have examined, and the basic commitments on which they depend, lead to contradictory conclusions. On the one hand, Aristotle's commitment to the homonymy of life and the uniformity of perception and nutrition establishes the internal complexity of animal and human souls. This, in turn, demonstrates the *need* for a notion of psychic parthood. This raises *PPP*: what are the soul's basic parts and how are they distinguished? On the other, Aristotle's commitment to soul as the form and ultimate cause of unity of the organism suggests that the soul *must* lack parts. This raises *PPU*: how can the soul be unified, if it has parts? Hence, as a result of basic theoretical commitments, Aristotle faces a dilemma. He both needs and cannot accept the existence of psychic parts; psychic parthood appears to be crucial to his psychological project and to undermine it. His feelings about psychic parthood, then, are reminiscent of his feelings about prophetic dreams, quoted above: "we cannot lightly either dismiss them with contempt or give them confidence."⁶⁰ He neither accepts psychic parthood as an unquestioned principle of his psychology, nor dismisses it as a mere metaphor or a product of a crude and antiquated psychology.

This indicates why Aristotle's treatment of psychic parthood sometimes appears rough and preliminary, and why he never feels compelled to give a fixed, definitive list of the parts of the soul—a difficulty for any interpreter who hopes to find a positive and systematic account of psychic parthood in *DA*.⁶¹ Aristotle's immediate purpose is not to produce a strict and dogmatic list of psychic parts. Instead, Aristotle chiefly seeks to elucidate the metaphysical conditions that

⁶⁰ "οὔτε καταφρονῆσαι ῥάδιον οὔτε πεισθῆναι," (*Div. I*, 462b13-4).

⁶¹ See Ando (1965, 68).

could allow for the soul to have parts at all—what an account of soul must be such that psychic parts and psychic unity are even possible.

As evidence of this problem’s importance and severity, we can note three striking interpretive responses to it, all of which I will argue against throughout this dissertation. Some have argued that Aristotle simply rejects one horn of the dilemma. The most prevalent of these interpretations, advanced recently by Koslicki, has been to dismiss the first horn, and claim that Aristotle simply denies that souls have parts in any sense.⁶² This interpretation takes the argument of *DA* I.5, and its apparent conclusion (that the soul lacks parts) to indicate Aristotle’s final position.⁶³ Aristotle seems to formulate an insurmountable contradiction within the notion of psychic parthood. The threat of an infinite regress of unifying principles seems to require that the soul is absolutely simple. According to Koslicki, this is a consequence of the more general conclusion that all forms (as the ultimate causes of the unity of substances) lack parts.⁶⁴ In every case, only something that is absolutely simple could serve as an ultimate principle of unity.

Second, other interpreters have taken slightly more reserved approach to these issues. Instead of positively arguing that Aristotle rejected either horn of the dilemma, they have in their

⁶² E.g., Koslicki (2006, 732); Hicks (1907, 299). I argue in Chapter 5, §3 that others (e.g., Harte, 1996) do not explicitly endorse this claim, but in claiming that forms in general cannot have parts, implicitly suggest such a view about souls.

⁶³ Koslicki’s reading, of course, ignores the dialectical context in which the argument occurs—both that the argument arises in the dialectical book of *DA*, and that it is formulated in response to particular thinkers. Moreover, Koslicki’s interpretation faces a clear and immediate difficulty: Aristotle simply *does* often speak of psychic parts, even in non-dialectical contexts. Accordingly, we should not follow Koslicki in straightaway denying that Aristotle takes the soul to have parts.

⁶⁴ Beyond an interpretation of form in the central books of the *Metaphysics*, Koslicki (2006) also points to Aristotle’s account of the simplicity of God. Aristotle suggests that God is without parts precisely because it is immaterial: “everything which has not matter is indivisible,” (*Meta* Λ.9, 1075a12). Koslicki argues that because form, and so soul, is itself not literally a material entity (even if it has some essential connection to matter), it too must be indivisible and without parts.

interpretive endeavors effectively focused exclusively only on either *PPP* or *PPU*. Accordingly, interpreters like Corcilius, Gregoric, and Johansen⁶⁵ have focused almost exclusively on *PPP* and the features that distinguish and define psychic parts. On the other, others, like Frey,⁶⁶ have focused exclusively on *PPU* and the ways in which the soul could actually constitute a genuine unity. While both interpretive responses have their merits, a comprehensive interpretation must provide an answer to *both PPP* and *PPU*.

Third, others have recognized that Aristotle indeed endorses both horns of the dilemma, but is simply unsuccessful in his attempt to make them compatible. Ward expresses such dissatisfaction: Aristotle's response to these issues "is an ingenious one, but [one that] finally fails to explain the unity of soul...[W]hile Aristotle aims to demonstrate that soul is a unifying principle or organization of the living thing, the goal eludes his grasp."⁶⁷ Kahn entertains similar conclusions, albeit in a more positive light: "The lack of unity in Aristotle's account of the soul can be seen as an accurate reflection of the complex, paradoxical structure of the human condition."⁶⁸ Both interpreters suggest that because Aristotle commits himself so strongly to the internal complexity of the soul, he is ultimately unable to explain psychic unity.

Full responses to these interpretations can only come later, once we have examined Aristotle's positive account of psychic parthood and psychic unity. For the moment, we should take Aristotle's reflections on the heterogeneity of the soul in *DA* II.2, and his worries about psychic parthood in *DA* I.5, to set the conditions for a successful account of psychic parthood. *If*

⁶⁵ Corcilius and Gregoric, 2010; Johansen, 2012.

⁶⁶ Frey, 2015.

⁶⁷ Ward (1996, 126-127). Although Ward is chiefly engaged in an interpretation of the figure-soul analogy from *DA* II.3, she takes her conclusion to apply to Aristotle's more general attempt to account for the unity of soul.

⁶⁸ Kahn (1992, 362)

Aristotle successfully accounts for psychic structure—both the unity and complexity of the soul—he must answer both *PPP* and *PPU*. He must formulate an account of psychic parts that does not threaten psychic unity: a picture of the soul that recognizes heterogeneity and complexity within the soul, but also treats the soul as an ultimate unifying principle, which requires no further principle to guarantee its unity.

CHAPTER II

THE PHYSIOLOGICAL CONCEPTION OF PSYCHIC PARTHOOD

We can now begin by approaching the first horn of the dilemma—the homonymy of life, the *PPP*, and the positive role that psychic parthood plays in *DA*.

Much of Aristotle's explicit discussion of psychic parthood in *DA*, however, does not consist in a positive theory, but in critical descriptions of where previous conceptions of psychic parthood failed, and how they are symptomatic of fundamental misunderstandings about the nature of soul. This critical focus stands as a difficulty for any hopeful interpreter of Aristotle's own conception of psychic parthood. Aristotle seems much more interested in highlighting the flaws of mistaken understandings of psychic parthood than in explicitly formulating his own positive conception. Yet this critical focus also presents an opportunity: through a close examination of his critical remarks, we can learn about his positive conception. In Chapters 2 and 3, I examine Aristotle's two central criticisms of previous accounts of psychic parthood, noting how they set the stage for his own positive conception (which I treat in Chapter 4).

As with so many other topics, Plato's conception of psychic parthood looms largest throughout *DA*. Both as a heuristic to organize Aristotle's scattered criticisms, and to contextualize Aristotle's conception of psychic parthood, I treat Aristotle's criticisms as responses to Platonic psychic partition, especially as we find it in the *Republic* and *Timaeus*. This does not mean that Aristotle's criticisms are aimed exclusively at Plato. Because Aristotle never explicitly names Plato (or any other thinker) in these contexts, he likely has multiple targets simultaneously in mind. Nor does this suggest that Plato himself has a single, uniform, and rigid conception of psychic parthood. Indeed, Aristotle criticizes distinct (perhaps even conflicting)

aspects of psychic partition, whose origins nonetheless can be identified in passages from Plato's dialogues.

In this chapter, I consider Aristotle's criticism of the 'physiological' or 'spatial' conception of psychic parthood. This label covers any conception of psychic parthood that bases the division of the soul on a division of the body. It sees the parts of the soul as localized throughout the body, operating exclusively within particular parts or regions of the body. The most famous and relevant version of this is Plato's tripartition in the *Timaeus*, according to which the three parts of the Platonic soul are located in three distinct parts of the body.

All interpreters recognize that Aristotle rejects any such conception of psychic parthood, devoting two lengthy passages to criticizing it.¹ Nonetheless, how he argues for this rejection, and to what extent these arguments are successful, remain enigmatic and are often not interpreted with sufficient sensitivity to Aristotle's text. Even more pressing, it is initially unclear how Aristotle's own conception of the soul differs from that offered by the physiological conception. A central innovation of Aristotelian psychology is the conception of the "organic" body, according to which parts of the body are functionally defined by their capacities to perform particular vital activities. Hence, like those who defend a physiological conception, Aristotle localizes psychic capacities throughout the body (e.g., sight in the eye). This has led at least one prominent interpreter² to attribute a physiological picture to Aristotle. Hence, both Aristotle and his interpreters face a dilemma: how does his conception of psychic capacities and the organic body differ from the physiological picture he criticizes?

¹ *DA* I.5 411b14-27; *DA* II.2, 413b11-32

² Whiting, 2002. See §3 for a discussion of this interpretation.

In part, these issues arise from the difficulty of properly identifying the target of Aristotle's criticisms. Aristotle himself is partially to blame, as he opts to *name* this target, rather than to *describe* it much detail. Hence, we are tasked with reconstructing this general target. In §1, I give a general account of the physiological conception of psychic parthood. I argue that this conception has three central commitments: 1) that psychic parts are 'localized' within the body of the organism, so that each psychic part operates within a unique bodily region; 2) that each psychic part "holds together" and rules over their own unique bodily region; 3) that those bodily regions, and so the psychic parts in which they reside, are separable in place.

In §2, I consider various historical examples of this picture, focusing in detail on the central example of the psychology of Plato's *Timaeus*. According to this picture, the soul is comprised of three parts, which hold dominion and function within discrete parts of the soul: reason in the head, spirit in the chest, and appetite in the belly. Moreover, Plato's commitment to the immortality of one part of the soul (reason) indicates that they are likewise wholly separable, both spatially and ontologically.

In §3, I elucidate how the physiological conception differs from the Aristotelian conception of soul and organic body. I argue that Aristotle's conception lacks two central features of the physiological picture: the spatial *separability* and spatial *uniqueness* of psychic parts. Although he localizes psychic parts, he is committed to a deeper unity of the soul than can be accommodated by the physiological picture. He maintains that all the supposed localized capacities are actually manifestations of inseparable, central psychic principles (perception and nutrition). These principles are not spatially separable, but are all located in the same bodily region (the heart).

In §4, I consider Aristotle's two central arguments against the physiological picture. First (the "Explanatory Burden Argument"), Aristotle emphasizes the substantial explanatory challenge faced by any physiological conception of psychic parts, tasked with explaining why a particular psychic part exclusively operates within a particular bodily region. Second (the "Dissection Argument"), Aristotle argues that the dissection of insects, in which both dissected segments survive with all their psychic parts intact, shows that psychic parts cannot be spatially separated. Although this phenomenon also presents a problem for Aristotle's own psychology, which he addresses within these criticisms, this phenomenon also effectively invalidates the only potential empirical justification for the physiological picture.

§1 The Physiological Conception of Psychic Parthood

We begin with a general consideration of the 'physiological' conception of psychic parthood. It employs perhaps the most intuitive and commonplace notion of parthood. On this conception, parts are material bits, or aspects or features of those bits, into which an extended magnitude is spatially divisible. Sometimes these parts have a special function within the whole (the squares of the chessboard), and sometimes they do not (a pebble in a heap of pebbles). These parts, or their material subjects, literally occupy distinct places within their respective wholes. Accordingly, we distinguish these parts by the locations they occupy within the whole; the criterion for being such a part would be uniqueness in place.

At least in some cases, spatial parts are likewise locally *separable*: capable of existing in separate and independent places through an appropriate act of division or separation.³ This

³ See *Phys.* V.3, 226b22-3.

separability most obviously obtains between distinct substances, which are necessarily locally separate and occupy independent places. Yet this also obtains with spatial parts, which are locally *separable*. When I grab a pebble, I separate it from the heap of pebbles; with the right tools, I can break off the squares of the chessboard. In both cases, I locally separate spatial parts, so that these parts come to occupy independent places.

Of course, Aristotle recognizes the existence of such spatial parts, like pebbles collected in a heap. The question at hand is whether this same picture could function as a picture of the parts of the soul. The physiological conception of psychic parthood, in a sense, *literalizes* the notion of psychic parthood: psychic parts are, quite literally, material parts or features of those material parts. Centrally, this conception sees a close connection between the organism's body and the parts of its soul, so that the partitioning of the soul corresponds to a partitioning of the organism's body. In his criticisms of this picture (§4), he attributes to this picture various characteristic features: a position according to which (1) a given psychic part is present in only one part of the body; (2) each psychic part "holds together" a certain part of the body; (3) psychic parts are separable in place or magnitude. We will consider these features in turn.

Most fundamentally, the physiological conception requires that (1) psychic parts are localized and spatially distributed throughout an organism's body. Consequently, we would distinguish psychic parts according to differences in their spatial location. Within a materialist psychology, the material parts of the soul would themselves occupy different places. As pebbles themselves are distributed throughout a heap, so psychic parts would occupy different places within the body. Within a non-materialist psychology, psychic parts would adhere in material subjects that occupy distinct places. As the black and white adhere in material subjects spatially distributed throughout the chessboard, so psychic parts are located in different material regions

distributed throughout the body. In general, then, a psychic part would be a capacity that wholly occupies or adheres in a unique location in the body. For this to be a criterion and distinguishing feature of psychic *parts*, this localization should obtain only, or obtain in a special way, with genuine psychic parts. Every capacity that genuinely and wholly occupies a distinct place would be considered a distinct part of the soul.

This picture is equivalent to another picture (2), formulated in more idiosyncratic language: that psychic parts can be said to “hold together” (συνέχειν)⁴ particular parts or regions of the body. A version of this claim is true in Aristotle’s own hylomorphic psychology. The soul, as form, organizes and holds together the elements that comprise the body.⁵ A similar conclusion holds in the physiological picture, though with consequential differences from its hylomorphic counterpart. If each psychic part is uniquely and wholly localized within a certain part of the body, and “if the entire soul holds together the whole body, it will also be appropriate for each of its parts to hold together a certain part of the body.”⁶ Each psychic part not only is assigned or housed in a particular bodily domain. These bodily domains are as well controlled and ruled by those psychic parts. Each psychic part would distinctly exercise its power over its respective bodily region, giving that region its identity, unity, and structure. As we will see in more detail when we turn to the *Timaeus*, Platonic appetite, for example, independently holds together the bodily region associated with appetite, while spirit independently holds together the bodily

⁴ *DA* I.5, 411b16.

⁵ “What is it that holds the fire and earth [in the body] together [συνέχον], even though they are borne in opposite directions? For they will be torn apart if there is nothing which hinders them. If there is something, however, this will be the soul—the cause of growing and being nourished,” (*DA* II.4, 416a6-9).

⁶ “εἰ γὰρ ἡ ὅλη ψυχὴ πᾶν τὸ σῶμα συνέχει, προσήκει καὶ τῶν μορίων ἕκαστον συνέχειν τι τοῦ σώματος,” (*DA* I.5 411b15-17).

region associated with spirit. Hence, not only would psychic parts be present in distinct regions, but they would each separately act within and exert power over those regions.

As with spatial parts in general, the localization of psychic parts suggests (3) that psychic parts are “separable in place” (χωριστὸν τόπω).⁷ Psychic parts not only occupy different regions in the body, but can be separated and come to occupy independent locations. Within materialist psychologies, this involves the division of the material soul into its material parts, as when a pebble is taken out from a heap of pebbles. Within non-materialist psychologies, this involves a separation of the material subjects in which psychic parts adhere, as when a white square is split off from a chessboard. In either case, we originally have a single soul, which can be separated out into two distinct material subjects, in two independent locations, which are each capable of the activities originally associated with the respective psychic part. Again, for this to be a distinguishing feature of psychic *parts*, this same separability should apply only to psychic parts, but not to non-constitutive psychic capacities.

To clarify this picture further, a few points should be made about this sense of separability. First, local separability is characteristically defined in contrast to another sense of separability. In *DA* II.2, Aristotle introduces the physiological conception by asking “whether [psychic parts are]...separable in *account* [λόγῳ] alone or also in *place* [τόπω].”⁸ Psychic parts, Aristotle assumes, must be separable in some sense. The two exhaustive possibilities for this separability are local separability or logical separability. On the one hand, we can divide things spatially, locally, numerically, or extensionally—in terms of their magnitude, place, and the material subjects in which they adhere. On the other, we can conceptually, logically,

⁷ “χωριστὸν...τόπω” (*DA* II.2 413b14-15); “χωριστὸν...μεγέθει” (*DA* III.9., 432a20).

⁸ “εἶναι χωριστὸν λόγῳ μόνον ἢ καὶ τόπω” (*DA* II.2 413b14-15; see also *DA* III.9, 432a20).

definitionally, or intensionally distinguish aspects of a single thing. This divisibility is weaker and more common, occurring even among things that are spatially indivisible (e.g., the concave and convex). The physiological conception is a conception of psychic parts as divisible in the former sense. In rejecting the physiological conception, Aristotle more broadly rejects spatial, material, or numerical psychic partitions, affirming that a theory of psychic parthood should concern only logical or conceptual divisions.

Second, the supposed connection between localization and separability might seem unwarranted. Aristotle appears simply to assume that *localized* psychic parts would necessarily also be locally *separable*. Yet, we can ask, why couldn't psychic parts be distributed throughout the body, but not be locally separable from each other? Indeed, Aristotle's "Homonymy Principle" requires that such a claim is true with bodily parts. An eye is located in one region of the body, and so is localized. Yet the eye, as a functional part, cannot be locally separated from the functional whole. Once locally separated, it ceases to be what it is (an organ playing a functional role), becoming an 'eye' in name only.⁹ Hence, it, *qua* eye, is not separable in place, as the pebble in a heap appears to be. Could one not appeal to such a principle about localized psychic parts, so that psychic parts are localized but not locally separable?

In part, this worry can be assuaged by specifying more clearly what local separability entails. It can entail, for example, that the parts can be spatially separated off, and continue to exist, like pebbles taken from a pile that continue to exist as the pebbles they were. It can also signify that a psychic part is in a wholly separate spatial region of the body—what we could call "internal spatial independence". Each psychic part would have unique and complete dominion over a particular region of the body. Although such psychic parts may be connected and depend

⁹ E.g., *DA* II.1, 412b20-22.

on each other materially, they fully operate in different places. Psychic parts themselves are then distributed throughout the body, so that the ‘soul’ itself has multiple, distinct spatial locations. Each psychic part *independently* rules over its respective bodily region—unifying, organizing, and existing in that distinct location, autonomously from other psychic parts. As an analogy, consider neighboring nations. Although there might be a sense in which they constitute a unity (e.g., a shared language), or depend on each other (e.g., for military support), there are ultimately distinct sovereign powers that independently rule, characterize, and give unity to each nation. Likewise, within a single organism, there could be sovereign, co-existing principles or governing bodies, which independently rule over their respective corporeal domains.

Nonetheless, it is not the case that *all* localized psychic principles must also be locally separable. We can still say that a certain capacity is localized to a particular organ (like sight to the eye), without attributing separability to it. This depends, ultimately, on the sort of localization at issue. My suggestion in §3 will be that Aristotle’s own psychology localizes capacities throughout the body, but does not require their separability. Although capacities are localized, they are still expressions or aspects of a single, central psychic principle or part.

§2 Examples of Physiological Conceptions

Before we can fully appreciate how Aristotle’s approach differs from the physiological conception, we can briefly survey some concrete examples of physiological conceptions.

Versions of the physiological conception can be found in numerous pre- and post-Aristotelian psychologies. This conception does not depend on the recognition of any specific psychic parts (e.g., Platonic tripartition), but rather on an understanding of what psychic parts are, and how

they are distinguished. Versions are found within materialist psychologies (e.g., Atomism),¹⁰ in which different kinds of matter or elements are responsible for different psychic activities. Because the different psychic parts are literally distinct groups of matter, psychic parts can be locally separated (like any extended magnitudes). Versions are likewise found within non-materialist psychologies that see the origins of psychic activities as wholly localized in different parts of the body. This includes many psychologies that fall directly within the Platonic tradition, such as Galen's physiological tripartition.¹¹ This includes as well Scholastic psychologies that posit 'partial forms', according to which different parts of the body have their own particular, distinct forms.¹²

Affinities to the physiological picture can also be found within contemporary biology and cognitive science. Any conception of life or mental activity in which there are genuinely discrete biological or mental systems, which have substantially independent functions and structures, would count as physiological pictures of psychic parthood. Within cognitive science, such a picture is suggested in the "modularity of mind" thesis, especially the "massive modularity" defended by philosophers extending the original notion proposed by Fodor.¹³ In this massive variety, the mind is seen as made up of capacities that are localized throughout the brain,

¹⁰ See Polansky (2010, 182). Nonetheless, at least one prominent Atomist, Lucretius, denies local separability amongst psychic parts: "The primary particles of the elements [in the soul] so interpenetrate one another in their motions that no single element can be separated off nor can its power be active when spatially divided from the rest," (*De Rerum Natura*, III.262–65).

¹¹ See Hankinson (1991).

¹² See Pasnau (2011, 630-31).

¹³ See Carruthers (2006). Fodor, who introduced the modularity of mind thesis into contemporary philosophy of mind, defends a more conservative approach, which only sees certain low-level mental functions as subject to modularity. Hence, he does not defend a physiological picture as a general approach to the *entire* mind. Carruthers' massive modularity, however, proposes modularity as a general theory of the mind and all of its functions.

independent in their functions, encapsulated in the information they process, and responsible for discrete domains of mental activity.

As virtually all interpreters agree, the most relevant example of the physiological conception is the cosmological-biological psychology of the *Timaeus*.¹⁴ Plato there connects his tripartite account of soul, which we find in the *Republic*, to a cosmological account of the human body.¹⁵ Plato contends that his three preferred psychic parts—reason, spirit, and appetite—are each located in different parts of the body. As with the other examples of the physiological conception, our focus is not the particular parts posited (discussed in Chapter 3), but the relationship between these parts:

(t1) [The lower gods] imitated [the Demiurge]: having taken the immortal origin of the soul, they proceeded next to encase it within a round mortal body, and to give it the entire body as its vehicle. And within the body they built another kind of soul as well, the mortal kind, which contains within it those dreadful but necessary disturbances: pleasure, first of all, evil's most powerful lure; then pains, that make us run away from what is good; besides these, boldness also and fear, foolish counselors both; then also the spirit of anger hard to assuage, and expectation easily led astray. These they fused with unreasoning sense perception and all-venturing lust, and so, as was necessary, they constructed the mortal type of soul. In the face of these disturbances, they scrupled to stain the divine soul only to the extent that this was absolutely necessary, and so they provided a home for the mortal soul in another place in the body, away from the other, once they had built an isthmus as a boundary between the head and chest by situating a neck between them to keep them apart. Inside the chest, then, and in what is called the trunk they proceeded to enclose the mortal type of soul. And since one part of the mortal soul was naturally superior to the other, they built the hollow of the trunk in sections, dividing them the way that women's quarters are divided from men's. They situated the midriff between the sections to serve as a partition. Now the part of the mortal soul that exhibits manliness and spirit, the ambitious part, they

¹⁴ The connection between local separability and the *Timaeus* is asserted by Simplicius (*On Aristotle On the Soul*, 135), Philoponus (*On Aristotle On the Soul*, 237.31), Bastit (1996, 16-17), Johansen (2012, 53), Corcilius and Gregoric (2010, 97), Frey (2015, 143), Whiting (2002, 150); Polansky (2010, 182), and Hicks (1907, 327).

¹⁵ How the localization of the *Timaeus* relates to Plato's other divisions of the soul remains a source of controversy. The description of the body as a "chariot" (ὄχημα) for the soul at *Timaeus* 69c invokes related imagery from the *Phaedrus* (e.g., 246a; 253c), which is itself of Pythagorean origin (Taylor 1972, 496). Given the *Republic*'s ethical and political focus, it remains mostly silent on the details of tripartition's connection to the body, and so, at the very least, appears to remain consistent with the localization of psychic parts found in the *Timaeus*.

settled nearer the head, between the midriff and the neck, so that it might listen to reason and together with it restrain by force the part consisting of appetites, should the latter at any time refuse outright to obey the dictates of reason coming down from the citadel. The heart, then, which ties the veins together, the spring from which blood courses with vigorous pulse throughout all the bodily members, they set in the guardhouse. That way, if spirit's might should boil over at a report from reason that some wrongful act involving these members is taking place—something being done to them from outside or even something originating from the appetites within—every bodily part that is sensitive may be keenly sensitized, through all the narrow vessels, to the exhortations or threats and so listen and follow completely. In this way the best part among them all can be left in charge.¹⁶

We will now dwell on this presentation of psychic parthood, especially how it instantiates the characteristic features of the physiological picture outlined above.

Plato first distinguishes two basic parts within the human soul: “reason” (λόγος, “the immortal origin of the soul”, “the divine soul”, a product of the cosmic Demiurge)¹⁷ and another “kind of soul, the mortal kind”¹⁸ (a product of the lesser gods, “which contains within it...

¹⁶ “οἱ δὲ μιμούμενοι, παραλαβόντες ἀρχὴν ψυχῆς ἀθάνατον, τὸ μετὰ τοῦτο θνητὸν σῶμα αὐτῇ περιετόρνενυσαν ὄχημά τε πᾶν τὸ σῶμα ἔδοσαν ἄλλο τε εἶδος ἐν αὐτῷ ψυχῆς προσωκοδόμουν τὸ θνητόν, δεινὰ καὶ ἀναγκαῖα ἐν ἑαυτῷ παθήματα ἔχον, πρῶτον μὲν ἡδονήν, μέγιστον κακοῦ δέλεαρ, ἔπειτα λύπας, ἀγαθῶν φυγὰς, ἔτι δ’ αὖ θάρρος καὶ φόβον, ἄφρονε συμβούλω, θυμὸν δὲ δυσπαραμύθητον, ἐλπίδα δ’ εὐπαραγωγόν· αἰσθήσει δὲ ἀλόγῳ καὶ ἐπιχειρητῇ παντὸς ἔρωτι συγκερασάμενοι ταῦτα, ἀναγκαίως τὸ θνητὸν γένος συνέθεσαν. καὶ διὰ ταῦτα δὴ σεβόμενοι μιαίνειν τὸ θεῖον, ὅτι μὴ πᾶσα ἦν ἀνάγκη, χωρὶς ἐκείνου κατοικίζουσιν εἰς ἄλλην τοῦ σώματος οἴκησιν τὸ θνητόν, ἰσθμὸν καὶ ὄρον διοικοδομήσαντες τῆς τε κεφαλῆς καὶ τοῦ στήθους, ἀχένα μεταξὺ τιθέντες, ἴν’ εἴη χωρὶς. ἐν δὴ τοῖς στήθεσιν καὶ τῷ καλουμένῳ θώρακι τὸ τῆς ψυχῆς θνητὸν γένος ἐνέδουν. καὶ ἐπειδὴ τὸ μὲν ἄμεινον αὐτῆς, τὸ δὲ χεῖρον ἐπεφύκει, διοικοδομοῦσι τοῦ θώρακος αὖ τὸ κύτος, διορίζοντες οἶον γυναικῶν, τὴν δὲ ἀνδρῶν χωρὶς οἴκησιν, τὰς φρένας διάφραγμα εἰς τὸ μέσον αὐτῶν τιθέντες. τὸ μετέχον οὖν τῆς ψυχῆς ἀνδρείας καὶ θυμοῦ, φιλόνικον ὄν, κατώκισαν ἐγγυτέρω τῆς κεφαλῆς μεταξὺ τῶν φρενῶν τε καὶ ἀχένοσ, ἵνα τοῦ λόγου κατήκοον ὄν κοινῇ μετ’ ἐκείνου βία τὸ τῶν ἐπιθυμιῶν κατέχοι γένος, ὅπότερ’ ἐκ τῆς ἀκροπόλεως τῷ τ’ ἐπιτάγματι καὶ λόγῳ μηδαμῇ πείθεσθαι ἐκὸν ἐθέλοι· τὴν δὲ δὴ καρδίαν ἄμμα τῶν φλεβῶν καὶ πηγῆν τοῦ περιφερομένου κατὰ πάντα τὰ μέλη σφοδρῶς αἵματος εἰς τὴν δορυφορικὴν οἴκησιν κατέστησαν, ἵνα, ὅτε ζέσειεν τὸ τοῦ θυμοῦ μένος, τοῦ λόγου παραγγείλαντος ὡς τις ἄδικος περὶ αὐτὰ γίγνεται πρᾶξις ἐξωθεν ἢ καὶ τις ἀπὸ τῶν ἐνδοθεν ἐπιθυμιῶν, ὀξέως διὰ πάντων τῶν στενωπῶν πᾶν ὅσον αἰσθητικὸν ἐν τῷ σώματι, τῶν τε παρακελεύσεων καὶ ἀπειλῶν αἰσθανόμενον, γίγνοιτο ἐπήκοον καὶ ἔποιτο πάντη, καὶ τὸ βέλτιστον οὕτως ἐν αὐτοῖς πᾶσιν ἡγεμονεῖν ἐῷ,” (*Timaeus* 69c-70c).

¹⁷ *Timaeus* 70a4; 69c5; 69d7.

¹⁸ *Timaeus* 69c7.

pleasure...pains...boldness...fear...anger...nonrational perception and...lust”).¹⁹ To preserve the independence of these two parts,²⁰ the lesser gods place them in different regions of the body: the divine part in the head (“a round mortal body”) and the lower part in the rest of the body below (“another place in the body, away from the other”).²¹ Within this latter region, there is a further partition between spirited²² and appetitive parts.²³ Again, this corresponds to a spatial partition: the spirited part is “settled nearer the head, between the midriff and the neck,” whereas the appetitive is “settled in the area between the midriff and the boundary toward the navel.”²⁴ Moreover, these bodily regions do not simply house psychic parts, but also reflect and make possible the distinctive functions and features of their corresponding psychic parts. Within the abdomen, for example, the liver manifests and makes possible the activity of appetite;²⁵ within the chest, the heart manifests and makes possible the activity of spirit.²⁶ In sum, each psychic

¹⁹ *Timaeus* 69c8-d5.

²⁰ “To keep [the parts of the soul] apart,” (*Timaeus* 69e4).

²¹ *Timaeus* 69c6; 69e2. This distinction picks up on a traditional distinction, found in Homer, between ψυχή and θυμός, according to which the former constitutes an immortal element found in the head, and the latter a spirited and emotional element in the chest (see also Cornford 1997, 284).

²² “The part of the mortal soul that exhibits manliness and spirit, the ambitious part,” (*Timaeus* 70a2-3).

²³ “The part of the soul that has appetites for food and drink and whatever else it feels a need for,” (*Timaeus* 70d6-e1).

²⁴ *Timaeus* 70a4; 70d6-e1.

²⁵ The liver (“something dense, smooth, bright and sweet, though also having a bitter quality”, *Timaeus* 71b2-3) allows reason to control and communicate with the appetitive part of the soul. The liver is able to take on different qualities, like bitterness and sweetness, which produce corresponding effects in the appetitive soul.

²⁶ Spirit uses the heart (“the spring from which blood courses with vigorous pulse throughout all the bodily members”, *Timaeus* 70b1-2) as a “guardhouse” to watch over the entire body. Through the flow of blood, the heart is able to communicate with appetite and the rest of the body: “every bodily part that is sensitive may be keenly sensitized, through all the narrow vessels, to the exhortations or threats and so listen and follow completely,” (*Timaeus* 70b7-8).

part is assigned its own material domain, in and over which it performs its own distinctive functions, and employs the activity of its respective organs.

Although not explicitly thematized, the psychic parts of the *Timaeus* are not merely localized, but also substantially independent and locally separable. Plato frequently refers to the parts not as psychic *parts*, but as “various types [γένη] of soul” or “forms of soul.”²⁷ This language suggests that the immortal and mortal psychic principles are more properly understood not as *parts* of a single soul, but as two distinct and independent *souls*. In a similar vein, these psychic parts are not functionally or formally unified, as we find in *DA*. Instead, they are physically *fastened* together by marrow: “From [the marrow], as if from anchors, he put forth bonds to fasten all the soul.”²⁸ They do not essentially constitute a unified soul, but are only housed in a single bodily frame. They are externally brought together by a physical mechanism and the continuity of the body. In even stronger language, appetite is described as “here [i.e., in the belly] *tied*...down like a wild beast.”²⁹

Moreover, these various material mechanisms also guarantee the considerable independence of psychic parts. The neck is described as an “isthmus” (ἰσθμός) and “boundary” (ὄρος) that the gods “built as a wall” (διοικοδομεῖν) between reason and spirit.³⁰ Likewise, they built the midriff “to serve as a partition [διάφραγμα]” between appetite and spirit, “dividing

²⁷ *Timaeus* 73c; 69c.

²⁸ *Timaeus*, 73d.

²⁹ “κατέδησαν δὴ τὸ τοιοῦτον ἐνταῦθα ὡς θρέμμα ἄγριον,” (*Timaeus* 70d; see also *Rep.* IX, 588c).

³⁰ *Timaeus*, 69e.

[these psychic parts] the way that women's quarters are divided separately [χωρίς] from men's quarters."³¹ In brief, Plato holds that each soul is "housed as separate [χωρίς ὠκίσθη]."³²

Most crucially, the two basic kinds of soul have independent origins. The immortal soul is created by the cosmic demiurge, which is then taken up by the lesser gods and placed within a body.³³ Next, the lesser gods "house next to it [προσῶκοδόμουν] another kind of soul as well."³⁴ The lesser gods independently create the mortal soul, mimicking the previous creation of the immortal soul. They then place the mortal soul *beside* the already-existing immortal soul.³⁵ The immortal and mortal souls are created independently, pre-exist their coexistence, and simply sit beside one another in the same body. Finally, as his name for the immortal soul part indicates, this kind of soul is immortal, existing separately both before and after the mortal soul. This suggests ultimately that the psychic parts of the *Timaeus* do not so much constitute a single unified soul, but make up distinct psychic principles housed within a single body, which exist in distinct locations.

³¹ "διορίζοντες οἶον γυναικῶν, τὴν δὲ ἀνδρῶν χωρὶς οἴκησιν," (*Timaeus* 69e-70a). Aristotle employs similar language to describe the midriff. In contrast to Plato, however, he employs this language to describe the parts of the *body*, not parts of the *soul*: "...the heart and the lung...are separated from the former by the midriff or, as some call it, the diaphragm...The reason is that the midriff serves to divide the region of the heart from the region of the stomach, so that the center wherein abides the perceptual soul may be undisturbed...For it was to *guard* against this that nature made a division, constructing the midriff as a kind of partition-wall and fence, and so separated the nobler from the less noble parts, in all cases where a separation of upper from lower is possible." (*PA* II.10, 672b9-672b24).

³² *Timaeus*, 72d.

³³ "Having taken the immortal origin of the soul, they proceeded next to encase it within a round mortal body [the head]," (*Timaeus*, 69c).

³⁴ *Timaeus*, 73c.

³⁵ "They constructed the mortal type of soul [τὸ θνητὸν γένος συνέθεσαν]," (*Timaeus*, 69d).

Beyond providing an example of the physiological conception of psychic parthood, the *Timaeus* also suggests motivations for it. Centrally, this conception promises to integrate an account of psychic partition and human psychology within an account of the human body. Other discussions of psychic parthood in the Platonic dialogues, especially in the *Republic*, focus on the moral and political aspects of psychic parthood, effectively ignoring its biological and physiological dimension.³⁶ Although the psychology of the *Timaeus* still clearly retains these ethical elements, it additionally attempts to explain how the soul exists within and works through the body. Plato attempts to answer “questions concerning the soul: to what extent it is mortal and to what extent divine; where its parts are situated, with what organs they are associated, and why they are situated apart from one another.”³⁷ He asserts not just that psychic parts are held within particular regions of the body, but also that these regions, their organs, and their material constitution are appropriate or well-suited to the characteristics and activities of the respective psychic parts.³⁸

At this level of abstraction, such a goal is also at home in *DA*’s scientific psychology. Aristotle himself criticizes previous psychologies for failing to account for the particular characteristics of an organism’s body—why certain souls are appropriate to certain bodies, and how these bodies are fitted to carry out the particular activities of those souls.³⁹ Any properly

³⁶ See Chapter 3, §1.2-3.

³⁷ “τὰ μὲν οὖν περὶ ψυχῆς, ὅσον θνητὸν ἔχει καὶ ὅσον θεῖον, καὶ ὅπη καὶ μεθ’ ὧν καὶ δι’ ἃ χωρὶς ὑκίσθη,” (*Timaeus*, 72d).

³⁸ In a similar vein, Johansen argues that while the *Phaedo* offers a psychology in which the soul is imprisoned in the body, the *Timaeus* “offers a more complex and often more constructive view of the role of the body and the contribution it may make to our rationality and happiness...based...on a detailed teleological account of the body and its relationship to the soul,” (Johansen, 2004, 137).

³⁹ “These accounts merely endeavor to say what sort of thing the soul is without articulating anything further about the body which is to receive the soul, as if it were possible, as according

scientific account of life should include an account of the body and its connection to the soul.

This much is agreed upon by Aristotle and Plato. The *Timaeus*'s physiological partitioning of the soul should be seen as, in part, an attempt to formulate such a scientific account of life. What Aristotle takes issue with is the particular way in which Plato attempts to specify the relationship between body and soul.

§3 The Physiological Picture and Aristotelian Psychology

We are now in a position to specify more concretely the conception of separation and localization required by the physiological picture. In doing so, we will also be able to identify how the physiological conception diverges from Aristotelian psychology.

This divergence might not be as clear as one would expect or hope. As noted earlier, there are strong tendencies within Aristotelian psychology to localize the soul. First, Aristotle has an *organic* conception of the living body, according to which the body contains organs that serve as “instruments” (ὄργανα) for the animal's vital capacities and activities. The eyes are the organs of vision, and so the visual capacity is ‘in’ that particular part of the body. Even more worrisome, Aristotle localizes even those principles he identifies as psychic parts. He assigns perception, locomotion, and nutrition to particular places within the body. With animals, Aristotle maintains that these parts must be located within a central region of the body—the heart or its analogue. In these contexts, Aristotle is explicit that the soul is ‘in’ those particular parts of

to the Pythagorean myths, for just any soul to be outfitted in just any body. For each body seems to have its own peculiar form and shape, and what they say is almost the same as if someone were to say that carpentry could clothe itself in flutes; for it is necessary that the craft make use of its tools, and that the soul make use of its body," (*DA* 1.3, 407b20-27).

the body.⁴⁰ Consequently, like Plato, Aristotle is in the business of assigning locations to psychic parts and capacities.

Some interpreters have taken these similarities to suggest deeper connections, attributing to Aristotle views about psychic parthood similar to those that we find in the *Timaeus*. Whiting, for example, gives such an interpretation: “we should model Aristotle’s way of distinguishing the various parts of the soul...on his way of distinguishing the various parts of an animal’s body,” so that psychic parts are “embodied in...different ‘physiological systems’— i.e. physiological systems involving bodily organs constituted by different portions of matter and/or located in different places.”⁴¹ On Whiting’s view, the nutritive and perceptual parts of the soul correspond to and are distinguished by their location within the body—their presence in different portions of matter and different locations.⁴² On this conception, nutrition and perception constitute distinct parts of the soul *because* we can spatially or materially distinguish them. As our discussion of the *Timaeus* shows, such an interpretive approach attributes to Aristotle a physiological conception of psychic parts. Just as Whiting thinks that Aristotle differentiates nutrition and perception by their location, so too does Plato differentiate spirit and reason.

Aristotle’s more general direct criticisms of the physiological conception (§4) show that he rejects this particular physiological conception, and that Whiting’s interpretation must be incorrect. Still, his sympathies to localizing psychic parts call on us to clarify in more detail how Aristotle’s views differ from the physiological picture.

⁴⁰ “The soul, which is distinct from a spatial magnitude of this kind [the central region of body], though it is in it,” (*MA* 9, 7031-2). For a treatment of the language of the soul being “in” the body, see Nussbaum (1986, 152-4).

⁴¹ Whiting (2002, 152).

⁴² For an alternative (but complementary) criticism of Whiting’s view, see Corcilius and Gregoric (2010, Appendix).

First, Aristotle treats the localization of capacities as a *superficial* phenomenon. In his treatment of the special perceptual capacities, he does not maintain that these capacities are simply located in different organs, and operate independently. Instead, these capacities, as well as the other more sophisticated capacities (e.g., to distinguish between proper sensibles) ultimately belong to a single, complex perceptual capacity. This single perceptual capacity *uses* the various organs to carry out distinct perceptual activities, but is itself located in one central place (the heart).⁴³ In a similar vein, he argues that locomotion does not arise from distinct locomotive capacities distributed throughout the body (e.g., in the joints), but arises from a single, central source in the heart. This central principle uses the limbs and joints to move the animal, as we use sticks to move objects in our environment.⁴⁴ Generally, although various capacities appear to be distributed throughout the body, they in fact are expressions of single ultimate psychic principles, located in a single location. These ultimate capacities use organs as tools to perform particular activities, but are themselves not localized throughout the body.

Second, Aristotle localizes psychic parts in a way that crucially differs from the localization of the physiological picture. Because the physiological conception differentiates parts based on their location within the body, psychic parts would necessarily be in different regions of the body. They hold together and hold dominion over discrete parts of the body.

⁴³ Although some have identified tensions between Aristotle's hylomorphism and the sort of 'instrumentalism' I am now describing, we need not see them as competing theories of soul. For a persuasive argument for their compatibility, see Nussbaum (1986, Essay 3).

⁴⁴ "Since it is possible for some lifeless thing to have this same relation to the hand, as, for example, if someone should move a staff in his hand, it is clear that the soul would not be in either of the endpoints—neither in the endpoint of what is moved, nor in the other origin (for the stick has both an origin and an endpoint with reference to the hand). So, for this reason, if the movement-imparting origin from the soul is not also in the staff, it is not in the hand either [or any other limb]... It makes no difference whether the part is attached to the body by growth or not; the staff is like a separable limb. So the soul must not be in any origin that is the end of something else," (MA 8, 702a32-b7).

Hence, *uniqueness* in location would be a necessary criterion of psychic parthood. In contrast, Aristotle maintains that psychic parts do not have unique locations within the body. The heart, or its analogue, constitutes the central, ruling position within the body, in which all psychic parts (except intellect)⁴⁵ are located. Aristotle argues that locomotion, perception, and nutrition must each be in the heart and that they must occupy the same position as each other.⁴⁶ Although these parts have particular locations, they do not have *unique* locations, and so are not spatially distinct or distinguishable.

§4 Arguments Against the Physiological Picture

Now we have seen the particular target of Aristotle's criticisms: a picture in which psychic parts are not only localized, but assigned unique locations within the body over which they exert independent dominion, and, on some accounts, can be actually separated. Now we consider the two sorts of arguments that Aristotle provides to undermine this conception. They come in two of his central reflections on psychic parthood in *DA*:

(t2) Someone might pose a difficulty concerning the parts of the soul: what capacity does each have in the body? For if the entire soul holds together the whole body, it will also be appropriate for each of its parts to hold together a certain part of the body. This, however, seems impossible. For what sort of part will reason hold together? And how? It is difficult even to fabricate an answer. It also appears that plants live when divided, as do, among animals, some of the insects; so that each has a soul which is the same in form, if not also in number. For each of the parts has perception and moves with respect to place for some time. If they do not continue to do so, there is nothing odd in that: they do not have the organs they need in order to preserve their nature. Nonetheless, all of the parts of the soul are present in each of the parts, and the parts of the soul are the

⁴⁵ See §4.3.

⁴⁶ E.g., *Juv.* 4, 469a23-469a33: "the origin of the perceptual soul, together with that connected with growth and nutrition, is situated in this organ [the heart] and in the central one of the three divisions of the body;" *MA* 9, 702b15-21: "the origin of the movement-imparting soul must necessarily be in the middle... And it is reasonable that this should be so: for we say that perception, too, is there."

same in kind with one another and with the entire soul, with one another inasmuch as they are not separable, and with the entire soul inasmuch as it is not divisible.⁴⁷

(t3) The soul is the principle of the things mentioned and is delimited by them, namely, nourishment, perception, thought, and motion. In some cases, it is not difficult to see whether each of these is a soul or a part of a soul, and if a part, whether in such a way as to be separable in account alone or also in place; but in other cases there is a difficulty. For just as in the case of plants, some, when divided, evidently go on living even when separated from one another, there being one soul in actuality in each plant, but many in potentiality, so we see this occurring in other characteristics of the soul in the case of insects cut into two. For each of the parts has perception and motion with respect to place, and if perception, then also *phantasia* and desire; for wherever there is perception, there is also both pain and pleasure; and wherever these are, of necessity there is appetite as well. But concerning intellect and the capacity for contemplation nothing is yet evident but it seems to be a different genus of soul, and this alone admits of being separated, in the way the everlasting is from the perishable. It is evident from these things, though, that the remaining parts of the soul are not separable in the way that some assert. That they differ in account, however, is evident; for what it is to be the perceptual capacity is different from what it is to be the capacity of belief, if indeed perceiving differs from believing, and so on for each of the other capacities mentioned.⁴⁸

⁴⁷ “ἀπορήσειε δ’ ἄν τις καὶ περὶ τῶν μορίων αὐτῆς, τίς ἔχει δύναμιν ἕκαστον ἐν τῷ σώματι. εἰ γὰρ ἡ ὅλη ψυχὴ πᾶν τὸ σῶμα συνέχει, προσήκει καὶ τῶν μορίων ἕκαστον συνέχειν τι τοῦ σώματος. τοῦτο δ’ ἔοικεν ἀδυνάτῳ· ποῖον γὰρ μόριον ἢ πῶς ὁ νοῦς συνέξει, χαλεπὸν καὶ πλάσαι. φαίνεται δὲ καὶ τὰ φυτὰ διαιρούμενα ζῆν καὶ τῶν ζώων ἕνια τῶν ἐντόμων, ὡς τὴν αὐτὴν ἔχοντα ψυχὴν τῷ εἶδει, εἰ καὶ μὴ ἀριθμῷ· ἐκάτερον γὰρ τῶν μορίων αἴσθησιν ἔχει καὶ κινεῖται κατὰ τόπον ἐπὶ τινα χρόνον. εἰ δὲ μὴ διατελοῦσιν, οὐθὲν ἄτοπον· ὄργανα γὰρ οὐκ ἔχουσιν ὥστε σώζειν τὴν φύσιν. ἀλλ’ οὐδὲν ἦττον ἐν ἐκατέρῳ τῶν μορίων ἅπαντ’ ἐνυπάρχει τὰ μόρια τῆς ψυχῆς, καὶ ὁμοειδῆ ἐστὶν ἀλλήλοις καὶ τῇ ὅλῃ, ἀλλήλοις μὲν ὡς οὐ χωριστὰ ὄντα, τῇ δ’ ὅλη ψυχῇ ὡς οὐ διαιρετῇ οὔσῃ,” (DA I.5 411b14-27).

⁴⁸ “νῦν δ’ ἐπὶ τοσοῦτον εἰρήσθω μόνον, ὅτι ἐστὶν ἡ ψυχὴ τῶν εἰρημένων τούτων ἀρχὴ καὶ τούτοις ὄρισται, θρεπτικῷ, αἰσθητικῷ, διανοητικῷ, κινήσει. πότερον δὲ τούτων ἕκαστόν ἐστι ψυχὴ ἢ μόριον ψυχῆς, καὶ εἰ μόριον, πότερον οὕτως ὥστ’ εἶναι χωριστὸν λόγῳ μόνον ἢ καὶ τόπῳ, περὶ μὲν τινῶν τούτων οὐ χαλεπὸν ἰδεῖν, ἕνια δὲ ἀπορίαν ἔχει. ὥσπερ γὰρ ἐπὶ τῶν φυτῶν ἕνια διαιρούμενα φαίνεται ζῶντα καὶ χωριζόμενα ἀπ’ ἀλλήλων, ὡς οὔσης τῆς ἐν αὐτοῖς ψυχῆς ἐντελεχείᾳ μὲν μιᾶς ἐν ἐκάστῳ φυτῷ, δυνάμει δὲ πλειόνων, οὕτως ὁρῶμεν καὶ περὶ ἐτέρας διαφορᾶς τῆς ψυχῆς συμβαῖνον ἐπὶ τῶν ἐντόμων ἐν τοῖς διατεμνομένοις· καὶ γὰρ αἴσθησιν ἐκάτερον τῶν μερῶν ἔχει καὶ κινήσιν τὴν κατὰ τόπον, εἰ δ’ αἴσθησιν, καὶ φαντασίαν καὶ ὄρεξιν· ὅπου μὲν γὰρ αἴσθησις, καὶ λύπη τε καὶ ἡδονή, ὅπου δὲ ταῦτα, ἐξ ἀνάγκης καὶ ἐπιθυμία. περὶ δὲ τοῦ νοῦ καὶ τῆς θεωρητικῆς δυνάμεως οὐδὲν πῶ φανερόν, ἀλλ’ ἔοικε ψυχῆς γένος ἕτερον εἶναι, καὶ τοῦτο μόνον ἐνδέχεσθαι χωρίζεσθαι, καθάπερ τὸ αἶδιον τοῦ φθαρτοῦ. τὰ δὲ λοιπὰ μόρια τῆς ψυχῆς φανερόν ἐκ τούτων ὅτι οὐκ ἔστι χωριστὰ, καθάπερ τινές φασιν· τῷ δὲ λόγῳ ὅτι ἕτερα, φανερόν· αἰσθητικῷ γὰρ εἶναι καὶ δοξαστικῷ ἕτερον, εἴπερ καὶ τὸ αἰσθάνεσθαι τοῦ δοξάζειν, ὁμοίως δὲ καὶ τῶν ἄλλων ἕκαστον τῶν εἰρημένων,” (DA II.2, 413b11-32).

Most interpreters assume that Aristotle gives a single argument against the physiological picture, whereas, in fact, he gives two distinct arguments. In (t2), Aristotle formulates the Explanatory Burden Argument against the physiological conception, based on the supposed explanatory disadvantages of the physiological conception. In both (t2) and (t3), he formulates the Dissection Argument against the physiological conception, based on observation of plant and animal dissections. We will consider both objections in detail.

4.1 The Explanatory Burden Argument

First, Aristotle emphasizes in t2 the explanatory burden that falls on a physiological conception, posing to it the open question: “what power [δύναμιν] does each [psychic] part have in the body?”⁴⁹ In formulating such questions, Aristotle signals that the physiological conception faces a nearly impossible explanatory task of formulating concrete connections between each psychic part and a particular part of the body.

The physiological conception contends that each psychic part controls and acts within a particular region of the body. Consequently, the defender of a physiological picture is tasked with identifying and justifying to which region each psychic part uniquely belongs. We might reasonably assign certain capacities (vision) to certain organs (eyes). Yet other capacities, especially those that would properly amount to psychic parts, present obvious difficulties. Because perceiving is distributed throughout the body (especially touch), it is unclear how one could identify an exclusively perceptual region of the body. Likewise, an animal’s growing and

⁴⁹ “ἀπορήσειε δ’ ἂν τις καὶ περὶ τῶν μορίων αὐτῆς, τίς ἔχει δύναμιν ἕκαστον ἐν τῷ σώματι,” (DA I.5, 411b14-15)

nutritive activity extends throughout the entire body,⁵⁰ suggesting that the nutritive part's power extends throughout the body. Within the *Timaeus*'s tripartition, the situation seems even more dire: What sorts of grounds could we give for assigning appetite to the belly, beyond analogy or mere stipulation? Can I not feel appetite for drink in my tongue, or appetite for rest in my legs? In a helpful analogue, the theory that the soul is an attunement, which Aristotle rejects in *DA* I.4, faces similar challenges: "For there are many different compoundings of parts and they may be compounded in many different ways. Of what part, then, should one suppose that its compounding is intellect? Or the perceptual capacity? Or the desiderative capacity?"⁵¹

Moreover, the physiological conception faces special difficulties in accounting for intellect's or reason's place within the body: "what sort of part [of the body] will intellect hold together? And how? It is difficult even to fabricate an answer."⁵² As many Greek theorist of soul assumed, especially Aristotle's Platonist interlocutors, intellect is exceptional amongst psychic capacities. By many accounts, intellect and reason seem to be characteristically non-corporeal, perhaps surviving the death of the body and the rest of the soul. This exceptional status makes intellect's relationship to body and bodily processes more difficult to explain. Accordingly, Aristotle finds trouble in locating any special part of the body ("what sort...") that we could reserve for intellect, as the tripartition of the *Timaeus* does. Such intuitions foreshadow central commitments of Aristotle's own positive conception of intellect. Unlike other psychic capacities, intellect is unaffected, and not the actualization of any particular body or organ. To make

⁵⁰ In *GC* I.5, Aristotle argues that *the entire body* grows together and so is involved in nutrition (see Shields 2016, 163).

⁵¹ "πολλαί τε γὰρ αἰ συνθέσεις τῶν μερῶν καὶ πολλαχῶς· τίνος οὖν ἢ πῶς ὑπολαβεῖν τὸν νοῦν χρὴ σύνθεσιν εἶναι, ἢ καὶ τὸ αἰσθητικὸν ἢ ὀρεκτικόν;" (*DA* I.4, 408a11-13).

⁵² "ποῖον γὰρ μόνιον ἢ πῶς ὁ νοῦς συνέξει, χαλεπὸν καὶ πλάσαι," (*DA* I.5, 411b18-19).

intellect bodily, or to place it within an organ, would reduce its power and scope.⁵³ To cage intellect within a single bodily region, as the picture of the *Timaeus* requires, would likewise limit its power.

4.2 The Dissection Argument

Second, in both (t2) and (t3), Aristotle formulates the Dissection Argument, which is a more detailed argument and has received far more scholarly focus than the Explanatory Burden Argument. Aristotle focuses on the supposed local separability of psychic parts, turning to the dissection of plants and animals.⁵⁴ When cloning a plant, one replicates a plant by clipping a bodily part of it (a stem) and replanting it. Both the original plant and its replanted clone continue to live—i.e., to perform nutritive and reproductive activities. Likewise, when dissecting certain animals, like “insects, e.g., wasps and bees, and many animals also besides insects,”⁵⁵ both dissected halves can continue to live—i.e., perceive and move locally.

Such phenomena are significant because they promise possible empirical evidence for the physiological picture. If there is to be any empirical verification of the local separability of psychic parts, it must be a dissection of an organism in which both dissected halves survive, and

⁵³ See, for example: “Nothing hinders some parts from being separable, because of their not being the actualities of a body.” (*DA* II.1, 413a7-8); “that part of the soul called reason...is in actuality none of the things which are before it reasons; nor is it, accordingly, reasonable for it to be mixed with the body, since then it would come to be qualified in a certain way, either cold or hot, and there would be an organ for it, just as there is for the perceptual capacity. As things are, though, there is none,” (*DA* III.4, 429a24-27).

⁵⁴ Aristotle finds the phenomenon of dissection significant and frequently returns to it: *DA* I.5, 409a7-10, 411b19; *Long.* 6, 467a18-29; *Juv.* 1, 467a18-29; 2, 468a25-28; 23, 479a3-7; *PA* IV.5, 682a5; IV.6, 682b30-33; *GC* 731a21; *Meta.*, Z.16, 1040b13-14. At *Juv.* 479a5-7, Aristotle notes similar phenomena “even among sanguineous animals...whose vitality is not intense...[such as] tortoises.”

⁵⁵ *Juv.* 2, 468a27.

each half retains only one psychic part. This would, in turn, indicate that the original psychic parts have been and are locally separable, and so originally operate in distinct domains.

Aristotle's central contention is that observation never bears out this result. In both plant and insect dissections, parts of an organism are separated locally, while continuing to live in the same way, and with the same kind of soul, as the original organism.⁵⁶ Because their souls are not separated locally into parts, this purports to show that psychic parts in general cannot be locally separated. The only potential empirical justification of the physiological picture—dissection—ultimately fails to provide any such justification.

This summary is in line with standard interpretations of this argument. Even though this presentation of the argument is broadly correct, it also ignores the surprisingly enigmatic details of Aristotle's argument. Such dissections, Aristotle contends, present “a difficulty [ἀπορίαν],”⁵⁷ not just for those who defend the physiological picture but also for Aristotle. It appears that the dissections of plants and insects *do* show that the soul can, in one sense, be dissected into locally separated parts: one part in one dissected half and another part in the other dissected half. Hence, Aristotle must simultaneously diffuse this apparent problem for his own psychology, and show how the dissection of insects undermines the physiological picture.

As a first step, we can distinguish two senses of ‘part of soul’. As we distinguish between uniform (flesh) and non-uniform (eyes) parts of the body, or uniform (leather) and non-uniform

⁵⁶ The same process occurs with inanimate substances, like elements, which can be locally divided into distinct substances, which still retain their original natures. See Aquinas (*Commentary on Aristotle's De Anima*, §264).

⁵⁷ *DA* II.2, 413b16. The “γὰρ” at *DA* II.2, 413b16 indicates that Aristotle's treatment of dissection intends, in part, to explain the difficulty of an account of psychic parthood. Difficulties arise, as well, around the separability of intellect (“οὐδέν πω φανερόν”, 413b25). In contrast, Aristotle thinks that there is clarity around the fact that psychic parts differ in account (“τῷ δὲ λόγῳ ὅτι ἕτερα, φανερόν”, 413b29).

(legs) parts of a chair, we can distinguish between uniform and non-uniform parts of the soul. Both Plato's and Aristotle's positive theories of psychic parthood are theories of non-uniform psychic parts, according to which a psychic part is responsible for distinct sorts of activities (e.g., Platonic appetite is responsible for particular sorts of desires, Aristotelian nutrition for nutritive and reproductive activities, etc.). The phenomena of dissection, however, suggests that there are locally separable *uniform* psychic parts, each of which cause the same sorts of activities. Just as the worm's body is spatially separated into segments, so its soul appears to be spatially divided into two psychic parts, which are present in each dissected segment. A single principle of life—a soul—seems to be locally separated into numerically distinct parts. This might seem to require that, prior to dissection, the original organism has multiple numerically distinct uniform principles. These pre-existing principles would be distinct parts of the original organism's soul, located in different regions of the body. After dissection, one 'part' of the organism's soul goes on living in one divided half, and the other 'part' goes on living in the other half.⁵⁸

This account of dissection would constitute a serious problem for Aristotle, requiring the existence of localized uniform psychic parts. To avoid this, Aristotle gives an alternative analysis, according to which there are not multiple uniform parts of soul, but “there is one soul in actuality, but many in potentiality.”⁵⁹ Within the original organism, there is a single, actual soul, which is not spatially differentiated or distributed; there are no actual localized psychic parts. Instead, there are many souls *potentially*. This potentiality is made actual in the act of dissection,

⁵⁸ An analogous problem arises concerning the origin of locomotion. According to Aristotle, there is a single origin of locomotion, located in the center of the body. Yet, because the divided halves of insects can continue to move locally after dissection, this suggests that there are at least two, spatially separable origins of locomotion. For a detailed treatment of this issue, see Nussbaum (1986, 358-361).

⁵⁹ “οὔσης τῆς ἐν αὐτοῖς ψυχῆς ἐντελεχία μὲν μιᾶς ἐν ἐκάστῳ φυτῷ, δυνάμει δὲ πλειόνων,” (*DA* II.2, 413b18-9).

when two distinct souls are present in two locally separated halves. Before this dissection, however, this potentiality is not yet actualized: there is actually only a single, undivided soul, even if there are potentially multiple souls. We will return in much more detail to this notion of potential presence in Chapter 5. For now, we only need to recognize how this distinction allows Aristotle both to explain the phenomenon of dissection, and to deny the existence of actually existing, spatially separable psychic parts, whether uniform or non-uniform.

This same phenomenon forms the basis of a criticism of the physiological picture, which posits locally separable non-uniform parts: “it is evident from these things [i.e. dissections], though, that the remaining parts of the soul are not separable in the way that some assert.”⁶⁰ If a worm’s (non-uniform) psychic parts are localized and locally separable, then we should be able to dissect the worm so that one dissected half only possesses nutrition and the other perception. There should be some fault line that divides these parts (as the neck and midriff do in the *Timaeus*). Empirical observation shows that no such fault line exists: “all of the parts of the soul are present in each of the parts [of the worm].”⁶¹ Whenever the two halves of a dissected worm survive, both remainders retain all of the original worm’s constitutive capacities (perceptual and nutritive parts).⁶² The worm continues to move and remains perceptually responsive to its environment: “each of the parts [i.e. the two half bodies] has perception and motion with respect to place.”⁶³ Moreover, because the process of maturity and decline are essential to mortal life, and nutrition is essential to this maturation process, all mortal organisms necessarily possess

⁶⁰ “τὰ δὲ λοιπὰ μέρη τῆς ψυχῆς φανερόν ἐκ τούτων ὅτι οὐκ ἔστι χωριστά, καθάπερ τινὲς φασιν,” (*DA* II.2, 413b27-29).

⁶¹ “ἐν ἑκατέρῳ τῶν μορίων ἅπαντ’ ἐνυπάρχει τὰ μέρη τῆς ψυχῆς,” (*DA* I.5, 411b24-25).

⁶² See *Juv.* II, 468b2-4.

⁶³ “γὰρ αἴσθησιν ἑκάτερον τῶν μερῶν ἔχει καὶ κίνησιν τὴν κατὰ τόπον,” (*DA* II.2, 413b21-22).

nutritive souls or psychic parts.⁶⁴ Because all living things necessarily possess nutrition, both dissected halves necessarily perform nutritive activities, such as consuming nutriment or growing.⁶⁵

Hence, the two souls in the two dissected halves possess the same perceptual and nutritive parts. Insects are not even potentially separable in this way: “Each [of the divided remainders] has a soul which is the same in form, if not also in number.”⁶⁶ They both have full and intact worm souls, complete with all the psychic parts that comprise that soul. These psychic parts are *not* locally separable. Crucially, this results no matter where the dissection is made: *every* dissection results in two dissected halves with all psychic parts (or parts that do not survive). Consequently, the entire soul—every psychic part—extends through the entire body. No psychic part is localized in only one bodily region, nor locally separable from other psychic parts. In general, psychic parts cannot be distinguished by material or spatial distinctions within the body.

4.3 The Separability of Intellect

⁶⁴ “It is necessary, then, that anything which is alive and has a soul has a nutritive soul from its generation until its destruction. For it is necessary that whatever is generated have growth and also maturity and decline, and these are impossible without nutrition; consequently, it is necessary that the nutritive soul be present in all things which grow naturally and decline,” (DA III.12, 434a22-26).

⁶⁵ In line with her general interpretation (i.e., attributing a physiological conception to Aristotle), Whiting holds that the dissected insects do not have nutritive parts, but only locomotive and perceptual parts. Although Aristotle does not *explicitly* reject such claim, I follow most interpreters in taking Aristotle also to deny inter-part separability: e.g., Polansky (2010, 179) Corcilius and Gregoric (2010); Ando (1965, 65). This interpretation is clinched by the passage that directly follows (t2), in which Aristotle contends that nutrition “exists separated from the perceptive first principle, though nothing lacking this has perception,” (DA I.5, 411b29-31).

⁶⁶ “ὡς τὴν αὐτὴν ἔχοντα ψυχὴν τῷ εἶδει, εἰ καὶ μὴ ἀριθμῷ,” (DA I.5, 411b20-21).

As is common in *DA*, the only potential exception to this non-separability of psychic parts is intellect: “concerning intellect and the capacity for contemplation nothing is yet evident but it seems to be a different genus of soul, and this alone admits of being separated in the way the everlasting is from the perishable.”⁶⁷ Although his hesitation on this and related issues is infamous, it seems uncontroversial that Aristotle countenances that at least *some* form of intellect is separable. In his most direct remarks on this separability in *DA* III.5, he claims that “this intellect is separate and unaffected and unmixed, being in its essence actuality... And having been separated, this alone is just what it is, and this alone is deathless and everlasting.”⁶⁸ Aristotle’s commitment to the separability of intellect might seem to suggest that he follows the *Timaeus* in recognizing an intellectual or rational part of the soul that is or can be spatially separated from the rest of the body and psychic parts. If this were the case, then he would adhere to a physiological conception, at least when it comes to intellect.

Even without dipping our toes into the murky water of the nature of Aristotelian intellect, we can see why such a comparison is misleading. Unlike Plato in the *Timaeus*, Aristotle is committed to the claim that the intellect is not mixed with the body, lacks an organ, and so is not the actuality of a body.⁶⁹ Hence, it is not localized in the body, let alone in possession of a unique location (like Plato’s reason has in the head). In the same vein, Aristotle’s intellect is not *spatially* separable. Given that the intellect is not the actuality of a body, when it is separated, it

⁶⁷ “περὶ δὲ τοῦ νοῦ καὶ τῆς θεωρητικῆς δυνάμεως οὐδὲν πω φανερόν, ἀλλ’ ἔοικε ψυχῆς γένος ἕτερον εἶναι, καὶ τοῦτο μόνον ἐνδέχασθαι χωρίζεσθαι, καθάπερ τὸ αἶδιον τοῦ φθαρτοῦ,” (*DA* II.2, 413b24-27).

⁶⁸ “περὶ δὲ τοῦ νοῦ καὶ τῆς θεωρητικῆς δυνάμεως οὐδὲν πω φανερόν, ἀλλ’ ἔοικε ψυχῆς γένος ἕτερον εἶναι, καὶ τοῦτο μόνον ἐνδέχασθαι χωρίζεσθαι, καθάπερ τὸ αἶδιον τοῦ φθαρτοῦ,” (*DA* II.2, 413b24-27; see also *DA* I.1, 403a10-12; II.1, 413a3-7; II.2 41324-27; III.4 429b4-5).

⁶⁹ *DA* III.4, 429a24-7; II.1, 413a3-7.

does not simply come to occupy a different position. Instead, it is, as Aristotle claims, separable only “as the everlasting is from the perishable” (καθάπερ τὸ ἀίδιον τοῦ φθαρτοῦ).⁷⁰ Whatever separability Aristotle’s intellect enjoys, it is not simply the spatial separation envisioned by local separability.

In sum, Aristotle rejects the physiological conception of psychic parthood, and any psychic partition that bases itself on material or spatial partitioning. One should, of course, not take this rejection as a rejection of psychic parthood in general. In arguing against the physiological conception, Aristotle indicates a general characteristic of his own positive conception of psychic parthood. As touched on earlier, there are conceptions of parthood and separability beyond spatial, material, or numerical parthood and separability. A proper account of psychic parthood, Aristotle’s criticisms suggest, must employ a ‘logical’ notion of parthood. Psychic parts are not distinguished by material or spatial distinctions, but by definitional or conceptual distinctions. In properly Aristotelian terms, psychic parts are not separable or different in place or magnitude, but are, at most, separable in account and being. Questions still remain about what sort of logical distinctions are relevant to psychic parthood, and which psychic capacities meet the criterion for psychic parthood. These questions are the focus both of Aristotle’s next criticism of Platonic partition (Chapter 3), and his own positive theory of psychic parthood (Chapter 4).

⁷⁰ *DA* II.2, 413b27

CHAPTER III

PLATONIC BIPARTITION AND TRIPARTITION

Aristotle's second set of critical remarks about psychic partition comes in *DA* III.9-10, within his account of locomotion. Unlike his attack on the physiological picture in *DA* I.5 and II.2, this argument begins with a concern about the particular parts posited by the Platonist—a tripartition into appetite, spirit, and reason, and a bipartition into rational and nonrational parts. Aristotle launches a sustained attack on Platonic bipartition and tripartition, showing the inadequacy both of the partitions themselves, and of the central argument traditionally given in their favor.

At the heart of his criticisms, I argue, lies a question about what it means for a psychic partition to be *scientific*. Aristotle claims that Platonic bipartition and tripartition do not live up to the standards of a proper scientific psychic partition. They lack a uniform and consistent principle of dividing the soul, and so also lack the classificatory and explanatory power required for a place within a science of soul. While they might (and, in fact, can) have roles in other sorts of explanatory contexts, Platonic bipartition and tripartition have no place within a *theoretical* account of soul.

On its surface, however, Aristotle's argument for these claims is not entirely clear. This argument prompts a series of questions, which Aristotle himself never attempts to explicitly answer: what sort of methodological and logical features must a division of the soul have, such that it can fit into a legitimate science of soul? What distinguishes a proper psychic partition from a haphazard description of the soul's powers? By answering these questions, and so determining the features that deny Platonic bipartition and tripartition a place within an Aristotelian science of soul, we come closer to determining exactly the sort of partitioning of the soul that Aristotle himself employs in *DA*.

In this chapter, I argue for a detailed reading of these criticisms and their place within Aristotle's account of locomotion in *DA* III.9-10. In §1, I contend that Aristotle's attacks the methodological foundations of tripartition and bipartition, arguing that these partitions necessarily lack a uniform *principle* by which to divide the soul. This lack compels the Platonist to recognize *all innumerably many* capacities as psychic parts, thereby effectively equating psychic capacity and part, and infinitely proliferating the number of psychic parts.

In §2, I contend that Aristotle defends his own partition (into nutrition, perception, and intellect) against the Platonist's central argument for bipartition and tripartition—the 'Argument from Opposites'. This argument states that internal psychic opposition (e.g., opposing rational and nonrational desires) should compel us to endorse bipartition or tripartition. Although Aristotle accepts this general form of reasoning, he contends that psychic opposition is equally consistent with his own psychic partition (into nutritive, perceptual, and intellectual parts).

§1 The Methodological Critique of Bipartition and Tripartition

1.1 Overview of the Argument

Having begun to consider in *DA* III.9 which part or parts of the soul are responsible for locomotion, Aristotle repeatedly turns to general considerations about psychic parthood throughout his treatment of locomotion:

(t1) It is necessary to inquire into whatever it is in the soul which moves [the animal]: whether it is just some one part of the soul, being separate in either magnitude or account, or the whole soul; and if it is some one part, whether it is something special, beyond those customarily mentioned and already discussed, or whether it is some one of them. There is an immediate puzzle both about how one ought to speak [*πῶς...λέγειν*] of the parts of the soul and how many [*πόσα*] there are. For in a certain way there appears to be an indefinite number of them [*ἄπειρα*]: and it is not only according to those who, when distinguishing [parts], mention the calculative and the spirited and appetitive, but also those who mention the rational and the irrational. For according to

the differences on account of which they separate them, other parts seem to have an even greater contrast than these, about which we have even now been speaking: [For example], the nutritive capacity, which belongs to plants and all animals, and the perceptual capacity, which one could not easily set down as either irrational or rational. Further, there is the principle of *phantasia* [φανταστικόν], which differs from them all in being, though there is considerable difficulty in saying—if one is going to posit separate parts of the soul—with which of the others it will be the same or from which of the others will it differ. And in addition to these there is the desiderative capacity, which would seem to differ from them all in account and in capacity. And it is definitely absurd [ἄτοπον] to split this up/off [τοῦτο διασπᾶν], because wish comes to be in the calculative, while appetite and spirit come to be in the irrational part, and if the soul is threefold, there will be desire in each part.¹

(t2) For those who distinguish parts of the soul, there will turn out to be a great many, if they distinguish and separate them in accordance with capacities [κατὰ τὰς δυνάμεις]: the capacities of nutrition, perception, thought, and deliberation, and, further, of desire. For these differ from one another to a greater extent [πλέον διαφέρει] than do the capacities of appetite and spirit.²

Aristotle addresses an “immediate puzzle” (ἀπορίαν εὐθύς) about psychic parts and their place within a theory of soul. Yet, when he attempts to articulate this problem, it appears to bifurcate.

¹ “περὶ δὲ τοῦ κινουῦντος, τί ποτέ ἐστι τῆς ψυχῆς, σκεπτέον, πότερον ἐν τι μόνιον αὐτῆς χωριστὸν ὄν ἢ μεγέθει ἢ λόγῳ, ἢ πᾶσα ἢ ψυχὴ, καὶ εἰ μόνιον τι, πότερον ἴδιόν τι παρὰ τὰ εἰωθότα λέγεσθαι καὶ τὰ εἰρημένα, ἢ τούτων ἐν τι. ἔχει δὲ ἀπορίαν εὐθύς πῶς τε δεῖ μέρη λέγειν τῆς ψυχῆς καὶ πόσα. τρόπον γὰρ τινα ἄπειρα φαίνεται, καὶ οὐ μόνον ἅ τινες λέγουσι διορίζοντες, λογιστικὸν καὶ θυμικὸν καὶ ἐπιθυμητικὸν, οἱ δὲ τὸ λόγον ἔχον καὶ τὸ ἄλογον· κατὰ γὰρ τὰς διαφορὰς δι’ ἃς ταῦτα χωρίζουσι, καὶ ἄλλα φαίνεται μέρη μείζω διάστασιν ἔχοντα τούτων, περὶ ὧν καὶ νῦν εἴρηται, τό τε θρεπτικόν, ὃ καὶ τοῖς φυτοῖς ὑπάρχει καὶ πᾶσι τοῖς ζῴοις, καὶ τὸ αἰσθητικόν, ὃ οὔτε ὡς ἄλογον οὔτε ὡς λόγον ἔχον θεῖν ἂν τις ῥαδίως· ἔτι δὲ τὸ φανταστικόν, ἔχει δὲ ἀπορίαν εὐθύς πῶς τε δεῖ μέρη λέγειν τῆς ψυχῆς καὶ πόσα. τρόπον γὰρ τινα ἄπειρα φαίνεται, καὶ οὐ μόνον ἅ τινες λέγουσι διορίζοντες, λογιστικὸν καὶ θυμικὸν καὶ ἐπιθυμητικὸν, οἱ δὲ τὸ λόγον ἔχον καὶ τὸ ἄλογον· κατὰ γὰρ τὰς διαφορὰς δι’ ἃς ταῦτα χωρίζουσι, καὶ ἄλλα φαίνεται μέρη μείζω διάστασιν ἔχοντα τούτων, περὶ ὧν καὶ νῦν εἴρηται, τό τε θρεπτικόν, ὃ καὶ τοῖς φυτοῖς ὑπάρχει καὶ πᾶσι τοῖς ζῴοις, καὶ τὸ αἰσθητικόν, ὃ οὔτε ὡς ἄλογον οὔτε ὡς λόγον ἔχον θεῖν ἂν τις ῥαδίως· ἔτι δὲ τὸ φανταστικόν, ὃ τῷ μὲν εἶναι πάντων ἕτερον, τίνι δὲ τούτων ταυτὸν ἢ ἕτερον ἔχει πολλὴν ἀπορίαν, εἰ τις θήσει κεχωρισμένα μέρη τῆς ψυχῆς· πρὸς δὲ τούτοις τὸ ὀρεκτικόν, ὃ καὶ λόγῳ καὶ δυνάμει ἕτερον ἂν δόξειεν εἶναι πάντων. καὶ ἄτοπον δὲ τὸ τοῦτο διασπᾶν· ἐν τε τῷ λογιστικῷ γὰρ ἢ βούλησις γίνεται, καὶ ἐν τῷ ἀλόγῳ ἢ ἐπιθυμία καὶ ὁ θυμός· εἰ δὲ τρία ἢ ψυχὴ, ἐν ἐκάστῳ ἔσται ὀρεξις,” (DA 432a18-b7).

² “τοῖς δὲ διαιροῦσι τὰ μέρη τῆς ψυχῆς, ἐὰν κατὰ τὰς δυνάμεις διαιρῶσι καὶ χωρίζωσι, πάμπολλα γίνεται, θρεπτικόν, αἰσθητικόν, νοητικόν, βουλευτικόν, ἔτι ὀρεκτικόν· ταῦτα γὰρ πλέον διαφέρει ἀλλήλων ἢ ἐπιθυμητικὸν καὶ θυμικόν,” (DA III.10, 433b1-4).

In (t1) and (t2), Aristotle has two tasks. First, Aristotle criticizes two prominent, characteristically Platonic, ways of dividing the soul: a tripartition that divides the soul into appetitive, spirited, and calculative parts, and a bipartition that divides the soul into rational and nonrational parts. Aristotle contends that they ultimately cannot be incorporated into a scientific account of soul. This focus has prompted some interpreters to concentrate exclusively on Aristotle's relation to Plato and the 'question of self-criticism': how Aristotle's rejection of bipartition relates to the bipartitions found in *NE* I.13 and *EE* II.1.³ Second, Aristotle diagnoses a mistaken temptation to recognize "indefinitely many" (ἄπειρα) or "very many" (πάμπολλα) psychic parts. This focus has prompted others to read the argument chiefly as confirmation for general claims about Aristotle's conception of soul found elsewhere in *DA*.⁴

The problem of interpreting the argument of *DA* III.9, then, is to bring together these two distinct targets. In principle, this might not seem to be difficult: Aristotle claims that it is *to those endorsing bipartition and tripartition* that psychic parts appear indefinite. Yet this claim too should strike us as quite strange. These partitions, after all, claim that there are just two or three psychic parts, not indefinitely many. This strangeness, however, has rarely been explicitly remarked upon, and so deserves a more detailed interpretation. In part, this is because the argument has not been interpreted on its own terms, but instead *mined* for the two purposes described above. In concentrating on interests external to the argument itself, these interpretations have tended to ignore the argument's more enigmatic details.

To preview the argument of §1: I describe in detail how Aristotle connects these two apparently distinct targets, and how this allows him to launch a compelling criticism of

³ E.g., Rees (1957); Fortenbaugh (1983); Vander Waerdt (1987).

⁴ E.g., Corcilius and Gregoric (2010); Johansen (2012); Whiting (2002).

bipartition and tripartition. Aristotle's central claim is that bipartition and tripartition are *unscientific* and *unprincipled*. Minimally, a partition should employ a principle that allows the psychologist to classify capacities under particular psychic parts, to decide whether a given capacity is a psychic part, and to limit the number of psychic parts to a finite number. Platonic bipartition and tripartition cannot be the result of any such principle, and so do not possess the required explanatory power. Hence, Platonic partition cannot limit psychic parts to only two or three, and so is *unstable*. The Platonist is then compelled to treat every new capacity as a distinct part, thereby equating psychic part and psychic capacity—a equation that has been wrongly attributed to Aristotle himself by many prominent interpreters. Given that there are indefinitely many psychic capacities, the Platonist would be embarrassingly compelled to admit the existence of an indefinite number of psychic parts, well beyond the two or three parts they officially acknowledge. This, in turn, undermines the central motivation for attributing parts to the soul—not merely to give an exhaustive list of the powers of the soul, but to explain the fundamental structure of the soul.

1.2 Platonic Ethical Bipartition and Tripartition

Before moving to Aristotle's criticisms, it will be helpful to get in view the first of Aristotle's targets: Platonic bipartition and tripartition.

Platonic tripartition, especially as presented in the *Republic* and *Timaeus*, was perhaps the first explicit treatment of psychic parthood, and likely the most relevant for Aristotle's own

theory of soul.⁵ According to this tripartition, all human souls, at least in their embodied state, are divisible into three parts.⁶ These parts are often connected to different desires and objects of desires: the spirited part seeks honor and recognition, the appetitive seeks bodily pleasures and money, and the rational seeks truth and wisdom. Whether these parts amount to distinct psychological subjects or simply different descriptions or aspects of a single soul remains controversial, but is not especially relevant to Aristotle’s criticisms in *DA* III.9. That Aristotle has in mind Plato’s particular version of tripartition is strongly suggested by his use of Platonic technical vocabulary—“the calculative” (λογιστικόν)⁷, “the spirited” (θυμικόν),⁸ and “the appetitive” (ἐπιθυμητικόν).⁹ *DA* III.9’s presentation of tripartition is admittedly unsympathetic, perhaps even deaf to the subtleties of Plato’s actual conception of psychic parthood. In part, this results from the fact that Aristotle addresses not merely Plato’s idiosyncratic tripartition as we find it in the dialogues, but likely also its descendants within the Academy. This is suggested by Aristotle’s use of a plural pronoun (“those [τινες] who mention...”¹⁰) in reference to tripartition.

⁵ It remains a source of controversy whether we find consistent partitions throughout the Platonic corpus—i.e., whether we find the partition of the *Republic* and *Timaeus* also in the *Phaedrus* and *Laws*. For discussion see Gerson (1987); Brisson (2012).

⁶ Plato uses “part of soul” (μέρος τῆς ψυχῆς) relatively rarely, often opting for alternatives like “form of soul” (εἶδος τῆς ψυχῆς) or a substantive created from the adjective used to characterize the relevant part (e.g., “the calculative” (λογιστικόν) for the rational part).

⁷ “τὸ μὲν ᾧ λογίζεται λογιστικόν,” (*Rep.* IV, 439d).

⁸ Plato never uses “θυμικόν”, but often uses other words with the θυμ- root: “τοῦ θυμοῦ καὶ ᾧ θυμούμεθα” (*Rep.* VI, 439e; *Tim.* 70b, 70c), “τὸ θυμοειδές” (*Rep.* IX, 581a) “τὸ μετέχον...θυμοῦ” (*Tim.* 70a). Aristotle’s use of θυμικόν perhaps either emerges from a desire to incorporate tripartition into his own technical vocabulary (in which -ικόν terms describe capacities or parts), or reflects Academic attempts to further systematize Plato’s tripartition.

⁹ “ἀλόγιστόν τε καὶ ἐπιθυμητικόν” (*Rep.* IV, 439d); “τὸ τῶν ἐπιθυμιῶν” (*Tim.* 70a); “τὸ...ἐπιθυμητικόν τῆς ψυχῆς” (*Tim.* 70d).

¹⁰ *DA* III.9, 432a24. As we saw in Chapter 1, *DA* I.5’s discussion of psychic parthood similarly refers to anonymous “τινες” (411b5) who assert that “the soul has parts and that reasoning is by means of one part and desiring by means of another,” (*DA* I.5, 411b5-6). In both cases, the

Even so, we will see that Aristotle at least targets a *plausible* account of Platonic tripartition, and so his criticisms present a legitimate challenge to Platonic psychology.

Even if Plato is likely the target of the criticism of tripartition, it might seem that Aristotle targets others with his reference to bipartition. Bipartition between rational and irrational features of soul had an extensive history within Greek thought, usually manifesting as a distinction within a person between rational, deliberative, or lawful aspects and emotional, appetitive, or passionate aspects. Although not systematic theories of psychic parthood, interests in these distinctions can be traced back to Homer,¹¹ and becomes a central theme of Greek tragedy.¹² Aristotle himself employs a bipartition in his practical works, distinguishing between “a part having reason” (τὸ λόγον ἔχον) and an “irrational part” (τὸ ἄλογον).¹³ Confirming its familiar and popular status, he claims there that this bipartition emerges from “popular accounts [τοῖς ἐξωτερικοῖς λόγοις].”¹⁴ Accordingly, some have suggested that *DA* III.9 contains self-

reference is obscure. I agree with most interpreters who assume that the targets are Plato and his Academic successors; I as well agree with others (e.g., Vander Waerdt (1987) who suggest that a further target is Aristotle’s own psychic bipartition in his ethical works. Fortenbaugh (1983, 242) uniquely argues that the targets are particularly unsophisticated members of the Platonic Academy, but not Plato himself.

¹¹ Fortenbaugh discusses (1983, 239) two helpful examples: 1) Odysseus’ happening upon Argos (*Odyssey*, 17.291-305) and 2) Odysseus’ interaction with Melanthios (*Odyssey*, 17.215-238). In the former, Odysseus’ allows his emotions to gain control, whereas in the latter, emotion is restrained through calculative reflection.

¹² Famous examples include the monologues of Medea (*Medea* 1021-80) and Phaedra (*Hippolytus*, 373-430).

¹³ *NE* I.13, 1102a28-1103a3; V.11, 1138b6-13; VI.1, 1138b35-1139a17; VI.11, 1143b14-7; IX.4, 1166a1-b29; *EE* II.1, 1219b26-1220a14; II.4, 1221b27-34; VII.12, 1246a26-b36; *Pol.* I.5, 1254a38-b10; I.13, 1260a5-17; III.16, 1287a10-33; VII.14, 1333a17-30.

¹⁴ *NE* I.13, 1102a25-6. Again, the reference to “exoteric” works is unclear: whether they are works by Aristotle written for popular consumption, or popular philosophical positions or arguments already known to his audience.

criticism of his earlier, more Platonist treatment of the soul.¹⁵ To defend this suggestion, however, would require a more detailed reading of those practical works than can be given in the present argument.

Even so, we have reason to think that Plato is also a central target in Aristotle's reference to bipartition. Plato himself appears to treat such a bipartition as compatible with his official tripartition, even indicating that tripartition emerges out of a more basic bipartition. As noted in Chapter 2, Plato in the *Timaeus* first partitions the soul into two— “the divine soul [τὸ θεῖον]” and “the mortal kind of soul [εἶδος...ψυχῆς...τὸ θνητόν].”¹⁶ The former is characterized as the seat of reason and the latter as the seat of “nonrational perception [αἰσθήσει ἀλόγῳ].”¹⁷ Tripartition in turn results from a further partition within the irrational mortal soul, in which Plato posits distinct spirited and appetitive parts. This suggestion is found also in *MM*, in which the author explicitly claims that “Plato divided the soul into rational and irrational parts,” without any mention of tripartition.¹⁸ Hence, we have reason to think that Plato is the general target of *DA* III.9's criticism.

¹⁵ As noted, the relationship between the bipartition of the ethical works and the bipartition criticized in *DA* has been controversial. Whether these bipartitions are the same or not bears strongly on the question of whether *DA* III.9 constitutes self-criticism. For arguments for and against, see Van Waerdt (1987) and Fortenbaugh (1983), respectively.

¹⁶ *Timaeus*, 69c.

¹⁷ *Timaeus*, 70a-b; 69d. Fortenbaugh (1983, 246) argues that similar suggestions can be found in the *Republic* (e.g., 439e5, 571c3-572b1).

¹⁸ “Πλάτων διείλετο τὴν ψυχὴν εἰς τε τὸ λόγον ἔχον καὶ εἰς τὸ ἄλογον,” (*MM* I.1, 1182a24).

1.3 Ethical and Theoretical Psychology

Before moving to the details of Aristotle’s criticisms, we can also note how these targets fit into the general project of *DA*. Aristotle seeks in *DA* a theoretical account of the essence and essential attributes of soul as such, giving no priority to any particular kind of soul.¹⁹ Plato’s bipartition and tripartition, however, are naturally linked to an anthropomorphic and ethical psychology—what, in commenting on (t1), Simplicius calls a division of “the practical and ethical soul.”²⁰ Both partitions focus on reason (λογιστικὸν or λόγον)—a capacity exclusive to humans—and its relation to other aspects of human action. Likewise, they often employ normative vocabulary, describing rational parts as superior, nonrational parts as inferior, and the relationship between them in terms of domination and mastery.²¹ In modern terminology, we can say that these partitions are chiefly in the business of doing ‘moral psychology’—a description of the human soul or mind insofar as it forms intentions, makes choices, and produces voluntary, ethically significant actions. We see this clearly in the tripartition of the *Republic*, in which psychic parthood is introduced to explain the conflict of our rationally-formed wishes and irrational impulses (*akrasia*), and what virtues, like justice or moderation, look like within the soul itself. Likewise, Aristotle characterizes his own bipartition in the practical works as having a

¹⁹ E.g., *DA* I.1, 402a6-9.

²⁰ Simplicius (*On Aristotle On the Soul*, 289.15-16).

²¹ E.g., *Pol.*, I.5, 1254a29-b9 : “In all things which form a composite whole and which are made up of parts, whether continuous or discrete, a distinction between the ruling and the subject element comes to light....And it is clear that the rule of the soul over the body, and of thought and the rational element over the passionate, is natural and expedient; whereas the equality of the two or the rule of the inferior is always hurtful.”

strictly practical and anthropomorphic focus, containing descriptions of the human soul aimed towards ethical development.²²

Accordingly, Platonic psychic partition exhibits a particular approach to the soul—an ethical psychology—that differs from the theoretical approach of *DA*. Aristotle does *not* argue in *DA* III.9 whether this ethical approach to the soul is possible or useful. His endorsement of bipartition in the practical works suggests that Aristotle thinks that an ethical psychology is legitimate in the right explanatory context (i.e., in a ‘practical’ context). Instead, Aristotle’s criticisms in *DA* III.9 question whether such an ethical psychology could have a legitimate place within a theoretical account of soul—whether Platonic partition can stand up to *DA*’s methodological and metaphysical standards. In particular, I argue that Aristotle doubts that Platonic partition could be the product of a *principled* partition: a division of soul that results from the consistent and uniform application of a principle for distinguishing psychic parts.

If such a divide really exists between ethical psychology, as we find in the *Republic*, and theoretical psychology, as we find in *DA*, then an objection to Aristotle’s criticisms presents itself: do Aristotle’s methodological criticisms simply attack a strawman? Do they not just criticize Plato by scientific standards that he never endorsed? Such worries require that we should read Aristotle’s criticisms in one of three lights:²³ (1) Aristotle is simply wrong about Plato’s project in dividing the soul, does not recognize that Plato engages in moral psychology, and so his criticisms are misguided; (2) Aristotle’s real criticisms of Platonic psychology play

²² “It is for a politician to study what concerns the soul. But his study should be for the sake of the things [τούτων χάριν] in question [i.e., the development of human virtue],” (*NE* I.13, 1102a23-4).

²³ Some authors—e.g., Fortenbaugh (1983) and Van Waerdt (1987)—recognize the distinction between these two projects. Others—e.g., Corcilius and Gregoric (2010), Johansen (2012)—uncritically take *DA* III.9 to be criticisms of Plato’s partition of soul.

out at a more fundamental level (e.g., Aristotle claims that Plato *should* engage in the same project as he does in *DA*, and not the ethical psychology of the *Republic*); (3) Aristotle’s target is not Platonic moral psychology *per se*, but the attempt, whether by Plato or others, to transform this moral psychology into an theoretical psychology.

Although any decision between the three options will be ultimately speculative, the strongest evidence suggests the last option. Aristotle displays too consistent and acute of an appreciation of the difference between moral and theoretical psychology to simply be ignorant of the distinction in his criticisms of bipartition and tripartition, as in (1). Moreover, because Aristotle recognizes the *value* of moral psychology in his practical works, he does not just simply criticize Plato for engaging in moral psychology, as in (2). Hence, Aristotle attacks an attempt to *transform* Platonic moral psychology into a proper scientific theory of soul, as in (3). Some interpreters (e.g., Fortenbaugh) have reasonably hypothesized that Aristotle’s true targets are unnamed Academic successors, who take the letter of tripartition or bipartition, but betray its spirit to employ it as a scientific partition. It is equally tempting to think that Plato himself does something similar in his engagement with natural science and cosmology in the *Timaeus*: attempting to fit the ethical partition of the *Republic* within a theoretical and scientific project. Regardless, we can approach Aristotle’s criticisms as aiming at a specific target: the attempt to cast Platonic bipartition and tripartition as a scientifically, theoretically, and metaphysically viable conception of the soul.

1.4 Principles of Partitioning

As we saw in Chapter 2, Aristotle rejects the possibility that psychic parts are material parts or are “separable in place” (χωριστὸν τόπον), which he contrasts with being “separable in

account” (χωριστὸν λόγῳ).²⁴ Hence, throughout his treatment of psychic parthood, Aristotle minimally attempts to describe the *logical* structure of the soul—how an organism’s various capacities conceptually and definitionally relate to and depend on each other. In this vein, and as the language of (t1) and (t2) suggests,²⁵ Aristotle sees psychic partitions as having *classificatory* aims (in Chapter 4, I also describe these aims as ‘cartographical’).²⁶

This classificatory project has two complementary aspects. First, there is a hierarchical or ranking activity, in which we classify psychic capacities as either proper psychic *parts* or mere *capacities*. A psychic partition might, for example, classify perception as a foundational psychic part, and smell as a mere psychic capacity. In Chapter 4, I argue that these claims are the products of ‘Parthood Arguments’.²⁷ Second, there is a taxonomical activity, in which we classify different capacities as ‘falling within’ different psychic parts; a psychic partition might likewise classify smell as a perceptual capacity (i.e., assert that smell is in the perceptual part). In Chapter 4, I call these claims the products of ‘Dependency Arguments’.²⁸

²⁴ DA II.2, 413b14-15; III.9, 432a20.

²⁵ “διορίζοντες”, (DA III.9, 432a25; see PA I.3, 643b11); “διαφορὰς” (DA III.9, 432a27; see DA III.10, 433b4; PA I.2, 642b6); “χωρίζουσι,” (DA III.9, 432a27; see DA III.10, 433b2; PA I.2, 642b18); “διασπᾶν,” (DA III.9, 432b5; see PA I.2, 642b18); “διαροῦσι...διαρῶσι,” (DA III.10, 433b1-2; see PA I.3, 642b21).

²⁶ The classificatory project in psychic partition is not strictly parallel to zoological classification, if we characterize the latter by a rigid genus-species structure. While smell or taste might be species in the genus of perception, other ‘perceptual’ capacities, which are in the perceptual part, have more complicated relationships to perception. Memory, Aristotle claims, is an “affection or state” of perception (DM I, 449b25), while *phantasia* is a “movement” of perception (DA III.3, 429a1-2). As I argue in Chapter 4, these different connections can all be understood as instances of *logical dependence*. To reflect this difference between strict zoology and psychic partition, I opt in Chapter 4 for the looser terminology of “mapping the soul”, as opposed to “classification of the soul’s powers”.

²⁷ Chapter 4, §3.

²⁸ Chapter 4, §2.

To clarify these two aspects, we can consider parallel aims in zoological classification. A proper classification of animals contains at least two components. First, there is a hierarchical or ranking activity, in which one distinguishes between more basic kinds (birds) and less basic kinds (parrots), presenting a hierarchy from greater to smaller kinds. Second, there is a taxonomical activity, in which, for any given species (salmon), the zoologist states under which kind (fish) it falls (as well as its specific difference): “To distribute animals evenly into such differences as these, of which there are forms, so that any given animal belongs in them and the same animal does not belong in more than one.”²⁹

A zoology that fails to achieve the two aims above provides no genuine classification of animals. It fails to describe the relationship between kinds of animals and so lacks *classificatory power*. Likewise, a psychic partition that fails to achieve the two aims above provides no account of psychic parthood. It, in turn, similarly lacks classificatory power and fails to describe the structure of the soul. Hence, a minimal condition of a legitimate psychic partition or zoology, at least within a theoretical context, is ‘classificatory power’—the ability to precisely distinguish and describe the hierarchical relationship between the members of a general kind.

As with other kinds of classifications, psychic partitions can be distinguished in two ways. Because each partition provides a definitive number and list of parts, we can distinguish them based on how many (“πόσα”)³⁰ parts they recognize. This is operative in standard descriptions of Platonic partition, as it is usually distinguished by the number and type of psychic parts (*bipartition* or *tripartition*). We can also distinguish partitions based on *how* (“πῶς”)³¹ they

²⁹ “...μὲν οὖν διαλαβεῖν καὶ εἰς τοιαύτας διαφορὰς ὧν ἔστιν εἶδη, ὥσθ’ ὅτιοῦν ζῷον ἐν ταύταις ὑπάρχειν καὶ μὴ ἐν πλείοσι ταῦτόν,” (PA I.3, 642b30-32).

³⁰ DA III.9 432a23.

³¹ DA III.9 432a23.

partition the soul. A classification of animals is characterized not just by the number and kinds of species it recognizes, but also the general principles by which it divides those species. In classifying animals, we take certain differences (e.g., difference in form, dissimilarity in DNA or ecological status) as being sufficient for difference in species or genus. Likewise, psychic partitions are concerned with distinguishing between psychic capacities, and so with the difference that obtains between them. Different psychic partitions consider particular sorts of differences as sufficient for parthood. Accordingly, psychic partitions can be distinguished not only by the parts they posit, but by the differences that they think give rise to psychic parthood. This difference supplies the distinctive *principle* or *method* by which the soul is partitioned. This principle indicates to the psychologist whether a candidate for parthood (a psychic capacity) actually constitutes a distinct psychic part. If a classification is to be *principled*, it minimally should employ such a uniform principle and method.

Crucially, and perhaps unintuitively, Aristotle in *DA* III.9 conceives of these differences in quantitative terms. Birds and fish are said to constitute distinct genera, whereas parrots and chickens constitute distinct species. One way to explain this is the fact that the former pair differ to a *greater degree* than the latter. Likewise, psychic partitions take themselves to attribute parthood only in the case of particularly important or striking differences. Aristotle takes perception and intellect to differ to a greater degree than smelling and tasting. Although both pairs differ, the former pair differs *more* than the latter pair. The former difference, for Aristotle, requires partitioning and the latter does not. According to Aristotelian partition, intellect and perception differ to a *sufficient degree*, whereas smelling and touching do not. If Aristotle let just any difference be adequate for parthood, he would have to admit many more parts of soul (e.g., a smelling part). Likewise, to generate the correct parts, Platonic partition assumes a degree of

difference that distinguishes Platonic parts from other psychic capacities—a quantity of difference that is sufficient for parthood. What particular degree is sufficient for parthood should presumably differ for bipartition and tripartition. Still, they alike take there to be *some* degree to be sufficient, distinguishing mere psychic capacities from psychic parts.

We can see this reasoning at work in the *Timaeus*. First, there is an emphasis on difference as a means of both identifying psychic parts. The *Timaeus* offers a picture of the human soul as comprised of elements that are fundamentally dissimilar: each element is “a different kind of soul [ἄλλο...εἶδος...ψυχῆς].”³² This difference corresponds to the soul’s three distinct parts, which, to preserve this difference, are assigned to different places within the body—“to keep [psychic parts] apart,” so that they would not “stain” each other.³³ Second, Plato also sees this difference as grounding the distinction between psychic part and mere capacity. He treats certain capacities, such as appetites for food and for drink, as different, but not different enough to constitute free-standing parts. Instead, they all make up aspects of and depend on single parts of the soul. Only those capacities or sets of capacities that differ sufficiently can count as *psychic parts*.

Accordingly, Platonic partition, like most other partitions, only recognizes psychic parts that differ sufficiently, where what is ‘sufficient’ is determined by the particular partition under consideration. Most relevant to *DA* III.9, this principle of sufficient difference constitutes the central method by which a partition can *limit* the number of psychic parts. It is precisely such a principle that allows a partition to classify psychic capacities into those that do and those that do not differ sufficiently. The former group will be parts, while the latter will not be. If Platonic

³² *Timaeus*, 69c.

³³ *Timaeus* 69c-d.

partition considered any quantity of difference as sufficient for parthood, many more capacities would constitute parts, such as hunger or thirst. If the required quantity of difference were too high, there would not be any capacities that constitute psychic parts. Only by choosing an appropriate intermediate quantity of difference could Platonic partition guarantee that there are exactly two or three psychic parts. Hence, a principle of sufficient difference is crucial to the identity of Platonic partition, and its ability to keep psychic parts to a limited number.

1.5 The Unprincipled Character of Bipartition and Tripartition

The criticisms in *DA* III.9 focus on this last claim, undermining Platonic partition's attempt to endorse a principle of sufficient difference. In broad outline, Aristotle suggests that the parts recognized by Platonic partition cannot be the product of any principle of sufficient difference. With such a principle, only and all capacities that differ more than some specified degree count as psychic parts. If other capacities differed more than Platonic parts, they too, by that principle, should be counted as psychic parts. Aristotle argues that such capacities exist (e.g., perception or nutrition), and so should count as psychic parts. Because Platonic partition does not recognize them as parts, it does not uniformly apply a principle of sufficient difference, and so does not provide a theoretically-viable partition of the soul.

Although rarely noted, a central interpretive difficulty is to find a coherent line of argument in (t1) for this central claim. After stating that (1) some capacities differ more than Platonic parts, Aristotle appears to turn to a different topic, suggesting that (2) certain psychic capacities cannot be subsumed under any single Platonic part. On the surface, it is unclear how this claim (2) relates to claim (1). The two conclusions instead appear to be two unrelated claims

about Platonic partition. Accordingly, we should read Aristotle’s argument as containing two complementary parts:

Claim 1: Certain psychic capacities differ more than Platonic parts, and so deserve to be psychic parts, even for the Platonist.

Claim 2: Platonic partition lacks the resources to otherwise dissolve the problems that such capacities pose, given that they cannot be wholly assigned to any particular Platonic part.

Claim 1

Aristotle maintains that particular capacities differ more amongst each other than Platonic parts do: “according to the differences on account of which they separate [psychic parts], other parts seem to have *an even greater contrast* [μείζω διάστασιν] than” do Platonic parts.³⁴ He claims, for example, that “nutritive, perceptual, intellectual, deliberative, and further desiderative capacities...differ from one another to a greater extent [πλέον διαφέρει] than do the capacities of appetite and spirit.”³⁵

Although Aristotle does not spell this claim out, his general conception of difference, such as we find in *Meta.* I, provides some support to reconstruct his reasoning. For Aristotle at least, appetite and spirit are simply different forms of desire, even though their proper objects and the cognitive capacities on which they depend differ.³⁶ Like two colors or two smells, spirit

³⁴ “κατὰ γὰρ τὰς διαφορὰς δι’ ἃς ταῦτα χωρίζουσι, καὶ ἄλλα φαίνεται μῦρια μείζω διάστασιν ἔχοντα τούτων,” (DA III.9, 432a26-28).

³⁵ “θρεπτικόν, αἰσθητικόν, νοητικόν, βουλευτικόν, ἔτι ὀρεκτικόν· ταῦτα γὰρ πλέον διαφέρει ἀλλήλων ἢ ἐπιθυμητικόν καὶ θυμικόν,” (DA III.10, 433b2-24).

³⁶ “Desire is appetite, spirit, and wish” (DA II.3, 414b2). Appetite is the most primitive form of desire, arising from the most basic forms of perception that allow for the experiencing of pleasure and pain (414b3-6). Spirit is more difficult to describe in a summary fashion, given its diverse manifestations—e.g., anger (*Rhet.* I.4, 1369b11; *Top.* II.7, 113a36–b1), fear or hatred (*Top.* IV.5, 126a7–9), and love or friendship (*Pol.* VII 7, 1327b40-1328a1).

and appetite can then be said to differ in species, but fall within the single genus of desire. While their accounts differ, these definitions will contain substantial overlap (e.g., ‘desire’, ‘good’, ‘aims’). Yet the capacities to which Aristotle refers differ *generically* amongst each other. Nutrition and perception constitute wholly different genera of psychic capacities, under which particular species can fall (sight, taste, photosynthesis, digestion, etc.). There is no substantial overlap within their respective accounts, except by analogy (e.g., ‘reception’, ‘affection’). They are fundamentally different sorts of capacities, responsible for different sorts of activities.

In general, Aristotle maintains that generic difference is *greater* than specific difference. White and black are, after all, both colors; spirit and appetite are both desires. Insofar as they both fall within a single genus, they are comparable along a single spectrum or against a single standard. Consequently, Aristotle claims that they differ by degree or by “more and less”. Yet with things differing in genus, they “have no way to one another, but are too far distant and are not comparable.”³⁷ Their difference is so great that they cannot be compared through some common standard. Given that Platonic parts differ specifically, but other psychic capacities differ generically, the latter group *differs more*. Just as white and sweet differ more than bitter and sweet, so perception and nutrition differ more than spirit and appetite.

With the greater difference of perception and nutrition secured, claim (1) follows immediately. Because sufficient difference is supposed to distinguish Platonic parts from mere capacities, this degree of difference necessarily cannot exceed the difference that obtains between Platonic parts—otherwise Platonic parts would not be counted as parts. This is true no

³⁷ “τὰ μὲν γὰρ γένει διαφέροντα οὐκ ἔχει ὁδὸν εἰς ἄλληλα, ἀλλ’ ἀπέχει πλέον καὶ ἀσύμβλητα,” (*Meta.* I.4, 1055a11-12; see also *DS* 7, 448a14-7: “...corresponding things in different genera of sense...stand yet more aloof and differ more from one another [πλεῖον ἔτι ἀπέχει ἀλλήλων καὶ διαφέρει] than do things in the same province... [e.g.] sweet differs from white even more than black does from white.”)

matter what degree of difference Platonic partition treats as sufficient. Yet the aforementioned capacities differ *more* than Platonic parts and so more than what is required by the relevant principle of sufficient difference. Therefore, such capacities deserve to be psychic parts, even for the Platonist. Their principle of sufficient difference requires that the Platonist recognizes capacities like nutrition and perception as distinct parts. Because the Platonist does not recognize these capacities as parts, the Platonist cannot be said to uniformly apply sufficient difference. Consequently, they have no right to maintain that only capacities that differ sufficiently count as psychic parts.

To see the force of Aristotle's argument, consider a further analogy with Aristotelian zoology:

(t3) Those animals that differ by degree and the more and the less have been brought together under one genus, while those that are [merely] analogous have been kept apart [in genus]. I mean, for example, that bird differs from bird by the more or by degree [τῷ μᾶλλον ἢ καθ' ὑπεροχὴν] (for one has long feathers, another short feathers), while fish differs from bird by analogy [τῷ ἀνάλογον] (for what is feather in the one is scale in the other).³⁸

Things that differ specifically (different species of birds) differ 'by degree', having more or less of some common part or feature (feathers, wing-size, etc.). Things that differ generically (birds and fish) have no common attribute by which to be compared. Because their difference exceeds any determinate difference in degree, they can only be compared by analogy. Just as white and sweet differ more than bitter and sweet, so birds and fish differ more than parrots and sparrows. Aristotle maintains that, in classification, we must uniformly distinguish between specific and generic difference. The zoologist must not, for example, treat the difference between two birds as

³⁸ "Ὅσα μὲν γὰρ διαφέρει τῶν γενῶν καθ' ὑπεροχὴν καὶ τὸ μᾶλλον καὶ τὸ ἥττον, ταῦτα ὑπέζευκται ἐνὶ γένει, ὅσα δ' ἔχει τὸ ἀνάλογον, χωρὶς· λέγω δ' οἷον ὄρνις ὄρνιθος διαφέρει τῷ μᾶλλον ἢ καθ' ὑπεροχὴν (τὸ μὲν γὰρ μακρόπτερον τὸ δὲ βραχύπτερον), ἰχθύες δ' ὄρνιθος τῷ ἀνάλογον (ὁ γὰρ ἐκείνῳ πτερόν, θατέρῳ λεπίς)," (PA I.4, 644a16-22).

greater than that between a bird and a fish. Aristotle accuses the Platonist of making an analogous mistake in psychic partitioning: taking specific difference to be greater than generic difference, and the difference between appetite and spirit to be greater than that between perception and nutrition. In both psychological and zoological contexts, this mistake undermines the theoretical legitimacy of a given classification.

Claim 2

The Platonist could ignore Claim 1, and ignore the threat that capacities like nutrition and perception pose, if they could somehow reduce those capacities to or explain them in terms of the parts that the Platonist already posits. Aristotle argues that the Platonist is unable to assimilate these capacities, either metaphysically or explanatorily, to Platonic parts. Consequently, the Platonist otherwise lacks the resources to explain capacities like nutrition or perception (Claim 2). Aristotle considers two sorts of capacities: some that lie *beyond* the explanatory scope of Platonic partition, like nutrition, and some that extend *across* Platonic parts, like perception.

Of the first sort, Aristotle considers one example in (t1): the nutritive capacity (τό θρεπτικόν). That nutrition cannot be assimilated to any Platonic part is brought out by Aristotle's insistence that nutrition is the most common and universal psychic capacity, and so "belongs to plants and to all animals."³⁹ For Aristotle, plants possess neither desire nor reason, and so, *a fortiori*, do not possess spirit, appetite, or calculation. This requires that nutrition, at least in plants, functions and must be explained independently of Platonic parts. Consequently, we

³⁹ "ὁ καὶ τοῖς φυτοῖς ὑπάρχει καὶ πᾶσι τοῖς ζῴοις," (DA III.9 432a29-30).

cannot assimilate nutrition to any Platonic part. Nutrition remains a capacity of a radically different sort.⁴⁰

Nutrition lies beyond the explanatory scope of Platonic partition, and therefore poses a stubborn problem for Platonic psychology's explanation of soul. Echoing its ethical focus, these difficulties arise from and highlight Platonic partition's anthropomorphism, and its defining focus on human reason and desire. This anthropomorphism severely limits its ability to explain capacities that are not characteristically human. Aristotle sees such limitations as both pervasive and deeply problematic: "those discussing and inquiring into the soul would seem to consider only the human soul."⁴¹ A serious scientific explanation of soul, Aristotle maintains, must account for *all* forms of soul and *all* their capacities, including nutrition.

Bipartition might appear to be better equipped to account for nutrition than tripartition, given that nutrition can reasonably be described as 'nonrational' or 'ἄλογον'. Yet, because the ἄ- of ἄλογον is ambiguous, signifying either contrariety or contradiction, ἄλογον itself can mean either 'anti-rational' or 'nonrational', respectively. On the former interpretation, ἄλογον, being the contrary of reason, is a desiderative or cognitive psychic part that can positively oppose reason (e.g., an appetitive part that can obey or disobey reason). Clearly nutrition could not be assimilated to such a part, as nutrition cannot actually oppose or follow reason.⁴² On the latter interpretation, ἄλογον, being the contradictory of reason, includes any capacity that is not

⁴⁰ The author of *MM* endorses this characterization explicitly: "none of these parts of the soul will be the cause of nourishment, to wit, the rational or spirited or appetitive, but something else besides these, to which we can apply no more appropriate name than 'nutritive'," (*MM* I.4, 1185a19-22).

⁴¹ "οἱ λέγοντες καὶ ζητοῦντες περὶ ψυχῆς περὶ τῆς ἀνθρωπίνης μόνης εὐόκασιν ἐπισκοπεῖν," (*DA* I.1, 402b4-5).

⁴² See *NE* I.13, 1102b28-29: "the vegetative part does not share in reason in any way."

positively rational. Because nutrition is not rational, nutrition could be assimilated to this ἄλογον, as Aristotle himself recognizes in *NE* I.13. Yet this sense of ἄλογον threatens to undermine its status as a genuine psychic part, rather than a loose grouping of negatively defined capacities. As with anything defined negatively, this sense of ἄλογον does not refer to any single form or common essence, and so does not constitute a single unified part. Indeed, while Aristotle nominally includes nutrition in the ἄλογον in *NE* I.13, he promptly dismisses it as irrelevant to his immediate concerns (the domain of human virtue). In a similar vein, Aristotle explicitly formulates attacks against attempts to negatively define kinds in his zoology.⁴³ These worries suggest that bipartition can only *nominally* incorporate nutrition.

Next, Aristotle considers a second class of capacities, which play a more direct role than nutrition within the activities of Platonic parts, and so appear more likely to be assimilated to Platonic parts. In (t1), he addresses three prominent examples: perception, *phantasia*, and desire. As with nutrition, Aristotle maintains that they cannot be so assimilated. Yet he reaches this conclusion for reasons different from those he voiced about nutrition: because *every* Platonic part has a claim to be the home of such capacities, these capacities exist across and throughout Platonic parts. These capacities blur the boundaries of Platonic parts and thereby make those parts indefinite.

Aristotle first claims that, because “one could not easily set down [perception] as either nonrational or rational,”⁴⁴ perception (τὸ αἰσθητικόν) cannot be assimilated to any one Platonic

⁴³ *PA* I.3, 642b23-24: “There is no difference within a privation as a privation; for there cannot be forms of what is not, e.g., forms of footlessness or winglessness, as there are of winged or footed.” This interpretation is in agreement with Aquinas (*Commentary on Aristotle’s De Anima*, §800): “For the irrational means what is either anti-rational or lacking a rationality that it ought to possess; and neither of the aforesaid parts is such. Whereas if one were simply to call them non-rational they would not constitute, properly speaking, a classification of the soul’s powers.”

⁴⁴ “ὁ οὔτε ὡς ἄλογον οὔτε ὡς λόγον ἔχον θεῖη ἂν τις ῥαδίως,” (*DA* III.9, 432a30-31).

part, but has a claim to all. Aristotle frequently suggests that perception has both rational and nonrational characteristics (or, alternatively, appetitive, spirited, and calculative characteristics). On the one hand, Aristotle consistently takes perception to be the defining capacity of animals—”something is an animal primarily because of perception.”⁴⁵ He maintains that “all animals,” even those lacking reason, “have a connate discriminatory capacity, which is called perception.”⁴⁶ At least in these nonrational animals, perception is itself wholly nonrational. Indeed, Aristotle calls the life of these nonrational creatures “the life of perception.”⁴⁷ Moreover, Aristotle sees a special connection between appetite (the most primitive form of desire) and perception (the most primitive form of cognition), maintaining that organisms with perception must also thereby possess appetite.⁴⁸ This suggests that perception is nonrational and appetitive.

On the other, as I argue in more detail in Chapter 6,⁴⁹ perception is also possessed by humans, and plays a prominent role in their rational activities. This is perhaps clearest in Aristotle’s empiricism, according to which perception supplies a starting point for rational insight.⁵⁰ More concretely, Aristotle maintains that human perception can directly apprehend

⁴⁵ “τὸ δὲ ζῶον διὰ τὴν αἴσθησιν πρῶτως,” (*DA* II.2, 413b2).

⁴⁶ “ἔχει γὰρ δύναμιν σύμφυτον κριτικὴν, ἣν καλοῦσιν αἴσθησιν,” (*Apo.*, II.19, 99b35-6).

⁴⁷ *NE* I.7, 1098a1-2.

⁴⁸ “And that to which perception belongs, to this...also belongs appetite.” (*DA* II.3, 414b3-6).

⁴⁹ Chapter 6, §1.3.

⁵⁰ Canonical examples include *Meta.*A.1 and *Apo.* II.19: “From perception there comes memory...and from memory...experience...And from experience, or from all the universal which has come to rest in the soul... there comes a principle of skill or of understanding [τέχνης ἀρχὴ καὶ ἐπιστήμη]....they come about from perception—as in a battle, when a rout has occurred, first one man makes a stand, then another does, and then another, until a position of strength is reached,” (*Apo.* II.19, 1003-15). See also Themistius (*On Aristotle’s On the Soul*, 117.10): “insofar as it discerns differences among objects of perception, and is a *starting-point and foundation for reason*, it would seem to share in intellect. Yet insofar as it is equally present in non-rational animals, it could conversely be considered non-rational.”

objects and qualities that are inaccessible to nonrational creatures. This is most prominent in his ethical works, in which he assigns to perception the apprehension of moral qualities, such as blameworthiness.⁵¹ Likewise, in *NE VI*, Aristotle grants perception significant roles within the characteristically rational virtues of practical wisdom (φρόνησις) and thought (νοῦς).⁵² This suggests that perception can be considered, in some cases, rational and calculative. Consequently, perception can be said to play a role within each Platonic part, and so cannot be wholly assimilated to only one of them.⁵³

Similar problems emerge for the “imaginative principle” (τὸ φανταστικόν),⁵⁴ giving reason to think that *phantasia* falls within all Platonic parts. On the one hand, Aristotle frequently connects *phantasia* to perception, claiming that *phantasia* “does not come about without perception” and is “a motion effected by actual perception.”⁵⁵ Just as all animals possess perception, all animals, even those lacking reason, possess *phantasia* to some degree.⁵⁶ Moreover, like perception, *phantasia* plays a crucial role within appetite, acting as the capacity

⁵¹ *NE* II.9, 1109b24; VI.5, 1126b4. See Rabinoff (2018, 44, n.13) for an extended list of similar claims.

⁵² Because practical wisdom is *practical*, it must employ perception to discriminate the particulars involved in action (see *NE* VI.8, 1142a25-30). Because thinking involves unmediated comprehension of its objects, and perception is *the* form of unmediated cognition, thought employs a special form of perception (*NE* VI.11, 1143a34-b5).

⁵³ Fortenbaugh (1983, 247-8) argues that we can see this point borne out in the inconsistent treatment of perception in the *Timaeus*. Perception is sometimes attributed to the mortal irrational parts (e.g., *Timaeus*, 69d) and sometimes to the immortal rational part (e.g., *Timaeus* 43-44, 64B).

⁵⁴ *DA* III.9, 432b1-3.

⁵⁵ *DA* III.3, 427b15; 429a1-2.

⁵⁶ Aristotle famously hesitates over whether all or only some animals have *phantasia*. If *DA* III.11 provides his considered view, then he maintains that all animals possess *phantasia*. Yet in the most primitive animals (“imperfectly developed animals, those whose perception is limited to touch”), *phantasia* is “present in them, but present indeterminately.” (*DA* III.11, 433b31-434a5)

by which nonrational animals represent objects as pleasant or unpleasant.⁵⁷ This suggests that *phantasia* is nonrational and appetitive.

On the other, Aristotle also sees human *phantasia* as being intimately connected to intellect and reason, maintaining that there is no thought without *phantasia* or “appearances” (φαντάσματα).⁵⁸ *Phantasia* allows rational thought to access “the objects of thought [that] are in perceptible forms,”⁵⁹ quintessentially exhibited in mathematical abstraction. Moreover, Aristotle identifies a special form of *phantasia*, which he calls “rational *phantasia* [φαντασία... λογιστική]” or “deliberative *phantasia* [φαντασία... βουλευτική],”⁶⁰ which plays a central role in human deliberate action and choice. This suggests that *phantasia* as well is, in some cases, rational and calculative. Hence, like perception, *phantasia* has a claim to be located within every Platonic part.

His most sustained example, and the one most relevant to the account of locomotion in *DA* III.9-11, is the “desiderative principle” (τὸ ὀρεκτικόν), which he again claims cannot be assimilated to any particular Platonic part.⁶¹ On the one hand, Aristotle posits a form of desire—appetite—that is wholly nonrational.⁶² He insists that all animals, even those lacking reason, possess this kind of desire insofar as they can perceive: “that to which perception belongs [i.e., animals], to this belongs also both pleasure and pain...and to those things to which these belong

⁵⁷ *DA* III.10, 433b12-13.

⁵⁸ *DA* III.7, 431a17-18; III.8, 432a8-9.

⁵⁹ *DA* III.9, 432a5-6.

⁶⁰ *DA* III.11, 434a7.

⁶¹ *DA* III.9, 432b3-8.

⁶² *DA* III.3, 414b2; see also *EE* II.7, 1223a26-27.

also belongs appetite, since appetite is a desire for what is pleasurable.”⁶³ The desire of these animals, like their perception, is wholly nonrational and appetitive. Likewise, Aristotle’s bipartition in the practical works posits a basic division between nonrational desire and reason. The relevant portion of the nonrational part is characterized as “the appetitive part, or the desiderative part as a whole,”⁶⁴ and is contrasted with reason. This division suggests that, at least in some cases (e.g., the *akratic*), desire is wholly independent of reason, and so “comes to be in the nonrational.”⁶⁵

On the other, Aristotle also recognizes a form of desire that is characteristically rational, which he calls “wish” (βούλησις). In his account of locomotion in *DA* III.10, Aristotle claims that calculation moves humans through wish: “wish is desire, [and] whenever something is moved in accordance with calculation, it is moved in accordance with wish.”⁶⁶ Calculation can thereby affect action indirectly through wish. Desire, in the form of wish, can then also be understood as rational: “wish comes to be in the calculative [part of the soul].”⁶⁷ This suggests that desire is itself neither simply rational or nonrational, and so again resists assimilation to any single Platonic part.

With perception, *phantasia*, and desire, we find the same situation: a psychic capacity that is both clearly involved in the activity of Platonic parts, but resists being assimilated to any

⁶³ “ὅ δ’ αἰσθησις ὑπάρχει, τούτῳ ἡδονή τε καὶ λύπη...οἷς δὲ ταῦτα, καὶ ἐπιθυμία· τοῦ γὰρ ἡδέος ὄρεξις αὕτη,” (*DA* II.3, 414b3-6).

⁶⁴ *NE* I.13, 1102b29.

⁶⁵ *DA* III.9, 432b6-7.

⁶⁶ “γὰρ βούλησις ὄρεξις, ὅταν δὲ κατὰ τὸν λογισμὸν κινῆται, καὶ κατὰ βούλησιν κινεῖται,” (*DA* III.10, 433a23-25). Likewise, Aristotle characterizes “deliberate choice” (προαίρεσις), which is the principle of human action, as “either desiderative intellect or intellectual desire,” (*NE* VI.2, 1139b3-4).

⁶⁷ *DA* III.9, 432b6.

single one of them. They exist within and extend across each Platonic part, thereby blurring the boundaries that Platonic partition posits, making Platonic parts themselves *indefinite*. In effect, the Platonist can be said “to split” (“διασπᾶν”) these capacities, which Aristotle describes as “absurd.”⁶⁸ A long-standing controversy about *DA* III.9 is how to understand this suggestion, given that the term “διασπᾶν” is itself ambiguous. Most often, interpreters have understood “διασπᾶν” to mean “split *apart*”, according to which Aristotle accuses the Platonist of splitting desire or perception up into multiple distinct subparts.⁶⁹ In contrast, a minority of scholars have argued that “διασπᾶν” means “split *off from*”, according to which Aristotle accuses the Platonist of splitting perception or desire off from Platonic parts, treating them as distinct psychic parts.⁷⁰ Because both interpretations capture something important about Aristotelian psychology, my general reading of III.9 is consistent with both. Nonetheless, both the linguistic evidence and the classificatory focus of III.9 unambiguously speaks in favor of the former, more widely held interpretation (“split up”).⁷¹

⁶⁸ *DA* III.9, 432b5.

⁶⁹ This interpretation is assumed by all modern English translators: e.g., Smith (1984, “to break up”), Shields (2016, “to break this up”), Shiffman (2011, “to scatter this about”). It also is endorsed by a majority of interpreters: Themistius (*On Aristotle On the Soul*, 117, 19), Averroës (*Middle commentary on Aristotle's De anima*, 510), Aquinas (*Commentary on Aristotle's De Anima*, 802), Rodier (1900), Ross (2000), Polansky (2010, 504), Fortenbaugh (1984, 245), and Whiting (2002, 183). This use of διασπᾶν is also more frequent and has already been established earlier in *DA*: “air, when split up, is of one kind” (*DA* I.5, 411a20); “[fire and earth] will be torn apart if there is nothing which hinders them” (*DA* II.4, 416a7).

⁷⁰ See Simplicius (*On Aristotle On the Soul*, 291, 5-7); Corcilius (2008, 50-51); Johansen (2012, 248).

⁷¹ Supporters of the “split apart” reading point to a single use of διασπᾶν at *Rhet.* II.8, 1386a10, which must clearly mean “split apart”: “it is a pitiful thing to be torn away from [διασπᾶσθαι ἀπὸ] friends”. It is important note, however, that this use is uncommon and marked off by a preposition (“ἀπὸ”). This preposition does not occur in *DA* III.9 or any other Aristotelian use of διασπᾶν. Accordingly, this suggests that Aristotle’s use of διασπᾶν in *DA* III.9 should parallel the more common usage, lacks the preposition, and so means “split up”.

To bring this accusation into focus, consider again a zoological analogue, which emerges among Aristotle’s criticism of dichotomous (i.e., Platonic) divisions in *PA I*:

(t4) One should avoid splitting up [διασπᾶν] each kind, e.g., putting some of the birds in one division and some in the other, as the written divisions have done; there, some of the birds end up divided off with the water-dwellers, some in another genus. Now this similarity has an established name, ‘bird’, and another has ‘fish’. Other similarities are nameless, e.g., the blooded and the bloodless; there is no one established name for either of these. If then, nothing alike in genus should be split apart [διασπαστέον], division into two is worthless. For people who divide in this manner necessarily separate and split up [διασπᾶν]; some of the many-footed things are among the land-dwellers, while some are among the water-dwellers.⁷²

Aristotle contends that dichotomous divisions wrongly “split apart” classes of animals. Because birds constitute natural kinds and contain “similarities”, they naturally constitute one genus.

Hence, in a classification that should mirror this natural kind, all birds should be placed within a single classificatory division. In contrast, a flawed classification would split this natural kind apart. If we divided animals into land- and water-dwellers, for example, we would find birds on both sides: landfowl amongst the land-dwellers, and waterfowl amongst the water-dwellers.⁷³

Such a division tears apart the class of birds, undermining the formal unity of the genus of birds.

Aristotle’s anxieties about splitting up desire, *phantasia*, and perception parallel these zoological concerns. Because these capacities extend across Platonic parts, the Platonist splits up these capacities and distributes sub-capacities amongst the parts she already recognizes. Given

⁷² “Ἐτι δὲ προσήκει μὴ διασπᾶν ἕκαστον γένος, οἷον τοὺς ὄρνιθας τοὺς μὲν ἐν τῆδε, τοὺς δ’ ἐν ἄλλῃ διαιρέσει, καθάπερ ἔχουσιν τοὺς μὲν ἐν τῆδε, τοὺς δ’ ἐν ἄλλῃ διαιρέσει, καθάπερ ἔχουσιν αἱ γεγραμμέναι διαιρέσεις· ἐκεῖ γὰρ τοὺς μὲν μετὰ τῶν ἐνύδρων συμβαίνει διηρησθαι, τοὺς δ’ ἐν ἄλλῳ γένει. Ταύτη μὲν οὖν τῆ ὁμοιότητι ὄρνις ὄνομα κεῖται, ἑτέρα δ’ ἰχθύς. ἐφ’ ἑκατέρῳ γὰρ τούτων οὐ κεῖται ἐν ὀνομα. Εἴπερ οὖν μηδὲν τῶν ὁμογενῶν διασπαστέον, ἢ εἰς δύο διαίρεσις μάταιος ἂν εἴη· οὕτως γὰρ διαιροῦντας ἀναγκαῖον χωρίζειν καὶ διασπᾶν· τῶν πολυπόδων γὰρ ἔστι τὰ μὲν ἐν τοῖς πεζοῖς τὰ δ’ ἐν τοῖς ἐνύδροις,” (*PA I.2*, 642b10-20).

⁷³ At *Sophist* 220b, Socrates divides “water-dwellers” into flyers (waterfowl like ducks, seagulls, etc.) and swimmers (fish). At *Statesman* 264, the stranger divides two-footed land-dwellers into winged (birds) and wingless. Hence, the kind *Bird* is split apart and distributed amongst both water-dwellers and land-dwellers.

that desire can be characterized as both rational and nonrational, the Platonist would think that the rational and nonrational parts possess their own distinct desiderative capacities (i.e., rational and nonrational desire). Plato endorses this claim explicitly, suggesting that “the three [psychic parts] also have three kinds of pleasure, one peculiar to each. The same holds of appetites [ἐπιθυμίας].”⁷⁴ Appetite, spirit, and calculation each has or constitutes a distinct form of desire, which seeks its own sorts of objects and pleasures. In general, then, the Platonist fractures desire into distinct capacities. Aristotle’s arguments indicate that the Platonist does the same with perception and *phantasia*.

Aristotle’s dissatisfaction with this picture parallels his dissatisfaction with dichotomous division. As in zoological classification he seeks to maintain the unity of natural kinds, so throughout *DA* he seeks to maintain the unity of psychic principles. Hence, the fracturing of desire, *phantasia*, and perception implied by Platonic partition would be a fundamental mistake. Just as we should resist splitting the genus of birds apart, so we should avoid splitting the genus of desire apart. Additionally, Aristotle gives particular arguments for the unity of perception and desire. In *DA* III.1-2, Aristotle argues that various complex perceptual activities show that perception must constitute a single capacity. Discrimination between qualities in different sense-modalities, for example, requires that perception is an undivided capacity.⁷⁵ Likewise, as I detail in Appendix 3, Aristotle argues in *DA* III.10 that desire must likewise constitute a single

⁷⁴ *Rep.* IX, 580d. These three appetites or desires are “for food, drink, sex, and all the things that go along with them” (*Rep.* IX, 580e), for “mastery, victory, and high repute” (*Rep.* IX, 581a), and “know[ing] where the truth lies” (*Rep.* IX, 581b).

⁷⁵ *DA* III.2, 426b17-427a14.

capacity.⁷⁶ Hence, the fracturing of desire, *phantasia*, or perception threatens the unity of the animal itself. If perception were split into separate capacities, Aristotle argues, the perception of a single animal would function like the perceptual capacities of two distinct animals.⁷⁷ If we are committed to biological unity, as Aristotle himself clearly is, we must resist splitting up perception, *phantasia*, and desire.

1.6 Summary of Argument

We now have both Claim 1 and Claim 2 in view, and so can appreciate Aristotle's argument in full. Because perception, desire, *phantasia* and nutrition all differ more than Platonic parts do, they have a claim to be psychic parts (Claim 1). If the Platonist sincerely endorses any principle of sufficient difference, she should recognize them as parts. Because the Platonist does not recognize them as parts, she is unable to sincerely endorse any such principle of sufficient difference, and so her psychic partition is *unprincipled*. Yet the Platonist cannot simply sweep them under the rug by assimilating them into Platonic parts; these capacities resist this assimilation, and so stand to the Platonist as an unresolved problem (Claim 2).

1.7 Logical Difference

As noted initially, while Aristotle focuses on Platonic bipartition and tripartition, and his criticisms are directly addressed to them, he also has a more general target—any division of soul

⁷⁶ In contrasting his account of locomotion with those according to which there are “two things which move [the animal],” Aristotle contends that “there is *one* thing that moves [the animal]: desire,” (*DA* III.2.10, 433a21-23).

⁷⁷ *DA* III.2, 426b17-23.

that generates indefinitely many psychic parts. The previous argument begins to establish a bridge between these seemingly distinct targets. A zoologist without any principle to distinguish real differences *between* species from mere idiosyncrasies *within* species must treat every individual animal as constituting its own distinct species: even the smallest differences (fingernail length, height, etc.) would be sufficient for a difference in species. Likewise, in undermining the Platonist's attempt to identify a principle to limit psychic parts (sufficient difference), Aristotle indicates that the Platonist cannot treat only some limited number of psychic capacities as parts. She has no principled reason to decide whether something is a mere capacity or genuine psychic part. Each psychic capacity has a legitimate claim to parthood. This, in turn, sets up the central thesis of Aristotle's criticism of Platonic partition: that the Platonist implicitly equates psychic capacity and psychic part, and so is compelled to recognize indefinitely many psychic parts. Aristotle thereby attributes to the Platonist an implicit account of psychic parthood, according to which psychic parts merely 'logically differ' (i.e., have non-identical definitions).

To clarify this central thesis, we can first describe Aristotle's general target more concretely. Aristotle's interest in the indefinite proliferation of psychic parts emerges directly out of the context of *DA* III.9 and his account of locomotion. As we see in (t1),⁷⁸ Aristotle envisions two possibilities for an account of locomotion: either we posit an entirely new psychic part that is uniquely responsible for locomotion, or attribute locomotion to some part or parts already discussed in *DA*. Hence, Aristotle is considering whether the fact that the capacity for locomotion is a distinct *capacity* warrants treating it as a new psychic *part*. This naturally

⁷⁸ “εἰ μὲν ἄρα τι, πότερον ἰδίον τι παρὰ τὰ εἰωθότα λέγεσθαι καὶ τὰ εἰρημένα, ἢ τούτων ἓν τι,” (*DA* III.9, 432a21-22).

prompts a more general version of the same question: whether psychic capacity-hood amounts to psychic parthood, and whether we should posit a new psychic part for every psychic capacity.

Aristotle claims that the Platonist implicitly answers yes to both questions. This way of conceiving of psychic parts first emerges in *DA* II.2, when Aristotle considers whether psychic parts are “different in account” (ἕτερον τῷ λόγῳ) or logically differ.⁷⁹ In general, logical difference is Aristotle’s weakest notion of difference, in contrast to stronger notions like local or existential separability. When two things differ in account, the accounts that articulate their being⁸⁰ (e.g., a definition) are non-identical. In modern terminology, this can be reasonably described as *conceptual* difference. Moreover, because the relevant accounts or concepts are of a thing’s being, Aristotle frequently equates being different in account to being “different in being” (ἕτερον τῷ εἶναι). If the being of two entities differs, then the accounts that state that being must likewise differ. The account of a house (‘a structure providing shelter’) differs from that of coffee (‘a drink brewed from roasted beans’). This is true also in more subtle cases, such as with the road from Thebes to Athens and the road from Athens to Thebes, agency and patiency, practical and political wisdom, or convexity and concavity.⁸¹ Convexity and concavity are always found together in a single curve, and so are neither locally nor existentially separable from each other. Nonetheless, an account of convexity differs, to some small degree, from an account of concavity. Within a single subject (the curve), there are different aspects or ways of being, and so two logically distinct entities. In sum, when we claim that two things differ logically, their being, and so the accounts that articulate their being, are not identical.

⁷⁹ *DA* II.2, 413b27-31.

⁸⁰ “Account[s]...saying what a thing is,” (*Phys.* III.3, 202b12), i.e., the thing’s essence (τὸ τί ἦν εἶναι).

⁸¹ *Phys.* III.3, 202b13-22; *NE* VI.8, 1141b23-4; *DA* III.10, 433b23-25.

If we use logical difference as a principle for partitioning the soul, then any psychic capacity for which there is a unique account would be a psychic part. Because logical difference is a necessary condition for psychic parthood, it at least appears to provide a *plausible* principle for partitioning the soul. Logical difference obtains in Platonic partition: the definition of spirit (‘what seeks victory’) differs from that of rationality (‘what seeks truth’). It obtains as well in Aristotelian psychic partition: nutrition (“a capacity...which preserves the thing which has it, as the sort of thing it is”) differs in account from perception (“what is capable of receiving perceptible forms without the matter”).⁸² Any psychic part must at least logically differ from other psychic parts and capacities. Although he admits that logical difference is a necessary condition of psychic parthood, Aristotle ultimately denies that it is a sufficient condition.

With capacities, Aristotle equates being “different in account” to being “different in capacity” (ἕτερον δυνάμει). Given the interchangeability of difference in account and difference in being, to say that two capacities differ logically is just to say that they *are* different capacities: what it is to be taste differs from what it is to be sight. To say that two capacities differ is to say that they at least differ logically. Accordingly, when dealing with capacities, Aristotle identifies logical difference and difference in capacity: “the capacity of desire...would seem to differ from all [other capacities] in account and in capacity [λόγῳ καὶ δυνάμει ἕτερον].”⁸³ To use logical difference as a principle of psychic partition, then, requires dividing the soul into its different capacities. Any unique capacity will constitute a psychic part. Each time we identify a new capacity (e.g., capacities for locomotion, dreaming, memory), we must treat it as an additional psychic part. Hence, Aristotle equates those who partition the soul according to logical

⁸² *DA* II.4, 416b17-8; II.13, 424a18-20.

⁸³ “ὁ καὶ λόγῳ καὶ δυνάμει ἕτερον ἂν δόξειεν εἶναι πάντων,” (*DA* III.9, 432b43-4).

difference with those who “distinguish and separate [psychic parts] according to capacities [κατὰ τὰς δυνάμεις].”⁸⁴ A division into psychic parts would just be a division into psychic capacities.

In sum, partitions that endorse logical difference as their principle share two distinctive features. First, according to logical difference, any logically distinguishable capacity would constitute a psychic part. Consequently, we end up simply equating psychic capacity-hood and psychic parthood. *All* psychic capacities would constitute psychic parts, not just the canonical parts of Aristotelian or Platonic partitions. No matter how central it is to the life of the organism, any capacity that can be given a unique account will be a psychic part. To identify a power of an organism is just to identify a part of that organism’s soul. Even the capacity for dreaming, which no relevant psychic partition treats as a distinct part, would be counted as a psychic part.

Second, if logical difference is the principle of partitioning, there will be indefinitely many psychic parts. Because we can endlessly conceptually distinguish between psychic capacities, there is no limiting principle for the number of psychic *capacities*. If every capacity is a part, there will also be indefinitely many psychic parts: “for those who distinguish parts of the soul, there will turn out to be a great many, if they distinguish and separate them according to capacities.”⁸⁵ Although Aristotle begins to provide a list of such capacities (“nutritive, perceptual, intellectual, and deliberative, and, further, desiderative [capacities]),”⁸⁶ this point extends much further. Any capacity that can be given a unique definition or which corresponds to a distinct activity—the capacity to dream, to smell, to grow fingernails—would count as a psychic part. Even the smallest conceptual difference between two activities or capacities would

⁸⁴ *DA* III.10, 433b2-3.

⁸⁵ “τοῖς δὲ διαιροῦσι τὰ μέρη τῆς ψυχῆς, ἐὰν κατὰ τὰς δυνάμεις διαιρῶσι καὶ χωρίζωσι, πάμπολλα γίνεται,” (*DA* III.10, 433b1-3).

⁸⁶ *DA* III.10, 433b3-5.

correspond to two psychic parts. If we take logical difference as our principle of partitioning, then our list of psychic parts grows indefinitely.

Although unexpected, these results might not be unwanted. Surprisingly, many interpreters take Aristotle himself to treat psychic parthood and psychic capacity-hood as equivalent and interchangeable.⁸⁷ Indeed, this has been the most popular interpretation of Aristotle's account of psychic parthood, even if it is rarely directly defended.⁸⁸ According to this interpretation, Aristotle's central achievement concerning psychic parthood is to avoid the metaphysical worries that plague any literal talk of 'parts of soul' (which are, in turn, often attributed to Plato). Aristotle does so, they suggest, by reducing psychic parts to, or replacing psychic parts with, psychic capacities. The soul does not have parts in any literal sense, but only in a 'logical' or 'conceptual' sense. Hence, this standard interpretation sees Aristotle's conception of psychic parthood as deflationary, attaching no metaphysical baggage to the claim that the soul has parts: any talk of psychic parts should be reducible to talk of psychic capacities. Every time Aristotle calls something a 'part' of an organism, he could have just as well called it a 'capacity'.⁸⁹

⁸⁷ Irwin ("The parts of the soul are its different faculties or potentialities", 2002, 589); Polansky, ("the soul's faculties, that is, its 'parts,'" 2010, 8); Barnes, ("The language of parts need not trouble us: *morion* is used interchangeably with *dunamis* and *archē*," 1972, 72); Sorabji ("Aristotle speaks of the capacities as parts of the soul," 1974, 64); Hicks ("Aristotle considers himself entitled to use indifferently the terms *μόριον*, *ἀρχή*, *δύναμις* and *διαφορά* throughout," 1907, 550).

⁸⁸ The lone exception is Ando (1965), who argues for a functional (i.e., logical) partition: "it is far more natural to identify the parts of the soul with its functions, than to attribute many functions which belong to different parts." (70) He gives, however, no clear argument for this claim. Nonetheless, to Ando's credit he recognizes that Aristotle's approach to psychic partition varies depending on his "point of view", and so there is plausibly a "multiplicity of dividing principles," (71).

⁸⁹ In certain limited contexts, Aristotle appears to be open to the possibility that psychic parts and capacities can be effectively equated: e.g., "for the present set aside the other parts or capacities of the soul [τῆς ψυχῆς ἢ μόρια ἢ δυνάμεις] (whichever of the two be the correct name),"⁸⁹ (*Juv.*

Although this interpretation has been persistent, there has been a growing consensus (beginning most explicitly with Corcilius and Gregoric) that this interpretation grossly misrepresents Aristotle’s conception of psychic parthood.⁹⁰ While it is true that Aristotle considers all psychic parts to be capacities (or sets of capacities), he does *not* hold that all psychic capacities are psychic parts. First, Aristotle explicitly distinguishes between psychic part and psychic capacity. Beyond the fact that he calls things capacities that he never calls parts,⁹¹ Aristotle explicitly separates the question of whether something is a psychic capacity from the question of whether it is a psychic part. In his bipartition in *EE* II.1, for example, Aristotle distinguishes the metaphysically-subtle question of whether the soul has parts from the obvious fact that it has capacities.⁹² Although he suggests that this distinction is ultimately not relevant to his immediate ethical purposes, he can make this distinction only if he already distinguishes between psychic part and psychic capacity.

Similarly, Aristotle explicitly asks throughout *DA* whether particular capacities constitute psychic parts. As we saw above, in (t1) Aristotle asks whether the locomotive capacity should itself constitute a distinct psychic part.⁹³ This question is meaningful only if he holds out the possibility that something could be a psychic capacity but not a distinct psychic part. Likewise, he explicitly recognizes that logical difference is not sufficient for a difference between psychic

1, 467b16-17); “It makes no difference whether the soul has parts [μεριστή] or does not have parts [ἀμερής], so long as it has different capacities [δυνάμεις],” (*EE* II.1, 1219b32-33).

⁹⁰ Corcilius and Gregoric, (2010, 82-84).

⁹¹ He calls sight, for example, a capacity (“ἡ τῆς ὄψεως...δύναμις”, *DS* I, 437a7), but never a part of the soul.

⁹² “Whether the soul has parts or lacks parts [“εἰ μεριστή ἢ ψυχὴ οὐτ’ εἰ ἀμερής”],” (*EE* II.1, 1219b32-33).

⁹³ *DA* III.9, 432a21-23. Likewise, in *DA* II.2, Aristotle asks “whether [nourishment, perception, thought, or motion] is a soul or a part of a soul.” (*DA* II.2, 413b13-14).

parts: “[the capacity for] desire and [the capacity for] avoidance do not differ either from one another or from the perceptual [part], though they do differ in being.”⁹⁴ That the perceptual and desiderative principles differ in being and account is not sufficient for them being parts of the soul; that they are distinct capacities does not require that they are distinct parts.

Second, this traditional interpretation attributes to Aristotle the very position that he himself attacks and attributes to Platonic partition: dividing according to the soul’s capacities, endorsing logical difference, and equating psychic parts with psychic capacities. If Aristotle actually equates parts and capacities, then in *DA* III.9-10 he would be attacking and undermining his own method for partitioning the soul. Hence, this standard interpretation must be misguided: Aristotle neither equates psychic part and psychic capacity nor endorses logical difference as his principle of partition.

1.8 The Indefinite Proliferation of Psychic Parts

We can now more concretely formulate the connection between the two targets of *DA* III.9. Because the Platonist has no uniform principle by which to limit psychic parts, she must admit every new psychic capacity as a distinct psychic part. She thereby, in effect, equates psychic part and psychic capacity, and so endorses logical difference as a principle of partitioning the soul. Consequently, the Platonist must recognize the existence of indefinitely many psychic parts.

We might now wonder why such an indefinite proliferation of psychic parts is itself, in principle, problematic. We have seen that Aristotle himself rejects this possibility, but not why

⁹⁴ “οὐχ ἕτερον τὸ ὀρεκτικὸν καὶ τὸ φευκτικόν, οὔτ’ ἀλλήλων οὔτε τοῦ αἰσθητικοῦ· ἀλλὰ τὸ εἶναι ἄλλο,” (*DA* III.7, 431a13-14).

he *should* do so. Indeed, Aristotle himself never explicitly indicates why. To strengthen this worry, we can imagine an altered version of Platonic partition, which admits the existence of infinitely many psychic parts, but actively focuses only on its preferred two or three parts. This version might appear to accept Aristotle’s criticisms while retaining the central aims and intuitions of Platonic partition. To undermine the methodological underpinnings of Platonic partition once and for all, we must clarify why any indefinite proliferation of parts should be rejected. This challenge is made all the more pressing because Aristotle thinks that the soul is, in one sense, infinitely divisible—according to its capacities. What prevents the soul from being infinitely divisible *into parts*?

Because he provides no explicit argument against this indefinite proliferation, most interpreters have supposed that Aristotle thinks that such a proliferation is just obviously problematic.⁹⁵ Yet, even without an explicit argument, Aristotle’s basic motivations for partitioning the soul make it clear why he would reject this proliferation. A psychic partition attempts to capture the internal structure of the soul by positing a group of *basic* elements in the soul. As argued in Chapter 1, Aristotle’s interest in psychic parthood emerges out of the doctrine of the ‘homonymy of life’, according to which there are irreducibly many ways in which an organism can be said to live (constitutive activities), and so irreducibly many capacities for

⁹⁵ Corcilius and Gregoric, for example, agree that “given the Platonist criteria for dividing the soul, we will end up with an undesirably large number of parts,” (2010, 107). They do not, however, provide any explanation for *why* this large number is undesirable. The only explicit argument that has been given exploits Aristotle’s emphasis on the connection between determinacy and intelligibility. Generally, Aristotle thinks that intelligibility depends on the determinacy and definiteness of an object—i.e., that the object should have a definite form or essence (e.g., *Phys.* III.VI, 207a24-207a31). Accordingly, as Polansky argues, “If the soul truly were to have indeterminately many possible divisions, then it might seem unknowable since what is infinite is unknowable.” (Polansky 2010, 505; see also *Meta.* α.2, 994b20–31). Aquinas suggests a similar argument (“the number of these powers [would be] infinite, i.e., *quite indeterminate*,” *Commentary on Aristotle’s De Anima*, §796).

living (constitutive capacities) that define the soul. Psychic parthood captures not small differences, but fundamental differences between fundamentally different ways of living. Accordingly, Aristotle takes these constitutive capacities (nutrition, perception, etc.,) to be *basic*, in contrast to other capacities (dreaming, smelling) that are non-basic and explainable in terms of basic capacities.⁹⁶ By calling the former ‘parts’, we capture their elementary and fundamental status. Although Aristotle formulates this within his own technical vocabulary, the point is general. Crucial to the project of partitioning the soul, in both Aristotelian and non-Aristotelian contexts, is a primitive distinction between basic and non-basic aspects of an organism: the former are parts, and the latter are not. Although Aristotle thinks that Plato ultimately fails in this project, Plato also attempts to distinguish basic capacities (appetite, spirit, calculation) from non-basic capacities (appetite for food, for money). This distinction between basic and non-basic capacities separates an attempt to describe the true structure of the soul from a mere taxonomy of the soul’s powers and properties.

The equation of psychic capacity and part, and the indefinite proliferation of parts, undermines this crucial distinction. In turning all capacities into parts, every capacity would be considered basic (or, equivalently, non-basic). The capacity to perceive would have the same status as the capacity to dream: insofar as they are both capacities, they would both be psychic parts. The equation of psychic part and capacity thereby covers over the distinction between basic and non-basic capacities. With logical difference as its principle, psychic partition could aspire only to a list of the soul’s powers, rather than a true explanation of the soul’s hierarchical

⁹⁶ What this distinction between basic and non-basic capacities in fact amounts to is a central topic of Chapter 4.

structure. Logical difference and the equation of part and capacity therefore stand in direct opposition to the chief motivation and intuition of psychic partition.

This reasoning is at work in Aristotle's initial description of logical difference in *DA II.2*. Aristotle here emphasizes that the claim that two capacities differ logically is *trivially true*: "That [psychic parts] differ in account, however, is *obvious* [φανερόν]."97 We never need to explain why two capacities differ logically. Our very ability to distinguish them already requires that they differ logically. Consequently, if we asserted that belief logically differs from other capacities and constitutes a psychic part, we would not yet actually be asserting anything interesting about belief, its role within the soul, or its relationship to other psychic capacities. It only makes the trivial claim that belief is a capacity of an organism, which can be logically distinguished from other capacities. This triviality is illustrated by the fact that Aristotle's example in *DA II.2*—belief—is not actually a part of soul according to any relevant partition. Given that psychic parthood depends on seeing certain capacities as playing special roles within the soul (i.e., being constitutive or basic), logical difference stands at odds with the central motivations for psychic partition.

Consequently, logical difference fails as a legitimate principle of partitioning the soul. The equation of part and capacity, and the indefinite proliferation of psychic parts, must be rejected. Because Platonic partition leads to these consequences, it too fails as a legitimate psychic partition. Ultimately, Aristotle maintains that Platonic partition is either self-undermining or unprincipled. When we take seriously the explicit principle by which the Platonist divides the soul (sufficient difference), we find capacities that undermine the very parts

⁹⁷ "τῷ δὲ λόγῳ ὅτι ἕτερα, φανερόν," (*DA II.2*, 413b26-29).

originally posited. Yet without such a principle, the Platonist must admit every new capacity as a distinct psychic part and so recognize indefinitely many parts.

Admittedly, logical difference improves over the other principle of partition that we encountered in Chapter 2—local separability. Local separability faces immediate metaphysical and empirical absurdities, and so does not even present a *possible* way of dividing the soul. Logical difference and Platonic partition do, at the very least, present possible ways to divide the soul—according to its capacities. It is trivially true that we can distinguish psychic capacities according to logical difference (and, *a fortiori*, according to Platonic bipartition and tripartition). Indeed, because all psychic parts logically differ, logical difference provides a necessary condition of psychic parthood. Logical difference fails only when one takes it to constitute a sufficient condition for psychic parthood. Likewise, we saw that Platonic partition fails only within the context of a general, methodologically uniform theoretical account of the soul. Aristotle himself thinks that it can play important roles in ethical or political inquiry. Hence, Aristotle can concede that psychic parts logically differ, or that Platonic bipartition and tripartition provide possible and useful ways of describing the soul within some contexts, yet still consider them illegitimate within the scientific project of *DA*.

Moreover, these criticisms also foreshadow Aristotle's own positive conception of psychic parthood. They show that Aristotle must identify a principle that limits the number of parts to a finite and stable number. Logical difference's inability to do so lies at the heart of its failure as a principle of partition. Aristotle must identify his own principle by locating a more restrictive notion of difference (i.e., sufficient difference), which obtains *only* with basic psychic capacities, and so distinguishes basic from non-basic capacities. If Aristotle is successful in

identifying such a principle, he can then satisfy the central motivation for his account of psychic parthood—an explanation of the irreducible multiplicity of life.

§2 The Argument from Opposites

2.1 The Platonic Argument for Tripartition

Although these criticisms constitute a full and sustained objection to Platonic partition, they do not address the Platonist’s most celebrated argument for bipartition and tripartition: the ‘Argument from Opposites’ (*AO*). In *Republic IV*, Socrates contends that the possibility of internal psychic *opposition* requires the existence of distinct psychic parts. First, Socrates formulates a general ‘Principle of Opposites’ (*PO*):

(t5) It is clear that the same thing cannot do or undergo opposite things; not, at any rate, in the same respect, in relation to the same thing, at the same time. So, if we ever find that happening here, we will know that we are not dealing with one and the same thing, but with many.⁹⁸

As Aristotle agrees,⁹⁹ nothing can simultaneously be, do, or suffer opposites. If a thing simultaneously sustains opposites, then there must be some division with respect to those opposites. If I am both hot and cold, there must be division between different parts of my body that are hot and cold; if a chessboard is both black and white, there must be some spatial division into black and white parts. In brief, internal opposition implies internal division.

Second, Socrates contends that some behaviors and psychic states, in fact, do constitute pairs of opposites: “Now, wouldn’t you consider assent and dissent, wanting to have something

⁹⁸ “Δῆλον ὅτι ταῦτόν τάναντία ποιεῖν ἢ πάσχειν κατὰ ταῦτόν γε καὶ πρὸς ταῦτόν οὐκ ἐθελήσει ἅμα, ὥστε ἂν που εὐρίσκωμεν ἐν αὐτοῖς ταῦτα γιγνόμενα, εἰσόμεθα ὅτι οὐ ταῦτόν ἦν ἀλλὰ πλείω,” (*Rep.*, IV, 436b9-c2).

⁹⁹ See *DA* III.2, 426b31-427a2.

and rejecting it, taking something and pushing it away, as all being pairs of mutual opposites?”¹⁰⁰ I *desire* to drink the sweetened coffee or *assent* that it is good, believing that it will be pleasurable; at the same time, I *reject* that same sugar and *assent* that it is not good, believing that it is unhealthy for me. Such desire and rejection, and such assent and dissent, constitute opposing psychic acts or states. When I simultaneously both desire and reject the same object (sugar), in the same respect (its goodness), my soul sustains opposites.

When we apply the general principle of opposites to these cases, we see the need for psychic partitioning. By *PO*, anything that sustains opposites is not one, but is divided and many. Thus, my opposing desires reveal that I am, or my soul is, many: divisible into a thing that desires the sugar and a thing that rejects that same sugar.¹⁰¹ The former is characterized by a nonrational appetite for pleasure and so is an appetitive part or nonrational part; the latter is characterized by a rational assessment of the situation, and so is a rational part. Moreover, Socrates maintains, other forms of psychic opposition (e.g., between spirited and appetitive desires) can reveal additional parts (e.g., spirit). The number and character of the kinds of psychic oppositions corresponds to the number and character of psychic parts.

This argument is one of the most influential aspects of Platonic partition, and is often treated as *the* Platonic argument for bipartition and tripartition. Accordingly, *AO* presents a problem for Aristotle. It purports to show the necessity of Platonic bipartition or tripartition, against any criticisms that may be launched against it. It attempts to move beyond mere logical

¹⁰⁰ “Ἄρ’ οὖν, ἣν δ’ ἐγώ, τὸ ἐπινεύειν τῷ ἀνανεύειν καὶ τὸ ἐφίεσθαι τινος λαβεῖν τῷ ἀπαρνεῖσθαι καὶ τὸ προσάγεσθαι τῷ ἀπωθεῖσθαι, πάντα τὰ τοιαῦτα τῶν ἐναντίων ἀλλήλοις θείης εἴτε ποιημάτων εἴτε παθημάτων,” (*Rep.* IV, 437b1-4).

¹⁰¹ “Isn’t it that there is an element in their soul urging [people] to drink, and also one stopping them?...It would not be unreasonable for us to claim that there are two elements [in the soul], different from one another,” (*Rep.* IV, 439c).

difference as a criterion for psychic parthood, and to *demonstrate*, in a principled manner, the truth of bipartition or tripartition.

2.2 A Cognitive Analysis of Opposing Desires

Desires, Aristotle concedes, do in fact arise “opposite to one another” (έναντία ἀλλήλαις).

Accordingly, Aristotle is tasked with defending his own approach of psychic parthood and locomotion against the Platonic *AO* in *DA* III.10:

(t6) Since...desires arise opposite to one another [έναντία ἀλλήλαις], and this occurs whenever reason [λόγος] and the appetites are opposed, and this comes about in those with a perception of time (since thought encourages a pulling back because of what is going to happen, whereas appetite operates because of what is already present, since a present pleasure appears to be an unqualified pleasure, and an unqualified good, because of its not seeing what is going to happen) it follows that what moves is one in form: the desiderative capacity insofar as it is a desiderative capacity [τὸ ὀρεκτικόν, ἢ ὀρεκτικόν]. But first of all is the object of desire, since this moves without being moved, by being thought of or imagined. In number, though, the things moving will be more than one.¹⁰²

Aristotle, in effect, accepts the logic at the heart of *AO*, maintaining that the existence of internal opposition is symptomatic of a division within the soul. To this extent, he agrees with the Platonist. Yet, Aristotle contends, opposing desires do not *compel* us to endorse Platonic bipartition or tripartition. Opposing desires are also consistent both with Aristotle’s own partitioning of the soul into nutritive, perceptual, and intellectual parts. In (t6), he gives a ‘cognitive’ analysis of psychic opposition, contending that opposing desires arise out of a more fundamental distinction between two of his recognized psychic parts (perception and intellect), through which we apprehend and

¹⁰² “ἐπεὶ δ’ ὀρέξεις γίνονται έναντία ἀλλήλαις, τοῦτο δὲ συμβαίνει ὅταν ὁ λόγος καὶ αἱ ἐπιθυμίας έναντία ᾧσι, γίνεται δ’ ἐν τοῖς χρόνου αἴσθησιν ἔχουσιν (ὁ μὲν γὰρ νοῦς διὰ τὸ μέλλον ἀνθέλκειν κελεύει, ἢ δ’ ἐπιθυμία διὰ τὸ ἤδη· φαίνεται γὰρ τὸ ἤδη ἡδὺ καὶ ἀπλῶς ἡδὺ καὶ ἀγαθὸν ἀπλῶς, διὰ τὸ μὴ ὄραν τὸ μέλλον), εἶδει μὲν ἐν ἄν εἴη τὸ κινουῦν, τὸ ὀρεκτικόν, ἢ ὀρεκτικόν—πρῶτον δὲ πάντων τὸ ὀρεκτόν· τοῦτο γὰρ κινεῖ οὐ κινούμενον, τῷ νοηθῆναι ἢ φαντασθῆναι—ἀριθμῶ δὲ πλείω τὰ κινουῦντα,” (*DA* III.10, 433b5-13).

represent the goodness and desirability of objects. In sum, opposing desires need not reveal a fracture between appetitive and rational parts, but can as well reveal a fracture between perceptual and intellectual parts.

Aristotle's response to *AO* betrays an approach to opposing desires that is thoroughly cognitive, couched in terms of "perception", "seeing", the way things "appear". This depends, in turn, on recognizing an intimate connection between cognition and desire. There is a relatively clear, uncontroversial connection between desire and cognition. Perception, *phantasia*, and intellect allow animals and humans to present or represent an object to be desired. Even though I might enjoy a cup of coffee on the table in another room, I can *desire* it only if I become cognitively aware of it. Intellect and *phantasia* provide the intentionality and cognitive access required for desire to aim at an end. These cognitive capacities, then, function as necessary conditions for desire, without which an animal could have no concrete, determinate desires.

As (t6) and other passages show, there is for Aristotle also a more substantial and intimate connection between desire and cognition. Although not thematized explicitly, *DA*'s treatment of desire gives us reason to think that cognition not only provides a general awareness of the object, but also plays a crucial role in the actual desiring of the object.¹⁰³ We apprehend not only the perceptual or intelligible qualities of an object (e.g., coffee's bitterness), but also the goodness or badness of a desired object (coffee's goodness), in an act of evaluative or practical cognition. My apprehension that something is pleasurable is an act of perceiving (in some sense) the particular goodness of that object: "Experiencing pleasure and experiencing pain are the actualization of the

¹⁰³ A defense of an approach roughly in line with the one I am now offering has been given in Moss (2012, Ch.1-2). Versions of this approach has also been endorsed both in ancient scholarship (e.g., Simplicius, *Commentary on the De anima*; Alexander, *De Fato* XI. 178, XIV 184; *Mantissa* XXIII 172) and contemporary scholarship (Charles, 1984; Richardson, 1992; Freeland, 1994; Segvic, 2002; Destrée, 2007).

mean of the perceptual capacity with respect to what is good or bad, as such.”¹⁰⁴ Just as perceiving any proper perceptible qualities is the actualization of a perceptible mean,¹⁰⁵ so too is the experiencing of pleasure. Bracketing the question of whether perceiving proper sensibles and goodness are the *exact* same sort of activity, such similarities still show that Aristotle treats desire as dependent on acts of cognitive affirmation: “whenever there is something pleasant or painful, [perception] by, so to speak, affirming or denying, pursues or avoids.”¹⁰⁶ An animal’s pursuit of some desired object, and so the desire for that object, arise through affirming that the object is pleasant. When I appetitively desire the sugar, I perceive not just its sweetness or whiteness, but perceptually judge that it is good and pleasant.

Likewise, when I rationally apprehend that sugar is unhealthy and bad, I thereby desire to avoid it: “whenever [the thinking soul] affirms or denies that something is good or bad, it pursues or avoids.”¹⁰⁷ Through intellect, I apprehend not only the various intelligible properties of sugar (e.g., that it falls under a particular genus), but also, in some sense, whether that object is good or bad. When I act deliberately, I act in accordance with those rational affirmations or denials of the goodness of some object or action. Accordingly, Aristotle suggests generally that the objects of desire move us “by being thought or imagined [τῷ νοηθῆναι ἢ φαντασθῆναι].”¹⁰⁸

¹⁰⁴ “ἔστι τὸ ἡδεσθαι καὶ λυπεῖσθαι τὸ ἐνεργεῖν τῇ αἰσθητικῇ μεσότητι πρὸς τὸ ἀγαθὸν ἢ κακόν, ἢ τοιαῦτα,” (*DA* III.7, 431a10-12).

¹⁰⁵ The infamous doctrine of the perceptible mean is formulated most explicitly in *DA*’s account of touch: “We do not perceive what is hot and cold, or hard and soft, in measures equal to ourselves, but only excesses, since perception is a sort of a mean between the contraries present in perceptibles. And because of this it discriminates perceptibles; for the mean is capable of discriminating, since it comes to be, relative to either one or the other, its opposite extreme,” (*DA* II.11, 424a3-11)

¹⁰⁶ “ὅταν δὲ ἡδὺ ἢ λυπηρόν, οἷον καταφᾶσα ἢ ἀποφᾶσα διώκει ἢ φεύγει,” (*DA* III.7, 431a9-10).

¹⁰⁷ “ὅταν δὲ ἀγαθὸν ἢ κακὸν φήσῃ ἢ ἀποφήσῃ, φεύγει ἢ διώκει,” (*DA* III.7, 431a15-16).

¹⁰⁸ *DA* III.10, 433b12; see also *NE* VI.2, 1139a31-36; *Meta.* Λ.6, 1072a26-32: “The primary objects of desire and of thought are the same....But desire is consequent on opinion rather than

In *DA* III.10's analysis of opposing desires, Aristotle endorses this intimate connection between cognition and desire. Crucially, he distinguishes between two forms of cognition, which throughout *DA* III.9-10 he variously calls "intellect", "thought", "rational *phantasia*", or "reason", and "perception", "*phantasia*", or "perceptual *phantasia*".¹⁰⁹ Consequently, there are also two forms in which the goodness of objects are affirmed: concerning the object of desire, "intellect is always correct...desire and *phantasia* are both correct and not correct."¹¹⁰ Through practical intellect, at least when unimpeded, humans apprehend what truly is the case, including the goodness of potential objects of desire. Through *phantasia*, humans and animals apprehend what appears to be the case. Aristotle maintains a parallel distinction in his characterization of the object of desire, which he defines as "the good or the apparent [φαινόμενον] good."¹¹¹ Humans apprehend the genuine good through intellect, whereas humans and nonrational animals apprehend what *appears* to be good through perceptual *phantasia*.¹¹² The desires that arise through these cognitive acts have as their objects the genuine good and the apparent good, respectively. In one case, the object is rationally thought to be good; in the other, it is perceptually imagined to be good.

As I argue in Appendix 2, this dependence of desire on cognition indicates that desire is not a distinct psychic part, but falls within two canonical Aristotelian psychic parts: the intellectual and perceptual parts of the soul.¹¹³ Although desire logically differs from perception or intellect,

opinion on desire; for the thinking is the starting-point. And thought is moved by the object of thought."

¹⁰⁹ See *DA* III.9, 432a16; 433a3; III.10, 433a9-10; 433b28; 433b7; 433b28-30.

¹¹⁰ "νοῦς μὲν οὖν πᾶς ὀρθός ἐστιν· ὄρεξις δὲ καὶ φαντασία καὶ ὀρθή καὶ οὐκ ὀρθή," (*DA* III.10 433a26-27).

¹¹¹ *DA* III.10 433a28-9.

¹¹² See Nussbaum, 1987; Modrak, 1987; Moss, 2012.

¹¹³ "The capacity for desire and the capacity for avoidance do not differ either from one another or from the perceptual capacity, though they do differ in being," (*DA* III.7, 431a12-4).

it always occurs with and is determined by them. Desire causally and logically depends on and is posterior to them. In affirming or denying that something is good or bad, intellect gives rise to rational desires; in analogously affirming or denying, perception gives rise to appetites. As Aristotle says that memory is a capacity found within the perceptual part,¹¹⁴ so desire is found within both the perceptual and intellectual parts—it is a “common form”¹¹⁵ shared by both parts. In the former, the desires are categorized as “appetites”, and have pleasure as their good; in the latter, they are categorized as “wishes”, and have as their good the genuine good.

Aristotle’s analysis of opposing desires in (t6) depends on this distinction between intellectual and perceptual parts, and how they give rise to different kinds of desires. Opposing desires, Aristotle contends, arise whenever reason (λόγος) and appetites (ἐπιθυμῖαι) are opposed.¹¹⁶ Reason commands me to avoid the sugar as unhealthy, even while I appetitively desire it as pleasurable. Appetite is a desire for the pleasant, and so, unlike other types of desire, belongs to all animals.¹¹⁷ Because it can exist independently of sophisticated cognition, it only perceptually

¹¹⁴ Chapter 4, §2.1.

¹¹⁵ *DA* III.9, 432a23.

¹¹⁶ Aristotle provides no argument that *all* opposing desires arise through the opposition of appetite and rationality, and not, for example, two opposing appetites, effectively ignoring how and whether nonrational animals also have opposing desires. Aristotle contends that opposing desires arise through the perception of time. In *DM* 1 he extends this capacity to animals capable of *phantasia* and memory; in contrast, he appears in *DA* III.10 to treat the perception of time as the work of the intellect. To resolve this tension, Themistius (*On Aristotle on the Soul*, 120,10–15) suggests that nonrational animals have only an “accidental” perception of time, whereas humans perceive the past and future as such. In any case, the analysis of *DA* III.10 clearly focuses on humans, and the sorts of psychic opposition of which only they are capable.

¹¹⁷ Because perception belongs to all animals, they experience “both pleasure and pain”; and “to those things to which these belong also belongs appetite, since appetite is a desire for what is pleasurable,” (*DA* II.2, 414b3-6).

considers “what is present” (τὸ ἤδη) and “does not see what is going to happen.”¹¹⁸ Accordingly, appetite takes a present pleasure to be an “unqualified pleasure” (τὸ ἀπλῶς ἡδὺ) and so an “unqualified good” (τὸ ἀγαθὸν ἀπλῶς). When appetite commands me to consume sugar, it treats the sugar’s present pleasure as an absolute good. Even so, the sugar is only apparently good; immediate pleasure does not guarantee genuine goodness.

Alternatively, intellect encourages me to refrain from the sugar because intellect can foresee what will happen (unhealthy effects). Reason and intellect effect a more sophisticated cognition of goodness, and so accompany a more sophisticated desire—wish. This capacity for foresight arises through a “perception of time” (αἴσθησις χρόνου)—an awareness of the temporality of an object and the distinction between that object’s present and future effects. Through intellect, I can distinguish between the immediate pleasure of sugar and its future health risks—“what is going to happen” (τὸ μέλλον). If it foresees future harm, intellect commands me to pull back from what is immediately present and apparently good.

Hence, Aristotle agrees with the Platonist that the phenomenon of opposing desires is symptomatic of a real fault line within the soul. Internal opposition does indeed reveal internal division. Aristotle, however, identifies a different fault line than the desiderative fault line that Platonist identifies. Aristotle identifies a fault line within a more fundamental cognitive domain, between different *perspectives* on the goodness of the objects of desire—between a perceptual and imaginative part and a rational and intellectual part.¹¹⁹ The soul is not ultimately divided by

¹¹⁸ “ὁ μὲν γὰρ νοῦς διὰ τὸ μέλλον ἀνθέλκειν κελεύει, ἡ δ’ ἐπιθυμία διὰ τὸ ἤδη,” (DA III.10, 433b9-10).

¹¹⁹ This is the sort of analysis proposed as well by Moss: “It is also natural to read the case of motivational conflict as dramatizing just this difference [between forms of evaluative cognition]: intellect orders one to hold back from some merely apparent good, while appetite urges one toward it, and does so because it ‘appears good,’ i.e., is apprehended as good by *phantasia*,” (Moss, 2012, 18).

different kinds of desires, but more primordially by different kinds of cognition. Appetite arises with *phantasia* and perception, and concerns only the present, apparent good; wish arises with reason and intellect, and concerns the genuine, all-things-considered good. The conflict between appetite and wish ultimately bottoms out in a difference between perceptual or imaginative cognition and intellectual or rational cognition. Hence, *AO* is equally consistent with an Aristotelian partition into nutrition, perception, and intellect. Aristotle can accept the metaphysical principle on which *AO* is based (the Principle of Opposites), yet still reject the picture of the soul that Plato takes it to imply; he can recognize the logic and force of *AO*, yet deny that it should compel one to endorse Platonic tripartition or bipartition.

Admittedly, *AO* holds further problems for Aristotle's account of locomotion. Namely, it appears that the phenomenon of opposing desires requires that we "split apart"¹²⁰ desire, in precisely the way Aristotle cautions against in *DA* III.9 (and I discussed in §1.5). I treat Aristotle's response to this threat in Appendix 3.

§3 Conclusions

In sum, we have seen over the past two chapters that Aristotle argues against two central aspects of Platonic partition, which in turn point to two aspects of his own positive conception of the structure of the soul. In the previous chapter, we saw that Aristotle rejects the 'physiological' or 'spatial' conception of psychic parts, according to which psychic parts are differentiated by the region of the body in which they adhere. This rejection suggests psychic parthood is a logical notion, and not a spatial or material notion. In the current chapter, we considered Aristotle's

¹²⁰ *DA* III.9, 432b5.

arguments against Platonic bipartition and tripartition, in which he attributes to them an unprincipled and illegitimate methodology. This, in turn, indicates that a proper account of psychic parthood should supply a principled reason or criterion to classify a given capacity either as a psychic part or as a mere psychic capacity. He likewise rejects the central argument for bipartition and tripartition (*AO*), contending that they do not require the conclusions that the Platonist draws.

As befits the flexibility of Platonic partition, Aristotle's criticisms do not constitute a single, extended argument against a single particular flaw of Platonic psychic partition. Rather, they work by committee, attacking a variety of crucial aspects of the partitions presented in the *Republic* and *Timaeus*. Their cumulative effect is ultimately a wholesale rejection of Platonic psychic partition, insofar as it aspires to be a scientifically and theoretically viable division of soul.

CHAPTER IV

PSYCHIC PARTHOOD AND THE MAPPING OF THE SOUL

We saw in Chapter 1 that some of Aristotle's central commitments in psychology compel him to recognize and incorporate the existence of psychic parts into his theory of soul. This gives rise to the *Problem of Psychic Parthood (PPP)*: what are the basic psychic parts that are responsible for the basic vital activities? How do we identify and distinguish them? What makes them basic? As we formulated this question in more detail (and as I will try to show further in what follows), we began to see that an answer to this question promises not only to resolve a relatively narrow problem raised by Aristotelian psychology, but also to clarify fundamental aspects of Aristotle's methodology in psychology—how psychic principles explain the life of an organism. Aristotle's psychology is, in part, distinguished by its use of capacity or potentiality (*δύναμις*) to explain the vast variety of organic behaviors. Aristotle's notion of psychic parthood is *the* foundational concept in his psychological project: the finite set of primitive principles through which we explain all psychic phenomena. Accordingly, the task now before us is to articulate Aristotle's answer to *PPP*, and so to identify in detail the role that psychic parthood plays in *DA*.

So far, our treatment of Aristotle's approach to *PPP* has been mostly critical. In Chapters 2 and 3, we treated Aristotle's critiques of various inadequate conceptions of psychic parthood given by his predecessors—spatial or physiological conceptions, ethical conceptions like Platonic tripartition and bipartition, and conceptions that fail to distinguish between psychic capacity and psychic part. It now remains to articulate Aristotle's positive conception of psychic parthood. These critical arguments, however, will be central in what follows, as his positive use of psychic parthood emerges from the ashes of those criticized conceptions.

When attempting to articulate this positive conception in any detail, however, we face the compounding problems that we have previously touched on: nearly all of what Aristotle explicitly says about psychic parthood in *DA* is negative or critical, and textual evidence suggests that Aristotle lacks a consistent conception of psychic parthood across his corpus.¹ In response, interpreters have been pushed to *reconstruct* Aristotle's conception of psychic parthood, using some of Aristotle's more general doctrines to suggest what his conception *should* be.² These previous approaches, I argue, have failed to illuminate the full richness of Aristotle's conception of psychic parthood—the role that psychic parts play within his psychology and the reasons for endorsing such a conception.

I offer an alternative approach, beginning with the recognition that Aristotle never provides an explicit theory of psychic parthood. Instead, psychic parthood is an explanatory *tool*. For the most part, Aristotle makes no attempt to explain what a psychic part is in general, as perhaps he should have. Instead, psychic parthood is *employed*, sometimes without name, in response to particular sorts of problems. To understand his conception of psychic parthood, then, we must look to these particular problems, to his concrete uses of the notion in *DA* and *PN*, and reconstruct the conception of psychic parthood that underlies them. When we look to such uses, I suggest, we *can* recognize a consistent conception of psychic parthood. We see that psychic parthood is the central notion in Aristotle's account of the logical structure of the soul: an

¹ As I have noted frequently, his conception of psychic parts in *DA* appears to stand in conflict with his bipartition in his ethical works (see Vander Waerdt, 1987; Fortenbaugh, 1983).

² Whiting, 2002; Johansen, 2012; Corcilius and Gregoric, 2010.

explanation of the definitional or conceptual relationships—dependencies and independencies—between an organism’s innumerable capacities (nutrition, memory, dreaming, etc.).

This account presents a picture of the network of psychic capacities, or a *map of the soul* (a metaphor I use throughout). Psychic parts (nutritive, perceptual, intellectual parts) are the foundations, or continents, of such a map: the basic elements to which all of an organism’s capacities can be related and on which those capacities depend. Each continent is defined by its most basic aspect (i.e., nutritive, perceptual, and intellectual capacities). In treating these parts, he distinguishes between them (shows that they are, in fact, distinct continents) and characterizes them (charts their contours). In treating any other vital capacity, he establishes a connection to one of these psychic parts (shows that it is on a particular continent) and conceptually situates it in relation to other capacities (locates its position on that continent).

In §1, I summarize the central problem to which psychic parthood serves as an answer, and how this problem gives rise to his positive conception of psychic parthood. Aristotle is compelled to recognize the existence of psychic parthood because of his commitment to the ‘homonymy of life’—that ‘living’ refers to multiple, discrete heterogeneous activities, and the soul’s corresponding capacities, or parts, are likewise discrete. Consequently, an account of psychic parthood must explain this irreducible heterogeneity—why just nutrition, perception, and intellect (Aristotle’s working list of parts in *DA*) should be considered parts, how these parts differ, and how they relate to the other vital capacities.

In the remaining sections, I provide such an account by examining how Aristotle concretely uses psychic parthood, arguing that we can divide these uses into two general categories. In §2, I examine ‘dependency arguments’, in which Aristotle articulates the nature of a capacity by showing that it is “in” a particular psychic part. He demonstrates that the relevant

capacity conceptually or definitionally depends on—is *logically posterior* to—that particular psychic part. This use exhibits how psychic parts serve as explanatory foundations for his accounts of all vital capacities. In §3, I describe ‘parthood arguments’, in which Aristotle establishes that a particular capacity is or defines a genuine psychic part. He does so by establishing that the relevant capacity is *logically primary*—conceptually or definitionally prior to and independent of all the other capacities. These psychic parts are the capacities that sit at the very foundations of the priorities explored in dependency arguments. They differentiate the basic kinds of organisms and serve as principles for the heterogeneous activities that make up living.

§1 The Aims of Psychic Parthood

We can begin by briefly reviewing Aristotle’s reasons for initially positing psychic parts. This summary sets the context for his uses of psychic parthood: the philosophical terrain in which these uses emerge and the standards for a successful account of psychic parthood.

As I argued in Chapter 1,³ Aristotle is motivated to recognize the existence of psychic parts because of his commitment to the homonymy of life: that “living is spoken of in several ways.”⁴ “Life” does not have a single univocal meaning, but can mean distinct things, depending on the activity described. The activities that we refer to as “living” come in three heterogeneous varieties: thinking, perceiving, and performing nutrition. Because of the priority of activities to capacities,⁵ the capacities for those heterogeneous activities are likewise irreducibly many. Just as thinking and perceiving differ in kind, so their principles—perception and intellect—differ in

³ Chapter 1, §1.1.

⁴ “πλεοναχῶς δὲ τοῦ ζῆν λεγομένου,” (DA II.2, 413a22-23).

⁵ DA II.4, 415a17-23.

kind. To register this heterogeneity, Aristotle describes these capacities as “parts of the soul”: the basic capacities of an organism that make up its soul. When an organism (e.g., a plant) possesses only one of these capacities, the capacity is a whole soul; when an organism (e.g., an animal) possesses more than one, they are parts of a single soul.

As argued in Chapters 1 and 3, this initial picture of psychic parthood implies a distinction between two sorts of capacities of an organism: between some finite set of *basic* capacities (psychic parts), and an innumerable set of *non-basic* capacities (mere psychic capacities). The former capacities distinguish and are responsible for different forms of life, while the latter are principles of activities *within* those forms of life. Such a distinction is crucial to all attempts to partition the soul or mind, from Platonic partition to contemporary faculty psychology.⁶ Perception, intellect, and nutrition, according to the Aristotelian doctrine, are the basic vital capacities that define the three psychic parts. On the other, capacities to see red, to remember, to grow fingernails, to jump, etc., are non-basic capacities. They are “in” the psychic parts, but do not themselves constitute or demarcate psychic parts. Although other ways of carving up the soul or mind pick out different sets of basic capacities, they likewise share in the project of distinguishing basic from non-basic capacities.

Aristotle’s use of psychic parthood must answer to the homonymy doctrine and its immediate implications: the irreducibility of the different forms of life, the existence of discrete psychic parts, and the distinction between basic and non-basic psychic capacities. In particular, two sorts of questions naturally arise. First, what is the relationship between these basic and non-basic capacities, or between different forms of life and activities within those lives? Intuitively, it

⁶ Fodor, for example, formulates the same distinction in terms of capacities and faculties: “There are, of necessity, far more mental capacities than there are psychological faculties on even the most inflationary census of the latter,” (Fodor 1983, 24).

looks as though the non-basic capacities in some sense *depend* on the basic capacities. What sort of dependence or connection could this be? Second, what features make a capacity basic, and so definitive of a genuine part of the soul? How do psychic parts demarcate distinct forms of life? How are these parts to be distinguished from each other?

In what follows, I contend that Aristotle's concrete uses of psychic parthood belie responses to both sets of questions, in the form of two sorts of arguments. In response to the first set of questions (§2), Aristotle employs 'dependency arguments' to describe the relationship between a non-basic capacity and a basic psychic part by specifying how the former is in the latter. This amounts to the claim that the non-basic capacity is *logically posterior* to the capacity that defines that psychic part. In response to the second set of questions (§3), Aristotle employs 'parthood arguments' to argue that particular capacities (nutrition, intellect, perception) are or define genuine psychic parts. This amounts to the claim that these capacities are logically *primary*—logically prior to and independent of all other capacities of an organism.

§2 Dependency Arguments

A cursory glance at Aristotle's use of "part of soul" in *DA* and *PN* indicates that psychic parthood plays a crucial role for Aristotle in articulating the nature of particular psychic capacities, like *phantasia* or memory. Given that these capacities are not parts, however, it is not immediately clear why psychic parthood should play such a role. Indeed, Aristotle himself fails to explicitly reflect on or clarify this role of psychic parthood. If we examine these uses in detail, I argue, we see that the notion of psychic parthood allows Aristotle to illuminate how these capacities depend on psychic parts, by claiming that a given psychic capacity falls 'in' a

particular part of the soul. Such dependencies, in turn, elucidate the nature of that capacity itself, relative to the given part.

The most straightforward examples of psychic dependencies are the special perceptual capacities. Aristotle understandably assumes that capacities like smell, taste, etc. are species of perception and so depend on and fall within the perceptual part of the soul (i.e., the part defined by the power to perceive). Although Aristotle makes no actual argument for it, this claim is not entirely trivial. That smell is a species of perception tells us something significant: namely, smell falls under the general rubric of a perceptual capacity. It can then be explained in terms of perception, and so as a reception of a certain perceptible form (smellable forms). Beyond these straightforward examples, Aristotle also claims that other capacities fall in other psychic parts. Memory or *phantasia* are said to fall within the perceptual part of the soul; other capacities (e.g., deliberation) fall within other parts (intellect). In these cases, what these claims amount to and how they are established are more difficult to determine. Aristotle's dependency arguments are attempts to address these difficult cases—to clarify a given capacity's relation to a psychic part by arguing that the capacity is in and depends on that part.

Before considering a concrete example, we can describe a dependency argument in schematic form. In these arguments, Aristotle partially specifies a particular capacity's nature by describing how and why it falls within a particular psychic part. First, Aristotle shows that the given capacity is distinct from, and so should not be simply *identified* with any psychic part already recognized. There is some conceptual distinction between the relevant psychic parts and that capacity. Sometimes these differences are substantial (e.g., psychic part X and capacity Y are not distributed coextensively); sometimes the differences are more fine-grained (e.g., not every activity of psychic part X results in an activity of capacity Y). Second, Aristotle shows

that, even though they are not identical, the capacity bears some significant connection to one psychic part in particular. This suggests that we should not *simply* treat the capacity as distinct from psychic parts (i.e., as an additional psychic part), but invites us to explore in more detail the connection between the given capacity and the psychic part. Third, Aristotle shows that the capacity is in the psychic part by describing the intimate connection between that capacity and that part: that the capacity is, for example, a species, movement, state, or affection of that part.

2.1 Memory

The most explicit example of a dependency argument comes in *DM I*, in which Aristotle gives an account of memory (μνήμη): “About memory and remembering we must state what it is, through what cause it comes to be, and in which part of the soul [τίνι τῶν τῆς ψυχῆς μορίων] this affection [memory] occurs.”⁷ This agenda-setting statement is revealing: Aristotle’s invocation of psychic parthood is not tangential to his attempt to understand the lives and powers of organisms. A proper inquiry into memory consists not just in stating its essence and cause, but also in specifying in what psychic part memory falls.⁸ Hence, in attempting to define memory, Aristotle shows that memory depends on perception, arguing that it falls within (is “a state or affection [ἔξις ἢ πάθος]” of)⁹ the perceptual part of the soul.

First, Aristotle denies that memory is simply identical with any particular psychic part, like perception or intellect. Centrally, we can distinguish between the proper objects of

⁷ “Περὶ μνήμης καὶ τοῦ μνημονεύειν λεκτέον τί ἐστὶ καὶ διὰ τίν’ αἰτίαν γίγνεται καὶ τίνι τῶν τῆς ψυχῆς μορίων συμβαίνει τοῦτο τὸ πάθος,” (*DM I*, 499b4-5).

⁸ Bloch incorrectly assumes that Aristotle is concerned with which *organ* (i.e., part of the *body*) memory is in (Bloch 2007, 60). Instead, Aristotle’s subsequent argument shows that he is primarily concerned with which part of the *soul* memory is in.

⁹ *DM I*, 449b25.

perception or intellect and the “objects of memory” (“τὰ μνημονευτά”).¹⁰ Memory does not concern “the future” (τὸ μέλλον) or “the present” (τὸ παρὸν), but only “the past” (τὸ γενομένον).¹¹ Perceiving and thinking (taken strictly), however, concern the present:

(t1) Nobody would claim to remember the present, when it is actually present, for instance, that he is remembering this particular white when he is in fact looking at it, nor would he claim that he is remembering an object of contemplation while contemplating and thinking about it; one can only claim to perceive the one and to know the other.¹²

The cognition of something present—a particular smell, a mathematical theorem—is not an act of memory, but of perceiving and thinking, respectively.¹³ Memory can, and indeed must, come on the scene only when such cognition involves the awareness of one’s temporal distance from an object, and so an awareness of the object *as from the past*: “when a person actualizes as regards their memory, what they do is to say in their soul that they have previously heard, perceived, or thought about this.”¹⁴ Hence, the proper objects of memory and perception or intellect differ. Moreover, because a capacity is posterior to and distinguished by its proper object, if proper objects differ, then the corresponding capacities also differ. Hence, memory

¹⁰ *DM I*, 449b9.

¹¹ *DM I*, 449b10-15. The future is in the domain of “opinion” (δοξαστόν) or “expectation” (ἐλπιστόν) (*DM I*, 449b11).

¹² “τὸ δὲ παρὸν ὅτε πάρεστιν, οἷον τοδὶ τὸ λευκὸν ὅτε ὄρα, οὐδεὶς ἂν φαίη μνημονεύειν, οὐδὲ τὸ θεωρούμενον, ὅτε θεωρῶν τυγχάνει καὶ νοῶν, ἀλλὰ τὸ μὲν αἰσθάνεσθαί φησι, τὸ δ’ ἐπίστασθαι μόνον,” (*DM I*, 449b15-18).

¹³ Aristotle wavers between different terminology for rational cognition throughout *DM I* (“θεωρῶν” at 499b17; “ἐπίστασθαι” at 499b18; “ἔμαθεν” at 449b21; “εἶδεν” at 449b21; “ἐνόησεν” at 449b23; “ὑπόληψις” at 499b24).

¹⁴ “ἀεὶ γὰρ ὅταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἐν τῇ ψυχῇ λέγει, ὅτι πρότερον τοῦτο ἤκουσεν ἢ ἤσθετο ἢ ἐνόησεν,” (*DM I*, 449b22-3). Aristotle formulates this claim again later in *DM I* in a slightly altered form: “always...when a person actualizes as regards their memory, what they do is to say in their soul that they had previously seen, heard or learned [ἔμαθε] something,” (*DM I*, 449b19-21).

cannot simply be some kind of perception or intellect: “Memory, then, is neither perception nor conception [ὑπόληψις].”¹⁵

Second, Aristotle rejects the alternative extreme—that memory is entirely distinct from other psychic parts. This alternative extreme would suggest that memory constitutes its own distinct psychic part, over and above perception and intellect. Clearly, the objects of memory are, in a looser sense, perceptual or intellectual: I remember the taste of a meal, the sight of a loved one’s face, a geometrical theorem. Accordingly, Aristotle classifies the objects of memory as things that one “has previously heard, perceived, or thought about.”¹⁶ While we can strictly distinguish between the narrow intentional objects of perception, intellect, and memory, the objects of memory are still parasitic on the objects and activities of perception and intellect. The objects of memory are perceptible or intelligible objects, recognized as having been cognized in the past. Accordingly, Aristotle tentatively concludes that memory must be a “a state or affection of one of [perception or intellect], conditioned by a lapse of time.”¹⁷ It would then be misleading to simply deny that memory is non-perceptual or non-intellectual. This recognition prompts us to reflect in more detail on the connection between memory and the perceptual and intellectual parts of the soul.

Third, and most crucially, Aristotle establishes a more subtle connection between memory and perception, asserting that memory falls within “the primary perceptual [part]” (πρῶτον αἰσθητικόν).¹⁸ Centrally, Aristotle establishes this through emphasizing the connection

¹⁵ “ἔστι μὲν οὖν ἡ μνήμη οὔτε αἴσθησις οὔτε ὑπόληψις,” (*DM I*, 449b24).

¹⁶ *DM I*, 449b20-21.

¹⁷ “...ἀλλὰ τούτων τινὸς ἕξις ἢ πάθος, ὅταν γένηται χρόνος,” (*DM I*, 449b22-23).

¹⁸ *DM I*, 450a14. This part is “primary” because it is not one of the special senses, but the single ultimate perceptual capacity.

between memory and the grasping of an “image” or “appearance” (φάντασμα). This is clearest with the memory of perceptual experiences. Because *phantasia* is “a movement of actual perception,”¹⁹ *phantasia*’s object—an appearance—is a perceptual object, retained after the original perceptual act ceases (whether altered or unaltered). One possesses such an appearance as mental content when one remembers something that one previously perceived: a perceptual object that has remained in the soul. I remember the smell of my childhood room because that original perceptual experience has lingered within me as an appearance. In the Aristotelian sense, I “imagine” it.

Memory, then, can be understood as a special kind of *phantasia*—a mental possession of an appearance. Memory is distinguished from *phantasia* proper because it apprehends that appearance insofar as that it is of something from the past. Accordingly, the proper object of memory is the relevant appearance: “those things that are essentially the objects of memory are also such of which there is *phantasia*.”²⁰ Appearances are perceptual (they derive from perceptual experiences), and *phantasia* falls within the perceptual part of the soul (see Appendix 1). Consequently, memory too falls within the perceptual part of the soul, and the objects of memory are perceptual in nature.

Moreover, the awareness that the image is of something from the past is itself perceptual in nature—“a perceiving in addition” (“προσαισθάνεται”) of that appearance.²¹ This emerges in Aristotle’s official definition of memory: “what memory is...[is] the possession of an

¹⁹ “ἡ φαντασία ἂν εἴη κίνησις ὑπὸ τῆς αἰσθήσεως τῆς κατ’ ἐνέργειαν γιγνομένη,” (*DA* III.3, 429a1-2).

²⁰ “καί ἐστι μνημονευτὰ καθ’ αὐτὰ μὲν ὧν ἐστι φαντασία,” (*DM* I, 450a23-24).

²¹ *DM* 1, 450a21.

appearance, taken as a likeness of that of which it is an appearance.”²² As one can view a painting as mere colored blotches on a canvas, or as a likeness (εἰκόν) of something else (e.g., as “a likeness of Coriscus”²³), so one can cognize an appearance *qua* something present in the soul, or *qua* a likeness of something from the past. I remember when I “understand [an appearance] to be of something else...in so far as it is of something else.”²⁴ I remember the smell of my childhood room not when I simply bring to mind the relevant appearance, but when I do so insofar as the appearance is of something that I *previously* smelled.

This ability to remember, to take an image to be *of* something from the past, is an act of “the capacity by which we sense time.”²⁵ Aristotle maintains that it “is necessary to cognize magnitude and movement by the same capacity by which time is also cognized”—namely “*phantasia* and the common sense.”²⁶ This presumably follows because time either is a common sensible, or is at least similar enough to be loosely grouped with them (e.g., it can be grasped by all five special senses).²⁷ Because the common sensibles are grasped by the central perceptual capacity, so too is time: “only animals that perceive time can remember, and they do their remembering using the same [part] by which they perceive.”²⁸

²² “τί μὲν οὖν ἐστὶ μνήμη καὶ τὸ μνημονεύειν, εἴρηται, ὅτι φαντάσματος, ὡς εἰκόνος οὗ φάντασμα, ἕξις,” (*DM* 451a14-16).

²³ “εἰκόνα...ὡς Κορίσκου,” (*DM* I, 450b30-31).

²⁴ “ὑπολαβεῖν...εἶναι καὶ ἄλλου...ἢ...ἄλλου,” (450b24-26).

²⁵ “ὅτι χρόνου αἰσθανόμεθα,” (*DM* I, 451a17).

²⁶ “μέγεθος δ’ ἀναγκαῖον γνωρίζειν καὶ κίνησιν ὅτι καὶ χρόνον· καὶ τὸ φάντασμα τῆς κοινῆς αἰσθήσεως πάθος ἐστίν,” (*DM* I, 450a9-10).

²⁷ Neither *DA* nor *DS* mention time in their lists of common sensibles, only listing “motion, rest, number, shape, and magnitude” (*DA* 418a17-18; *DS* I, 437a9-10) and “unity” (*DA* 425a15).

²⁸ “ὥσθ’ ὅσα χρόνου αἰσθάνεται, ταῦτα μόνον τῶν ζώων μνημονεύει, καὶ τούτῳ ὅτι αἰσθάνεται,” (*DM* I, 499b28-30).

One might object that, while such claims hold of the memory of perceptible objects, they cannot hold of the memory of intelligible objects, like mathematical theorems. Nonetheless, Aristotle maintains that such a picture holds of *all* memory: that even intellectual memory is of images, involves a perceptual awareness of time, and so is itself perceptual in nature. Aristotle's reasoning is perhaps needlessly enigmatic, but has some intuitive appeal once read closely. He begins from his infamous doctrine that "there is no thinking without an appearance,"²⁹ according to which intellect thinks through and from appearances, in which intelligible objects are contained. To simplify a complicated doctrine, appearances allow thinking to get a foothold in the concrete, material world. I can contemplate the kind *Triangle*, and its necessary properties, because of my ability to think through appearances of triangles in or derived from perceptual experiences (e.g., diagrams).

Memory, we saw, is distinguished by its conceiving of its object as something from the past. I remember the smell of a room when that smell is present to me (as an appearance), *and* I am aware that this smelling happened in the past. Likewise, when I remember a geometrical theorem, I do *not* just directly apprehend it—this would be merely to contemplate or relearn it. I could not claim to be "remembering an object of contemplation while contemplating and thinking about it...but only to know [it]."³⁰ Indeed, the objects of intellect are, strictly speaking, outside of time. Accordingly, memory's object is not the intelligible object itself, taken simply. I *remember* something intelligible only when I grasp it as in time (i.e., "conditioned by a lapse of

²⁹ "νοεῖν οὐκ ἔστιν ἄνευ φαντάσματος," (*DM* I, 449b31-450a1; see also *DA* III.7, 431a17-18; *DA* III.8432a6-8).

³⁰ "...τὸ θεωρούμενον, ὅτε θεωρῶν τυγχάνει καὶ νοῶν, ἀλλὰ...τὸ δ' ἐπίστασθαι μόνον," (*DM* I, 449b17-18).

time”).³¹ This temporal aspect can be grasped only through grasping the relevant appearance—the aspect of the intelligible object that, in effect, ties my apprehension of that object to the past. Hence, memory’s object is the relevant appearance through which we think the intelligible object. I can *remember* (and not just contemplate) that triangles have angles equal to two right angles when I possess some relevant appearances: e.g., of diagrams, a teacher explaining a proof, a written proof, the self-awareness that I know the proof, etc. Moreover, I must also be aware that this image derives from *past* perceptual experiences.

Hence, even remembering intelligible objects is perceptual in nature: “memory will belong accidentally to intellect, but essentially to the primary perceptual [part].”³² Although the images that are remembered are related to intellectual acts and objects, they are not themselves intellectual in nature. Aristotle formulates this point as well through memory’s connection to *phantasia*: “Those things that are essentially memorable are also those of which there is *phantasia* [i.e., perceptual objects], while those that are accidentally memorable are those that do not occur without *phantasia* [i.e., intelligible objects].”³³ Both memory’s temporal aspect and its object are thoroughly perceptual. Just as *phantasia* are to the objects of intellect, so too is memory to the objects of intellect. Both *phantasia* and memory are in their nature perceptual; they have only an *indirect* relationship to intellect.³⁴

³¹ *DM I*, 449b22-23.

³² “ὥστε τοῦ νοῦ μὲν κατὰ συμβεβηκὸς ἂν εἴη, καθ’ αὐτὸ δὲ τοῦ πρώτου αἰσθητικοῦ,” (*DM I*, 450a13-14).

³³ “καὶ ἐστὶ μνημονευτὰ καθ’ αὐτὰ μὲν ὧν ἐστὶ φαντασία, κατὰ συμβεβηκὸς δὲ ὅσα μὴ ἄνευ φαντασίας,” (*DM I* 450a23–25).

³⁴ Moreover, as Aristotle points out, memory and intellect are non-coextensive: “Memory belongs to some of the other animals and not only to humans and to those animals that possess opinion or intelligence. If [memory] were one of the intellectual parts, many of the other animals would not possess it, perhaps none of the non-thinking [organisms] would,” (*DM I*, 450a16-18).

In sum, both as regards its content (appearances) and as regards the cognitive stance taken towards that content (apprehending that appearance as *past*), memory is thoroughly perceptual and falls within the perceptual part of the soul. Consequently, Aristotle concludes in general that “as regards the question to which part of the soul memory belongs, it is, clear that it belongs to the same part as *phantasia*,”³⁵ namely the perceptual part of the soul.

2.2 Logical Priority

With this representative example in hand, we can now consider generally what Aristotle accomplishes in dependency arguments: how Aristotle establishes that a given capacity is in a particular psychic part, and to what this claim amounts. Aristotle unfortunately does not make his answers to these questions explicit. Nonetheless, we have good reason to think that dependency arguments address the first set of questions described in §1—attempting to specify the relationship between non-basic and basic capacities. When treating a capacity in such arguments, Aristotle claims that a given psychic part is logically or definitionally *prior* to the capacity, and so affirms the *logical dependency* of the capacity on the part. Hence, to understand or define the capacity, we must invoke the relevant psychic part. The psychic part serves as the foundational explanatory tool for comprehending that capacity.

First, it will be helpful to register general points about the sort of claims Aristotle is pursuing in dependency arguments. Aristotle’s central term for something being more or less basic is something’s being more or less “prior” (πρότερον)—X is more basic than some Y

Since some non-human animals remember, but all non-human animals lack intellect, memory would have to be housed within the perceptual part.

³⁵ “τίνος μὲν οὖν τῶν τῆς ψυχῆς ἐστὶ μνήμη, φανερόν, ὅτι οὐπὲρ καὶ ἡ φαντασία,” (*DM I*, 450a22-23).

insofar as X is prior to Y. As with other central Aristotelian concepts, Aristotle employs “priority” in a variety of ways: chiefly temporal, ontological, and logical priority.³⁶ Aristotle is interested in the temporal priority of capacities: whether and how, for example, an embryo’s nutritive part can exist before its perceptual part.³⁷ Likewise, he is interested in the ontological priority of capacities: whether one capacity can exist without another capacity, but the latter cannot exist without the former (e.g., a perceiving animal must have a nutritive capacity, but a nutritive plant lacks a perceptual capacity).³⁸ Further, Aristotle holds that some capacities prior to others, even though they are neither temporally nor ontologically prior. Desire is wholly coextensive with perception, such that one can neither exist without the other nor temporally precede the other.³⁹ Nonetheless, desire is in the perceptual part of the soul (see Appendix 2), and so is less basic than perception. Aristotle here, and in all dependency arguments, has in mind another kind of priority—logical priority, or priority in account and definition.

Aristotle invokes different metaphors to describe logical priority. First, Aristotle invokes definitional *containment* and *presence*: “[Things are prior] in definition to those things whose definitions are compounded from definitions of them.”⁴⁰ To be logically prior is to have a definition that is a part of the definition of the posterior: the prior is said “to be in” (ἐν ἐνυπάρχειν) the definition of the posterior; the definition of the posterior is said to be “out from”

³⁶ These are the three central senses of priority employed, for instance, to establish the general priority of actuality to potentially in *Meta.* Θ.8.

³⁷ E.g., *GA* II.3, 736a35-b15. For a treatment of this passage, see Chapter 5, §2.4.

³⁸ “[Nutrition] can be separated from the others, but among mortal beings the others cannot be separated from this. This is evident in the case of plants. For no other capacity of soul belongs to them,” (*DA* II.2, 413a32-4).

³⁹ “If the perceptual capacity [belongs to an organism], then also the desiderative capacity,” (*DA* II.3, 414b1-2).

⁴⁰ “πρότερα ... τῷ λόγῳ δὲ ὅσων οἱ λόγοι ἐκ τῶν λόγων,” (*Meta.* M.2, 1077b2–4).

(ἐκ) and “divided into” (διαιρέσθαι εἰς) the prior.⁴¹ The account of a triangle (“a rectilinear figure contained by three straight lines”⁴²) comes out from and can be divided into ‘line’; the latter is “in” the former. Second, Aristotle invokes definitional *dependence*: something definitionally depends on, and so is logically posterior to, another insofar as we require the account of the former to give an account of the latter. Accordingly, the prior is said “to be used” (χρησθαι) to define the posterior; the posterior is said “to refer back to” (ἀναφέρειν) or “to be defined through” (ὀρίζεσθαι with a dative) the prior.⁴³ The account of the triangle refers to line; line is used to define a triangle.⁴⁴

To bring into view the role that logical priority plays in Aristotle’s psychology, two further features are important to emphasize. First, logical priority is not merely a superficial relation. Sometimes an account of one thing makes explicit reference to another and logical priority can be recognized immediately (e.g., the above definition of triangle explicitly includes ‘line’). Sometimes logical priority obtains only implicitly and indirectly. Although the definition of ‘tense’ (“the time of a verb”) need not make explicit reference to ‘word’, it contains a term (‘verb’) whose accounts in turn *do* make explicit reference to ‘word’ (“a word denoting an action”). Second, logical priority is *ineliminable*. We might falsely infer from a description of triangle as “the shape I drew on the chalkboard” that ‘chalkboard’ is logically prior to ‘triangle’. Yet this account does not amount to a proper definition, as we can obviously understand triangles

⁴¹ E.g., *Meta.* Z.1, 1028b34-36; *Meta.* M.2, 1077b3-4; *Meta.* Z.10, 1035b5.

⁴² See Euclid, *Elements*, Bk.1, Def. 19.

⁴³ *Meta.* Z.1, 1028a36; Z.10, 1035b6; M.2, 1077b4; Z.10, 1035b4; Γ.2, 1004b24.

⁴⁴ Logical priority does not necessarily imply any stronger form of priority. Activity is logically prior to potentiality; the account of the visual capacity, for example, refers to seeing but not *visa versa* (*Meta.* Θ.8, 1049b12-1). Nonetheless, this need not require that seeing can occur without a visual capacity (i.e., that the activity of seeing is existentially prior to the visual capacity).

without reference to chalkboards. In contrast, to understand triangles, it is plausible to think that we *must* invoke ‘line’. Any definition (e.g., “three-sided polygon”, “figure bounded by three straight lines”) still contains some explicit or implicit reference to ‘line’. These two features—non-superficiality and ineliminability—show that logical priority is not some contingent fact about how we happen to describe something, but constitutes a necessary and essential feature of that thing. That such priority claims get at essences indicates why logical priority is so important to Aristotle.

When Aristotle in dependency arguments affirms that the capacity is in a psychic part, he is claiming that the capacity that defines the part is more basic than the capacity. In such claims, then, he maintains that the part is logically prior to the given capacity. We saw this in detail with memory and its logical posteriority to perception. Memory is a particular kind of *phantasia* or awareness of a perceptually-derived appearance, as something that was cognized in the past. Hence, memory is logically posterior to *phantasia*; memory cannot be understood without reference to *phantasia* and its object. Moreover, appearances are derived from acts of perception and *phantasia* is perceptual in nature. Accordingly, *phantasia* can only be understood through reference to perception (for a full argument, see Appendix 1). Consequently, both memory and *phantasia* are logically posterior to perception. Although the definition of memory (“the possession of an appearance, taken as a likeness of that of which it is an appearance”)⁴⁵ makes no explicit reference to perception, it contains a term (“appearance”) whose account *does* make explicit reference to perception. As in the opening lines of *DM*, this is not a trivial claim, but tells us something about the nature and cause of memory: we cannot understand memory without

⁴⁵ “τί μὲν οὖν ἔστι μνήμη καὶ τὸ μνημονεύειν, εἴρηται, ὅτι φαντάσματος, ὡς εἰκόνοσ οὗ φάντασμα, ἕξις,” (*DM* 451a14-16).

reference to the basic capacity to perceive and retain perceptual appearances. Memory and *phantasia* are in the perceptual part because they are both logically posterior and dependent on the capacity that defines that part—perception.

In principle, similar arguments can be made, or are sometimes in fact made by Aristotle, about any other non-basic psychic capacity—the identification of a psychic part in which a capacity resides, through which we understand it, and on which it logically depends. We can note a few representative examples. As I contend in Appendix 1, Aristotle argues in *DA* III.3 that *phantasia* too is in the perceptual part and logically posterior to perception, but not to any intellectual capacities. Although *phantasia* differs from perception, to understand *phantasia* requires reference to perception (it is “a movement of actual perception”).⁴⁶ Dreaming (an exercise of *phantasia* while asleep) is subject to the same sort of argument as memory—that it essentially involves appearances, is logically posterior to *phantasia*, and so is itself perceptual.⁴⁷ He affirms as well that the capacity for judgment concerning perceptibles, such as discriminating the difference between two colors, is perceptual and in the perceptual part.⁴⁸

Knowledge (ἐπιστήμη) similarly falls within the intellectual part of the soul, and so is logically posterior to intellect.⁴⁹ Although knowledge differs from intellect (e.g., knowledge is demonstrative, whereas intellect is immediate), it depends on intellect (e.g., the demonstration definitive of knowledge proceeds from principles grasped by intellect). Likewise, growth is

⁴⁶ “ἡ φαντασία ἂν εἴη κίνησις ὑπὸ τῆς αἰσθήσεως τῆς κατ’ ἐνέργειαν γιγνομένη,” (*DA* III.3, 429a1-2).

⁴⁷ “A dream appears to be an appearance...[and] dreaming is of the perceptual [part], insofar as [the perceptual part] is imaginative,” (*Insomn.* I, 459a20-2).

⁴⁸ “Since we discriminate white and sweet and each of the other objects of perception in relation to one another, what is it by which we perceive that they differ? It is necessary, to be sure, that this is by perception, since they are perceptible objects,” (*DA* III.2, 426b12-14).

⁴⁹ See *DA* III.3, 427b25-26.

posterior to and falls in the nutritive part of the soul. Nutrition is the capacity to preserve oneself as oneself, and growth the capacity to increase in quantity while remaining the thing one is.⁵⁰ Because substance—something’s being a *this*—is prior to quantity—something’s being some amount of a *this*—so is nutrition to growth.⁵¹

It is crucial to differentiate logical priority from another kind of dependency—material dependency or hypothetical necessity. To be able to remember, we need to have functioning bodies and nutritive systems. Like all perceptual activities, memory is the activity of both a particular material organ (presumably the heart), and an organized body that supports the proper functioning of this organ.⁵² We then might reasonably say that memory ‘depends’ on nutrition. Yet this need not imply that memory is also in the nutritive part of the soul. The relationship between a capacity and the part it is in, such as between memory and perception, is tighter than that between memory and nutrition. We understand memory independently of nutrition, even if any instance of remembering materially requires nutrition. The claim to logical priority, then, is stronger than mere material dependence. It claims not only that any instance of a capacity requires the existence of a particular psychic part, or that the part is in some general sense

⁵⁰ “There is a difference, however, between nutrition and being able to produce growth in something. For insofar as an ensouled thing is a particular quantity, something is capable of producing growth in it, while insofar as it is some *this* and a substance, something is nourishment for it,” (*DA* II.4, 416b12-14).

⁵¹ The situation with nutrition and reproduction is more difficult to determine. At times Aristotle appears to suggest that the nutritive capacity is prior: “the same capacity of soul is both nutritive and generative...[and] it is in virtue of this function [i.e., nutrition] that it is marked off from the other capacities,” (*DA* II.4, 416a19-22). At other times, he appears to suggest the reproductive or generative capacity is prior: “Since it is right to name each thing after its end, and here the end is to generate another such as itself, it would be right to call this primary soul generative of another such as itself,” (*DA* II.4, 416b17-19).

⁵² Remembering, along with all perceptual activities, is an affection (*πάθη*) common to body and soul (see *DA* I.1 403a5-22).

causally involved with that capacity; rather it more strongly claims that to understand the essence of a given capacity requires reference to that part. A dependency argument tells us something about the logical, definitional, and conceptual nature of a capacity. Perceiving is not simply a precondition of remembering, as nutrition is, but forms a crucial, indispensable part of it.

In sum, dependency arguments aim to demonstrate and articulate these logical relationships of priority and dependency between particular capacities and psychic parts. Laying bare these relations is not just a bit of trivial taxonomy. As the opening sentence of *DM* 1 makes clear, when we attempt to understand the nature of a psychic capacity, we also ask in what part a psychic capacity resides. We do not understand psychic capacities (or, in fact, most other things) in a vacuum; we understand them in relationship to other, more basic entities or principles. To specify these relations is a central part of articulating what the given capacity is. Aristotle's psychology describes how and why living things do what they do in terms of the capacities they possess, and so is tasked with giving an account of these capacities. If laying out these logical relations (a dependency argument) is essential to articulating the nature of a psychic capacity, then dependency arguments play an essential role in Aristotle's psychology. Again, we can see this by returning to the metaphor of a logical map of the soul. Dependency arguments work by placing capacities in particular locations in that map—places within a hierarchy of logical priority and posteriority. In doing so, we are able to understand capacities and their place within the organized network of principles that cause vital activities and make up the life of organisms.

To end this section, we can reflect more concretely on how dependency arguments and logical priority help explain the nature of given capacity. Claims to logical priority about capacities point to ineliminable and essential features of those capacities: what general sort of capacity something is, what sorts of organisms it is found in, how relates to the body, etc. As

noted above, the logical posteriority of smell to perception—that smell is a species of perception—indicates that smell is the receiving of a certain kind of perceptible form and is found in a perceptible organ. Though less explicit, analogous conclusions arise about the logical posteriority of memory to perception and its placement within the perceptual part. This conclusion tells us, for example, that memory is not rational or intellectual, and so can be found in nonhuman animals, who lack an intellectual part. Memory, then, must be explained using only the capacities and organs that can be found in animals. Memory’s place in the perceptual soul also tells us that, like all perceptual activities (but unlike thinking), memory is bodily and deserves a physiological explanation. It tells us as well memory’s cause and causal origin—that remembering begins with some original act or acts of perceiving, possessed in the soul through *phantasia*, which ultimately grasped through memory. More, of course, can be said about what dependency arguments reveal about capacities; yet even this brief description shows that, although dependency arguments do not themselves provide full and comprehensive accounts of capacities, they do illuminate significant features of them.

§3 Parthood Arguments

In dependency arguments, Aristotle establishes that capacities are logically posterior to and in particular psychic parts. This, however, does not yet address the second sort of questions described in §1, about what these psychic parts are, and why they constitute genuine psychic *parts* (and not mere capacities). Aristotle approaches these questions in ‘parthood arguments’, in which he argues that a particular capacity is basic, and so must distinguish and define a distinct part of the soul. In making these arguments, then, Aristotle identifies the primitive aspects of the soul, which differentiate the basic forms of life. I contend that, while dependency arguments

show the logical *priority* of a part to a capacity, parthood arguments show the logical *primacy* of such parts.

Parthood arguments come in both positive and negative varieties. We will consider in detail an example of one positive parthood argument, in which Aristotle contends that intellect is a distinct psychic part (see Appendix 2 on locomotion and desire for an example of a negative parthood argument). As before, this argument can be presented in schematic form. First, Aristotle collects reasons for thinking that a candidate for psychic parthood is, in fact, in or identical with some other psychic capacity or part. If this were the case, the candidate would *not* constitute or define a distinct psychic part. Second, he argues that, contrary to this initial appearance, we have strong reason to deny that the given capacity is in or identical with that part (and, by extension, all other parts or capacities). Accordingly, the given capacity is basic, and so defines a genuine psychic part, over and above any other parts already assumed.

3.1 Intellect

The closest to an explicit positive parthood argument comes in *DA* III.3-8, amidst Aristotle’s treatment of intellect (νοῦς) and the intellectual capacity (νοητικόν)⁵³—“the part of the soul by which the soul both knows and understands.”⁵⁴ Although not framed in the language of psychic parthood, he takes pains to show that intellect is distinct from perception, and so a psychic principle over and above the perceptual and nutritive parts of the soul. I ultimately argue (§3.2) that this distinctness is logical independence and primacy.

⁵³ *DA* III.10, 433b3.

⁵⁴ “ὁ ἄρα καλούμενος τῆς ψυχῆς νοῦς...ᾧ διανοεῖται καὶ ὑπολαμβάνει ἡ ψυχή,” (*DA* III.4, 429a22-23).

First, Aristotle entertains evidence that intellect should *not* constitute a distinct psychic part. While transitioning in *DA* III.3 from his account of perception (II.5-III.2) to his more focused account of intellect (III.4-8), he considers whether intellect is identical to or is a kind of perception:

(t2) Both thinking and understanding [τὸ νοεῖν καὶ τὸ φρονεῖν] seem to be a sort of perceiving, for in both these cases, the soul discriminates [κρίνει] something and comes to know [γνωρίζει] things that are. The ancients, indeed, say that understanding and perceiving are the same, as even Empedocles said, “For the wisdom of human beings grows in relation to what is present to them,” and in other writings, “Whence different understandings ever present themselves to them.” What was said by Homer tends in the same direction as these, “For such is intellect.”⁵⁵

Both authority and superficial similarities suggest a special connection between intellect and perception. On Aristotle’s view, thinkers from Empedocles to Parmenides to Homer affirm an equivalency between intellect and perception.⁵⁶ They are pushed to endorse such a picture, he thinks, because they maintain that thinking is a corporeal process or alteration of the body, like perceiving.⁵⁷ Moreover, Aristotle himself recognizes similarities between perception and intellect, which might appear to suggest a similar conclusion. Both intellect and perception are characterized by their ability “to discriminate” (κρίνειν) and “to apprehend” (γνωρίζειν).⁵⁸

Elsewhere, he claims that, at least within certain contexts, “both *phantasia* and perception hold

⁵⁵ δοκεῖ δὲ καὶ τὸ νοεῖν καὶ τὸ φρονεῖν ὥσπερ αἰσθάνεσθαι τι εἶναι (ἐν ἀμφοτέροις γὰρ τούτοις κρίνει τι ἢ ψυχὴ καὶ γνωρίζει τῶν ὄντων), καὶ οἱ γε ἀρχαῖοι τὸ φρονεῖν καὶ τὸ αἰσθάνεσθαι ταῦτόν εἶναι φασιν—ὥσπερ καὶ Ἐμπεδοκλῆς εἶρηκε ἔπρος παρεὸν γὰρ μῆτις ἀέξεται ἀνθρώποισιν” καὶ ἐν ἄλλοις “ὄθεν σφίσις αἰεὶ καὶ τὸ φρονεῖν ἄλλοῖα παρίσταται”, τὸ δ’ αὐτὸ τούτοις βούλεται καὶ τὸ Ὀμήρου “τοῖος γὰρ νόος ἐστίν”,” (*DA* III.3 427a19-26).

⁵⁶ In *Meta.* Γ.5, Aristotle ascribes this position to “...virtually everyone else,” (1009b16), including Protagoras (1009a6), Democritus (1009b16; see also *DA* I.2, 404a27-28), and Anaxagoras (1009b26; see also *DA* I.2, 404b1-3; 405a13-16).

⁵⁷ “They believe that understanding [φρόνησιν] is perception, and the latter is an alteration,” (*Meta.* Γ.5, 1009b12-3).

⁵⁸ “The soul of animals has been defined in respect of two capacities, first by the discriminatory power [κριτικῶ], which is the work of thinking and perception,” (*DA* III.9, 432a15-17).

the same place as intellect, since all are discriminatory [κριτικὰ].”⁵⁹ They are both, then, capacities whose activities can be *true* (unlike any nutritive capacities). Moreover, throughout *DA* Aristotle frequently voices analogies between perception and intellect—that both involve a sort of affection and form-reception, that both must be unified, etc.⁶⁰

In sum, this indicates that intellect does *not* constitute a distinct psychic part, over and above perception. Two possibilities suggest themselves. The various names—“perception”, “intellect”, “understanding”—could refer to different aspects of a single part of the soul (i.e., a discriminating part of the soul). Alternatively, this could suggest that intellect is another capacity, like memory, that falls within the perceptual part of the soul.

Second, Aristotle argues that there is a fundamental difference between intellect and perception, and so intellect is, in fact, a distinct psychic part. Just after (t2), in which he emphasizes similarities between intellect and perception, Aristotle notes a series of superficial differences between them (e.g., that some organisms possess perception but lack intellect).⁶¹ While these differences are sufficient for Aristotle’s immediate needs in *DA* III.3—to make room for a theory of *phantasia*⁶²—they are insufficient to show that intellect is a distinct psychic part.

⁵⁹ “καὶ γὰρ ἡ φαντασία καὶ ἡ αἴσθησις τὴν αὐτὴν τῷ νῶ χώραν ἔχουσιν· κριτικὰ γὰρ πάντα,” (*MA* 6, 700b17-23).

⁶⁰ E.g., “As one speaks, so one both thinks and perceives,” (*DA* III.2, 426b); “If thinking is like perceiving, it would consist in being somehow affected by the object of intellect or in something else of this sort...as the perceptual capacity is to the objects of perception, so intellect will be to the objects of intellect,” (*DA* III.429a13-17).

⁶¹ “It is evident that perceiving and understanding are not the same. For all animals have a share of the one, but only a few of the other. Nor, moreover, is thinking [τὸ νοεῖν], in which there is a right and a wrong—understanding and knowledge and true belief being right, and the opposites of these being wrong—the same as perceiving. For perception of exclusive objects is always true, and belongs to all animals, whereas thinking [διανοεῖσθαι] can also be false, and it belongs to nothing which lacks reason,” (*DA* III.3, 427b6-14).

⁶² For a detailed reading of *DA* III.3 along these lines, see Caston (1996).

The differences that he lists, like non-coextensivity, also hold between memory and perception.⁶³ Such differences did not prevent Aristotle from concluding that memory falls within the perceptual part; they would also not prevent an opponent from maintaining that intellect falls within that same perceptual part.

Once he properly turns to intellect in *DA* III.4, Aristotle more fully lays out the difference between perception and intellect, and so the basis for a genuine parthood argument. The crucial differences emerge from a more basic difference between the *objects* of perception and of intellect: “knowledge and perception are divided in reference to things [i.e., their objects].”⁶⁴ This follows from the general principle that we have repeatedly encountered: a capacity is individuated by and logically posterior to its activity, and ultimately the proper object of that activity. If the objects are distinct, then so too are the capacities. This principle has special purchase with cognitive capacities: cognition, both perceptual and intellectual, involves a kind of assimilation of the capacity or subject to the object. In perceiving, perception “becomes like” and “receives” the perceptible form;⁶⁵ in thinking, intellect becomes like the intelligible object.⁶⁶ Intellect and perception are just capacities for thinking and perceiving, and so for becoming like

⁶³ Just as with intellect and perception, memory and perception are not coextensive: “[Memory] does not belong to all [animals], because not all animals have a sense of time,” (*DM* 1, 450a18-19); memory and intellect (taken broadly) can be false, while perception, strictly speaking, is always true: “there is nothing to prevent that one is deceived and thinks he remembers, when he is really not remembering,” (*DM* 2, 452b25-6).

⁶⁴ “τέμνεται οὖν ἡ ἐπιστήμη καὶ ἡ αἴσθησις εἰς τὰ πράγματα,” (*DA* III.8, 24-25).

⁶⁵ “What is capable of perceiving is in potentiality such as the object of perception is already in actuality, as was just said. Hence, it is affected while being unlike what affects it, but when it has been affected, it has been made like it and is such as what affected it is,” (*DA* II.5, 418a3-7).

⁶⁶ “Knowledge is in a way the objects of knowledge, and perception the objects of perception... The soul's perceptual capacity and capacity for knowledge are these things in potentiality, the one the object of knowledge and the other the object of perception,” (*DA* III.8, 431b22-27).

their objects; hence, the capacities themselves differ to the extent that their objects differ. In *NE* V.1, Aristotle explicitly voices this as a principle for psychic partitioning: “where beings differ in genus, parts of the soul that differ in genus are naturally suited to each of them.”⁶⁷

In *DA* III.4, Aristotle takes pains to show that the objects of intellect and perception do, in fact, differ in genus:

(t3) Since a magnitude and being a magnitude differ, as also water and being water differ (and thus for many other cases, though not all, since in some cases they are the same), one discriminates flesh and being flesh either by means of different things or by means of something in a different condition. For flesh is not without matter, but is rather just as the snub: a this in a this. One discerns by means of the perceptual capacity the hot and the cold, those things of which flesh is a proportion. But it is by means of something else...that one discerns being flesh...Generally as things are with respect to things separate from matter, so too are they with respect to things concerning intellect.⁶⁸

On the one hand, perception grasps the material properties of concrete, particular beings, like their color, smell, temperature, etc.,—their “perceptible form”,⁶⁹ or the “ratio” of perceptible extremes (hot/cold, sweet/bitter). To perceptually discriminate flesh, then, is to grasp its ratio of “hot and cold” (and its other perceptible qualities). Flesh, insofar as it is perceptible, just is a particular ratio of the perceptible extremes. On the other, intellect grasps the “being” of those

⁶⁷ “πρὸς γὰρ τὰ τῷ γένει ἕτερα καὶ τῶν τῆς ψυχῆς μορίων ἕτερον τῷ γένει τὸ πρὸς ἑκάτερον πεφυκός,” (*NE* VI.1, 1139a8-10). See Lear (2004, 95n.6) on the Platonic background of this argument (e.g., *Republic* V, 477c).

⁶⁸ “ἐπεὶ δ’ ἄλλο ἐστὶ τὸ μέγεθος καὶ τὸ μεγέθει εἶναι, καὶ ὕδωρ καὶ ὕδατι εἶναι (οὕτω δὲ καὶ ἐφ’ ἐτέρων πολλῶν, ἀλλ’ οὐκ ἐπὶ πάντων· ἐπ’ ἐνίων γὰρ ταυτόν ἐστι), τὸ σαρκὶ εἶναι καὶ σάρκα ἢ ἄλλῳ ἢ ἄλλως ἔχοντι κρίνει· ἢ γὰρ σὰρξ οὐκ ἄνευ τῆς ὕλης, ἀλλ’ ὥσπερ τὸ σιμόν, τόδε ἐν τῷδε. τῷ μὲν οὖν αἰσθητικῷ τὸ θερμὸν καὶ τὸ ψυχρὸν κρίνει, καὶ ὢν λόγος τις ἢ σὰρξ· ἄλλῳ δέ...τὸ σαρκὶ εἶναι κρίνει...ὅλως ἄρα ὡς χωριστὰ τὰ πράγματα τῆς ὕλης, οὕτω καὶ τὰ περὶ τὸν νοῦν,” (*DA* III.4, 429b10-22). This passage, and its relation to the rest of *DA* III.4, has been the subject of intense debate (for a summary and alternative interpretation, see Lowe, 1983). I follow most modern interpreters (including Shields, given in the translation above) in maintaining that (1) that the subject of the various κρίνει is “one”, not “νοῦς”; (2) that the lines “by means of something else...” registers Aristotle’s momentary hesitation (which is cleared up throughout *DA* III.7-8), not his considered opinion.

⁶⁹ *DA* II.12, 424a18-19.

particular things—their essence, definition, form, nature. Intellect apprehends, in other words, the intelligible form of sensible objects like flesh (as well as of intelligible objects, like mathematical objects). To discriminate flesh intellectually, one grasps what it is to be flesh.

Given the coordination of object and capacity, this difference in object indicates that perception and intellect constitute distinct psychic parts. Yet a reasonable objection might be raised: much of the same could be said about many other capacities, like vision and hearing. Because they have different objects (sights and sounds), we might be tempted by the same logic to conclude that vision and hearing constitute different psychic parts. To resist this temptation, we must see the difference between visual and auditory objects to be of a different sort than that between perceptual and intellectual objects. With sights and sounds, they all fall under a single generic kind—perceptible qualities. Although they can be distinguished from each other, and are grasped by distinct proximate organs, Aristotle maintains that perceptible qualities are fundamentally unified, and do not differ in genus. They together constitute the perceptible form of concrete objects, and are grasped by one ultimate capacity, housed in one ultimate organ (the heart or its analogue). Moreover, a version of this argument could extend to *all* broadly perceptible objects, like appearances and memories (or pleasure, as argued in Appendix 2), which all fall under the broader genus of perceptible object.

The difference between the objects of perception and of intellect is of a more radical sort, and sufficient to imply a distinction between psychic parts. Even for all his metaphysical anti-Platonism, Aristotle still thinks that we can carve up the world into two fundamentally different sorts of things—perceptible and intelligible objects: “the soul is in a sense all existing things; *for what exists is either objects of perception or objects of intellect*; and knowledge is in a way the

objects of knowledge, and perception the objects of perception.”⁷⁰ Although he denies their ontological separability (which the Platonist, in Aristotle’s eyes, affirms), Aristotle maintains that perceptible, material objects, and intelligible, immaterial objects constitute the two basic sorts of beings that populate the cosmos, which differ in genus. We have not yet determined exactly to what this difference amounts—this will be a task of the following section. What we have seen, however, is that Aristotle reasonably conceives of them as fundamentally different.

Hence, although perception and intellect are both in the business of cognizing, they cognize fundamentally different sorts of things. In turn, they constitute fundamentally different sorts of capacities—different powers by which a human relates to the world—and so define two different psychic parts. Although in *DA* Aristotle straightforwardly embraces this fundamental difference, it should be noted that it produces problems for Aristotle (though not unique to him) about how humans can move from grasping perceptible qualities to apprehending intelligible forms. Although actually addressing this worry would take us far afield, we can note that these are precisely the sort of worries that Aristotle addresses in *Apo.* II.19 or *Meta.* A.1, when describing how humans move from mere perception to unified experiences and memory to intellectual grasps of first principles and demonstrative knowledge.

3.2 Logical Primacy

We now have before us a concrete example of a parthood argument. As with Aristotle’s dependency arguments, however, his parthood arguments are formulated in vague language. It remains for us to specify the precise claims established in such arguments (i.e., what features are

⁷⁰ “ἡ ψυχὴ τὰ ὄντα πῶς ἐστὶ πάντα· ἢ γὰρ αἰσθητὰ τὰ ὄντα ἢ νοητά, ἔστι δ’ ἡ ἐπιστήμη μὲν τὰ ἐπιστητά πῶς, ἢ δ’ αἰσθησις τὰ αἰσθητά,” (*DA* III.8, 431b21-23).

definitive of psychic parthood), and for what purpose (i.e., what role they play in the project of *DA*). I contend that Aristotle treats psychic parts as the *logically primary* capacities of an organism: the capacities that are, with respect to account, being, and definition, *prior* to and *independent* of all other psychic capacities. These logically primary capacities, in turn, differentiate the basic forms of life and organism (vegetative, perceptual, rational), and serve as the explanatory foundations of accounts of all other psychic capacities and activities.

We begin with the results of §2. There are two kinds of psychic capacities: basic capacities that define a psychic part, and non-basic capacities that are *in* one of these psychic parts. The perceptual capacity defines the perceptual part of the soul, as that part's most basic and definitive capacity. In contrast, memory and *phantasia* are *in* that perceptual part. To minimally qualify as a psychic part, then, a capacity must not be in another part. In §2.2, we saw that a capacity is in a part if the capacity is logically posterior to the part (or, strictly speaking, logically posterior to the capacity that defines that part). Hence, a psychic part is not logically posterior to any other capacity. Put crudely, psychic parts would be the *most* prior capacities, sitting at the top of a hierarchy of priority. In Aristotelian terminology, this means that psychic parts are logically first or “primary in account” (πρῶτον λόγῳ). To be logically primary, something would be either logically *prior* to or logically *independent* of everything else, and logically posterior to nothing. We could give a definition of that thing that makes no reference to anything else, while everything else will have definitions that refer to and depend on it.

Perhaps the most explicit and consequential case of logical primacy in the Aristotelian corpus is the primacy of “substance” (οὐσία):

(t4) There are several senses in which a thing is said to be primary; but substance is primary in every sense—in account, in knowledge, in time...In account, [substance] is

primary; for in the account of each [category] the account of a substance must be present.⁷¹

In the account of a particular quality, or the category Quality, one always describes it as the quality *of some substance*.⁷² Health is the good physiological state of a substance (an organism); the category Quality is the quality of a substance. Hence, quality is logically posterior to and depends on substance (just as with all other non-substance categories). Although non-substance categories are logically prior to many things (e.g., the category of quality is prior to any particular quality), they are not logically *primary*. Each is posterior to substance. In contrast, substance is the most basic sense of being because it is primary. Substance is logically prior to all the categories, while no category is logically prior to it.

Psychic parts for Aristotle are similarly logically primary; parthood arguments seek to establish this logical primacy. Memory, like Quality, is not logically primary. The definition of memory ultimately refers to perception, and so memory is logically posterior to perception. Yet perception is not posterior to any other capacity, and so is logically primary. On the one hand, it is prior to all those capacities that are, broadly speaking, “perceptual” (*phantasia*, memory, dreaming, etc.). Perception is used, directly or indirectly, to define every perceptual capacity, as substance is used to define quality. On the other, perception is neither logically posterior or prior to non-perceptual capacities and parts, but simply logically independent of them. We can give a definition of perception that makes no reference to any nutritive or intellectual capacities—i.e.,

⁷¹ “πολλαχῶς μὲν οὖν λέγεται τὸ πρῶτον· ὅμως δὲ πάντως ἡ οὐσία πρῶτον, καὶ λόγῳ καὶ γνώσει καὶ χρόνῳ... τῷ λόγῳ δὲ τοῦτο πρῶτον (ἀνάγκη γὰρ ἐν τῷ ἐκάστου λόγῳ τὸν τῆς οὐσίας ἐνυπάρχειν,” (*Meta. Z.1*, 1028a32-36).

⁷² “All other things [in the categories] are said to be because they are... quantities of that which is in this primary sense [i.e., substance], others qualities of it, others affections of it, and others another determination of it,” (*Meta. Z.1*, 1028a17-19).

“what is capable of receiving perceptible forms without the matter.”⁷³ Hence, like substance, perception is logically primary.

Before progressing, an initial objection should be addressed. The claim that something is logically primary amounts to the claim that it is *most* logically independent and prior. Yet clearly psychic parts cannot be *absolutely* logically independent (as perhaps substance is). Because perception logically depends on various abstract concepts—e.g., reception, form—we might conclude that perception is ultimately not logically primary. This would, however, severely restrict the scope of the notion of logical primacy. Alternatively, and in a more Aristotelian spirit, we can maintain a more viable notion of logical primacy by treating it as domain-relative. On this usage something is logically primary in a given science or inquiry insofar as it makes no reference to the objects, definitions, or principles *within that science*. A point is logically primary within geometry, even if its definition depends on concepts beyond geometry (e.g., parthood).⁷⁴ It serves as one of the basic entities of geometry and its definition makes no reference to other geometric objects. Likewise, although the definition of perception refers to other concepts, its definition does not refer to other capacities or activities of an organism—the objects that make up psychology. The things on which perception definitionally depends are general concepts, borrowed from more universal domains. Thus, psychic parts are logically primary *within psychology*, and serve as psychology’s basic principles.

Logical primacy is effectively established in the positive parthood argument described in §3.1 by showing the logical *independence* of two capacities. Intellect defines a distinct psychic part precisely because it is neither logically identical with nor posterior to perception, but

⁷³ “αἰσθησίς ἐστι τὸ δεκτικὸν τῶν αἰσθητῶν εἰδῶν ἄνευ τῆς ὕλης,” (*DA* II.12, 424a18-19).

⁷⁴ “A point is that which has no part,” (Euclid, *Elements*, Bk.1, Def.1).

logically independent of it. This independence is established because the objects of perception (the material features of a thing) and the objects of intellect (a thing's being, essence, or form) are themselves logically independent. The objects of vision and hearing, and so the corresponding capacities, both logically depend on something within psychology (perception as such), and so are not logically primary. In contrast, Aristotle explicitly affirms that perceptible matter and intelligible form are logically independent—the material features of bronze (or wood or steel) can be articulated independently of what it is to be a sphere (or a cube or a pyramid).⁷⁵ The objects of perception and of intellect are logically independent, and so the capacities responsible for grasping those objects—intellect and perception—are likewise logically independent.

As stated earlier, logical primacy consists not just in independence, but also in priority. Intellect is not merely independent of perceptual or nutritive capacities, but is also prior to all intellectual capacities. The work of actually showing how intellect is prior to intellectual capacities, like capacities for demonstrating or calculating, would be the work of further dependency arguments.⁷⁶ As noted above with knowledge, Aristotle maintains that most other kinds of intellectual activities are *discursive*—in Aristotelian terminology, involving combination and separation of intelligible objects or propositions. In contrast, intellect is, in its most basic form, responsible for the direct grasp of simple intelligible objects (essences,

⁷⁵ E.g., *Meta.* H.1, 1042a26-31. These issues, however, are more complicated, as we will see in Chapters 5 and 6. Elsewhere, Aristotle argues that any given instance of matter is logically posterior to its form. To understand an organism's body, for example, we must essentially refer to its function and form (i.e., its soul).

⁷⁶ See *PA*, II.19 (esp. 100b10).

intelligible forms).⁷⁷ These discursive acts, in turn, depend on the grasp of simples that is performed by intellect; the capacities for these acts are logically posterior to intellect.

Before moving on, we should consider further objections to this picture of psychic parthood. First, Aristotle consistently uses psychic parts to explain other psychic parts in *DA*. Nutrition helps explain how perceiving is “like by like”;⁷⁸ perceiving illustrates how thinking is a kind of affection by and the reception of form;⁷⁹ thinking illuminates how perception discriminates differences.⁸⁰ This might suggest that psychic parts are *not*, after all, logically independent: in accounting for each psychic part, Aristotle makes explicit reference to other parts. Yet their logical independence need not prevent significant analogies between psychic parts, or even conceptual overlap between their accounts. The definitions of intellect and perception, for example, both might involve “reception” or “form”. These analogies and overlaps might aid in understanding psychic parts. Such analogies, however, do not imply actual dependency or inseparability. Ultimately, we can still provide independent definitions of the psychic parts, as Aristotle himself does. These analogies should rather be read as heuristic—in principle unnecessary, but useful in giving explanations of psychic parts.

Second, we can acknowledge other significant dependencies between psychic capacities, and yet still see them as logically independent. My ability to think or perceive depends on having a functioning body, and so on nutrition. Intellect likewise needs appearances, in which it grasps

⁷⁷ See *DA* III.6 (esp. 430a26-30).

⁷⁸ *DA* II.4, 416a29-b8; II.5, 417a18-21.

⁷⁹ “If thinking is like perceiving, it would consist in being somehow affected by the object of intellect...It is necessary, therefore, that it be unaffected, yet capable of receiving the form; that it be of this sort potentially but not be this; and that it be such that just as the perceptual capacity is to the objects of perception, so intellect will be to the objects of intellect,” (*DA* III.4, 429a13-17).

⁸⁰ *DA* III.2, 426b17-427a14 (esp. 426b22-23).

essences, and so depends on *phantasia* and perception.⁸¹ Yet, as we noted with memory and nutrition, this requires no logical dependency or priority, but rather only *material* dependency. These dependencies do not involve the definition, nature, or being of intellect or perception, but rather the material conditions for the exercise of these capacities. When we articulate what it is to be intellect—intellect’s essence—we need not make any reference to nutrition or perception.

As another contrast case, we can consider the relationship between the various perceptual capacities. We again find a kind of priority, but not one sufficient for psychic partitioning. Aristotle thinks that touch is, in some sense, prior to all the other perceptual capacities: “some animals have them all, others have some of them, and others have one, the most necessary [ἀναγκαιοτάτην, touch.”⁸² Nonetheless, Aristotle denies that the other senses are logically dependent on touch, or that touch constitutes a distinct psychic part. This is exhibited in the various definitions of the other senses that he offers throughout *DA* and *DS*, none of which refer to touch. Although the senses must ultimately be unified in a single perceptual capacity,⁸³ their definitions do not need to make any explicit reference to touch or to each other. In fact, Aristotle directly criticizes those who attempt to reduce all perceptual capacities to touch, calling on a

⁸¹ “Since there is nothing beyond perceptible magnitudes, as it seems, nothing separate, the objects of intellect are in perceptible forms, both those spoken of in abstraction and all those which are states and affections belonging to the objects of perception. And because of this, one who did not perceive anything would neither learn nor understand anything, and whenever one contemplates, one necessarily at the same time contemplates a sort of image; for images are just as perceptions are, except without matter,” (*DA* III.8, 432a4-9).

⁸² “τὰ μὲν γὰρ ἔχει πάσας, τὰ δὲ τινάς, τὰ δὲ μίαν τὴν ἀναγκαιοτάτην, ἀφήν,” (*DA* II.2, 414a2-4). Touch is the most basic and necessary perceptual capacity because touch has a special relationship to nutrition (the latter being the basic prerequisite for sublunary life): “touch is perception of nourishment, since all living things are nourished by dry, wet, hot, and cold things, and touch is perception of these,” (*DA* II.3, 414b7-9).

⁸³ See *DS* 7, 449a13-18.

theorist of perception to respect the real differences between the different senses.⁸⁴ Instead, the various senses only logically depend on the primary or central perceptual capacity itself, and are in the perceptual part of the soul.

3.3 Relation to Previous Conceptions of Psychic Parthood

We can also get into view why Aristotle adopts logical primacy as the defining mark of psychic parthood by considering how this conception succeeds where previous conceptions of psychic parthood fail. As noted previously, Aristotle articulates in *DA* II.2 three possible marks of psychic parthood: that psychic parts are separable in place (*χωριστὸν τόπῳ*), different in account (*ἕτερα λόγῳ*), or separable in account (*χωριστὸν λόγῳ*).⁸⁵ As I argued in Chapters 2 and 3, it is precisely the first two conceptions of psychic parthood that Aristotle criticizes and rejects in *DA*'s critical remarks about psychic parthood. If Aristotle rejects the first two possibilities, we have further reason to think that he accepts the third. Although we will shortly note important differences between logical separability and logical primacy (§3.4), we can for the moment take these two notions to be equivalent. Hence, this argument is, effectively, a further argument for logical primacy.⁸⁶

In Chapter 2, I argued that Aristotle rejects a 'physiological' conception of psychic parthood, according to which psychic parts are spatially distributed throughout the body and are

⁸⁴ "Democritus and most of the natural philosophers who treat of perception proceed quite irrationally, for they represent all objects of sense as objects of touch. Yet, if this is really so, it clearly follows that each of the other senses is a mode of touch; but one can see at a glance that this is impossible," (*DS* 4, 442a29-442b3)

⁸⁵ *DA* II.2, 413b14-15; 413b29; 413b14-15.

⁸⁶ A similar argument was first explicitly formulated by Corcilius and Gregoric (2010, especially 102).

separable in place.⁸⁷ We find such a conception in the tripartition of Plato's *Timaeus*, which assigns a rational part of soul to the head, a spirited part to the chest, and an appetitive part to the belly. Aristotle criticizes this theory for two central reasons. First, it bears an extremely heavy explanatory burden: how is the belly exclusively appetitive? How can you place reason within any particular part of the body? Not only had no contemporary theory provided a satisfactory answer to such questions, but it is reasonable to think that such answers were in principle difficult or impossible to formulate. Second, this picture of psychic parthood is empirically false or unverifiable. Because some insects survive dissection, they promise to provide the only empirical confirmation of this conception, in which two psychic parts (e.g., perception and nutrition) are spatially separated. Observation shows, however, that psychic parts cannot be spatially separable. In contrast, Aristotle seeks a *logical* conception of psychic parts, and not a spatial or material conception. Psychic parts neither are nor correspond to distinct spatial parts; rather psychic parthood centrally explains *the formal and logical structure* of the soul. It is precisely such a structure that a notion like logical primacy seeks to illuminate.

In Chapter 3, I argued that Aristotle rejects Platonic ethical partitions: a tripartition (appetitive, spirited, and rational parts) and bipartition (rational and nonrational parts).⁸⁸ Because such partitions lack a consistent principle by which they divide the soul, they are compelled to recognize all indefinitely many psychic capacities (to smell, to dream, to walk) as psychic parts. The only requirement for psychic parthood would be that a capacity is "different in account". A capacity would qualify as a part if its definition differs, even slightly, from those of other capacities. Because *all* capacities would be parts, we thereby lose any distinction between basic

⁸⁷ *DA* I.5, 411b14-27; II.2, 413b16-24.

⁸⁸ *DA* III.9, 432a23-b7; III.10, 433b1-4.

parts and non-basic capacities—a distinction, as we saw in §1, that is crucial to the very idea of partitioning the soul. In contrast, Aristotle seeks a uniform principle by which to partition the soul and to distinguish psychic part and capacity. Logical primacy provides such a principle. All and only those capacities that are logically primary are parts; all those capacities that are logically posterior to another capacity are mere capacities within those parts. Unlike logical difference, logical primacy thereby is able to present a *principled, scientific, and hierarchical* picture of the soul. As a principle, logical primacy allows the psychologist to systematically identify a finite set of fundamental capacities as its ground, and can, in principle, locate all other capacities in relation to those basic capacities.⁸⁹

3.4 Logical Separability and Logical Primacy

Before moving on, it is important to distinguish logical primacy from logical separability. The interpretation I have defended bears a resemblance to a recent interpretation of Aristotle's conception of psychic parthood in *DA*, proposed by Corcilius and Gregoric (2010) and Johansen (2012). This conception identifies the criterion for psychic parthood as logical *separability*.⁹⁰ On

⁸⁹ This also allows us to clarify a bit of terminology used in *DA* to describe the relationship between capacities. Like with other entities that populate the Aristotelian cosmos (e.g., *Phys.* 202a32-4; 210a15-19), Aristotle at times claims that two capacities are the same simpliciter or in number, though they differ in being or account. He maintains, for example, “the capacity for desire and the capacity for avoidance do not differ either from one another or from the perceptual capacity, though they do differ in being,” (*DA* III.7, 431a12-15; see also Appendix 2). In claiming that two capacities are the same, Aristotle affirms that they are in or constitute aspects of the same part. In claiming that they differ in being or account, he affirms that they constitute distinct aspects of that part.

⁹⁰ Canonical examples of logically separable entities are mathematical objects and their material substrate (*Phys* II.2, 193b32-4). Although Aristotle denies that the circle and its matter are spatially or ontologically separable (as a Platonist might affirm), they nonetheless remain *logically* separable. The accounts of circle and bronze (in which a circle might adhere) not only

this view, a psychic part is (or is defined by) a capacity whose definition can be formulated independently and separately of the other capacities of an organism. Perception is a part precisely because its definition makes no reference to any other psychic capacity. This notion is closely related to logical primacy, serving as a necessary condition of logical primacy: anything that is logically primary must be logically independent of all other entities in the relevant domain.

Nonetheless, logical primacy is distinct from logical separability, and so we should reject the latter as a comprehensive interpretation of Aristotelian psychic parthood. Logical primacy builds on and expands this interpretation. Logical separability indeed captures *some* of Aristotle's conception of psychic parthood. Taken on its own, however, it is not sufficiently rich as an interpretation. Although logical primacy includes and requires logical separability, the former is stronger than the latter. In particular, logical separability does not address the first crucial characteristic of logical primacy described above. Psychic parts are not merely separable or independent from other psychic parts, but are also *prior* to the capacities which are in them. Perception is not merely logically independent of nutrition and intellect, but also prior to capacities like *phantasia* or memory.

While this might seem to be a relatively insignificant point, it is consequential for psychic parthood's place in Aristotle's psychology. It is precisely the aspect that logical separability ignores—psychic parts as logically *prior* to capacities within them—that secures psychic parthood's indispensable role in Aristotle's methodology in psychology. Psychic parts are not merely conceptually distinct from each other, but play essential roles in explaining all other

differ, but can be “separated” from each other—each make no explicit or implicit reference to each other.

psychic capacities. In the language developed earlier in this chapter, they are the indispensable components of dependency arguments. That perception is a psychic part, for example, does not merely tell us that perception is definitionally independent of other capacities, as logical separability requires. It tells us in addition that perception is essential to the explanation of all other perceptual capacities, like memory. When we concretely turn to these perceptual capacities, as we saw in §2.1, we *must* employ our understanding of perception to explain these capacities. Because such dependency arguments are crucial to understanding psychic capacities, and understanding these capacities is crucial to Aristotelian psychology in general, seeing psychic parts as logically prior and primary is necessary. On this front, then, the interpretation of psychic parts as logically separable fails.

Consequently, if we focus exclusively on logical separability, our understanding of psychic parthood is incomplete. We lose sight of the central role of psychic parthood within Aristotle's psychology and his explanation of the wide variety of psychic powers.

§4 The Mapping of the Soul

Now we are in a position to step back and appreciate this central role of psychic parthood within Aristotle's psychology. To summarize: in *DA*, Aristotle seeks to explain life and the various activities that define it, as well as life's cause—the soul—and the capacities that define it. One initial obstacle in this project is a commitment to the 'homonymy of life': organisms carry out fundamentally and irreducibly different sorts of lives, characterized by distinct vital activities—nutrition, perceiving, thinking. Hence, Aristotle's conception of psychic parthood serves to explain this irreducible difference between ways of living. This difference is explained by a distinction between capacities that differ in kind (psychic parts). We have come to describe

this irreducible heterogeneity as the logical *independence* of those capacities. In turn, the various non-basic activities within those lives are explained by capacities that are *in*, logically *posterior* to, and *dependent* on those parts. We can explain these non-basic activities and capacities through reference to those parts. In sum, then, psychic parts are logically *primary*.

This conception of psychic parthood subsequently shapes the structure and methodology of *DA* and *PN*, insofar as these works pursue a logical map of the soul. In *DA*, we do not find a single monolithic positive theory of soul. Although he provides a common definition of soul in *DA* II.1, most of the treatise is devoted to a sequential treatment of the three parts of soul. After introducing the homonymy of life (*DA* II.2-3), Aristotle questions the appropriateness of a general account of soul,⁹¹ and instead tasks himself with articulating accounts of the basic forms of life. Accordingly, we find self-contained accounts of the various parts of the soul. He treats psychic parts in order from most to least common—nutrition (*DA* II.4), perception (II.5-III.2), intellect (III.4-8). Given their logical primacy, each section treats its psychic part without reference to other psychic parts, except within analogies or contrasts. Aristotle thereby articulates the basic principles of his psychology—the discrete continents in his map of the soul.

Much of the rest of Aristotle's psychology consists in beginning to fill in this map: explanations of other capacities through their connection to each other and to these basic psychic parts. Dependency arguments establish how particular capacities logically depend on these foundations. Each capacity of an organism—its capacity to sing, to jog, to digest, to slither—will logically depend on the basic capacities that define psychic parts. Each will have a definition that, either directly or indirectly, refers to one or more of these parts. In *PN* (e.g., *DM*, *Insomn.*), and at certain moments in *DA* (e.g., his treatment of *phantasia* or locomotion) Aristotle explicitly

⁹¹ See *DA* II.2, 414b25-8. This is a central theme of Chapter 6.

argues for or posits these logical dependencies. This often consists in showing that a particular capacity is in the perceptual part of the soul, and so a capacity distinct from reason and found in nonhuman animals. By formulating these logical dependencies and relationships to psychic parts, Aristotle captures the nature of these capacities (at least in part). He begins to fill out a network in which each capacity is given a particular location in a logical hierarchy of capacities.

The picture of Aristotle's psychological project that I have offered in this chapter might appear to be a severe exaggeration. This picture depicts psychic parthood and related concepts as extremely systematic, consistent, and precise. We find in Aristotle's scientific psychology, however, no complete or rigid map of the soul, but instead a much looser collection of treatments of various capacities. This might suggest that the interpretation of Aristotle's conception of psychic parthood given above, or indeed any interpretation that attributes to Aristotle a fixed and consistent conception, is incorrect.

Nonetheless, the relative looseness of Aristotle's psychology does not threaten his psychological project. Foremost, the pursuit of a genuinely *exhaustive* map of the soul should seem ridiculous, even if one were possible. There are plenty, indeed indefinitely many, capacities for which we have no real need to explicitly show in what parts they reside, either because their account is relatively obvious, or they hold no philosophical weight. For what purpose do we need to show the dependencies of the capacity to see a particular shade of red, to grow nails on index fingers, or to think of the Eifel tower? Such inquiries would amount to an extreme form of scholasticism, antithetical to Aristotle's more synoptic treatments of psychological phenomena. Instead, we find in his psychology accounts of a selection of a few important capacities, like sleeping, memory, or dreaming. Aristotle pursues such accounts, presumably, because these capacities are theoretically *interesting*: they help to explain many other capacities, are exercised

frequently in everyday life, or were already the subject of controversy or lively debate (e.g., whether they are exercises of reason or not). Hence, while a dependency argument about any given capacity is possible in principle, they are pursued only insofar as they answer pressing demands or questions.

Accordingly, Aristotle has no need for a complete map of the soul. Instead, it is the *promise* of such a map that informs his psychology. Beyond the particular details of Aristotle's partition in *DA*, and his usual preferred list of psychic parts (nutrition, perception, intellect), then, Aristotle provides something more significant: the conceptual framework for a logical map of the soul, at least within the theoretical framework of *DA* and *PN*. Aristotle provides such a map in outline—its foundation (psychic parts and their accounts), a few central examples of logically posterior psychic capacities (e.g., locomotion, memory), and, indirectly, the methodology and framework (logical primacy and priority) to expand such a map in any direction and to incorporate any new psychic capacity into a general map of the soul.

CHAPTER V

ARISTOTLE’S UNIFIED SOUL: THE FIGURE-SOUL ANALOGY AND ITS CONTEXT

We now turn to the second part of our original dilemma about psychic structure: the unity of the soul, the soul status as a form, and the Problem of Psychic Unity (*PPU*).

It is distinctive of Aristotle’s conception of the natural world that living organisms “are substances most of all”¹—the basic, determinate individuals that populate the cosmos. This is in part because substances are, among other things, genuinely *one*. Substances, and so organisms, are paradigm cases of unity. Yet surely organisms have parts (limbs, organs, etc.), and so need something to unify them. This is accomplished by the organism’s soul, which serves as a unified form that determines, actualizes, and unifies an organism’s *matter* (its organic body). Aristotle thinks that a soul, like any other form, accomplishes this unifying task by itself constituting a unity. This, on its face, seems like a plausible position. Yet, as we have seen in detail over the past four chapters, Aristotle also thinks that the soul has distinct parts (and for good reason). This prompts a worry analogous to that about organisms and their parts: because we have reason to think that the soul itself has parts, what accounts for the soul’s unity? I argued in Chapter 1 that this question (*PPU*), and the various particular worries it prompts, constitutes a serious problem for Aristotle, which he tasks himself with resolving.

Even though this tension seems so basic to Aristotelian psychology, interpreters have failed to formulate a satisfactory account of it. As noted in Chapter 1, most interpreters suggest

¹ “...ἃ δὴ μάλιστα λέγομεν οὐσίας εἶναι,” (*Meta. Z.7*, 1032a20).

explicitly or implicitly that Aristotle simply rejects or ignores the existence of either psychic parthood or psychic unity, so that he can continue to affirm the existence of the other.² Others claim that Aristotle attempts to affirm both, but is simply unsuccessful in his attempt.³ In what follows, I argue that Aristotle addresses and resolves *PPU*, and so provides a sophisticated account of the structure of the soul, allowing him to explain how the soul both is authentically unified and has parts.

In §1, I summarize the reasons for thinking that *PPU* constitutes a genuine and compelling problem. The problem emerges from a tension between foundational claims of Aristotelian psychology: that the soul both (c1) has parts and (c2) serves as the form and principle of unity for the organism. In *DA* I.5, Aristotle appears to argue that (c3) something cannot both have parts and constitute a principle of unity, so that (c1) and (c2) are incompatible. The apparent conclusion, then, is that any conception of soul that recognizes psychic parts is unable to account for the soul's unity—Aristotle either has an incoherent account of soul, or must give up one of these foundational claims. In contrast, I contend that *DA* I.5's argument, and so *PPU*, ultimately depends on a problematic picture of parthood: 'mereological actualism'. Actualism takes parts (e.g., psychic parts) to be actually distinct, and prior to the relevant whole. A whole comprised of such parts is a sum or aggregate of those parts. If we endorse actualism, we are compelled to search for a principle of unity that is external to the parts—a search that

² Koslicki (2006) and Hicks (1907) argue that Aristotle rejects the existence of psychic parts in order to preserve psychic unity. Corcilius and Gregoric (2010), Johansen (2012), and Whiting (2002) largely ignore *PPU*, and so do not incorporate a response to *PPU* into their interpretations of Aristotelian psychic parthood.

³ Ward (1996) and Kahn (1992) suggest that, while Aristotle recognizes the existence of psychic parts, he fails to explain how the soul could also simultaneously constitute a unity.

Aristotle argues is ultimately futile. This futile search, which depends on assuming mereological actualism, in turn gives rise to *PPU*.

In §2, I argue that Aristotle rejects mereological actualism and outlines an alternative conception of parthood in *DA* II.3's infamous analogy between souls and geometric figures (*σχήματα*). As more simple figures (e.g., triangles) are present *potentially* within more complex ones (quadrilaterals), so lower souls (e.g., the nutritive soul) are present potentially within higher ones (the perceptual soul). Aristotle thereby introduces a notion of 'potential parthood', treating psychic parts not as actually distinct, but as potentially present and posterior to the whole soul. Because the whole is prior to its potential parts, the parts do not stand in need of an external cause of unity—they always already constitute a unity. In thereby undermining actualism, Aristotle effectively dissolves and deflates *PPU*, and so provides the framework of an account of psychic unity that also acknowledges the existence of psychic parts.

In §3, I argue that this figure analogy fits within and should be read against the backdrop of Aristotle's general approach to form and unity. Because a soul is a form, an account of psychic unity is a particular instance of an account of the unity of form as such. In *Meta.* H.6, I contend, Aristotle offers a 'hylomorphic' account of the unity of forms, according to which forms themselves can be divided into material and formal elements. As in *DA* II.3, Aristotle offers a *deflationary* account of hylomorphic unity, according to which a proper understanding of matter and form dispels any worries about their unity. If one correctly understands matter as potentiality and form as actuality, one sees that material and formal elements require no external unifying cause. Because we can conceive of the parts of soul as standing to each other as matter to form, these parts likewise require no external unifying cause.

§1 The Problem of Psychic Unity

1.1 An Inconsistent Triad about the Soul

First, we return to *PPU* in more detail, to review its origin in Aristotle's thinking more generally, and why it constitutes such a compelling and stubborn problem. Aristotle's concern with psychic unity emerges out of a tension between three claims grounded in Aristotelian psychology and metaphysics:

(c1) The soul is composite and has parts.

(c2) The soul is the ultimate principle of unity for an organism.

(c3) If something is an ultimate principle of unity, it cannot have parts.

Aristotle clearly accepts the first two claims, and, as I suggest, gives a plausible argument for the third. Yet, at least in their current form, they constitute an inconsistent triad. Hence, Aristotle's conception of soul seems to contain a basic and intractable contradiction. If he is to avoid inconsistency, he must give up one of (c1), (c2), or (c3); yet, because each claim has both textual and philosophical grounding, they appear to form an insurmountable problem for Aristotelian psychology.

As I argued in Chapter 1, given his commitment to the homonymy of life,⁴ Aristotle is compelled to admit the existence of psychic parts. Because living comes in irreducibly many forms, and 'life' is homonymous, the capacities that make up animal and human souls also come in irreducibly many forms. Aristotle acknowledges this by calling such capacities 'parts', into which the soul is divisible (c1). Yet Aristotle also maintains that the organism is a hylomorphic compound, in which the "form" (εἶδος) and "first actuality" is the soul, and the matter is the

⁴ See *DA* II.2, 413a22-25; b11-13.

organic “natural body potentially having life.”⁵ In general, form unifies its corresponding matter, distinguishing a determinate unity from matter considered as a mere heap or chunk of material stuff.⁶ As a house’s form explains how a heap of bricks and stones could constitute a unified dwelling, so a cat’s form, its soul, explains how a heap of flesh and bones constitutes a single living cat (c2).⁷

Finally, in *DA* I.5, Aristotle provisionally suggests that the soul cannot simultaneously be both a composite and an ultimate principle of unity.⁸ For every whole with parts, there must be a cause of that whole’s unity (αἴτιον τοῦ ἐν εἶναι).⁹ If the soul has parts the soul itself would appear to stand in need of a principle of unity—something to ‘hold together’ (συνέχειν) the parts of soul. Yet, as we covered in detail in Chapter 1,¹⁰ all candidates for this principle and cause of unity for the soul ultimately fail: neither the body nor some external formal principle could hold together the parts of the soul in a unity.

This argument provisionally suggests a more general conclusion: anything that has parts, like a soul, cannot serve as an ultimate cause of unity (c3). Consequently, there appears to be a profound tension between the soul being a form and having parts. Aristotle’s apparent commitment to (c3) only allows him to maintain that *either* the soul has parts (c1), *or* that it is a form and ultimate principle of unity (c2), but not both.

⁵ “σώματος φυσικοῦ δυνάμει ζωὴν ἔχοντος,” (*DA* I.1, 412a19-20).

⁶ See *DA* II.1 412a9-22; II.4, 41615-18.

⁷ See *Meta.* Z.17, 1041b5-9.

⁸ *DA* I.5, 411a26-411b13.

⁹ See *Meta.* H.7, 1045a7-9.

¹⁰ Chapter 1, §2.

Ignoring the dialectical context of Aristotle's argument for (c3), and Aristotle's further remarks on psychic unity and parthood throughout *DA*, some interpreters have claimed that its apparent conclusion—that the soul cannot both have parts and cause unity—indicates Aristotle's considered position.¹¹ They maintain that Aristotle's strong commitment tohylomorphism (c2) suggests that he ultimately thinks that souls absolutely lack parts (except, perhaps, in a purely metaphorical sense). Hence, they take Aristotle to simply deny (c1)—a position I call 'psychic simplicity'. As we will see in §3, analogous issues about the unity of form lead others to claim that forms in general lack parts ('formal simplicity'). Alternatively, others argue that Aristotle indeed endorses (c1) and (c2), but is simply unsuccessful in his attempt to make them compatible.¹² In what follows, I offer an account of psychic unity, arguing that *PPU* should *not* compel one to reject the existence of psychic parts and that Aristotle in fact diffuses the conflict between (c1) and (c2). On my reading, he does not accept or reject (c3) absolutely, but rejects it as a *universal* claim that applies to all unities. He affirms that at least *some* composite things, like souls, can both have parts and serve as ultimate principles of unity.

1.2 The Actualist Assumption

Aristotle does not provide an account of psychic simplicity by locating some hidden deeper cause that unifies the parts of the soul. Instead, he gives a *deflationary* answer, contending that if we give up problematic assumptions about parthood, we see that *PPU* no longer poses a threat. Accordingly, before moving to Aristotle's positive response to *PPU*, it is necessary to specify the crucial assumption dialectically presupposed in *DA* I.5 and *PPU*: the 'actualist' conception of

¹¹ E.g., Koslicki (2006, 732); Hicks (1907, 299).

¹² E.g., Ward (1996, 126-127); Kahn (1992, 362).

parthood, or ‘mereological actualism’.¹³ According to mereological actualism, parts are *actually* present in a whole. Each part is actually complete and distinct both from the other parts and from the whole. A whole would then be an aggregate or sum of such parts. Accordingly, these parts are also prior to the whole. They exist before the whole and persist as distinct while parts of the whole; to understand such parts requires no essential reference to the whole. Yet the whole, in contrast, is understood precisely as a sum of those parts. Because the parts are, on their own, naturally separate, their unity in a whole must be explained by something beyond them: an external cause or principle. This conception of parthood is, on its surface, not implausible. It most naturally applies to and accurately represents the structure of a “heap” (σωρός). A pile of stones is comprised of many distinct stones, which both pre-exist and persist through their placement in the pile, as actually distinct stones.

In *DA* I.5, Aristotle concerns himself with actualism about psychic parts. On such a view, psychic parts are actually distinct and prior to the whole soul; the soul itself is an aggregate or heap of psychic parts. Such actualism is crucial for *PPU* to get going. Recall the general principle encountered earlier—that all composite wholes, like souls, require a cause for their unity. If we assume mereological actualism, this cause must be *external* to psychic parts. There is no reason why psychic parts should come together to form a single soul, when those parts are considered purely on their own. Given their priority to the whole soul, the natural state of those parts is disunity. Hence, if psychic parts are to form a single whole, there must be a unifying cause and principle that is external to them. This requirement, in turn, gives rise to *PPU*.

¹³ This terminology comes from Pasnau (2011, 612), who uses “actualism” to describe a position that arises in medieval and early modern debates about parthood (largely descending from the Aristotelian texts now under consideration). He attributes the strongest version of actualism to Descartes and Gassendi, and a weaker version to Ockham.

Aristotle argues in *DA* I.5 that no such external cause can be found; (c3) asserts that, because souls are composite, this search is futile *in principle*. In both claims, an actualist conception of psychic parts is essential.

As we will see in more detail in Chapter 6,¹⁴ Some recent interpreters effectively attribute to Aristotle such actualism.¹⁵ Johansen, for example, explicitly argues that psychic parts are definitionally or logically separable, and so, as he explicitly affirms, prior to the whole soul: “the parts of the soul... enjoy definitional priority over the whole.”¹⁶ On this picture, which I will later call a ‘disjunctive picture’ of the soul, the soul is a logical sum or aggregate of psychic parts. Each part is actually present and prior to the whole. The soul is made up from distinct psychic principles, each of which can be understood distinctly from the rest. As we have seen, such a picture leaves Aristotle without the resources to explain the unity of the soul. Accordingly, such interpreters effectively ignore the question of psychic unity.

Of course, mereological actualism might obtain in some cases of parthood and not in others. On my reading, Aristotle ultimately endorses actualism about some parts (e.g., parts of heaps), but rejects it about others (e.g., parts of souls). In *DA* II.3’s figure analogy, Aristotle attacks actualism about psychic parts by introducing an alternative conception of parthood: ‘potential parthood’. On this picture, psychic parts are not *actually* present in, distinct from, or prior to the whole soul. Because it rejects these central aspects of the actualist position, Aristotle also in effect dissolves *PPU*. Moreover, I argue in §3 that Aristotle rejects a more general form

¹⁴ Chapter 6, §1.1.

¹⁵ Johansen (2012); Corcilius and Gregoric (2010).

¹⁶ Johansen (2012, 71). Admittedly, Johansen acknowledges a version of *PPU* (see Chapter 6, §1.4), and looks to the figure analogy of *DA* II.3 to resolve it. Nonetheless, he maintains that *DA* II.3 does *not* present Aristotle’s primary perspective on the soul.

of actualism in his account ofhylomorphic unity in the central books of the *Metaphysics*.

Aristotle provides an anti-actualist account of the unity of form, which expands and contextualizes the figure analogy’s picture of psychic unity.

§2 Psychic Unity in *De Anima*

2.1 The Figure Analogy

DA II.3 explores a set of related questions about the unity of the soul. In the first half of the chapter, Aristotle describes how capacities are distributed throughout different organisms: how some capacities are more common (nutrition), some always occur together (perception and appetite), and some are rare (intellect). This uneven distribution of capacities seems to challenge the possibility of both unified souls and a unified theory of soul. This anxiety prompts Aristotle’s turn to the figure analogy:

(t1) It is clear, then, that in the same way there could be one account for both soul and figure. For in the one case a figure is nothing beyond a triangle and the others following in a series, and in the other a soul is nothing beyond the things mentioned. There could, however, in the case of figures be a common account which fits them all, though it will be peculiar to none; and the same holds in the case of the souls mentioned. For this reason, it is absurd to seek a common account in these cases, or in other cases, an account which is not peculiar to anything which exists, and which does not correspond to any proper and indivisible species, while neglecting what is of this sort. Consequently, one must ask individually what the soul of each is, for example, what the soul of a plant is, and what the soul of a man or a beast is.

(t2) What holds concerning the soul is very close to what holds concerning figures: in the case of both figures and ensouled things, what is prior is always present potentially in what follows in a series—for example, the triangle in the quadrilateral, and the nutritive in the perceptual.¹⁷

¹⁷ “δῆλον οὖν ὅτι τὸν αὐτὸν τρόπον εἷς ἂν εἴη λόγος ψυχῆς τε καὶ σχήματος· οὔτε γὰρ ἐκεῖ σχῆμα παρὰ τὸ τρίγωνον ἔστι καὶ τὰ ἐφεξῆς, οὔτ’ ἐνταῦθα ψυχὴ παρὰ τὰς εἰρημένας. γένοιτο δ’ ἂν καὶ ἐπὶ τῶν σχημάτων λόγος κοινός, ὃς ἐφαρμόσει μὲν πᾶσιν, ἴδιος δ’ οὐδενὸς ἔσται σχήματος. ὁμοίως δὲ καὶ ἐπὶ ταῖς εἰρημέναις ψυχαῖς. διὸ γελοῖον ζητεῖν τὸν κοινὸν λόγον καὶ ἐπὶ τούτων καὶ ἐφ’ ἐτέρων, ὃς οὐδενὸς ἔσται τῶν ὄντων ἴδιος λόγος, οὐδὲ κατὰ τὸ οἰκεῖον καὶ

In (t1), which will be central focus of Chapter 6, Aristotle reflects on how there could be one “account” (λόγος) of soul, and so a unified science of soul. He contends that, just as there is a single science of figure (geometry), even in the face of the diversity of kinds of figures, so there can be a single science of soul, even in the face of the diversity of kinds of souls.¹⁸ In (t2), Aristotle uses the same figure analogy to treat our present topic: the internal unity of particular souls, even in the face of complexity and division within those souls. He contends that, just as more simple geometrical figures are present “potentially” within more complex figures, so lower souls are present potentially within higher souls. In both cases, the former is a ‘potential part’ of the latter. This analogy, I argue, thereby undermines both the actualist conception of parthood and dissolves *PPU*.

Aristotle maintains that both souls and geometrical figures are “things in a series” (τὰ ἐφεξῆς), in which prior members are “present in” (ὑπάρχειν ἐν) posterior members. Whole integers form such a series, in which the lesser is always contained in the greater (e.g., three is present in four). As whole integers characterize figures (*three*-sided triangles, *four*-sided quadrilaterals, etc.), figures form a parallel series. A quadrilateral contains and can be divided into a triangle; a pentagon contains and can be divided into a quadrilateral. Generally, then, the earlier figure is part of the later figure. Moreover, the earlier is substantially prior to the later: “a thing is prior in nature and substance [πρότερα...κατὰ φύσιν καὶ οὐσίαν] when it is possible for

ἄτομον εἶδος, ἀφέντας τὸν τοιοῦτον. (παραπλησίως δ’ ἔχει τῷ περὶ τῶν σχημάτων καὶ τὰ κατὰ ψυχὴν· ἀεὶ γὰρ ἐν τῷ ἐφεξῆς ὑπάρχει δυνάμει τὸ πρότερον ἐπὶ τε τῶν σχημάτων καὶ ἐπὶ τῶν ἐμψύχων, οἷον ἐν τετραγώνῳ μὲν τρίγωνον, ἐν αἰσθητικῷ δὲ τὸ θρεπτικόν.) ὥστε καθ’ ἕκαστον ζητητέον, τίς ἐκάστου ψυχῆ, οἷον τίς φυτοῦ καὶ τίς ἀνθρώπου ἢ θηρίου,” (DA II.3, 414b20-32).

¹⁸ These claims carry its own peculiar difficulties (concerning, for example, the nature of Aristotelian definition), to which we turn in Chapter 6. For a detailed discussion of this and related issues, see Bolton (1978).

it to be without other things but not them without it.”¹⁹ Whenever there are four sides, there are always also three sides (i.e., just take one side away). Yet the reverse is not true: there can be three sides without there being four, as in the triangle.²⁰ Therefore, the number three and the triangle are prior in substance to the number four and the quadrilateral, respectively. In general, numbers and figures form a series in which earlier members are parts of and prior in substance to later members (this picture, however, will be qualified in §2.2 when we introduce Aristotle’s distinction between actual and potential priority).

As his reflections on the distribution of capacities show, Aristotle maintains that psychic capacities and souls possess a similar ordered structure.²¹ Psychic capacities are clearly distributed unevenly: “Among the capacities of the soul, all belong to some [humans], to others some of them belong [animals], and to still others only one belongs [plants, gods].”²² Yet this distribution is not simply random, but forms a sequence from more common and prior to less common and posterior.²³ Nutrition is more common and substantially prior to perception: “the

¹⁹ *Meta.* Δ.13, 1019a1-4.

²⁰ “One is prior to two because, if there are two, it follows at once that there is one, whereas if there is one, there are not necessarily two; so the implication of the other’s existence does not hold reciprocally from one; that from which the implication of existence does not hold reciprocally is thought to be prior,” (*Cat.* 12, 14a30-34).

²¹ This is limited to the souls of mortal creatures. Aristotle’s God, who has a purely intellectual soul, does not fall within this order of priority. Accordingly, at *DA* II.2, 413a32 Aristotle explicitly restricts his focus to “mortal” creatures.

²² “Τῶν δὲ δυνάμεων τῆς ψυχῆς αἱ λεχθεῖσαι τοῖς μὲν ὑπάρχουσι πᾶσαι, καθάπερ εἶπομεν, τοῖς δὲ τινὲς αὐτῶν, ἐνίοις δὲ μία μόνη,” (*DA* II.3, 414a29-31).

²³ In *DA* II.3, Aristotle merely states *that* souls fall in such a series. He then formulates a self-imposed challenge at *DA* II.3, 414b34-415a1 to “investigate *why* they are thus in a series,” (see also *DA* II.2 413b9-10, b33-a3). In *DA* III.12, he provides a teleological justification of this seriality. In brief, he argues that nutrition is teleologically necessary to all mortal life, and perception is teleologically necessary to animal and human life. With the former, Aristotle argues that “it is necessary that whatever is generated have growth and also maturity and decline, and these are impossible without nutrition; consequently, it is necessary that the nutritive soul be present in all things which grow naturally and decline,” (*DA* III.12, 434a23-26). With the latter,

perceptual is not without the nutritive, though the nutritive capacity is separated from the perceptual in plants.”²⁴ This same priority, Aristotle holds, obtains at each stage along the hierarchy of souls—from plant or nutritive souls, to animal or perceptual souls, to human or intellectual souls.²⁵

Crucially, the triangle is not only prior, but also *present in* the quadrilateral. By analogy, we should say that nutrition is present in perception, as Aristotle appears to affirm. Yet, we might think, it would seem more natural to say that nutrition is present *alongside* perception in an animal soul, not that nutrition is a part of perception. Aristotle’s formulation, then, would be at best misleading, or at worst plainly false. Indeed, this is not a fault found only in the present passage—consistently, Aristotle uses expressions like ‘perceptual capacity, ‘perceptual part’, or ‘perceptual soul’ ambiguously. Sometimes they refer to (1) the perceptual aspect, capacity, or part of a more complex soul (e.g., a human’s perceptual power), and sometimes to (2) the whole soul distinguished by its ‘highest’ capacity (an animal or perceptual soul).²⁶ At times, he distinguishes carefully between the two senses: “In some cases, it is not difficult to see whether

he argues that perception is required for locomotion: “Any body capable of going anywhere and yet lacking perception would perish and not reach its end, which is the work of nature,” (*DA* III.12, 434a33-b1).

²⁴ “ἄνευ μὲν γὰρ τοῦ θρεπτικοῦ τὸ αἰσθητικὸν οὐκ ἔστιν· τοῦ δ’ αἰσθητικοῦ χωρίζεται τὸ θρεπτικὸν ἐν τοῖς φυτοῖς,” (*DA* II.3, 415a1-2).

²⁵ This priority or seriality is not, strictly speaking, required for Aristotle’s theory of potential presence, which I describe in the following section. If Aristotle’s particular hierarchical picture of life turns out to be false (as perhaps contemporary biology suggests it is), this would not yet mean the downfall of Aristotle’s picture of psychic unity. As we will shortly see, there are examples of potential presence (e.g., elements within mixtures) that do not have this priority or seriality. Nonetheless, *DA* II.3, among many other passages, clearly indicates that Aristotle endorses some version of this hierarchy of souls and lends support to his theory of the potential presence of psychic parts.

²⁶ See Lear, 2004, 192 n.34.

each of these [capacities] is a soul or a part of a soul.”²⁷ Yet more often, Aristotle ignores this distinction, when, strictly speaking, he should not.²⁸ In the current passage, if we take a literal reading, Aristotle strangely claims that a nutritive capacity is ‘in’ a perceptual capacity.

Aristotle’s ambiguity also affords us some interpretive wiggle room. In line with use (2), certain activities and capacities are *characteristic* or *definitive* of particular sorts of souls and lives. Because the characteristic part of a plant’s soul is nutrition, plants live a “nutritive and growing life [τὴν...θρεπτικὴν καὶ τὴν αὐξητικὴν ζωὴν].”²⁹ Although an animal also performs nutritive activities, it “is an animal *primarily* because of perception,” and so lives a “perceptual life” (αἰσθητικὴ ζωὴ).³⁰ An animal lives a life distinguished and infused by its ability to respond to the world perceptually (a topic I return to in Chapter 6, §1.3). Similarly, the characteristic part of a human soul is intellect, and so humans live “according to reason.”³¹ Since these characteristic capacities distinguish the three basic kinds of organisms, Aristotle calls them “differences of the soul” (διαφοραὶ τῆς ψυχῆς).³² Moreover, because such capacities are characteristic of a given soul, we can effectively identify a soul with its distinctive capacity. Just as an animal lives a perceptual life, the animal soul is a perceptual soul. The highest and least common part characterizes a given soul. When Aristotle claims that nutrition is present in perception, we should hear him as asserting that the nutritive part is present within the

²⁷ *DA* II.2, 413b12-15.

²⁸ Aristotle uses “nutritive soul” (θρεπτικὴ ψυχὴ), for example, to refer to an aspect of other souls (*DA* II.4, 415a23-4; III.11, 434a22-3).

²⁹ *NE* I.7, 1097b33.

³⁰ “τὸ δὲ ζῶον διὰ τὴν αἴσθησιν πρώτως,” (*DA* II.2, 413b2); *NE* I.7, 1098a1.

³¹ *NE* I.7 1098a3.

³² *DA* II.2, 413b20 (see also *DA* II.2, 413b33; III.9, 427a17). Nutrition distinguishes plants from the non-living, perception distinguishes animals from plants, and intellect distinguishes humans from animals.

characteristically perceptual soul—the animal soul.³³ Likewise, both perception and nutrition in humans can be said to be in intellect, insofar as they are parts of an intellectual or human soul.

2.2 Potential Presence

Aristotle claims that souls and figures form a series in which the prior is not merely present in the posterior, but can be said “to be present *potentially*” (ὕπαρχειν ἐν δυνάμει). The former is a ‘potential part’ of the latter.

Before turning to its appearance in the figure analogy, it will be helpful to get Aristotle’s general use of potential parthood in view. Aristotle maintains that things that are *actually* one (e.g., substances, numbers) are never also *actually* two, but only *potentially* two:

(t3) It is impossible for a substance to be composed of substances present in it in actuality. For what is in actuality two things cannot also be in actuality one thing, though a thing may be one and at the same time potentially two. For instance, a line that is double another line is composed of two halves, but only potentially; for the actuality of the two halves separates them from each other. Therefore, if a substance is one thing, it cannot be composed of substances present in it for this reason also, as Democritus rightly says. Evidently the same will also hold for number, if a number is a combination of units, as some say. For either the number two is not one, or there is no unit present in it in actuality.³⁴

A line is not merely a heap of two actually distinct, but connected half-lines. Instead, the line is a single whole line with no actual divisions. The line, of course, *can* be divided, and so the halves

³³ See Johansen (2012), 68-69.

³⁴ “ἀδύνατον γὰρ οὐσίαν ἐξ οὐσιῶν εἶναι ἐνυπαρχουσῶν ὡς ἐντελεχεία: τὰ γὰρ δύο οὕτως ἐντελεχεία οὐδέποτε ἐν ἐντελεχείᾳ, ἀλλ’ ἐὰν δυνάμει δύο ἢ, ἔσται ἓν (οἷον ἢ διπλασία ἐκ δύο ἡμίσεων δυνάμει γε: ἢ γὰρ ἐντελέχεια χωρίζει), ὥστ’ εἰ ἡ οὐσία ἓν, οὐκ ἔσται ἐξ οὐσιῶν ἐνυπαρχουσῶν καὶ κατὰ τοῦτον τὸν τρόπον, ὃν λέγει Δημόκριτος ὀρθῶς: ἀδύνατον γὰρ εἶναι φησιν ἐκ δύο ἐν ἢ ἐξ ἑνὸς δύο γενέσθαι: τὰ γὰρ μεγέθη τὰ ἅτομα τὰς οὐσίας ποιεῖ. ὁμοίως τοίνυν δῆλον ὅτι καὶ ἐπ’ ἀριθμοῦ ἔξει, εἴπερ ἔστιν ὁ ἀριθμὸς σύνθεσις μονάδων, ὥσπερ λέγεται ὑπό τινων: ἢ γὰρ οὐχ ἓν ἢ δύο ἢ οὐκ ἔστι μὴ ἐν αὐτῇ ἐντελεχεία,” (*Meta. Z.13, 1039a3-1039a13*).

are potentially present in the whole. If the two parts become actual, and so become distinct lines, the original whole line will actually be divided. The original line then ceases to exist actually as a whole line; the actualization of the halves requires their separation and the dissolution of the original line. Likewise, a substance does not contain multiple actual substances, but only potential substances.³⁵ An animal is not a set of independently subsisting body parts or elements, but is actually only one substance. The animal's parts and elements are present only potentially.³⁶ If a substance actually becomes many, this requires the actualization and separation of its parts, and the subsequent dissolution of the whole (e.g., the disintegration of an animal's body).

Aristotle employs the notion of potential parthood throughout his corpus. An informative example comes in his theory of mixture (μίξις). A mixture, like bronze, is a uniform and single-natured body, in which its elemental parts are fully integrated. He denies that a mixture is a heap of actually distinct elements (e.g., water, earth), but also denies that these elements simply disappear or are destroyed when mixed into the whole. The notion of potential presence provides a middle path between both extremes:

(t4) Since some things exist potentially while others are actually, the constituents can both be and yet not-be. The compound may be actually other than the constituents from which it has resulted; nevertheless, each of them may still be potentially what it was before they were combined, and both [of the constituents] may survive undestroyed. (For this was the difficulty that emerged in the previous argument; and it is evident that the combining constituents not only coalesce, having formerly existed in separation, but

³⁵ See *Meta.* Z.16, 1041a4-5: “no substance whatever is composed of substances.” This doctrine is gradually abandoned even in the Aristotelian tradition (see Pasnau, 2011, 607), prompted perhaps by Aristotle's own occasional willingness to describe parts of substances as substances (e.g., “a head or a hand or any such substance,” *Cat.* 7, 8b15).

³⁶ “It is clear that even of the things that are commonly thought to be substances the majority are potentialities. This applies both to the parts of animals, since none of them exists when separated (and when they are separated then too they are all as matter), and to each and fire and air. For none of these is a unity, but as it were a heap, until they are concocted and some unity is formed from them...they are all only potentially—that is, when they form a continuous unity by nature; when they are unified by force or by growing together that is simply an abnormality.” (*Meta.* Z.16, 1040b5-16)

also can again be separated out from the compound.) The constituents, therefore, neither persist actually, as body and white persist; nor are they destroyed (either one of them or both), for their potentiality is preserved.³⁷

When mixture occurs, the compound comes to exist actually, as a distinct entity with a single nature. The elements, which before were actual and separate, are absorbed and cease to have independent existence. Although they continue to exist, these elements are now present only potentially. If the mixture is disintegrated, they can resume this separate and actual existence. Consequently, while the mixture actually exists, the elements are only present potentially. The only actual existing thing is the uniform mixture.

Perhaps the most significant consequence of this conception of potential parthood is the *priority of the whole to the part*:

(t5) According as potentiality or actuality is taken into account, different things are prior, for some things are prior in respect of potentiality, others in respect of actuality, e.g., in potentiality the half line is prior to the whole line and the part to the whole and the matter to the substance, but in actuality these are posterior; for it is only when the whole is dissolved that they will exist in actuality.³⁸

Claims about priority and posteriority must be understood relative to actuality and potentiality.

When considered according to actuality, Aristotle maintains, the half-line and the part are posterior. They can become actual only through the dissolution of their respective wholes. The actuality of the wholes must precede the actuality of the parts. Such parts, *qua* parts, are

³⁷ “Ἐπει δ’ ἐστὶ τὰ μὲν δυνάμει τὰ δ’ ἐνεργείᾳ τῶν ὄντων, ἐνδέχεται τὰ μιχθέντα εἶναι πως καὶ μὴ εἶναι, ἐνεργείᾳ μὲν ἑτέρου ὄντος τοῦ γεγονότος ἐξ αὐτῶν, δυνάμει δ’ ἔτι ἑκατέρου ἄπερ ἦσαν πρὶν μιχθῆναι, καὶ οὐκ ἀπολωλότα· τοῦτο γὰρ ὁ λόγος διηπόρει πρότερον· φαίνεται δὲ τὰ μιγνύμενα πρότερόν τε ἐκ κεχωρισμένων συνιόντα καὶ δυνάμενα χωρίζεσθαι πάλιν· οὔτε διαμένουσιν οὐδ’ ἐνεργείᾳ ὥσπερ τὸ σῶμα καὶ τὸ λευκόν, οὔτε φθείρονται, οὔτε θάτερον οὔτ’ ἄμφω· σώζεται γὰρ ἡ δύναμις αὐτῶν,” (GC I.10, 327b22-31).

³⁸ “...ἔπειτα ἄλλως τὰ κατὰ δύναμιν καὶ κατ’ ἐντελέχειαν: τὰ μὲν γὰρ κατὰ δύναμιν πρότερά ἐστι τὰ δὲ κατὰ ἐντελέχειαν, οἷον κατὰ δύναμιν μὲν ἡ ἡμίσεια τῆς ὅλης καὶ τὸ μόνιον τοῦ ὅλου καὶ ἡ ὕλη τῆς οὐσίας, κατ’ ἐντελέχειαν δ’ ὕστερον: διαλυθέντος γὰρ κατ’ ἐντελέχειαν ἔσται,” (Meta. Δ.13, 1019a6-11).

identifiable and can exist actually only through some prior activity upon the whole. Yet, one might object, the half-line can precede the whole line (e.g., as I am drawing the whole line), suggesting that instead the half-line is actually prior. This suggestion, however, does not consider the half-line insofar as it is a part. Although a line equal in length to the half-line can pre-exist the whole, the half-line, *qua* half-line, is actual and intelligible only through the whole line and its dissolution. For similar reasons, Aristotle maintains that “the semicircle is defined by means of the circle.”³⁹ Moreover, as will become crucial in §3, Aristotle thinks this priority also holds of hylomorphic composites in general (i.e., matter is posterior in actuality to form).

In identifying such wholes as actually prior to their potential parts, Aristotle treats these wholes as non-aggregative. The actualist picture of parthood, we saw, most naturally applies to aggregates or heaps. A pile of pebbles is an aggregate of parts: a loose unity composed of actually existing parts, brought together through external means, like juxtaposition or contact. Given the distinctness of its parts, an aggregate has a minimal amount of unity. Its parts pre-exist the whole and survive its destruction. In contrast, wholes with potential parts do *not* contain such distinct parts, and so are not mere aggregates of actually existing parts. Lines are not juxtaposed half-lines; numbers are not heaps of units; substances are not aggregates of smaller substances. They are more fully and fundamentally unified wholes, whose parts depend on and can only be understood through the whole.

2.3 Potential Presence in the Figure Analogy

Aristotle contends in the figure analogy that this same potential presence characterizes figures and souls. Again, the case of figures is relatively clear. Although the quadrilateral

³⁹ “τὸ γὰρ ἡμικύκλιον τῷ κύκλῳ ὀρίζεται καὶ ὁ δάκτυλος τῷ ὅλῳ,” (*Meta.* Z.10, 1035b9-10).

contains the triangle, this triangle is not present *actually*—there is not yet any determinate, actual triangle within the quadrilateral. The triangle is present only potentially, and so constitutes a ‘potential part’ of the quadrilateral. When the triangle becomes actual and distinct (e.g., a diagonal is drawn), we no longer have a quadrilateral, but instead have two adjacent triangles. Just as a single line is not two connected half-lines, so the original quadrilateral is not two juxtaposed triangles. Hence, when the quadrilateral exists actually, the triangle exists potentially; when the triangle exists actually, the quadrilateral exists potentially. Finally, insofar as that triangle, *qua* part, exists and can be understood actually only through the destruction of the quadrilateral, the quadrilateral is prior in actuality to that triangle.

By analogy, we have the following picture of psychic parts. The nutritive part exists potentially in the perceptual soul. When perception (i.e., the animal soul) actually exists, the nutritive part only exists potentially. The animal soul, then, is *actually* perceptual, whereas the nutritive part exists only potentially. Moreover, just as the quadrilateral is prior to the triangle, or the line to the half, so the animal soul is not an aggregate of psychic parts, but is actually prior to the nutritive part. The animal’s nutritive part can be understood only within the context of the animal’s entire perceptual soul. The same obtains within the human soul, which is *actually* only intellectual, and contains potentially present perceptual and nutritive parts. The latter two parts are actually posterior to the intellectual soul.

This picture of the soul prompts a clear worry. The claim that lower parts are present only *potentially* might suggest that they are not active in any sense. Yet animals and humans obviously eat and reproduce; humans perceive and move locally. Such phenomena suggest that an animal’s nutritive part or a human’s perceptual part are fully active and not merely potentially present. This apparent contradiction, however, depends on a misunderstanding of actual and

potential presence.⁴⁰ The half-line AB's potential presence in ABC does not require that the distance from A to B is no longer actually covered by a line. Rather, it suggests that while ABC is actually a distinct and complete line, AB does not exist as its own actual entity (i.e., as an independent line), at least until an actual division is made. Likewise, the potential presence of an animal's nutritive part does not imply that the animal does not perform nutritive activities. To be sure, the animal does have a nutritive part or capacity—this trivially follows from the fact that it performs nutritive activities. Yet, unlike the animal soul as a whole, an animal's nutritive part does not actually exist *as an independent and complete principle*—i.e., as a form and a whole soul that entirely determines and shapes the life of an organism. In general, the potential presence of the lower soul does not require that the lower soul is inactive, but only that it is not an actually distinct principle and form.

2.4 Embryology and the Temporal Priority of Psychic Parts

In §2.2, we encountered an objection stating that wholes could not be prior to their parts because their parts appear to actually *exist before* the whole—e.g., that line ABC could not be prior to AB because AB must be drawn before ABC can be drawn. A similar objection could be raised for the picture of psychic unity I have just outlined, and its commitment to the priority of the whole to the part. This objection would focus on the apparent *temporal* priority of lower souls (e.g., the nutritive part) to higher souls. Responding to this 'embryological objection' will require a slight tangent from our central argument; still, because the objection has some apparent textual and philosophical support, and its resolution enriches Aristotle's picture of psychic unity, it will be helpful to dwell on it in some detail.

⁴⁰ See Johansen (2012, 68-9).

This objection arises most acutely from the observation that there seems to be a period in the development of an animal where that animal effectively is a plant. Within his account of the animal embryo in *GA II.3*, Aristotle suggests there is a moment in which the embryo *only* has a nutritive principle. It does not perceive or think—it lacks any of the required organs or experience. Rather, the embryo at that point only consumes nutriment and grows, and so seems to have a purely nutritive or plant soul: “all [organisms] at first seem to live the life of a plant.”⁴¹ This initial nutritive principle appears to be the full and actual soul that determines the activity of the embryo, just as the nutritive soul does so for mature plants. This suggests, both as a matter of empirical observation and of interpretation of *GA II.3*, that the nutritive principle of an animal or human is wholly actual, identical in nature with that of a plant, and effectively the whole soul of the organism—at least while in the embryonic stage.

This description of the embryo in turn provides the basis of an objection to the picture of psychic unity offered above. Most immediately, it portrays one concrete sense in which a psychic part (nutrition) appears to be *prior* to the whole soul, existing before that whole animal soul even comes on the scene. Further, this description might be taken to capture the organism not only during a particular period in its development, but also while it is fully grown: that animal and human nutritive principles are, in fact, present actually, *not* merely potentially. The higher soul would be the result of adding additional parts or powers to an already- and actually-existing

⁴¹ “πρῶτον μὲν γὰρ ἅπαντ’ ἔοικε ζῆν τὰ τοιαῦτα φυτοῦ βίον,” (*GA II.3*, 736ab12-13). See also: “if it is a living animal, it must also live; therefore, when it is necessary for it to accomplish the function of that which has life, it unites and copulates, *becoming like a plant* [γίγνεται ὡς περ ἄν εἰ φυτόν], as we said before,” (*GA I.23*, 731b5-7); “if it is necessary that the animal should have perception and if it is then first an animal when it has acquired perception, we ought to consider the original condition to be not sleep, but only something resembling sleep, such a condition as we find also in plants, for indeed at this time animals do actually live the life of a plant [συμβέβηκε κατὰ τοῦτον τὸν χρόνον τὰ ζῶα φυτοῦ βίον ζῆν],” (*GA V.1*, 779b32-779a2).

nutritive soul. The mature animal's nutritive part would be the same nutritive part it possessed as an embryo, now set alongside and obscured by a perceptual part. The nutritive part would then endure as actually present, distinct, and prior to the whole animal or human soul. In sum, this would directly contradict the claims that I have attributed to Aristotle—that lower parts of the soul are posterior to, subordinated to, and only potentially present in higher souls. To see this, consider again the analogous picture described in §2.2: that the generation of a whole line ABC is the product of two line segments—AB and BC—coming together. On this picture, AB and BC are actual, precede ABC, and join together to form ABC. This would suggest that ABC is ultimately just the sum of two actually present segments, just as the embryological objection suggests that an animal soul is a product of actual nutritive and perceptual parts.

Such an objection, however, does not accurately capture Aristotle's considered views of embryological development. While the details of Aristotle's embryology are complicated, even an initial reading of the relevant passage from *GA* II.3 shows that Aristotle's views are more sophisticated and interesting than the above objection suggests:

(t6) Concerning the soul in virtue of which an animal is so called (and this is in virtue of the perceptual part of the soul [τὸ μόνιον τῆς ψυχῆς τὸ αἰσθητικόν])—does this exist originally in the semen and in the embryo or not, and if it does whence does it come? Nobody would put down the embryo as soulless or in every sense bereft of life (since both the semen and the embryo of an animal have every bit as much life as a plant), and it is productive up to a certain point. That then they possess the nutritive soul [τὴν θρεπτικὴν...ψυχὴν] is plain (and plain is it from the discussions elsewhere about soul why this soul must be acquired first). As they develop, they also acquire the perceptual soul [τὴν αἰσθητικὴν] in virtue of which an animal is an animal. For e.g., an animal does not become at the same time an animal and a man or a horse or any other particular animal. For the end is developed last, and the peculiar character of the species is the end of the generation in each individual. Hence arises a question of the greatest difficulty, which we must strive to solve to the best of our ability and as far as possible. When and how and whence is a share in intellect acquired by those animals that participate in this principle? It is plain that the semen and the embryo, while not yet separate, must be assumed to have the nutritive soul potentially, but not actually, until (like those embryos that are separated from the mother) it absorbs nourishment and performs the function of the nutritive soul. For at first all such embryos seem to live the life of a plant. And it is

clear that we must be guided by this in speaking of the perceptual and the intellectual soul. For all three kinds of soul, not only the nutritive, must be possessed potentially before they are possessed in actuality [πάσας γὰρ ἀναγκαῖον δυνάμει πρότερον ἔχειν ἢ ἐνεργεία].⁴²

Aristotle's central worry in (t6) is *from where* perceptual and intellectual souls come. Aristotle rightly denies that the perceptual principle arrives wholly *ex nihilo* into an inanimate embryo, yet also denies that the embryo or sperm already has this principle in actuality (i.e., can actually perceive). His strategy is to model the emergence of the perceptual soul on the emergence of the embryo's nutritive principle. He again makes use of the notion of potential presence, though in a manner that differs from *DA* II.3's figure analogy. He claims that as the animal embryo *potentially* has a nutritive soul before it becomes a self-sufficient organism, so that same embryo also from the beginning *potentially* has a perceptual soul before it can actively perceive. This claim, I argue, effectively deflates the embryological objection raised above.

Before the embryo is “separated from the mother”,⁴³ and so becomes a discrete, self-sustaining organism, it lacks its own distinct nutritive principle. Initially, the embryo grows and

⁴² “καὶ περὶ ψυχῆς καθ’ ἣν λέγεται ζῶον (ζῶον δ’ ἐστὶ κατὰ τὸ μόνιον τῆς ψυχῆς τὸ αἰσθητικόν) πρότερον ἐνυπάρχει τῷ σπέρματι καὶ τῷ κυήματι ἢ οὐ, καὶ πόθεν οὔτε γὰρ ὡς ἄψυχον ἂν θεῖ τις τὸ κύημα κατὰ πάντα τρόπον ἐστερημένον ζωῆς· οὐδὲν γὰρ ἦττον τὰ τε σπέρματα καὶ τὰ κυήματα τῶν ζώων ζῆ τῶν φυτῶν, καὶ γόνιμα μέχρι τινός ἐστιν. ὅτι μὲν οὖν τὴν θρεπτικὴν ἔχουσι ψυχὴν φανερόν (δι’ ὅτι δὲ ταύτην πρῶτον ἀναγκαῖόν ἐστι λαβεῖν ἐκ τῶν περὶ ψυχῆς διωρισμένων ἐν ἄλλοις φανερόν), προϊόντα δὲ καὶ τὴν αἰσθητικὴν καθ’ ἣν ζῶον...· οὐ γὰρ ἅμα γίνεταί ζῶον καὶ ἄνθρωπος οὐδὲ ζῶον καὶ ἵππος, ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων ζώων· ὕστατον γὰρ γίνεταί τὸ τέλος, τὸ δ’ ἴδιόν ἐστι τὸ ἐκάστου τῆς γενέσεως τέλος. διὸ καὶ περὶ νοῦ, πότε καὶ πῶς μεταλαμβάνει καὶ πόθεν τὰ μετέχοντα ταύτης τῆς ἀρχῆς, ἔχει τ’ ἀπορίαν πλείστην καὶ δεῖ προθυμῆσθαι κατὰ δύναντα λαβεῖν καὶ καθ’ ὅσον ἐνδέχεται. Τὴν μὲν οὖν θρεπτικὴν ψυχὴν τὰ σπέρματα καὶ τὰ κυήματα τὰ μήπω χωριστὰ δηλον ὅτι δυνάμει μὲν ἔχοντα θετέον, ἐνεργεία δ’ οὐκ ἔχοντα πρὶν ἢ καθάπερ τὰ χωριζόμενα τῶν κυημάτων ἔλκει τὴν τροφήν καὶ ποιεῖ τὸ τῆς τοιαύτης ψυχῆς ἔργον· πρῶτον μὲν γὰρ ἅπαντ’ ἔοικε ζῆν τὰ τοιαῦτα φυτοῦ βίον. ἐπομένως δὲ δηλον ὅτι καὶ περὶ τῆς αἰσθητικῆς λεκτέον ψυχῆς καὶ περὶ τῆς νοητικῆς· πάσας γὰρ ἀναγκαῖον δυνάμει πρότερον ἔχειν ἢ ἐνεργεία.” (*GA* II.3 736a29-b14).

⁴³ *GA* II.3, 736b10.

so participates in nutritive activity: it is not wholly “soulless or in every sense bereft of life.”⁴⁴ Still, it does not yet do so through its own nature and soul. Initially, the embryo remains dependent and attached, and so grows in a way that more closely approximates the growth of a mature animal’s limbs. Nonetheless, the embryo is still the sort of thing that will, in the right conditions, perform its own nutritive activities, possess a nutritive soul, and become a self-sustaining organism. Indeed, it is such a thing essentially and from the very beginning: the animal embryo, *qua* living organism, is defined by the fact that it will come to self-preserve and self-sustain. Hence, before being separated, it has a nutritive soul *potentially*. This nutritive soul becomes actually present when the embryo actually separates, and so begins to perform its own nutritive activities—consume nutriment and grow through its own nature. The claim that the embryo potentially has a nutritive soul, then, explains both why the embryo is not yet a genuine living substance (it has an unactualized potentiality), and why it is still essentially on its way to becoming such a living substance (it has that potentiality from the beginning).

Aristotle’s central move is to claim that “we must be guided by this [account of the generation of the nutritive principle] in speaking of the perceptual and the intellectual soul.”⁴⁵ Just as we utilize potential presence to describe the emergence of the nutritive soul, so too can we utilize it to describe the emergence of the perceptual soul. While the embryo lacks any perceptual capacities or organs, and remains unable to perform any perceptual acts, it appears to wholly lack a perceptual soul. Nonetheless, the embryo always is, by its nature, destined to become a mature animal that possesses a perceptual soul and perceptual organs, living a perceptual life. Accordingly, the initial nutritive soul in the embryo is *potentially* a perceptual

⁴⁴ *GA* II.3 736a30-31

⁴⁵ “ἐπομένως δὲ δῆλον ὅτι καὶ περὶ τῆς αἰσθητικῆς λεκτέον ψυχῆς καὶ περὶ τῆς νοητικῆς,” (*GA* II.3 736b13-14).

soul; a perceptual principle is present potentially in the embryo. This perceptual principle becomes actual, and the embryo gains an actual perceptual soul, when the embryo possesses the organs and capacities that allow it to perceive; it then begins to actually perceive and live a life that is infused with that perceiving. Hence, the animal soul is already present potentially in the embryo, from the beginning.

On its surface, this conclusion might appear to be merely a terminological solution to Aristotle's worries about the origin of the perceptual soul, and one that does not yet answer the embryological objection formulated above. Even if the perceptual soul is present potentially, we still seem compelled to recognize a stage in which the animal only has a fully actual nutritive soul, identical to a plant's nutritive soul. What remains is to see how this conclusion *does*, in fact, provide the basis of a response to the embryological objection raised above.

That the perceptual soul is *always* potentially present in the embryo betrays a fundamental difference between the initial nutritive principle in the embryo, and the plant's wholly actual nutritive soul. Although animal embryos initially only perform nutritive activities, they are still always, from the beginning, the sorts of things that will become animals. Although the stage in which the embryo actively perceives is temporally posterior, it is not just some irrelevant future state of affairs. The fully mature, perceiving animal is the embryo's *end* (τέλος). It is a frequent claim that the inhabitants of Aristotle's cosmos are each defined by their respective ends. The building of a house is defined by the finished dwelling that it aims to produce and towards which the housebuilder strives. Likewise, Aristotle maintains an analogous commitment in his biology and zoology: that the seed or embryo is defined by the fully functioning, mature organism it is naturally destined to become.⁴⁶

⁴⁶ E.g., *PA* I.1, 639b11-21.

Accordingly, an animal's nutritive principle is—from the beginning—characterized by being an *animal* nutritive principle.⁴⁷ This, Aristotle explicitly acknowledges in (t6), is the “end”⁴⁸ of the embryo's nutritive principle: to be a fully functional animal soul. Hence, the embryo and its nutritive principle are likewise defined with reference to the fully mature animal and its perceptual soul. This, then, presents a sense in which even the initial, embryonic nutritive principle is posterior to and depends on the whole animal soul: we can only understand the initial nutritive principle in an embryo in light of what it characteristically will become. This as well indicates a fundamental distinction between the initial animal nutritive principle and the nutritive soul of a plant. The end of the animal's nutritive soul is to become a fully actual perceptual soul. The nutritive soul of a plant, in contrast, necessarily will never become a perceptual soul. From the beginning, it is always and only a nutritive soul. This is the sort of thought that leads Aristotle to qualify his attribution of a plant's life to animal embryos: they only “seem” (ἔοικε) to live the life of a plant.

In sum, the apparent temporal priority of the animal's nutritive principle to its perceptual soul does not challenge the picture of psychic unity presented above. Aristotle's account of the emergence of the perceptual soul rejects the suggestion that the animal's nutritive principle is actually prior to and independent of that perceptual soul. The animal embryo potentially has, from the beginning, an animal soul; it is defined by its development towards becoming a mature animal, with a wholly actual animal soul. Hence, the animal's perceptual soul remains prior to its nutritive soul, even in the face of this embryological objection.

⁴⁷ In agreement Varmalova: “This ‘plant,’ i.e., the embryo living as a plant, [differs] from the real plant in that it is an animal or human being in potentiality,” (2019, 102).

⁴⁸ *GA* II.3, 736b4.

This also suggests a stronger, but admittedly more speculative, claim: that the animal embryo in fact always has, from the very beginning, an animal soul, and so its nutritive principle is not even really temporally prior. Initially, this animal soul is present only potentially. This is not because it *lacks* a perceptual soul, but only because the embryo lacks the proper *material conditions* and *organs* to carry out perceptual activities. Although Aristotle never explicitly affirms such a claim, the remarks that follow (t6) suggest sympathies towards it. If an organic activity is bodily, it must involve an appropriate organ: “plainly those principles whose activity is bodily cannot exist without a body, e.g., walking cannot exist without feet.”⁴⁹ An animal cannot perceive without the appropriate perceptual organs, like eyes or hearts. Without these organs, the animal can only *potentially* manifest perceptual capacities. Animals come to actually possess such capacities as they come to actually possess the corresponding organs: “Nature gives both the capacity and the organ to each individual at the same time...the capacity of sight is not completed without the eye, nor the eye without the capacity of sight.”⁵⁰ The embryo can perform

⁴⁹ “ὅσων γὰρ ἐστὶν ἀρχῶν ἢ ἐνέργεια σωματικὴ, δῆλον ὅτι ταύτας ἄνευ σώματος ἀδύνατον ὑπάρχειν, οἷον βαδίζειν ἄνευ ποδῶν,” (GA II.3, 736b22-24). For this reason, intellect presents a more difficult case—as Aristotle says, the origin of intellect and reason is “a question of the greatest difficulty [ἀπορίαν πλείστην],” (GA II.3, 736b6-7). Intellect is not the actualization of a body, like perception is. Hence, we are unable to give the same account that we do about the development of perceptual organs and the perceptual soul. Because intellect is not the activity of a body (DA II.1, 4136-8.), it does not develop in lockstep with organs, as perception does. Aristotle maintains that “it remains for intellect alone so to enter [from the outside] and alone to be divine, for no bodily activity has any connection with the activity of intellect,” (GA II.3, 736b27-29). Intellect appears to enter from outside the human, and not through the gradual development of its body. How, when, and why intellect emerges here remains a question. Even without working out the details of this suggestion, however, the same point remains: the initial human embryo, which lacks intellect, is defined in terms of its end—to ultimately actualize its intellectual principle and so possess a full human soul.

⁵⁰ “ἅμα δ’ ἡ φύσις τὴν τε δύναμιν ἀποδίδωσιν ἐκάστῳ καὶ τὸ ὄργανον· βέλτιον γὰρ οὕτως. διὸ ἕκαστοι οἱ τόποι ἅμα ταῖς ἐκκρίσεσι γίνονται καὶ ταῖς δυνάμεσιν, ὥσπερ οὐτ’ ὄψις ἄνευ ὀφθαλμῶν οὐτ’ ὀφθαλμὸς τελειοῦται ἄνευ ὄψεως, καὶ κοιλία καὶ κύστις ἅμα τῷ δύνασθαι τὰ περιπτώματα γίνεσθαι,” (GA IV.1, 766a5-10).

perceptual acts only as it gains the requisite perceptual organs. Inversely, an animal becomes unable to perform perceptual acts as it loses the requisite organs.⁵¹ In both cases, the animal continuously and always possesses an animal soul, and only acquires or loses the material conditions for its expression. Hence, the animal embryo always possesses a whole animal soul, but simply lacks the organs to perform those perceptual acts that it eventually will.

2.5 Against the Actualist Assumption

We can now return to our main argument. With the figure analogy before us, we can appreciate how it constitutes a response to *PPU*. The analogy most immediately aims to undermine the actualist assumption, which maintains that parts (e.g., psychic parts, units, half-lines) are actually distinct and prior to the whole (which is itself an aggregate of parts). Again, *PPU* concerns how such distinct psychic parts could be held together in a single soul. Crucially, the assumed independence of psychic parts requires that there be some external principle to cause their unity (e.g., as a rope holds together a heap of sticks). Without such a principle, we could not explain why these distinct parts form a unity, rather than a disconnected heap. Because no such principle can be found, mereological actualism fails to provide a plausible picture of psychic unity.

⁵¹ This picture of development mirrors Aristotle's account of aging, in which we appear to lose perceptual capacities. "If an old man were to receive an eye of the sort which the young have, he would see just as a young man sees. Consequently, old age occurs not because of the soul's having been affected in a certain way, but rather because that in which it is has been affected, just as in drunkenness and illness," (*DA* I.4 408b21-23). Although our organs might get damaged, and so we can lose the ability to perceive, we do not thereby lose our perceptual soul. We simply lose the ability to *manifest* that soul as the organs deteriorate.

Without the actualist assumption, *PPU* loses its urgency. The point of the figure analogy is to show that mereological actualism is not necessary.⁵² We *can* entertain a different notion of parthood, in which some parts exist only potentially within a non-aggregative whole; if we wish to maintain that the soul is genuinely unified, we *should* endorse this notion of parthood. Just as we are not required to see a quadrilateral as two juxtaposed triangles, so we are not required to think that an animal or human soul is an aggregate of capacities or parts. The figure analogy portrays an animal soul as actually only one thing (a perceptual soul), but as containing a potentially present nutritive part; it is actually one, but potentially many. Because psychic parts are not actually distinct, we should no longer feel the same pressure to seek a *post hoc*, external principle of unity. Within a non-aggregative unity like the soul, the parts are *not* prior to the whole, but necessarily exist within that soul. As the half-line must originally and essentially exist within the whole line, so an animal's nutritive part originally and essentially exists within the perceptual soul.⁵³ We have no compulsion to locate a unifying cause external to the soul; the parts, insofar as they exist at all, must essentially be unified within the soul. In the next chapter,⁵⁴ I consider how this picture concretely works in Aristotle's account of the various parts of the soul, insofar as they are posterior to the whole souls in which they reside.

In sum, Aristotle can have his cake and eat it too. *PPU* need not compel one to hold that souls wholly lack parts. Aristotle can claim that the soul has parts of a certain sort, even while

⁵² Aristotle often attributes this sort of mistake—an inability to distinguish between potentiality and actuality—to his predecessors (e.g., the Megarians in *Meta.* Θ.3, or the Protagoreans in *Meta.* Γ.5).

⁵³ Simplicius (*On Aristotle On the Soul*, 135): “For the soul of these others that have sensation is a whole through the whole of itself, so that its nutritive element is, as it were, *fused* with the sensitive.”

⁵⁴ Chapter 6, §1.3.

maintaining both that its unity does not depend on any sort of external principle or cause, and that the soul constitutes a basic unity and principle of unity for the living organism.

§3 Hylomorphic Unity

3.1 Material and Formal Parts

There are also significant disanalogies between souls, figures, and most of the other examples of potential parthood discussed above. Most crucially, the potential presence of figures relies on the possibility of the actual division and separation of the whole into its potential parts. The triangle can be actualized only when the quadrilateral passes away into the triangle (the whole's "having been dissolved", διαλυθέντος).⁵⁵ No analogous division or dissolution, however, can occur with the soul.⁵⁶ As we saw in chapter 2, Aristotle denies that psychic parts can be spatially or numerically separated (as two triangles in the quadrilateral can). We cannot divide an animal, for example, into a perceptual spatial chunk and a nutritive spatial chunk. Moreover, Aristotle would deny that an organism could even lose a psychic part (e.g., that a human would lose their perceptual part when it enters into a 'vegetative state').⁵⁷ Hence, there appears to be a

⁵⁵ This is made explicit with mixtures: "it is evident that the combining constituents not only coalesce, having formerly existed in separation, but also can again be separated out from the compound," (*GC* I.10, 327b27).

⁵⁶ *Contra* Hicks (1907, 33).

⁵⁷ As Frey (2015) persuasively argues, when an animal or human goes into a so-called 'vegetative' state, Aristotle would *not* claim that the nutritive part is actualized, and the perceptual or intellectual parts cease to be actual. The organism's soul remains the same—it is still a human or an animal, and so continues to possess a human or animal soul. Instead, the material conditions and organs that allow for particular activities change. It still has cognitive *capacities*, even if they cannot currently be actualized. This is the sort of intuition behind Aristotle's claim that "if an old man were to receive an eye of the sort which the young have, he would see just as a young man sees. Consequently, old age occurs not because of the *soul's having been affected* in a certain way, but rather because *that in which it is has been affected*, just

consequential disanalogy between figures and souls: within the former, but not the latter, potential parts can be actualized through division.

That both triangles and psychic parts are potential parts, and so posterior to their wholes, allows for the figure analogy to serve its purpose. Nonetheless, triangles and psychic parts are, in other respects, different sorts of parts: “something is said to be a part in many ways.”⁵⁸ Most relevant for our purposes is Aristotle’s distinction in *Meta. Z.10* between material and formal parts. On the one hand, some things are “parts...as matter”, like a human’s finger or “bones, sinews, and flesh.”⁵⁹ Such material parts exist even in mathematical objects, such as the half-line or the semicircle, into which the line and circle are divided.⁶⁰ These are parts that the whole is said “to pass away into” (φθειρέσθαι εἰς).⁶¹ The line, for example, can be dissolved into smaller lines. On the other hand, there are “parts in the sense of parts of the account [λόγου] and of the substance according to the account, or parts “of the form...[and] essence.”⁶² Although form is, in some sense, divisible into such parts, forms do not pass away into formal parts. Forms simply are not the sorts of things that pass away or can be dissolved. This distinction, in turn, helps explain the disanalogy above. The parts of a quadrilateral (triangles) are material parts. Because the soul

as in drunkenness and illness,” (*DA I.4* 408b21-23). An apparent change in perceptual soul (e.g., a deterioration in the visual *capacity*) is explained as a change in that in which the soul resides (e.g., the visual *organ*).

⁵⁸ “πολλαχῶς λέγεται τὸ μέρος,” (*Meta. Z.10*, 1034b32).

⁵⁹ “μέρος...τῆς ὕλης αὐτῆς,” (*Meta. Z.10*, 1035b32-33; *Z.10*, 1035a19). Importantly, organic matter, like bones and sinews, is functionally defined, and so is not genuine organic matter unless present in a living, functioning body.

⁶⁰ “For there will be matter even of some things that are not perceptible...there is one sort of matter that is perceptible, [and] there is another that is intelligible.” (*Meta. Z.11*, 1036b25-1037a4; see also *Z.10*, 1035b17).

⁶¹ See *Meta. Z.10*, 1035a17; 1035a24.

⁶² “ὅσα δὲ ὡς τοῦ λόγου καὶ τῆς οὐσίας τῆς κατὰ τὸν λόγον,” (*Meta. Z.10*, 1035b13); “μέρος μὲν οὖν ἐστὶ καὶ τοῦ εἶδους (εἶδος δὲ λέγω τὸ τί ἦν εἶναι),” (*Meta. Z.10*, 1035b31-32).

is a form, the soul's parts are formal parts. Hence, the soul does not pass away into its parts, as the quadrilateral does into the triangle.

This does not suggest that the figure analogy is unsuccessful. The analogy works because, regardless of these differences, both a triangle and a nutritive part are genuine examples of potential parts. Because the aim of the analogy is relatively narrow—to introduce potential parthood and to dissolve *PPU*—figures serve this purpose well: they present an especially intuitive and clear example of potential parthood. Nonetheless, the difference between figures and souls leaves an interesting gap in our account of psychic unity, which Aristotle himself never fills in *DA*.

In the rest of this chapter, I argue that Aristotle's general approach to form, especially form's unity and structure, can help us fill in this gap and provides a crucial background for our understanding of the figure analogy. I proceed with a central working assumption: because soul's status as form originally leads to *PPU* (c2-3), so soul's status as form can lead us to a more complete picture of psychic unity. *PPU* should be seen as a particular version of a more general worry, which we can call the 'Problem of Formal Unity' (*PFU*): if a *form* has parts, how could it constitute a unity or function as a principle of unity? As *PPU* pushes some to hold that the soul wholly lacks parts (psychic simplicity), so *PFU* leads some (e.g., Harte, Koslicki) to claim that all forms lack parts (formal simplicity). Both psychic and formal simplicity arise from the apparent tension between a thing both having parts and functioning as a principle of unity. Moreover, Aristotle's account of psychic unity, which rejects psychic simplicity, should be understood as a particular example of his general account of the unity of form, which likewise rejects formal simplicity. By considering the unity of form in general, we can achieve a richer picture of the unity of soul than is explicitly provided in *DA*.

Luckily, Aristotle has more to say about the unity of form than he does the unity of soul. Because it parallels *DA* II.3's account of psychic unity (or so I argue), and consolidates results reached in the *Meta. Z* and Θ , I focus on the treatment of form in *Meta. H.6*.⁶³ Any characterization of H.6 will be controversial, not only with respect to its doctrine, but even its topic. Because a full defense of any interpretation would take us far afield, I offer here only a reasonable interpretation, which has received a recent substantial defense.⁶⁴ On this reading, we find in *Meta. H.6* a response to *PFU* similar to the response to *PPU* I described above: an account of the unity of form that is both (1) hylomorphic and (2) deflationary. First, Aristotle characterizes form in the hylomorphic terminology originally reserved for his account of sensible substances, contending that form itself contains both material and formal elements or aspects. Accordingly, at a sufficiently abstract level, the unity of matter and form in sensible substances mirrors the unity of material and formal elements within form itself. Second, as in the figure analogy, Aristotle deflates the impulse to identify an external cause of unity for matter and form, claiming that material and formal elements are essentially the same thing, one potentially and the other actually. Consequently, material and formal elements, in both sensible substances and forms, require no further cause for their unity *when properly understood*—matter as potentiality and form as actuality.

⁶³ The other central text in which the structure of form is discussed is *Meta. Z*.10-12.

⁶⁴ There are two relevant disagreements about *Meta. H.6*. First, interpreters disagree about whether Aristotle in H.6 addresses the unity of *form*, the unity of *sensible substances*, or both. I opt for the third option, claiming that Aristotle simultaneously addresses both topics; for defenses of this approach, see Burnyeat (1982); Harte (1996); Keeling (2012). Second, interpreters disagree about whether Aristotle treats forms as simple or composite. I opt for the latter option, claiming that Aristotle does think that forms are composite and have parts. Beyond texts in the *Metaphysics* in which Aristotle attributes parts to forms, we have already seen that Aristotle does accept that at least one kind of form—soul—has parts. For a reflection on these debates and a sustained defense of a similar reading, see Keeling (2012).

3.2 Matter and Form within Forms

Aristotle arrives at *PFU* by reflecting on the unity of definitions. His ultimate concern will not be with definitions, however, but rather the kinds of conclusions about form that reflecting on definitions prompt:

(t7) Let us now consider the problem we have already mentioned⁶⁵ concerning definitions and numbers, namely: what is the cause of their unity? Whenever anything which has several parts is such that the whole is something beyond its parts, and not just the sum of them, like a heap, then it always has some cause [for its unity]. Indeed, even in the case of bodies there is a cause of their unity—sometimes contact, sometimes stickiness, or some other attribute of this sort. A definition, however, is a unitary account, not by being fastened together (as the *Iliad* is) but because it is the account of a unity. What is it that makes human a unity rather than a plurality—for instance animal and two-footed? This problem is especially acute if, as some say, there is an Animal-Itself and a Two-Footed-Itself. For then why is human not these two things, so that men exist, not by participation in the one thing human but in the two things animal and two footed? In short, on this view human is not one thing at all but two, namely animal and two-footed.⁶⁶

As noted in §1.1, any unified composite requires a cause of its unity. Without this cause, the composite would be a mere “plurality” (πλείω). Such a cause promises to differentiate a soul from a group of psychic parts, or a number (a whole comprised of units) from a heap of units.

Similarly, a definition (ὀρισμός) is composite, as it necessarily involves multiple terms or parts

⁶⁵ This most immediately refers back to *Meta* H.3, 1044a3-6 (see also *Meta*. Z.11, 1037a18-20; *Meta*. Z.12, 1037b12-14: “Why on earth is something one when the account of it is what we call a definition? For example, let the account of the human be the two-footed animal. Why, then, is this one and not instead many—animal *and* two-footed?”

⁶⁶ “περὶ δὲ τῆς ἀπορίας τῆς εἰρημένης περὶ τε τοὺς ὀρισμοὺς καὶ περὶ τοὺς ἀριθμοὺς, τί αἴτιον τοῦ ἕν εἶναι; πάντων γὰρ ὅσα πλείω μέρη ἔχει καὶ μὴ ἔστιν οἷον σωρὸς τὸ πᾶν ἀλλ’ ἔστι τι τὸ ὅλον παρὰ τὰ μόρια, ἔστι τι αἴτιον, ἐπεὶ καὶ ἐν τοῖς σώμασι τοῖς μὲν ἀφή αἰτία τοῦ ἕν εἶναι τοῖς δὲ γλίσχρότης ἢ τι πάθος ἕτερον τοιοῦτον. ὁ δ’ ὀρισμὸς λόγος ἐστὶν εἷς οὐ συνδέσμων καθάπερ ἡ Ἰλιάς ἀλλὰ τῷ ἑνὸς εἶναι. τί οὖν ἐστὶν ὃ ποιεῖ ἐν τὸν ἄνθρωπον, καὶ διὰ τί ἕν ἀλλ’ οὐ πολλά, οἷον τό τε ζῶον καὶ τὸ δίπουν, ἄλλως τε δὴ καὶ εἰ ἔστιν, ὥσπερ φασὶ τινες, αὐτό τι ζῶον καὶ αὐτὸ δίπουν; διὰ τί γὰρ οὐκ ἐκεῖνα αὐτὰ ὁ ἄνθρωπος ἐστὶ, καὶ ἔσονται κατὰ μέθεξιν οἱ ἄνθρωποι οὐκ ἀνθρώπου οὐδ’ ἑνὸς ἀλλὰ δυοῖν, ζῶου καὶ δίποδος, καὶ ὅπως δὴ οὐκ ἂν εἴη ὁ ἄνθρωπος ἐν ἀλλὰ πλείω, ζῶον καὶ δίπουν;” (*Meta*. H.6, 1045a8-19).

(e.g., a genus and differentia). A definition of human, for example, has two parts—‘animal’ and ‘bipedal’ (or ‘rational’). Hence, a definition also requires a cause of its unity to distinguish it from a mere heap of terms. Actualism about parts (e.g., parts of definitions) requires that all composite wholes have such a cause, which is external to those parts. As with psychic unity in *DA* I.5, Aristotle asks in (t7) whether such an external cause of unity can be found for definitions.

As we cannot explain psychic unity by reference to the unity of the body, so we cannot explain a definition’s unity by its merely occurring in a single sentence (by “fastening”). Instead, its unity depends on it having a single object (“by being of one thing [τῷ ἐνὸς εἶναι]”). There is an isomorphism between a definition and its object: “A definition is an account, and every account has parts; further, as the account stands to the object, so do the parts of the account stand to the parts of the object.”⁶⁷ As most commentators agree (usually citing passages from *Meta. Z* 10-12), this object of definition is the form or essence of the relevant substance.⁶⁸ Hence, the unity of form serves as the basis for the unity of a corresponding definition, just as the unity of a tragedy depends on the unity of the action it depicts,⁶⁹ or the unity of the meaning of a word depends on the unity of the thought it expresses.⁷⁰

As with definitions, Aristotle acknowledges that forms have parts and so are, in some sense, composite. We have already seen that one kind of form—a soul—has parts.

Corresponding to the parts of its definition, the parts of the human form are animal and bipedal

⁶⁷ “...ὁ ὀρισμὸς λόγος ἐστὶ, πᾶς δὲ λόγος μέρη ἔχει, ὡς δὲ ὁ λόγος πρὸς τὸ πρᾶγμα, καὶ τὸ μέρος τοῦ λόγου πρὸς τὸ μέρος τοῦ πράγματος ὁμοίως ἔχει,” (*Meta. Z*.10, 1034b21–24; see also *APo.* II.8, 93b35–7).

⁶⁸ E.g., *Meta. Z*.10, 1035a4.

⁶⁹ *Poet.* 8, 1451a30–33.

⁷⁰ *Meta.* Γ.4, 1006b7–12.

(or rational). The same threat returns with forms as with definitions: if a form has parts, there must be some cause that explains its unity. If we endorse mereological actualism about forms, and so the parts of form are actual and distinct, then they require some external cause of unity. This actualist assumption is present, for example, in the sort of Platonism criticized in *Meta.* H.6, which posits separate Forms (e.g., the Animal-Itself, Two-Footed-Itself, Human-Itself).⁷¹ On this account, the Form of the Human would be an aggregate of separately existing Animal and Two-Footed Forms, like a quadrilateral built up from two juxtaposed triangles. This actualism, in turn, naturally prompts *PFU*: what unifies forms, if they have parts? How could a form both act as a principle of unity (for a sensible substance or a definition) and also be a composite? What unifies rationality and animality into a single human form?

Aristotle seeks “to dissolve the problem” (λύσαι τὴν ἀπορίαν), claiming that when form and its constituents are properly understood, *PFU* no longer poses any threat:

(t8) It is clear that those who proceed with definitions and explanations in this way, as they usually do, cannot give an account which solves the problem. If, as we say, there is [in the form] on the one hand matter and on the other hand shape, and the one is potentially while the other is actually, the question will no longer seem a difficulty [οὐκέτι ἀπορία δόξειεν ἂν εἶναι τὸ ζητούμενον]. For this problem is the same as would arise if the definition of a cloak were a round bronze. The word would be a sign of the formula, and the question would be: what is the cause of the roundness and the bronze being one? The difficulty has thus disappeared, since the one is matter and the other form. What, then, is the cause of what is potentially being in actuality (discounting in the case of a created thing, whatever produces it)? There is no further cause [αἴτιον ἕτερον] of the potential sphere being actually a sphere; this is precisely what being is for each of them [τοῦτ' ἦν τὸ τί ἦν εἶναι ἑκατέρω].⁷²

⁷¹ As Harte emphasizes, the argument of *Meta.* H6 arises in response to Platonist attempts to explain unity: “the problem [of unity] is especially acute if, as some say, there is an Animal-itself and a Two-Footed-itself,” (*Meta.* H.6, 1045a15-17)

⁷² φανερόν δὴ ὅτι οὕτω μὲν μειοῦσιν ὡς εἰώθασιν ὀρίζεσθαι καὶ λέγειν, οὐκ ἐνδέχεται ἀποδοῦναι καὶ λύσαι τὴν ἀπορίαν: εἰ δ' ἐστίν, ὥσπερ λέγομεν, τὸ μὲν ὕλη τὸ δὲ μορφή, καὶ τὸ μὲν δυνάμει τὸ δὲ ἐνεργείᾳ, οὐκέτι ἀπορία δόξειεν ἂν εἶναι τὸ ζητούμενον. ἔστι γὰρ αὕτη ἡ ἀπορία ἢ αὕτη κἂν εἰ ὁ ὅρος εἴη ἱματίου στρογγύλος χαλκός: εἴη γὰρ ἂν σημεῖον τοῦνομα τοῦτο τοῦ λόγου, ὥστε τὸ ζητούμενόν ἐστι τί αἴτιον τοῦ ἐν εἶναι τὸ στρογγύλον καὶ τὸν χαλκόν. οὐκέτι δὴ ἀπορία φαίνεται, ὅτι τὸ μὲν ὕλη τὸ δὲ μορφή. τί οὖν τούτου αἴτιον, τοῦ τὸ δυνάμει ὄν

(t9) The reason for their difficulty [in explaining unity] is that they are seeking both a unifying formula and a differentia for potentiality and actuality. But in fact, as has been said, the final matter and the shape are one and the same thing, one potentially and the other actually [ταὐτὸ καὶ ἓν, δυνάμει, τὸ δὲ ἐνεργείᾳ], so that it is as if they were asking what was the cause of the unity and of being one. For each thing is one, and the potentiality and the actual are in a way one, so there is no other cause [αἴτιον οὐθὲν ἄλλο] unless there be something which effects the change from potentiality to actuality.⁷³

We find two central claims in both (t8) and (t9), which we will treat in turn. Claim (1): because form itself can be analyzed hylomorphically (i.e., we can distinguish between material and formal elements within form itself), the problems of the unity of sensible substances and of form are ultimately the same, at a sufficient level of abstraction. Claim (2): because the unity of sensible substances and of form are both cases of the unity of the potential and the actual, they require no further unifying cause, as their material and formal components are *the same thing*—one potentially and one actually.

We begin with Claim (1). In both definitions and forms, we can distinguish between material and formal elements. We must not, of course, construe these elements literally (e.g., as some spatially extended stuff and its shape), but as picking up on more general features of matter and form that also obtain with the elements of form. Characteristically, matter is determinable and present *potentially*, while form determines and is present *actually*. In general, Aristotle maintains that matter is what is potentially something—that which can become a determinate

ἐνεργείᾳ εἶναι, παρὰ τὸ ποιῆσαν, ἐν ὅσοις ἔστι γένεσις; οὐθὲν γάρ ἐστιν αἴτιον ἕτερον τοῦ τὴν δυνάμει σφαῖραν ἐνεργείᾳ εἶναι σφαῖραν, ἀλλὰ τοῦτ' ἦν τὸ τί ἦν εἶναι ἐκατέρω,” (*Meta.* H.6, 1045a19-32).

⁷³ “αἴτιον δ' ὅτι δυνάμεως καὶ ἐντελεχείας ζητοῦσι λόγον ἐνοποιὸν καὶ διαφορὰν. ἔστι δ', ὡς περ εἴρηται, ἡ ἐσχάτη ὕλη καὶ ἡ μορφή ταὐτὸ καὶ ἓν, δυνάμει, τὸ δὲ ἐνεργείᾳ, ὥστε ὅμοιον τὸ ζητεῖν τοῦ ἐνὸς τί αἴτιον καὶ τοῦ ἐν εἶναι: ἐν γάρ τι ἕκαστον, καὶ τὸ δυνάμει καὶ τὸ ἐνεργείᾳ ἓν πῶς ἐστιν, ὥστε αἴτιον οὐθὲν ἄλλο πλὴν εἴ τι ὡς κινήσαν ἐκ δυνάμεως εἰς ἐνέργειαν. ὅσα δὲ μὴ ἔχει ὕλην, πάντα ἀπλῶς ὅπερ ἓν τι,” (*Meta.* H.6, 1045b16-23).

substance. Aristotle thereby identifies matter as a potentiality: “the matter...is not a ‘this’ in actuality, but is a ‘this’ *potentially*.”⁷⁴ Considered purely on its own, bronze is not yet actually a determinate object, with a concrete shape, but *can* become one when acted on in the right way (e.g., manipulated by a sculptor). As the matter of the bronze sphere, it is characterized by its power to become a bronze sphere. On the other hand, form is what is *actually* something—that which defines and determines a whole. This leads Aristotle to identify form as a particular sort of actuality: “the substance and the form are actuality.”⁷⁵ The sphere explains how and causes the indeterminate bronze comes to be a determinate individual, with a determinate shape. The form, then, is actually a ‘this’, and the matter is potentially a ‘this’.

As with sensible substances or definitions,⁷⁶ forms also contain material and formal components:

(t10) The form is out from the part, e.g., a human is out from the two-footed and a syllable out of an element: this is different from the way in which the statue is out of

⁷⁴ “ὄλην δὲ λέγω ἢ μὴ τόδε τι οὐσα ἐνεργεία δυνάμει ἐστὶ τόδε τι,” (*Meta.* H.1, 1042a26-27; see also 1042b10-12).

⁷⁵ “ἡ οὐσία καὶ τὸ εἶδος ἐνεργεία ἐστίν,” (*Meta.* Θ.8, 1050b2-3).

⁷⁶ Aristotle maintains that definitions also contain material and formal components: “the defining account must predicate *something of something*, and there is a thing [functioning] as *matter* and a thing [functioning] as *form*,” (*Meta.* H.3, 1043b30-2). Aristotle’s invocation of “something of something” suggests that this matter/form distinction arises out of the very structure of an account (λόγος): “part of an account always is matter and part is actuality [i.e., form],” (*Meta.* H.6, 1045a33-4). An account takes something indeterminate and gives it an actual determination. The material element, the “of something”, is potentially, and not yet actually, a determinate *this*. The formal element, the “something”, makes actual and specifies that indeterminate element—the thing according to which something is a *this*. If we define the human as ‘rational animal’, we take something general and indeterminate (‘animal), and determine it with a specification (‘rational’). The former is a material element and the latter a formal element. Such a picture leads to the traditional doctrine that the genus and differentia function as material and formal elements within the definition (E.g., Rorty, 1973). Additionally, some (e.g., Keeling, 2012) argue that the material component should be identified with the “intelligible matter” (ἡ ὕλη νοητὴ) mentioned at H.6, 1045a33.

bronze; for a composite substance is out of perceptible matter, but a form is also out of the matter of the form [τῆς τοῦ εἴδους ὕλης].”⁷⁷

Within form, we can distinguish a potential material element (“the matter of the form”) and an actual formal element (‘the form of the form’). Within the human form there is both a material component—*animal*—and a formal component—*intellect*, which together make the form *human*. The latter determines and specifies the former, which is relatively general and indeterminate. ‘Animal’ is in itself no specific animal, but is rather *potentially* human. Rationality actually makes the form a *human* form, determining animality so as to constitute a particular sort of animal. The human form is a unity comprised of these two elements. To put this in the language of psychic parthood: the human soul is divided into a relatively indeterminate and shared animal part (nutritive and perceptual parts), and a characteristically human, determining part (intellect), which together constitute a single soul—*rational animal*. In sum, forms are not *simply* composite, but have elements which play two special roles—one as matter, one as form. Like sensible substances, forms are hylomorphic composites.

This allows us to arrive at Claim (1). Because both a sensible substance and a form contains material and formal elements, we can, at a sufficient level of abstraction, equate worries about the unity of the former with those about the unity of the latter: “this problem [of the unity of form] is the same as would arise if the definition of a cloak were a round bronze.”⁷⁸ As Harte rightly suggests, it would be misleading to say that Aristotle *reduces* the former problem to the

⁷⁷ “τὰ δὲ ὡς ἐκ τοῦ μέρους τὸ εἶδος, οἷον ἄνθρωπος ἐκ τοῦ δίποδος καὶ ἡ συλλαβὴ ἐκ τοῦ στοιχείου: ἄλλως γὰρ τοῦτο καὶ ὁ ἀνδριάς ἐκ χαλκοῦ: ἐκ τῆς αἰσθητῆς γὰρ ὕλης ἢ συνθετῆ οὐσία, ἀλλὰ καὶ τὸ εἶδος ἐκ τῆς τοῦ εἴδους ὕλης,” (*Meta.* Δ.24, 1023a35-b2).

⁷⁸ “ἔστι γὰρ αὕτη ἡ ἀπορία ἢ αὐτὴ κἂν εἰ ὁ ὄρος εἴη ἱματίου στρογγύλος χαλκός,” (*Meta.* Η.6, 1045a25-6).

latter. This incorrectly treats the unity of sensible substances as “the easy case,”⁷⁹ when the unity of sensible substances has been a stubborn problem throughout *Meta. Z-H*. Instead, for his immediate purposes, Aristotle *equates* the two problems and simultaneously addresses them. Both are cases of hylomorphic compounds; with both, we must explain the unity of material components (animal, bronze) and formal components (reason, sphere). As we will now see, the explanations of both depend on seeing the material and formal elements as potentialities and actualities. Therefore, however we end up explaining the unity of bronze and sphericity, we can likewise explain the unity of animal and rational within the human soul.

3.3 The Unity of Actuality and Potentiality

This hylomorphic analysis of form, and the understanding of matter and form as potential and actual, in turn set the stage for Aristotle’s deflationary account of the unity of form and Claim (2): that the material and formal parts of form are, in a way, one.

Aristotle’s crucial move in (t8) and (t9) is to see matter and form as essentially the same thing. Matter, we saw, is a potentiality, and form an actuality. The material and formal elements of a hylomorphic compound are not an unrelated potentiality and actuality, but are potentially and actually the same thing: “the final matter and the shape are one and the same thing, one potentially and the other actually.”⁸⁰ Something potentially X and something actually X are intimately connected. They not only mutually imply each other, but *are the very same thing*, in different manners. In general, matter and form or the potential and the actual “are in a way (πώς)

⁷⁹ Harte (1996, esp. 279).

⁸⁰ “ἡ ἐσχάτη ὕλη καὶ ἡ μορφή ταὐτὸ καὶ ἓν, δυνάμει, τὸ δὲ ἐνεργείᾳ,” (*Meta. H.6*, 1045b17-18).

one.”⁸¹ This sameness and interdefinability is part of the very essence (the “what it is to be”⁸²) of the potential and actual. In a given hylomorphic compound, matter is potentially the same thing that form is actually. To understand the bronze as the matter of the bronze sphere, we must see it as *potentially* the bronze sphere (i.e., as the sort of thing that becomes the bronze sphere). To understand the sphere as the form of the bronze sphere, we must see it as *actually* being the bronze sphere. The bronze and the sphere are both the bronze sphere, in different ways; matter and form generally are both substance, one potentially and the other actually.

This same logic applies as well to the material and formal elements of form—that they are both the same thing, one potentially and the other actually. The material and formal elements of the human form, *animal* and *intellect*, are both the human, one potentially and one actually. What it is to be animal (within the human form) is to be potentially human.⁸³ To understand animality as the material element of the human form, we must see it as the sort of thing that becomes the human form. What it is to be intellect (in the human form) is to be actually human. To understand intellect as the formal element of the human form, we must see it as *actually* defining the human form. Like the matter and form of sensible substances, these two components are one, straightaway and essentially. Human intellect and animality are both the same thing—the human form—one actually and the other potentially.

⁸¹ *Meta.* H.6, 1045b20-21.

⁸² *Meta.* H.6, 1045a32.

⁸³ It might appear that ‘animal’ is not only potentially human, but is also potentially many other sorts of things, like horse or dog (as bronze could be a bronze sphere, cube, pyramid, etc.). Yet Aristotle contends the material element is *transformed*, insofar as it is part of a kind of form: “this very ‘animal’ must also be different for each (e.g., in the one case horse, in the other human), and therefore this common nature is specifically different for the two things,” (*Meta.* I.8, 10583-5). The genus of a human is potentially a human, while the genus of a horse is potentially a horse. I return to this theme in Chapter 6, §1.2-3

This identity of matter/potentiality and form/actuality establishes and illuminates the unity of hylomorphic compounds. As with the figure analogy, it does so by undermining any actualist picture of hylomorphic compounds and deflating the apparent need to locate an external cause of unity. In the present context, the actualist assumption would require that we have two actually distinct parts of hylomorphic compounds, matter and form, which are prior to the whole compound and stand in need of something to unify them. In response, Aristotle does not pinpoint a previously unknown cause of unity for a hylomorphic compound, but contends that it has no need for such a cause: “There is no further cause of the potential sphere being actually a sphere; this is precisely what being is for each of them.”⁸⁴ The essential identity of potentiality and actuality, in both sensible substances and in forms, shows that actualism is misguided. The material and formal elements of hylomorphic compounds do not constitute actually distinct entities, but are the same thing in a different manner. Given that they are the same *essentially*, they always already constitute a unity. We need not discover some further principle of unity that brings them together: insofar as bronze and sphere are both the bronze sphere, or as animal and intellect are both the human form, they are always already a unity. Insofar as these material and formal elements exist, they are necessarily and essentially unified.⁸⁵

⁸⁴ “οὐθὲν γάρ ἐστιν αἴτιον ἕτερον τοῦ τὴν δυνάμει σφαῖραν ἐνεργείᾳ εἶναι σφαῖραν, ἀλλὰ τοῦτ’ ἦν τὸ τί ἦν εἶναι ἐκατέρω,” (*Meta.* H.6, 1045a31-32). A central interpretative disagreement concerns the antecedent of “this” (τοῦτ’) in the last quoted line. Although significant to interpreting *Meta* H.6 as a whole, it is not directly relevant to our current purposes.

⁸⁵ There is still one sense in which we can talk about a unifying cause of matter and form—the efficient cause (earlier in H.6 described as the “producer”, ποιῆσαν): “each thing is one, and the potential and the actual are in a way one, and so there is no other cause [of their being one], unless there be something which effects the change from potentiality to actuality,” (*Meta.* H.6, 1045b20-3) We can ask how this bronze came to be made spherical (by the sculptor), or how this animal came to be alive (by its parents). In such cases, however, we are identifying not the sort of unifying cause sought in *PPU* or *PFU*.

Aristotle exploits this same hylomorphic and deflationary approach to unity outside of *Meta.* H.6, most infamously in *DA* II.1’s account of the relationship between body and soul. Because the soul is actuality and form, and the body is matter and potentiality, Aristotle claims that we need not seek a unifying cause for body and soul: “For this reason it is *unnecessary to inquire* whether the soul and body are one, just as it is unnecessary to ask this concerning the wax and the shape, nor generally concerning the matter of each thing and that of which it is the matter [i.e., form or actuality].”⁸⁶ In *Meta.* H.6, Aristotle contends that the search for an explanation of the unity of matter and form in general is unnecessary and misguided. In *DA* II.1, he maintains that we need not seek an external unifying cause for a particular example of matter and form—body and soul. They are not merely closely related or interdefined, but are the same thing—the living organism, one potentially and one actually. Hence, body and soul are necessarily and always one, without any further unifying cause. Just as the identity of potentiality and actuality guarantees the unity of matter and form generally, so it guarantees the unity of body and soul in particular. In recognizing this identity, any compulsion to locate an external principle of unity, and so the threat of *PFU*, dissolves away.

3.4 The Figure Analogy, Reconsidered

Now it remains to describe how this hylomorphic picture of the unity of form complements and fills out *DA* II.3’s figure analogy.⁸⁷ This picture stands as a substantial answer

⁸⁶ “διὸ καὶ οὐ δεῖ ζητεῖν εἰ ἐν ἡ ψυχῇ καὶ τὸ σῶμα, ὥσπερ οὐδὲ τὸν κηρὸν καὶ τὸ σχῆμα, οὐδ’ ὅλως τὴν ἐκάστου ὕλην καὶ τὸ οὐ ἢ ὕλη,” (*DA* II.1, 412b7-9). For a detailed assessment of this passage, see Shields (2007).

⁸⁷ *Contra* Harte: In *Meta.* H.6, “Aristotle may not have said everything he needs to say about the unification of a hylomorphic compound, or indeed about the unity of a complex soul” (1996,

to *PPU* and *PFU*, placing the more narrowly-focused results of the figure analogy within Aristotle's broader metaphysical picture of substance and form.

Because the soul is a form, psychic parts are parts of a form. It was precisely soul's status as form that gave rise to anxieties about psychic unity. The figure analogy indicates that a lower psychic part is present potentially in a higher soul. In applying the picture of *Meta.* H.6 to psychic parthood, we expand this same picture, now treating psychic parts as being related hylomorphically. The lower soul is present potentially in the whole soul, as matter is present in the whole substance; the higher soul is present actually in the whole soul, as form is present in the whole substance. The higher and lower parts, then, stand to each other as matter to form, or as potentiality to actuality.⁸⁸ An animal's nutritive part constitutes the potential element of the animal soul—the determinable component, or the “matter of the form”⁸⁹ for the animal. Just as the animal body is potentially alive, or the bronze is potentially the bronze sphere, so the animal's nutritive part is potentially the animal soul. The perceptual part constitutes the actual element of the animal soul—the determining component, or the ‘form of the form’ for the animal. Likewise, within the human soul, the animal soul (itself the composite of two parts) stands to intellect as matter to form. The former is only potentially a human soul, but made actual and determined as such by the intellectual soul.

This hylomorphic picture of the soul, in turn, explains psychic unity. In general, material and formal components are unified because they are essentially the same: the former is

303). The interpretation that I have offered here portrays Aristotle as offering such an account of hylomorphic and psychic unity.

⁸⁸ Johansen (2012, 70) makes a similar suggestion in passing, only to dismiss it as not being Aristotle's primary conception of soul.

⁸⁹ *Meta.* Δ.24, 1023b2.

potentially what the latter is actually. Given that the soul is also comprised of material and formal elements, the same holds within the soul. In the animal soul, the material nutritive part is potentially what the formal perceptual part is actually—the animal soul. Insofar as they are both the animal soul, they are essentially the same and always already unified; insofar as they are the animal soul in different ways (one potentially, the other actually), they constitute distinct parts within the animal soul.

Finally, just as Aristotle provides a deflationary picture of hylomorphic unity in general, we can also formulate a deflationary picture of psychic unity. With hylomorphic compounds in general, a correct view of the relationships between potentiality and actuality shows that we need not discover some hidden cause of unity. *PPU* arose because it appeared that we need to identify some external cause of psychic unity; this picture shows that we have no such need. A proper understanding of the parts of the soul—that they stand to each other as potential/matter to actual/form, or that the lower souls are only potentially present—likewise relieves us of the need to find a cause of their unity. Because the lower part is potentially what the higher part is, they are not two separate entities that must be unified; rather they are already essentially the same thing, in different ways. The relationship between psychic parts mirrors the relationship between body and soul—in both cases “it is unnecessary to inquire whether [they] are one.”⁹⁰

In sum, *PPU* or *PFU* does not obligate us to deny that souls or forms can have parts. Aristotle can maintain rightfully that the soul, form, or sensible substance (i.e., any hylomorphic compound) can have parts of a certain sort, even while maintaining both that its unity does not

⁹⁰ *DA* II.1, 412b7. Elsewhere, Aristotle compares the relationship between reason and our animal or lower nature to the relationship between soul and body (e.g., *Pol.* I.5, 1254a24-1255a3). In such contexts, both relationships are understood as hierarchical, in which one element is higher (reason, the soul) and should dominate the lower element (the animal soul, the body).

depend on any sort of external cause. He can maintain, then, that a soul or a form can be divisible into parts, even while constituting a basic unity and principle of unity.

CHAPTER VI

DISJUNCTIVE AND HOLISTIC CONCEPTIONS OF PSYCHIC STRUCTURE

We now have before us answers to the two questions we put to Aristotle in Chapter 1. First, Aristotle's commitment to the homonymy of life gives rise to the *Problem of Psychic Parthood (PPP)*: what are the psychic principles responsible for the irreducible, basic forms of living, and how do they relate to each other? In Chapter 4, I argued that Aristotle treats psychic parts as sets of capacities defined by logically primary capacities. All other capacities of an organism are in psychic parts—logically posterior to and dependent on these parts. Second, Aristotle's commitment to the soul as a unifying and unified form gives rise to the *Problem of Psychic Unity (PPU)*: how could the soul have parts if it is also a genuine unity and principle of unity? In Chapter 5, I argued that Aristotle gives an anti-actualist, hylomorphic account of psychic unity: psychic parts are potentially present in the whole soul, with the lower parts standing to the higher part as matter to form.

Nonetheless, it remains unclear how, or indeed whether, these two answers can comfortably fit into a single picture of the soul. They are not simply distinct answers to distinct questions, but imply distinct conceptions of psychic parthood and unity (or 'psychic structure'). The first answer (psychic parts as logically primary) portrays Aristotle as maintaining that the whole soul is posterior to and a sum of independent parts. Given that this conception treats the parts of the soul as adding up to a whole soul, I call this a 'disjunctive conception' of psychic structure. The second answer (the soul as a hylomorphic unity) portrays Aristotle as maintaining that the soul is actually a single entity, which is prior to its parts. Because of its emphasis on the priority of the whole soul, I call this a 'holistic conception' of psychic structure.

The tension between these two conceptions of psychic structure is immediate. They contain contradictory views about the priority or posteriority of, and relationship between, psychic parts: the disjunctive conception treats parts as prior and independent, while the holistic conception treats parts as posterior and interdependent. Hence, although we have found answers to our two central worries (*PPP* and *PPU*), crucial questions remain: how can Aristotle maintain both conceptions within a single text (*DA*) and philosophical project (theoretical psychology)? Does Aristotelian psychology simply contain a hidden, but deep contradiction? These questions present themselves not just for Aristotle, but also for the interpretation of psychic parthood I have offered in previous chapters: in Chapter 4, I defended a broadly disjunctive conception; in Chapter 5, I defended a broadly holistic conception.

In what follows, I show how both conceptions of psychic structure do not stand in contradiction or competition, but constitute *complementary* aspects of Aristotle's theoretical psychology. In brief, the disjunctive conception grounds a methodology for Aristotelian psychology, leading to an efficient and general approach to describing the soul and its powers. The holistic conception supports a sophisticated ontology of soul, which serves to incorporate Aristotle's psychology into his general metaphysics of substance.

After more precisely describing the distinction and conflict between disjunctive and holistic conceptions (§1), I make my central interpretive move (§2): to argue that we can see how disjunctive and holistic conceptions complement each other by drawing on a related distinction between common and particular accounts of soul. Common accounts pick out shared features of a generic class (e.g., souls in general), while particular accounts specify the essence of an indivisible species (e.g., animal souls). Aristotle recognizes that common and particular accounts of soul address different sorts of concerns, and so possess distinct and complementary

explanatory roles. Disjunctive and holistic conceptions, I argue, require common and particular accounts of psychic parts, respectively. Hence, disjunctive and holistic conceptions of psychic structure likewise play distinct and complementary explanatory roles.

§1 Disjunctive and Holistic Conceptions of Psychic Structure

First, I lay out in more detail the commitments of the disjunctive and holistic conceptions of psychic structure, and the central evidence commonly given in their favor. This requires consolidating and reviewing the results of the first five chapters, especially Chapters 4 and 5. I argue for two central claims: (1) both conceptions accurately capture significant threads within Aristotle's treatment of psychic structure; (2) if taken to be addressing the same topic, these conceptions genuinely stand in contradiction.

1.1 The Disjunctive Conception

We first turn to the disjunctive conception. This conception emphasizes the divisibility of soul, and is defined by two complementary claims: (1) the soul is a sum or aggregate of parts; (2) these parts are independent of each other and prior to the whole soul. On this conception, the whole human soul is comprised of discrete psychic parts or principles—nutritive, perceptual, and intellectual parts. Although they somehow make up one soul, these parts are each responsible for their own distinct set of vital activities, which collectively make up the life of an organism. The parts are conceptually prior to the whole soul, and conceptually independent of each other. We would, for example, define and understand perception (and other perceptual capacities) independently of its presence in human or animal souls, or alongside nutrition or intellect. We can conceptually or definitionally 'separate' perception from the human soul and its other parts,

just as we can separate it from the animal soul and its other part. The human soul itself, then, is just an aggregate of its basic capacities (nutrition, perception, intellect), and the capacities that are in or follow from them (e.g., as memory is in perception). When we give an account of the human soul, we give discrete accounts of these distinct, basic capacities.

A central implication of this disjunctive conception is the *uniformity* of psychic parts: a psychic part has a single shared nature, even while present in different kinds of soul.¹ Because, this conception holds that the part is prior to the whole, our understanding of a part's nature, and so the nature of that part itself, is independent of the whole. Perception is a single principle existing in both animals and humans. Each variety of perception (cat perception, human perception, etc.) shares a single nature—a capacity to receive perceptible forms. A single account of that nature suffices to specify the essence of all of its varieties. This is not to deny significant differences between varieties of a given psychic part. On the disjunctive conception, this difference is not to be explained by any *essential* difference between perceptual principles. Humans and animals share a single kind of perceptual principle, which manifests itself in different ways (given their different physiological apparatuses, environments, etc.). We could make similar claims when explaining the difference between the engines of motorcycles and cars: both engines ultimately rely on the same principle and mechanism, but manifest themselves differently given the material differences between cars and motorcycles. Admittedly, it is logically possible, strictly speaking, to hold a disjunctive conception of parts within a soul, while denying the uniformity of psychic parts across souls. Still, the latter is a central methodological advantage of the former (as I argue in §2), and is endorsed by Aristotle when he endorses the former. Hence, it is reasonable to group the two views together.

¹ See also Chapter 1, §1.3. on the 'uniformity thesis' and its role in *PPP*.

A version of this disjunctive conception is explicitly defended by Johansen (2012, 2014), and Corcilius and Gregoric (2010). As noted earlier,² they contend that psychic parts are the “logically separable” (χωριστὸν λόγῳ)³ capacities of an organism: those capacities whose definitions can be formulated without reference to any other capacities. Johansen explicitly infers the *priority* of the parts from their separability—“the parts of the soul... enjoy definitional priority over the whole.” He presents this claim as “an alternative to the holistic view,” according to which “the parts of the soul are definitionally posterior to the whole soul...[and] each part can only perform its proper function in relation to the whole.”⁴ Moreover, the picture that I defended in Chapter 4 shares central features with this picture. I argued for a conception of psychic parts as defined by the logically primary (πρῶτον λόγῳ) capacities of an organism. Something is logically primary when it is either logically independent of or prior to all other entities within a given domain. Although I argued that this conception is richer than and expands on logical separability, it shares with it a commitment to the logical independence of psychic parts.

This disjunctive conception is, in some sense, correct and captures crucial features of Aristotle’s psychology. We can review two central pieces of evidence for this. First, a disjunctive conception reflects Aristotle’s central motivation for positing psychic parts: the homonymy of life. According to his doctrine, living is made up of multiple discrete, heterogeneous activities. This heterogeneity is reflected in the soul, giving rise to the existence of discrete capacities and psychic parts. This leads to his “disjunctive definition of life”⁵ given just after the homonymy doctrine: “Should even one of these belong to something, we say that it is alive: intellect,

² Chapter 4, §3.4.

³ See *DA* II.2, 413b14-15.

⁴ Johansen (2012, 71-2).

⁵ See Shields (2003, 180).

perception, motion and rest with respect to place, and further the motion in relation to nourishment, decay, and growth.”⁶ ‘Living’ refers to a disjunctive set of activities. Alternatively, living is itself a disjunctive activity, comprised of perceiving, thinking, and performing nutrition. As Aristotle employs a disjunctive conception of life, so he would reasonably employ a disjunctive conception of psychic structure: the soul as made up of a set of independent capacities, each responsible for performing one of the basic activities of soul.

Second, the disjunctive conception captures how Aristotle in fact proceeds throughout *DA*. Although Aristotle at moments puts forward general claims about the soul as a whole, a majority of his positive theorizing in *DA* consists in sequential accounts of psychic capacities: nutrition, perception, *phantasia*, intellect, locomotion, and desire. Within these sequential accounts, Aristotle gives self-contained, distinct accounts of psychic parts. Crucially, each psychic part is treated in abstraction from its place within particular sorts of souls, and so as prior to whole souls. He gives, for example, a general account of nutrition as “a capacity of the sort which preserves the thing which has it, as the sort of thing it is.”⁷ This account seemingly ignores any conceptual relationship it has to other psychic parts, like perception and intellect, or its place within plant, animal, and human souls and lives. Nutrition is treated as a single uniform principle, which can be present in different kinds of souls. A disjunctive conception would lead one to expect such an account of soul—the soul as comprised of uniform, discrete parts, which can each be given self-contained accounts.

⁶ “κὰν ἓν τι τούτων ἐνυπάρχη μόνον, ζῆν αὐτό φαμεν, οἶον νοῦς, αἴσθησις, κίνησις καὶ στάσις ἢ κατὰ τόπον, ἔτι κίνησις ἢ κατὰ τροφήν καὶ φθίσις τε καὶ αὔξεισις,” (*DA* II.2, 413a22-25).

⁷ “ἢ μὲν τοιαύτη τῆς ψυχῆς ἀρχὴ δύναμις ἐστὶν οἷα σώζειν τὸ ἔχον αὐτὴν ἢ τοιοῦτον,” (*DA* II.4 416b17-19).

Hence, because of Aristotle's commitment to the homonymy of life, and the sequential structure of *DA*, we have good reason to believe that this disjunctive conception correctly captures something significant about Aristotle's conception of psychic structure.

1.2 The Holistic Conception

We now turn to the holistic conception of psychic structure. This conception emphasizes the unity of the soul, and is defined by two central claims: (1) the whole soul is *not* an aggregate of capacities or parts, but a single actual unity; (2) the parts of the soul are posterior to the whole soul. On this conception, the whole soul is actually just one thing—a single soul, a single cause of life, a single nature. While we might be able to conceptually distinguish between aspects within it, the soul is actually first and foremost one unified being. The whole soul is more than the sum of its parts—or, more precisely, is prior to its parts. A human is characterized by its ability to perceive, move, take in nutriment, reproduce, and think, and so those capacities are, in a sense, definitive of it.⁸ Yet its soul is not just a bundle, heap, or disjunct of these capacities; it is a single human soul and nature, which is responsible for a single human life. A human soul is a characteristically thinking soul, which is responsible for a characteristically thinking life. All of a human's activities are aspects of that human life and expressions of that single human soul.

A central claim related to this holistic conception is that a psychic part is 'transformed' by its presence within a given soul. If parts are posterior to the whole in which they are present, their nature is determined by that whole. Although this is true of many part-whole relations, *DA* itself provides an informative example in Aristotle's theory of the organic body. The whole body

⁸ "The soul is the principle of the things mentioned and is delimited by them, namely, nourishment, perception, thought, and motion," (*DA* II.2, 413b10-12).

and organism are actually prior to the parts of the body, and so the whole functionally determines their natures. An eye is not a genuine eye unless it is a working part of a whole animal body. Though a dislodged eye and a functioning eye are the same in name and shape, they possess different natures. The essence and nature of the functioning eye is genuine seeing;⁹ in any other context, the eye does not see, and so is no longer a real eye. The eye, then, is ‘transformed’ by its presence in the whole body.

Likewise, a given psychic part is transformed by its presence in a particular soul. Because they are posterior, lower psychic parts (nutrition, perception) differ when present in higher souls, not just in their physiology, but in the essential ways in which they express themselves. Plant, animal, and human nutrition differ in nature, as do animal and human perception. In the section that follows (§1.3), we will look more concretely at how this transformative character arises in Aristotle’s accounts of nutrition and perception. As with the uniformity of psychic parts, it appears at least *possible* for one affirming a holistic conception to deny this transformative character. Still, because this transformative character is naturally connected to the priority of the whole, and Aristotle’s own version of the holistic conception embraces it, it is reasonable to group together the holistic and transformative conceptions.

In sum, the holistic conception conceives of souls as unified wholes, whose parts are posterior to and transformed by those whole souls. A version of this holistic conception has been defended recently by Frey:

(t1) When you gaze upon a living organism, what stands before you is not a multiplicity of capacities each performing an autonomous function. Nor is it a...complex built up

⁹ “If an eye were an animal, its soul would be sight, since this would be the substance of the eye corresponding to the account. The eye is the matter of sight; if sight is lost, it is no longer an eye, except homonymously, in the way that a stone eye or painted eye is,” (*DA* II.1, 412b18-22).

from these basic activities. An organism's living is a single activity. A living organism is a form being realized.¹⁰

On Frey's account, a soul is neither a disjunct nor composite of independent capacities. It is, instead, a single unified form. Centrally, Frey arrives at this view through an emphasis on thinking of "soul as nature."¹¹ According to this conception, the soul is primarily to be understood as a single internal cause of living things, their motions, and their lives. An animal, for example, does not live distinct perceptual and nutritive lives, but lives a single perceptual life, caused and defined by its single perceptual nature.

At times, Aristotle explicitly embraces such a picture, in which he affirms unambiguously the unity of the soul. This perhaps most clear in the prelude of *Juv.* I:

(t2) As to being what is called an animal and a living thing, we find that in all beings endowed with both characteristics (viz. being an animal and being alive) there must be a single identical [psychic] part by which they live and are called animals; for an animal *qua* animal cannot avoid being alive. But a thing need not, though alive, be an animal; for plants live without having perception, and it is by perception that we distinguish an animal from what is not an animal. This part, then, must be one and the same in number [ἀριθμῶ...ἐν εἶναι καὶ τὸ αὐτὸ] and yet multiple and different in being [εἶναι πλείω καὶ ἕτερα]; for being an animal [τὸ ζῶν εἶναι] and living [τὸ ζῆν] are not the same.¹²

Aristotle recognizes that there must be some conceptual distinction in animals between their "living" (here, performing nutritive and reproductive activities) and perceiving. These two activities are distinct in being or account. Yet he also emphasizes that, because perception is that by which "we distinguish" (διορίζομεν) animals from all other natural beings, their living is

¹⁰ Frey (2015, 146).

¹¹ Frey (2015, 137).

¹² "ὅσα δὲ ζῶα λέγεται καὶ ζῆν, ἐν μὲν τοῖς ἀμφοτέρων τούτων τετυχηκόσι (λέγω δ' ἀμφοτέρων τοῦ τε ζῶον εἶναι καὶ τοῦ ζῆν) ἀνάγκη ταῦτόν εἶναι καὶ ἐν μόνιον καθ' ὃ τε ζῆ καὶ καθ' ὃ προσαγορεύομεν αὐτὸ ζῶον· τὸ μὲν γὰρ ζῶον ἢ ζῶον ἀδύνατον μὴ ζῆν· ἢ δὲ ζῆ, ταύτη ζῶον ὑπάρχειν οὐκ ἀναγκαῖον· τὰ γὰρ φυτὰ ζῆ μὲν, οὐκ ἔχει δ' αἰσθησιν, τῶ δ' αἰσθάνεσθαι τὸ ζῶον πρὸς τὸ μὴ ζῶον διορίζομεν. ἀριθμῶ μὲν οὖν ἀναγκαῖον ἐν εἶναι καὶ τὸ αὐτὸ τοῦτο τὸ μόνιον, τῶ δ' εἶναι πλείω καὶ ἕτερα· οὐ γὰρ ταῦτό τὸ ζῶν εἶναι καὶ τὸ ζῆν," (*Juv.* 1, 467b18–27).

perceiving. The principle responsible for an animal's living in general, and its perceiving in particular, is not numerically many (as a disjunctive conception would suggest). It is a single psychic principle, responsible for a single life. In general, although we might distinguish aspects or ways of being of a given soul, that soul—as a cause both of an organism's life and characteristic vital activities—is a single principle.

In Chapter 5, I defended a holistic conception of Aristotle's approach to psychic structure. This emerges out of Aristotle's basic metaphysical picture of the soul: psychological hylomorphism, or the conception of soul as a form and the organic body as matter. As with all forms of substances, the soul constitutes the unifying principle of an organism and its life. To play this unifying role, the soul must itself be a genuine unity. If it were in fact the sum of discrete parts, we run into *DA I.5's PPU*: if the soul had discrete parts, it could not constitute a unity or unifying principle.¹³ In response, I argued, Aristotle formulates a holistic picture of the soul, which hinges on the notion of potential parthood. Just as triangles are present potentially within quadrilaterals, so lower souls are contained potentially within higher souls. Lower souls stand to higher souls as matter does to form, the former being *potentially* what the latter is *actually*. An animal soul is a complete and actual unity. An animal's nutritive principle is not an actual—that is, genuinely separate or discrete—part of the animal soul. Instead, like the triangle within the quadrilateral, the nutritive principle is only potentially present. This, in turn, shows how the soul could have parts, yet still remain a real and actual unity.

This hylomorphic account of psychic parthood bears the characteristic marks of a holistic conception of psychic structure. Wholes with potential parts are not mere aggregates of parts. Just as a quadrilateral is not just two juxtaposed triangles, so an animal soul is not just adjacent

¹³ *DA I.5*, 411a26-411b13.

nutritive and perceptual principles. The quadrilateral and the animal soul are both, most fundamentally, unities. Moreover, because they are only *potential* parts, such parts are “prior in actuality” to the relevant whole: the parts can be actually understood and present only through their presence in wholes. Just as the triangle in the quadrilateral can be made actual only through dividing the quadrilateral, so the animal’s nutritive part can be actually intelligible only through conceptually separating it from the whole animal soul. As we saw above, this priority of the whole, in turn, suggests that the part is transformed by its presence in the whole, as the eye is by its presence in the whole organic body. The fact that a plant’s nutritive principle is actual, whereas the animal’s nutritive principle is only potential, marks this transformation.

Hence, because of Aristotle’s commitment to a hylomorphic conception of the organism, and his reflections on psychic unity, this holistic conception accurately captures significant aspects of Aristotle’s conception of psychic structure.

1.3 The Transformation of Lower Souls

Before turning to the tension between the holistic and disjunctive conceptions, we might first wonder how this holistic conception, and specifically its ‘transformative character’, works concretely: how the nutritive part in humans and animals, and the perceptual part in humans, is present potentially, subordinated to, transformed by, and understood within the context of a higher soul? It is hard to answer these questions in general, without falling into detailed discussions of particular psychic parts. Moreover, Aristotle himself never explicitly spells out in *DA* these important implications, as perhaps he should have. Hence, although a slight tangent, a brief discussion of this transformative character is essential in filling out the holistic conception.

The actual mechanics of reproduction and nutrition can vary narrowly (as between a human and a chimpanzee) or widely (as between a sunflower and a chimpanzee). Nonetheless, Aristotle's account of psychic unity compels him to recognize fundamental differences between plant, animal, and human nutrition. This emerges abstractly in Aristotle's own accounts in *DA* of reproduction and nutrition. Aristotle defines reproduction, for example, as "making another such as itself, an animal an animal and a plant a plant."¹⁴ To define it simply as "the making of another such as itself" would, for Aristotle, be too abstract. The relevant part is introduced by the "such as itself," an open phrase that must be filled in by the basic kind of organism that reproduces and is reproduced—plant, animal, human. The reproduction of a plant and of an animal differ, insofar as they are each defined with reference to their end: the sort of organism and life that is reproduced. Given that an animal's life is defined by perceiving, animal reproduction should be understood in the context of the perceiving soul; a perceptual soul reproduces, by definition, a perceptual soul. The same holds for animal or human digestion, nutrition, and growth.¹⁵ In this sense, then, the animal or human soul is prior to its nutritive part.

There are also more concrete considerations that suggest that nutrition is transformed by its presence in a human or animal soul. Plants are relatively passive in how they consume nutriment and reproduce. In contrast, animals, with their locomotive and cognitive capacities, have radically different nutritive and reproductive behavior, performing nutritive activities in a characteristically animal way. At least with non-sessile animals, they must move throughout their environment, and perceptually identify prey, predators, and potential mates. This is the thought,

¹⁴ *DA* II.4 415a29-30.

¹⁵ Aristotle defines nutrition, for example, as the capacity for "preserving the thing which has it, as the sort of thing it is," (*DA* II.4, 416b17-18). Again, this "sort of thing it is" must be filled in by the particular kind of organism that is maintained: an animal preserves itself as an animal (i.e., as a perceiving organism), while a plant preserves itself as a plant.

for example, behind Aristotle’s argument for the necessity of perception for non-sessile organisms: “Any body capable of going anywhere and yet lacking perception would perish and not reach its end, which is the work of nature. For how will it be nourished?”¹⁶ Perception, and the end-directed locomotion that it allows for, form an essential and distinctive aspect of an animal’s nutritive activities. Likewise, humans can rationally calculate about these same activities, using their “practical intellect” (πρακτικὸς νοῦς)¹⁷ to determine about what to eat, what to avoid, and with whom to reproduce. Although Aristotle is acutely aware of our common failure to achieve or embody practical rationality, this is still the standard to which we hold and by which we judge human action. With both animals and humans, then, what it is to perform nutritive activities—collect and consume nutriment, reproduce, grow—differs significantly from the analogous activities in plants.

The most concrete version of this thought comes in Aristotle’s account of “touch” (ἄφή) and “taste” (γεῦσις). These are the two basic perceptual capacities, shared by all animals, including those who lack distal senses. This is because touch and taste have a special relationship to nutrition—they are the perceptual capacities which allow an animal’s nutritive part to manifest itself. First and foremost, they both discriminate the qualities of nourishment itself and give rise to the appetitive pleasure on which the pursuit of nutriment depends:

(t3) That to which perception belongs, to this belongs both pleasure and pain, and both the pleasurable and the painful; and to those things to which these belong also belongs appetite, since appetite is a desire for what is pleasurable. Further, they have perception of nourishment; for touch is perception of nourishment [ἢ γὰρ ἀφή τῆς τροφῆς αἴσθησις], since all living things are nourished by dry, wet, hot, and cold things, and touch is perception of these. Touch is perception of other sensibles co-incidentally. For

¹⁶ “εἰ οὖν πᾶν σῶμα πορευτικόν, μὴ ἔχον αἴσθησιν, φθείροιτο ἂν καὶ εἰς τέλος οὐκ ἂν ἔλθοι, ὃ ἐστὶ φύσεως ἔργον. πῶς γὰρ θρέψεται;” (*DA* III.12, 434a32-b2).

¹⁷ See, for example, *DA* III.10, 433a16. This is “the intellect which engages in calculation for the sake of something and is practical, and which differs from the contemplative reason with respect to its goal,” (*DA* III.10 433a14-15).

neither sound nor color nor smell contributes anything to nourishment, whereas flavor is among the objects of touch. Hunger and thirst are appetites—the first sort, hunger, for the dry and the hot, and the second sort, thirst, for the wet and the cold. Flavor is a sort of seasoning of these.¹⁸

The qualities that distinguish the nutritional features of objects, like dryness or moistness, are those same features that fall under the responsibility of touch and taste. They are necessary for animal life, as they allow the animal to identify desirable sources of food—to avoid what is painful and to pursue what is pleasurable. This, in turn, gives rise to hunger and thirst, as desires for precisely those pleasures and pains connected intimately to nutrition.

For these reasons, Aristotle elsewhere describes taste as a kind of awareness of affections of the nutritive part of the soul itself:

(t4) We may say that touch and taste necessarily appertain to all animals, touch, for the reason given in *On the Soul*, and taste, because of nutrition. By taste one distinguishes in food the pleasant from the unpleasant, so as to flee from the latter and pursue the former; and generally flavor is an affection of the nutritive part [ὅλως ὁ χυμός ἐστι τοῦ θρεπτικοῦ πάθος].¹⁹

Perhaps to our surprise, Aristotle claims that a perceptible object—flavor, χυμός—is an affection of the nutritive part of the soul. For nutrition to function, it requires that the animal feels hunger, desires a flavor, and perceives that flavor as pleasant. Through taste, the organism must feel the need for food, and perceive the pleasure (i.e., good) of food through its flavor. Taste and touch

¹⁸ “εἰ δὲ τὸ αἰσθητικόν, καὶ τὸ ὀρεκτικόν· ὄρεξις μὲν γὰρ ἐπιθυμία καὶ θυμὸς καὶ βούλησις, τὰ δὲ ζῶα πάντ’ ἔχουσι μίαν γε τῶν αἰσθήσεων, τὴν ἀφήν· ᾧ δ’ αἴσθησις ὑπάρχει, τούτῳ ἡδονή τε καὶ λύπη καὶ τὸ ἡδύ τε καὶ λυπηρόν, οἷς δὲ ταῦτα, καὶ ἐπιθυμία· τοῦ γὰρ ἡδέος ὄρεξις αὕτη. ἔτι δὲ τῆς τροφῆς αἴσθησιν ἔχουσιν· ἢ γὰρ ἀφή τῆς τροφῆς αἴσθησις· ξηροῖς γὰρ καὶ ὑγροῖς καὶ θερμοῖς καὶ ψυχροῖς τρέφεται τὰ ζῶντα πάντα, τούτων δ’ αἴσθησις ἀφή, τῶν δ’ ἄλλων αἰσθητῶν κατὰ συμβεβηκός. οὐθὲν γὰρ εἰς τροφήν συμβάλλεται ψόφος οὐδὲ χρῶμα) οὐδὲ ὄσμη, ὁ δὲ χυμὸς ἔν τι τῶν ἀπτῶν ἐστίν. πείνα δὲ καὶ δίψα ἐπιθυμία, καὶ ἢ μὲν πείνα ξηροῦ καὶ θερμοῦ, ἢ δὲ δίψα ὑγροῦ καὶ ψυχροῦ· ὁ δὲ χυμὸς οἷον ἡδυσμά τι τούτων ἐστίν,” (*DA* II.3, 414b1-14).

¹⁹ “ἢ μὲν ἀφή καὶ γεῦσις ἀκολουθεῖ πᾶσιν ἐξ ἀνάγκης, ἢ μὲν ἀφή διὰ τὴν εἰρημένην αἰτίαν ἐν τοῖς περὶ ψυχῆς, ἢ δὲ γεῦσις διὰ τὴν τροφήν· τὸ γὰρ ἡδὺ διακρίνει καὶ τὸ λυπηρόν αὐτῇ περὶ τὴν τροφήν, ὥστε τὸ μὲν φεύγειν τὸ δὲ διώκειν, καὶ ὅλως ὁ χυμὸς ἐστὶ τοῦ θρεπτικοῦ πάθος,” (*DS* I, 436b13-18).

are essential and necessary aspects of the nutritive activities of animals. Hence, the actual way in which nutrition manifests itself is, from the beginning, inflected with perception. This pushes Aristotle to blur the lines between the nutritive and perceptual parts of an animal's soul, treating something that is, strictly speaking, a *perceptible* quality as an affection of an animal's *nutritive* part. To understand how animals perform nutritive activities, then, we must make reference to their perceptual capacities. Their nutritive parts are thoroughly interpenetrated by their characteristically perceptual souls.

Considerations scattered throughout Aristotle's reflections on perception likewise suggest that perception is transformed by its presence in a human soul. Again, the mechanics of perception need not differ widely between animals and humans. Still, on Aristotle's view, one must ultimately understand human perception through reference to the whole human soul: "one could not easily set down [perception] as either nonrational or rational."²⁰ This signals, albeit with some initial hesitancy, that Aristotle is open to the possibility that there are forms of perception that are entirely nonrational (animal perception) and some that are thoroughly rational (human perception).

Before examining this claim, it is important to note what is *not* being suggested. Aristotle is clear that animal cognition is quite sophisticated—perhaps not to the extent that contemporary biology has shown, but further than many of his contemporaries. In *DA*, for example, Aristotle attributes to animal's sophisticated perceptual activities, like perceptual "judgment" (κρίσις), perceptual self-awareness, and *phantasia*.²¹ This list expands in *PN* to include activities like

²⁰ "ὁ οὔτε ὡς ἄλογον οὔτε ὡς λόγον ἔχον θείη ἂν τις ῥαδίως," (*DA* III.9, 432a30-31).

²¹ *DA* III.2, 426b8-427a14; 425b12-32; III.3.

memory, dreaming, and intentional locomotion.²² Especially compared to Plato, this is a substantial expansion of the scope of animal perception.²³ Likewise, in his biological treatises, Aristotle takes pains to describe the surprising sophistication of animal behavior. *HA IX* is especially direct in this regard: Aristotle there claims that, even though they are wholly nonrational, animals can possess forms or analogues of “practical wisdom” (φρόνησις), “learning and teaching” (μάθησις καὶ διδασκαλία), and the ability “to distinguish between signs” (τῶν σημείων διαισθάνεσθαι τὰς διαφοράς), i.e., to understand meaning.²⁴ He provides throughout *HA IX* concrete illustrations of sophisticated animal behavior.

This indicates that, whatever the difference is between animal and human cognition and perception, animals are nonetheless quite intelligent. The difference between animal and human perception must be of a fairly subtle sort. To see this born out concretely, one helpful approach is to recognize that perception is, for Aristotle, the mode of cognition through which animals and humans grasp concrete, material particular things. The presence of intellect and rationality allows humans to cognize and apprehend particulars—that is, to perceive them—in ways that are unavailable to animals.

This fact rears its head in multiple ways throughout the Aristotelian corpus. Perhaps the most prominent way in *DA* is Aristotle’s treatment of “coincidental perceptibles” (αἰσθητόν κατὰ συμβεβηκός), such as (for the human) that pale man as the son of Diares or (for the cat) that kibble as food. The exact status of these objects—whether and how they are really

²² These are the topics of *DM*, *Juv.*, and *MA*, respectively.

²³ Sorabji maintains that this attribution of highly sophisticated perceptual behavior to animals “gives to perceptual content one of the most massive expansions in the history of Greek philosophy,” (Sorabji, 195, 1992; see also Gregoric, 2007, 5-6).

²⁴ *HA IX.1*, 608a13; 608a15; 608a18.

perceptibles—remains controversial.²⁵ Nonetheless, the fact that Aristotle unequivocally recognizes them as perceptible objects is informative. It seems reasonable that we should take Aristotle at his word when he claims that coincidental perceptibles are perceptibles. When we apprehend them, we do so first and foremost through perception (and not through intellect).²⁶

If this line is correct, this locates one way in which human perception is transformed. At least some coincidental perceptibles are inaccessible to nonrational animals. For one to perceive that pale blotch of color in the distance as the son of Diares,²⁷ one must at the very least have access to features of the world, like ‘son’, that might be inaccessible to nonrational animals. I perceive a chess player playing in the park, and identify her as a chess player. Again, I must have access to concepts, like ‘chess’ and ‘player’, that nonhuman animals could never possess. In both cases, humans perceive things, or perceive in ways, that are inaccessible to animals. Humans do so, presumably, through some kind of reliance on their intellectual, rational, and conceptual capacities. Consequently, our very activities of perceiving are inflected by our rational concepts and capacities.

A particular class of such perceptible objects plays an important role in Aristotle’s account of ethical cognition. He assigns to perception the apprehension of concrete moral qualities and features, like blameworthiness.²⁸ Aristotle maintains that I apprehend someone to

²⁵ E.g., Cashdollar (1973); Kahn (1992); Modrak (1987); Rabinoff (2018, esp. 18-24), who offers a sustained defense of the kind of interpretation that I here adopt.

²⁶ This is confirmed in *DA* III.3, where Aristotle claims that incidental perception (there described as when “perception is of something’s being an attribute of something”, *DA* III.3, 428b19-20) produces a distinctive “motion effected by the actuality of perception,” (*DA* III.3, 428b25-26), which in turn gives rise to a distinctive kind of perceptual *phantasia*.

²⁷ *DA* II.6, 418a21.

²⁸ *NE* II.9, 1109b24; VI.5, 1126b4. See Rabinoff (2018, 44 n.13) for an extended list of similar claims.

be blameworthy for a particular vicious action through perception. Further, I can perceive that a particular person is blameworthy, in turn, because I have access to concepts like ‘blame’. Such concepts are, presumably, not available for nonhuman animals. The same is true for most other ethical features encountered in concrete practical situations.

We might think that Aristotle has made a mistake here—that features like blameworthiness or chess are actually apprehended by some rational insight, and not by perception. To combat such a worry, Aristotle emphasizes that practical situations, such as ethical dilemmas or chess games, always concern concrete particulars, which “admit of being otherwise.”²⁹ Hence, we cannot apprehend these situations, and be attuned to their moral features, through reason alone, which deals in universals. Instead, they must be cognized through an unmediated grasp of particulars:

(t5) For...the ultimate [particulars] are objects of intellect and not of reason...in practical reasonings [intellect] grasps the last and contingent fact...For these are the starting-points of that for the sake of which, since the universals are reached from the particulars; *of these therefore we must have perception, and this [perception] is intellect* [τούτων οὖν ἔχειν δεῖ αἴσθησιν, αὕτη δ’ ἐστὶ νοῦς].³⁰

A full appreciation of the details of this difficult passage would take us far afield. Indeed, we have reason to worry that the meaning of “intellect” (νοῦς) here in *NE* differs in significant ways from its meaning in *DA*.³¹ Yet, even on an initial reading, this provides a suggestion about how ethical perception is infused with intellect. In cases of action, we grasp the particular situation, with particular objects and particular features. This much already guarantees that perception

²⁹ *NE* VI.11, 1143b3.

³⁰ “καὶ γὰρ τῶν πρώτων ὄρων καὶ τῶν ἐσχάτων νοῦς ἐστὶ καὶ οὐ λόγος, καὶ ὁ μὲν κατὰ τὰς ἀποδείξεις τῶν ἀκινήτων ὄρων καὶ πρώτων, ὁ δ’ ἐν ταῖς πρακτικαῖς τοῦ ἐσχάτου καὶ ἐνδεχομένου καὶ τῆς ἐτέρας προτάσεως· ἀρχαὶ γὰρ τοῦ οὗ ἕνεκα αὗται· ἐκ τῶν καθ’ ἕκαστα γὰρ τὰ καθόλου· τούτων οὖν ἔχειν δεῖ αἴσθησιν, αὕτη δ’ ἐστὶ νοῦς,” (*NE* VI.11, 1143a36– b5).

³¹ See Lesher 1973, especially 46-47.

must perform this cognition—perception is the cognitive capacity through which one grasps particulars. Yet because these situations involve complex ethical features, and the universal categories under which they fall, they also depend on our rational capacities and concepts. Accordingly, in an enigmatic turn of phrase, Aristotle claims that these situations are grasped by perception, which in this case is *also an expression of intellect*. With touch and nutrition, Aristotle was pushed to blur the lines between the nutritive and perceptual parts. Likewise, Aristotle is pushed to blur the boundaries between intellect and perception, when considering a unified human soul and its engagement in concrete practical situations.

Finally, Aristotle maintains similar commitments even when he distinguishes intellect and perception. In *DA III.4*, discussed in more detail in Chapter 4,³² Aristotle distinguishes the way in which the objects of perception, strictly construed, differ from those of intellect:

(t6) Since a magnitude and being a magnitude differ, as also water and being water differ (and thus for many other cases, though not all, since in some cases they are the same), one discriminates flesh and being flesh either by means of different things or by means of something in a different condition. For flesh is not without matter, but is rather just as the snub: a this in a this. One discerns by means of the perceptual capacity the hot and the cold, those things of which flesh is a proportion. But it is by means of something else...that one discerns being flesh...Generally as things are with respect to things separate from matter, so too are they with respect to things concerning intellect.³³

On the one hand, perception grasps the proper and common sensibles (e.g., hot and cold), which are the material features of particular objects. On the other, intellect grasps the being or essence of those objects (as well as of nonmaterial objects). Perception proper gives us access to the

³² I discuss the details of this passage, and its implications for Aristotle's theory of psychic parthood in Chapter 4, §3.1.

³³ “ἐπεὶ δ’ ἄλλο ἐστὶ τὸ μέγεθος καὶ τὸ μεγέθει εἶναι, καὶ ὕδωρ καὶ ὕδατι εἶναι (οὕτω δὲ καὶ ἐφ’ ἐτέρων πολλῶν, ἀλλ’ οὐκ ἐπὶ πάντων· ἐπ’ ἐνίων γὰρ ταῦτόν ἐστι), τὸ σαρκὶ εἶναι καὶ σάρκα ἢ ἄλλῳ ἢ ἄλλως ἔχοντι κρίνει· ἢ γὰρ σὰρξ οὐκ ἄνευ τῆς ὕλης, ἀλλ’ ὥσπερ τὸ σιμόν, τόδε ἐν τῷδε. τῷ μὲν οὖν αἰσθητικῷ τὸ θερμὸν καὶ τὸ ψυχρὸν κρίνει, καὶ ὅν λόγος τις ἢ σὰρξ· ἄλλῳ δέ...τὸ σαρκὶ εἶναι κρίνει...ὅλως ἄρα ὡς χωριστὰ τὰ πράγματα τῆς ὕλης, οὕτω καὶ τὰ περὶ τὸν νοῦν,” (*DA III.4*, 429b10-22).

material properties of flesh, while intellect gives us access to the essence of flesh. This exhibits in a straightforward way how the presence of intellect alters our relationship to concrete particulars. How I approach a particular apple is changed by the presence of intellect: I see it not just as hot or cold, as bitter or sweet, as pleasant or painful (as animals do), but as falling under a general category and having an essence. When we perceive a particular apple, we cognize it as part of a natural kind, sharing features with other instances of apples or fruits. Our apprehension of concrete examples of apples or flesh is transformed, so that humans perceive them in a distinctively human manner.

In sum, the metaphysical conclusions that push Aristotle to treat the whole soul as prior to its parts, and so embrace a holistic conception of psychic structure, emerge in concrete doctrines about how particular psychic parts are transformed by their presence in particular souls. We cannot understand the nutritive activities of animals and humans without reference to their whole perceptual or intellectual souls; we cannot understand the perceptual activities of humans without reference to their whole intellectual souls.

1.4 The Tension

We can now return to the main thread of our argument. We have settled our first claim: evidence for both disjunctive and holistic conceptions of psychic structure can be found in crucial moments throughout *DA*. The former presents a plausible picture of psychic parthood and captures Aristotle's presiding methodology in *DA*. The latter presents a plausible picture of psychic unity and places Aristotle's conception of soul within his broader metaphysics of substance. The second claim that I proposed earlier remains to be shown: that, at least on their surface, these disjunctive and holistic conceptions are incompatible or stand in direct

contradiction. Moreover, because these claims are both crucial to Aristotle's psychology, Aristotelian psychology faces the threat of internal incoherence.

The tension between the two conceptions of psychic structure should by now be clear. At bottom, they are symptomatic of different conceptions of soul, psychological inquiry, life, and mereology. The disjunctive conception stresses the multiplicity and diversity of lives and souls, while the holistic conception stresses their unity. The disjunctive conception treats the soul as an aggregate of discrete and actual parts, while the holistic treats the soul as a single form and nature. The disjunctive conception treats parts as prior to the whole, while the holistic treats the whole as prior. The disjunctive conception suggests that we can understand a psychic part independently and abstracted from its place in particular souls, while the holistic suggests that we can only understand a psychic part in its relation to a whole soul. The disjunctive conception maintains that a part is uniform when present in different souls, while the holistic maintains that a part is transformed by its presence within a particular soul.

The conflict between these two conceptions arises within *DA* itself, as the arguments in favor of one conception directly undermine the validity of the other conception. Aristotle's methodology, for example, appears to discredit any holistic interpretation. Aristotle proceeds sequentially, treating each psychic part as uniform and without reference to the whole or other parts. On a holistic account, in which parts are transformed by the whole, we would instead expect distinct accounts of the distinct varieties of psychic parts (e.g., animal perception, human perception). Hence, Aristotle's sequential approach suggests that he would reject any holistic conception.

In contrast, *DA* I.5's *aporia* about psychic unity appears to offer a refutation of any disjunctive conception. Because a disjunctive conception treats parts as prior and actual, if these

parts are to form a single soul, they need some external cause to unify them. Aristotle contends that any attempt to identify such a unifying cause is, in principle, impossible. We are unable to explain psychic unity if we conceive of psychic parts as actually discrete—that is, if we accept a disjunctive conception of psychic structure. Hence, Aristotle’s anxieties about the unity of the soul suggest that he should reject any disjunctive conception.

Consequently, we face a serious interpretive problem, and Aristotle a serious philosophical problem. Aristotle employs two distinct conceptions of psychic structure in *DA* for legitimate philosophical purposes. Yet those two conceptions, on their surface, stand in contradiction. At moments, Aristotle himself seems to reject the holistic in favor of the disjunctive; at others, he seems to reject the disjunctive in favor of the holistic. Because these conceptions depend on commitments that lie at the heart of Aristotelian psychology, it appears that Aristotle’s psychology itself contains a deep-rooted contradiction.

Although many interpreters have simply ignored this tension,³⁴ a few have explicitly recognized it. The latter group has attempted to defuse the tension by suggesting that Aristotle has distinct “perspectives”³⁵ on the soul, or treats psychic parthood in distinct “contexts”.³⁶ If true, this would neutralize the problem by assigning the different conceptions of psychic

³⁴ Corcilius and Gregoric, for example, focus exclusively on the separability of psychic parts, and so effectively ignore any holistic considerations. In contrast, Koslicki explicitly denies that there are any parts in an Aristotelian soul, and so ignores Aristotle’s frequent references to psychic parthood. Elsewhere, however, Corcilius (2015) entertains a view similar to the one I defend: “Aristotle seems committed to something like the following: when considered in abstraction from superordinate contexts, the faculties of the soul have essences that are *definitionally separable* from each other...but as integral parts of functionally superordinate contexts they are inseparable parts of a natural whole,” (2015, 43). As with Johansen and Frey, Corcilius fails to specify more concretely what these contexts are, and why Aristotle would choose to adopt one or the other in particular places.

³⁵ Johansen (2012, 71).

³⁶ Corcilius (2015, 43).

structure to different explanatory projects. For instance, although Johansen defends a disjunctive conception, he acknowledges that Aristotle at times displays sympathies to a holistic conception. Nonetheless, he maintains that Aristotle's "primary perspective" in *DA* is disjunctive.³⁷ Similarly, although Frey advocates for a holistic conception, he acknowledges that Aristotle proceeds at times as if he endorses a disjunctive conception. Again, instead of simply dismissing the disjunctive conception, he argues that the holistic conception is "primary."³⁸

While on the right track, these responses do not yet actually resolve the tension that these interpreters attempt to resolve. It is not sufficient just to recognize and name a tension or problem. The above responses fail to go beyond this initial recognition and naming, remaining silent precisely on what it means for one conception to be primary, why Aristotle would adopt both conceptions, and how they ultimately relate to each other. Crucial questions remain to be answered, which these previous interpretations have left unresolved: how can Aristotle maintain both perspectives on the soul, if they indeed contradict each other? What are the different contexts that call for the different perspectives? How can both perspectives coexist within Aristotle's theoretical psychology? If we are to resolve this tension, we must specify the actual relationship between the two conceptions, and why Aristotle would opt to employ both (when he could, presumably, have just employed one).

In what remains, I take up this challenge. First and foremost, I reject two related assumptions shared by previous attempts to resolve the tension just described: (1) the two conceptions of psychic parthood, in fact, contradict each other; (2) the two conceptions attempt

³⁷ "It is clear that Aristotle wants ultimately to integrate the parts of soul ... However... this is not Aristotle's primary perspective on the definition of soul," (Johansen 2012, 71).

³⁸ "It is my contention that the... conception of the soul according to which it is a unitary nature is primary for Aristotle," (Frey 2015, 174).

to address the same sorts of questions. If an interpreter accepts both assumptions, one must show either that one conception is false, or that one is somehow ‘more primary’ than the other. Both approaches are misguided—not because the holistic and disjunctive theories are not actually to be found in *DA*, or that they are not actually distinct conceptions. Instead, they are compatible precisely because they neither attempt to describe the same phenomenon, nor are in competition with each other. Because they are employed for different purposes and address different sets of issues, they can both coexist happily within and contribute to a single science of soul.

§2 Common and Particular Accounts

Because Aristotle himself never self-consciously reflects on the relationship between these two conceptions, there would appear to be no direct textual evidence to conclusively decide these issues. Accordingly, we must turn to other aspects of his psychology and, in effect, reconstruct an Aristotelian answer. I articulate an analogy between the distinction between disjunctive and holistic conceptions of psychic structure, and another distinction central to *DA*: the distinction between common and particular accounts of soul. Disjunctive and holistic conceptions of psychic structure, I contend, require common and particular accounts of psychic parts, respectively. Aristotle thinks that both common and particular accounts of soul are useful and appropriate when understood correctly, accomplishing distinct tasks in response to distinct theoretical worries. I argue that disjunctive and holistic conceptions of psychic structure likewise form complementary aspects of Aristotelian psychology.

2.1 A Threat to the Unity of Psychology

We can first get into view the distinction between common and particular accounts of soul. Aristotle formulates this distinction in response to a specific problem about the nature of psychological inquiry. Aristotle denies that there is a single genus *Soul*, or a single essence of all souls, over and above the different species of soul. Aristotle here is not simply making, as some have suggested, an anti-Platonist rejection of a separately existing Form of *Soul*. Because Aristotle denies the independent existence of all universals, this point could be made about *any* genus. Instead, we have a stronger denial of any kind of unified, determinate genus of soul. There are merely distinct species of life-principles (plant, animal, and human souls).

We have seen how similar claims arose from the heterogeneity of life—the irreducible diversity of vital activities implies the irreducible diversity of psychic principles. In *DA* II.3, Aristotle articulates this point by focusing on the *sequential* nature of souls—that they form an ordered series from more basic (e.g., nutritive souls) to more complex (perceptual souls).³⁹ As Ward suggests,⁴⁰ the members of a series can neither fall under a single genus nor share a single univocal nature. Aristotle’s argument for this claim is perhaps needlessly complicated, and less intuitive with some series (e.g., numbers) than others (souls). In brief, Aristotle argues that there is an inconsistency between a uniform *genus* being prior to all its members⁴¹ and the *first member* in a series being prior to the other members.⁴² The argument itself, however, is not our

³⁹ This is shown in Aristotle’s ordering of *capacities* according to their commonality (*DA* III.2 414a29-b19).

⁴⁰ Ward (1996, esp. 114-117; 119-123); see also Frey (2015, 155-6); *Meta.* B.3, 999a6-16; *EE* I.8, 1218a1-8; *NE* I.6, 1096a17-35; *Pol.* 1275a34-38.

⁴¹ *Cat.* XIII, 15a4-7; *Top.* VI.4, 141b28-9.

⁴² Roughly, Aristotle holds that thinking of an ordered series as falling under a single genus requires conflicting priority claims. In an ordered series, the first member is prior to all the other subsequent members and to any common features they share. If there were no first member (a

main concern; rather, it is Aristotle's steadfast commitment to its conclusion: "with things where the objects differ in species, and one of [the species] is first, another second, and another subsequent to that, there is either nothing at all which is common to them, in so far as they are of this sort, or barely."⁴³ This is in contrast to kinds in which species are "simultaneous by nature", and so neither prior or posterior to each other.⁴⁴ Accordingly, given that souls form an ordered series, and are prior or posterior to each other, there can be no genus *Soul* beyond the distinct kinds (plant, animal, human souls) that we collectively refer to as 'souls'. To use Aristotelian terminology that we will shortly encounter, *Soul* is not an *indivisible* kind, but rather divisible into plant, animal, and human souls.

Aristotle maintains that such claims also obtain, for example, with "citizen" (πολίτης) and "constitution" (πολιτεία). Political constitutions, Aristotle thinks, come in an ordered series, and the nature of a citizen is defined relative to the citizen's constitution. Citizens, then, come in in a similar ordered series: "the citizen corresponding to each form of constitution will also

unit, a triangle), there would be no subsequent members (numbers, figures). Yet a genus is also prior to the species falling under it and their common features. Hence, the elimination of the genus would require the elimination of things falling under it. If there is a first and most prior member—a requirement for *all* ordered series recognized—then there can be no genus. This point is made explicitly at *EE* I.8, 1218a1-6: "In those cases where one is prior and another posterior, there is not something common besides them and separable. For then there would be something prior to the first [member]. For what is common and separable would be prior, because if what is common is done away with, the first [member] is done away with."

⁴³ "τῶν πραγμάτων ἐν οἷς τὰ ὑποκείμενα διαφέρει τῷ εἶδει, καὶ τὸ μὲν αὐτῶν ἐστὶ πρῶτον τὸ δὲ δεύτερον τὸ δ' ἐχόμενον, ἢ τὸ παράπαν οὐδὲν ἔστιν, ἢ τοιαῦτα, τὸ κοινόν, ἢ γλίσχρως." *Pol.* III.1, 1275a34–38

⁴⁴ "Also, co-ordinate species of the same genus are called simultaneous by nature. It is those resulting from the same division that are called co-ordinate, e.g., bird and beast and fish. For these are of the same genus and co-ordinate, since animal is divided into these—into bird and beast and fish. And none of them is prior or posterior, but things of this kind are thought to be simultaneous by nature," (*Cat.* 12, 14b33-15a1).

necessarily be different.”⁴⁵ There is no genus *Citizen*, but varieties of different kinds of citizens under different regimes. What it is to be a citizen—to “participate in deliberative and judicial office”⁴⁶—essentially differs for an American living in a 21st century capitalist republic and a serf living in feudal medieval Europe.⁴⁷

In contrast, Aristotle thinks that some groupings of souls form genuine kinds: the three basic kinds of soul are each “proper and indivisible species” (οικεῖον καὶ ἄτομον εἶδος).⁴⁸ There is, he claims, a single, shared nature held by all plant souls, another by all animal souls, and another by all human souls. For Aristotle, these souls are defined by their nutritive, perceptual, and intellectual capacities, respectively. Although there are many kinds of animals, and no separately existing *Idea Animal*, there still is a determinate class of animals. The class of animals are indivisible insofar as they all share a single uniform perceptual capacity and nature, by which they are defined, *qua* animals.⁴⁹ The defense for such a claim, presumably, would be an empirical verification of the actual similarities in the lives of animals. Nonetheless, the present argument, and the worries that Aristotle attempts to address, do not depend on where exactly one draws the line between divisible and indivisible species. Instead, they depend only on the claim that *Soul* does not constitute an indivisible class, but can be divided into several indivisible species. Aristotle is committed to plant, animal and human souls being indivisible species; yet

⁴⁵ “ὥστε καὶ τὸν πολίτην ἕτερον ἀναγκαῖον εἶναι τὸν καθ’ ἐκάστην πολιτείαν,” (*Pol.* III.1, 1275b3-4).

⁴⁶ *Pol.* III.1, 1275b17-18.

⁴⁷ See Shields (2016, 196).

⁴⁸ *DA* II.3, 414b27.

⁴⁹ This claim is articulated, for example, in *NE* I.7’s function argument, where the life of animals is characterized as a “perceptual life” (*NE* I.7 1097b21-1098a19).

we can support his general conception of common and particular accounts of soul even if further investigation shows that we should identify the indivisible species of soul differently.

The denial that *Soul* is a genus stands as a stubborn obstacle to Aristotelian psychology. Psychology seeks to provide, amongst other things, an account of the soul that specifies its being and nature,⁵⁰ and so a genuine definition of the soul. As he maintains in his logical works, proper definitions have *single* objects as their subjects—a single determinate class, which shares a single essence. Hence, he maintains that “one science is of one genus” as its subject.⁵¹ Because there is no single kind *Soul*, whose members share a single essence, there is likewise no proper definition of soul as such. Because a science is characterized by an attempt to provide such an essence-specifying definition of a given subject matter, this would mean that there is no single science of psychology. We would instead, at best, have a set of discrete sciences (phytology, zoology, anthropology), with only loose or nominal connections.

This anxiety is present from the very beginning of *DA*, where Aristotle registers this sort of worry amongst the other agenda-setting questions in *DA* I.1:

(t7) One must take care not to overlook the question of whether there is one account of soul, as there is of animal, or whether there is a different account for each type of soul [καθ' ἕκαστον ἕτερος], e.g., of horse, dog, man, god, while the universal animal is either nothing or is posterior to these; and it would be the same if any other common thing were being predicated.⁵²

Aristotle expresses a worry in (t7) that universal categories like *Soul* do not exist, or are merely *post hoc* groupings of actually distinct kinds. By *DA* II.3, this fear appears to be confirmed: there

⁵⁰ “We aim to consider and ascertain [the soul’s] nature and essence,” (*DA* I.1, 402a7-8).

⁵¹ “μία δ’ ἐπιστήμη ἐστὶν ἢ ἐνὸς γένους,” (*Apo.* I.28, 87a38; see also *Meta.* H.6 (esp. 1045a8-19); *Apo.* II.6, 92a31–4; II.10, 93b35–7).

⁵² “ἐὐλαβητέον δ’ ὅπως μὴ λανθάνῃ πότερον εἶς ὁ λόγος αὐτῆς ἐστὶ, καθάπερ ζῴου, ἢ καθ’ ἕκαστον ἕτερος, οἷον ἵππου, κυνός, ἀνθρώπου, θεοῦ, τὸ δὲ ζῶον τὸ καθόλου ἤτοι οὐθέν ἐστὶν ἢ ὕστερον, ὁμοίως δὲ κἂν εἴ τι κοινὸν ἄλλο κατηγοροῖτο,” (*DA* I.1, 402b5-8).

is no genus, no single account of soul, and so no science that treats all souls. The stated project of *DA*—to provide a single science of soul, which specifies the nature and being of soul—appears hopeless.

To preserve the plausibility of a unified psychology, Aristotle contends that psychology treats the series of souls just as geometry treats the series of figures. Even without a single genus of *Soul* or *Figure*, psychology and geometry can still treat all souls and figures:

(t8) It is clear, then, that in the same way there could be one account for both *Soul* and *Figure*. For in the one case a figure is nothing beyond a triangle and the others following in a series, and in the other a soul is nothing beyond the things mentioned. There could, however, in the case of figures be a common account [λόγος κοινός] which fits them all, though it will be particular to none; and the same holds in the case of the souls mentioned. For this reason, it is absurd to seek a common account in these cases, or in other cases, an account which is not particular to anything which exists, and which does not correspond to any proper and indivisible species, while neglecting what is of this sort. Consequently, one must ask individually what the soul of each is, for example, what the soul of a plant is, and what the soul of a human or a beast is.⁵³

Both psychology and geometry traffic in two sorts of accounts: the “common account” (λόγος κοινός) and the “particular account” (λόγος ἴδιος). The former makes general claims about *all* souls or figures; the latter makes claims only about particular sorts of souls or figures. The former answers to the desire for a unified psychology; the latter answers to the denial that there is a single genus *Soul*. Aristotle claims neither that either kind of account is impossible, nor that either is preferable. Rather, he claims that it is ludicrous to pursue a common account without care for particular accounts. Both common and particular accounts have their complementary

⁵³ “δῆλον οὖν ὅτι τὸν αὐτὸν τρόπον εἷς ἂν εἴη λόγος ψυχῆς τε καὶ σχήματος· οὔτε γὰρ ἐκεῖ σχῆμα παρὰ τὸ τρίγωνον ἔστι καὶ τὰ ἐφεξῆς, οὔτ’ ἐνταῦθα ψυχὴ παρὰ τὰς εἰρημέναις· γένοιτο δ’ ἂν καὶ ἐπὶ τῶν σχημάτων λόγος κοινός, ὃς ἐφαρμόσει μὲν πᾶσιν, ἴδιος δ’ οὐδενὸς ἔσται σχήματος. ὁμοίως δὲ καὶ ἐπὶ ταῖς εἰρημέναις ψυχαῖς, διὸ γελοῖον ζητεῖν τὸν κοινὸν λόγον καὶ ἐπὶ τούτων καὶ ἐφ’ ἐτέρων, ὃς οὐδενὸς ἔσται τῶν ὄντων ἴδιος λόγος, οὐδὲ κατὰ τὸ οἰκεῖον καὶ ἄτομον εἶδος, ἀφέντας τὸν τοιοῦτον... ὥστε καθ’ ἕκαστον ζητητέον, τίς ἐκάστου ψυχῆ, οἷον τίς φυτοῦ καὶ τίς ἀνθρώπου ἢ θηρίου,” (*DA* II.3, 414b20-32).

roles, when properly understood; the same claim, I suggest, holds of disjunctive and holistic conceptions. To prepare for this further claim, we will dwell on the common/particular distinction in some detail: what each kind of account distinctively accomplishes, where each comes up short, and how they complement each other.

2.2 The Common-Particular Distinction

Insofar as psychology or geometry genuinely treats all kinds of souls or figures, they issue in common accounts—general claims that elucidate souls or figures as such. Given that geometry is the science of figure, we should expect it to contain general descriptions of figures (e.g., “a figure is that which is contained by any boundary or boundaries”).⁵⁴ These descriptions obtain whether we are considering any particular shape. Likewise, given that psychology is a science of the soul, we should expect that it contains general descriptions of souls. In *DA* II.1, Aristotle gives a general metaphysics of soul, as the “first actuality...[of] an organic body potentially having life.”⁵⁵ Aristotle explicitly characterizes this hylomorphic account as “common to every soul,”⁵⁶ in which “the soul...[is] defined in outline [τύπω]...and sketched out.”⁵⁷ It constitutes an explanation of the soul, or central features of it, that obtain with every kind of soul.

Elsewhere, he characterizes these “accounts in outline” as “general” (καθόλου) accounts or “foretastes” of a particular “exact account” (λόγος ἀκριβής). The former set the stage for

⁵⁴ Euclid *Elements*, Bk. 1, Def. 1.

⁵⁵ *DA* II.1, 412a20-21; 412a28-29.

⁵⁶ “τι κοινὸν ἐπὶ πάσης ψυχῆς,” (*DA* II.1, 412b4).

⁵⁷ “τύπω μὲν οὖν ταύτη διωρίσθω καὶ ὑπογεγράφθω περὶ ψυχῆς,” (*DA* II.1, 413a9-10).

explanations that specify in detail the “causes” of its given subject. Even without the exactness, accounts in outline do afford us some ability to “know” (γνωρίζειν).⁵⁸ Such statements are said to hold true of, or “fit” (ἐφαρμόζειν), every soul. They formulate features that hold universally of souls. Whatever differences we wish to emphasize between the different kinds of soul, they all are forms of functionally complex bodies, causes of life, etc. Hence, a common account of soul demarcates the shared features of souls and the general domain into which all souls fall.

Insofar as psychology and geometry capture the *natures* of determinate kinds of souls or figures, they issue in particular claims about particular kinds of souls or figures. As above, an Aristotelian definition holds of a unified essence of a “proper and indivisible species.”⁵⁹ Particular accounts offer “precise accounts” of such indivisible species: explanations of essential features shared by all members of determinate classes, which thereby specify their being and further necessary features. In geometry, for example, we give definitions of the various kinds of figures (e.g., ‘a triangle is a figure contained by three straight lines’).⁶⁰ In psychology, we give definitions of the three basic indivisible species of souls: we “ask individually what the soul of each is...what the soul of a plant is, and what the soul of a human or a beast is.”⁶¹ Aristotle does so in *DA* by specifying the distinctive capacities and activities that characterize a given soul. Perception characterizes and distinguishes the animal soul, and allows the animal to live a distinctively animal life. In articulating the nature of an animal soul, we explain what it is to be a perceptual principle, to be active perceptually, and to live a perceptual life. We find something

⁵⁸ *Top.*, 101a18-24; see also Bolton (1978, 259); *NE* II.1, 1104a1; *Meta.* Z.3, 1029a7; *HA* 491a1.

⁵⁹ “τὸ οἰκεῖον καὶ ἄτομον εἶδος,” (*DA* II.3, 414b27).

⁶⁰ See Euclid’s *Elements*, Bk.1, Def. 14, 19, 20

⁶¹ “ὥστε καθ’ ἕκαστον ζητητέον, τίς ἐκάστου ψυχῆ, οἷον τίς φυτοῦ καὶ τίς ἀνθρώπου ἢ θηρίου,” (*DA* II.3, 414b32-3).

like this in much of the rest of *DA*: sequential particular accounts of the kinds of soul, insofar as they are determined by their distinctive capacities.

Both common and particular accounts of soul have explanatory value within psychology. Two central advantages of common accounts present themselves. First, common accounts are *efficient*, covering all members of a class with single descriptions, while avoiding repetitions. A related anxiety about inefficiency and repetition arises, for example, in Aristotle's reflections on common and particular approaches to explaining animal life: "it is plain that if we deal with each species independently of the rest, we shall frequently be obliged to repeat the same statements over and over again."⁶² If we were to dwell only on indivisible species of soul, we would be forced to repeat many claims—e.g., that animal souls are forms of animal bodies, that human souls are forms of human bodies, etc. A common account allows us to make general statements that cover all souls. The common account of soul of *DA* II.1—that the soul is the form of the organic body—describes all souls, avoiding having to repeat similar claims multiple times.

Second, and more importantly, common accounts provide *a general orientation* for explaining particular kinds of soul, that displace tempting, but false general orientations. Common accounts have a wide explanatory power, illuminating the shared character of an entire class of things. The common account in *DA* II.1 brings into view at once the whole total of organic phenomena.⁶³ All explanations of any particular souls must fit the outline that such a common account provides. Explaining plant souls, in part, consists in explaining how it is a form of the organism and cause of life; explaining animal souls also involves explaining how it, in its distinct manner, is a form and cause of life. Accordingly, a common account provides a schema

⁶² "Φανερόν δ' ὅτι καὶ κατὰ μέρος μὲν λέγοντες περὶ πολλῶν ἐροῦμεν πολλάκις ταῦτά," (*PA* I.1, 639a24-5).

⁶³ See also Polansky (2010, 195).

for subsequent detailed particular accounts of kinds of souls. A common account articulates a cogent alternative to competing, but false common accounts of soul. If we begin from the false assumption that the soul is a “self-moving number” or “harmony”,⁶⁴ as some of Aristotle’s predecessors did, any subsequent accounts of particular kinds of souls would be doomed to fail. We would never be able to explain a plant soul, for example, if we began from the assumption that it must be some sort of self-moving number. Aristotle’s psychologicalhylomorphism, as a general account of soul, provides an alternative to these false accounts, and so a better basis for particular accounts of particular kinds of souls: one pursues explanations of how plant, animal, or human souls function as *forms* of organisms or *causes* of life.

Two central advantages of particular accounts present themselves. First, the articulation of particular accounts of soul is, at bottom, a central aim of Aristotelian psychology. Particular accounts constitute genuine definitions, and so provide precise essential and causal knowledge of a subject.⁶⁵ They specify single, univocal features that capture the essence of each member of a given class. Through particular accounts, we come to know, or express our understanding of, what something *is*—its essence, being, or nature. Aristotelian psychology aims to arrive at a proper definition (i.e., a particular account) of soul, which encapsulates a genuine comprehension of a particular sort of life and soul. Because he does so by specifying a soul’s distinctive capacities and activities, Aristotle concludes at the end of *DA* II.3 that “the account of each of these [psychic parts] will also be the most appropriate [οἰκειότατος] account concerning the

⁶⁴ *DA* I.2, 404b30; I.4, 407b30-31.

⁶⁵ *DA* II.2, 413a19-20.

soul.”⁶⁶ To give a proper and genuine definition of soul, we give particular accounts of the distinctive aspects of each basic indivisible species of soul.

Second, particular accounts of soul allow for the expansion of further demonstrative knowledge about the soul. Genuine accounts of a thing’s essence allow one to infer other necessary properties of that thing: “the principle of every demonstration is what a thing is, so that those accounts which do not lead us to ascertain the properties of a substance...will clearly and in every case be dialectical and vacuous.”⁶⁷ Definitions of geometrical objects (e.g., triangles, lines, etc.) allow the geometer to arrive at further geometrical truths (that a triangle’s interior angles are equal to two right angles). Genuine definitions of souls (e.g., what an animal soul is) allow the psychologist to arrive at further truths about life—e.g., the perceptual nature of dreams, that all of an animal’s affections are both psychic and bodily. Hence, particular accounts and definitions of souls not only capture the essence of particular kinds of souls, but allow the psychologist to grow their knowledge of such souls and the lives for which they are responsible.

As each kind of account has distinctive explanatory value, so each has distinctive drawbacks. In (t8), Aristotle chiefly focuses on the limits of common accounts of soul. Because “a common account will be peculiar to no [figure or soul],” Aristotle concludes that “it is absurd [γελοῖον] to seek a common account...while neglecting what is of this sort [i.e., particular accounts].”⁶⁸ Taken on their own, common accounts are *empty*. Because “there is nothing

⁶⁶ “ὅτι μὲν οὖν ὁ περὶ τούτων ἐκάστου λόγος οὗτος οἰκειότατος καὶ περὶ ψυχῆς, δῆλον,” (DA II.3, 415a12–13).

⁶⁷ “πάσης γὰρ ἀποδείξεως ἀρχὴ τὸ τί ἐστίν, ὥστε καθ’ ὅσους τῶν ὀρισμῶν μὴ συμβαίνει τὰ συμβεβηκότα γνωρίζειν...δῆλον ὅτι διαλεκτικῶς εἴρηται καὶ κενῶς ἅπαντες,” (DA I.1, 402b25–403a2).

⁶⁸ “γένονται δ’ ἂν καὶ ἐπὶ τῶν σχημάτων λόγος κοινός, ὃς ἐφαρμόσει μὲν πᾶσιν, ἴδιος δ’ οὐδενός ἐσται σχήματος. ὁμοίως δὲ καὶ ἐπὶ ταῖς εἰρημέναις ψυχαῖς. γελοῖον ζητεῖν τὸν κοινὸν λόγον καὶ

beyond”⁶⁹ the three indivisible species of soul—i.e., no genus *Soul*—a common account lacks a determinate subject on which to hold. Hence, a common account has no proper reference or single nature to serve as its subject, and so, strictly speaking, fails to explain anything in particular. Although it is true that all souls are causes of living, the ways in which plant and animal souls cause life, and the sorts of lives they cause, differ. Any approach to soul that focuses exclusively on such general, common accounts fails to recognize this essential difference, and so fails to accomplish the central task of psychology—to specify the actual nature of souls. Hence, the psychologist must also inquire “individually” (καθ’ ἑκάστων) about the indivisible species of soul.⁷⁰

As the description of the advantages of common accounts suggest, there are also drawbacks to an approach that focuses solely on particular accounts. There are more practical drawbacks, such as the *inefficiency* of particular accounts. As we saw above, an approach that treated indivisible species of souls independently would be obliged to laboriously and unnecessarily repeat many claims about the soul (e.g., that each kind of soul is a form). More crucially, a blind focus on particular accounts obscures the unity of psychology. We would not seek a general psychology, but a series of individual discrete inquiries into distinct subjects. There would be no single scientific psychology, which brings soul and life generally into view. Given that Aristotle, his contemporaries, and predecessors alike seek such a general understanding of soul and life, this would count as a major failure. In contemporary biology, the

ἐπὶ τούτων καὶ ἐφ’ ἑτέρων, ὃς οὐδενὸς ἔσται τῶν ὄντων ἴδιος λόγος, οὐδὲ κατὰ τὸ οἰκεῖον καὶ ἄτομον εἶδος, ἀφέντας τὸν τοιοῦτον,” (DA II.3, 414b22-28).

⁶⁹ “In the one case a figure is nothing beyond a triangle and the others following in a series, and in the other a soul is nothing beyond the things mentioned,” (DA II.3 414b21-22).

⁷⁰ “καθ’ ἑκάστων ζητητέον, τίς ἑκάστου ψυχῆ,” (DA III.2, 414b32).

inability to provide a general definition of life has likewise been seen by some as a significant failure.⁷¹ Moreover, this would leave the psychologist at a loss about the general metaphysical status of souls and the proper orientation that one should take to souls and life. When investigating any indivisible species of soul, the psychologist would have to examine, from the beginning, the metaphysical features of that species. It is precisely such a worry that Aristotle's common account of soul in *DA* II.1 attempts to address.

In sum, Aristotelian psychology makes use of both common and particular accounts of soul. Common accounts are responsive to the methodological needs of a general psychological inquiry, providing comprehensive, accessible, and orienting accounts of the distinctive features of the soul. They thereby set the stage for more detailed particular accounts of indivisible species of souls. The latter are responsive to the actual metaphysical contours of living things, cutting at the natural joints of the world, providing precise and essence-specifying definitions of the natures of organisms and their souls. These definitions, in turn, serve as the basis for expanding demonstrative knowledge about the necessary features of souls and living things. Accordingly, common and particular accounts of soul do not stand in contradiction or competition with each other. They serve distinct purposes, in response to distinct worries; in short, common and particular accounts are responsive to methodological and metaphysical concerns, respectively. In doing so, they complement each other, precisely making up for each other's shortcomings.

2.3 Analogy to Holistic and Disjunctive Conceptions

My central contention is that this distinction between common and particular accounts helps us to dissolve the tension between disjunctive and holistic conceptions of psychic structure.

⁷¹ E.g., Emmeche (1997). For a contrasting opinion, see Machery (2012).

A disjunctive conception, I argue, requires common accounts of psychic parts, while a holistic conception requires multiple particular accounts of psychic parts. Common and particular accounts of soul need not contradict each other, but accomplish distinct explanatory tasks and make up for each other's shortcomings. The same claims, in turn, obtain with disjunctive and holistic conceptions of psychic structure. To show this, two tasks remain: to explain how (1) the common-particular distinction, in fact, relates to and illuminates the disjunctive-holistic distinction, and (2) that Aristotle has good reason to make use of this latter distinction, just as he does with the former—that the two conceptions of psychic structure are complementary.

A disjunctive conception holds that psychic parts are prior to the whole soul. This naturally leads to the claim that a given psychic part is uniform—the same in essence when present in any soul. Perception possesses a single nature, regardless of whether it is present in a human or animal soul. Accordingly, on a disjunctive conception, an account of perception aims to specify that single nature *common* to all varieties of perception. Aristotle's official account of perception in *DA* fits this mold: a power to receive a perceptible form without matter. This is a common account of perception, which ignores any distinction between varieties of perception. A disjunctive conception also requires one to pursue similar accounts of nutrition (plant, animal, human) and intellect (human, divine), which specifies the common features shared by all varieties of nutrition or intellect. In general, because it treats psychic parts as prior to whole souls, a disjunctive conception requires common accounts of these parts.

In contrast, a holistic conception maintains that the whole soul is prior to its parts. This naturally leads to the claim that psychic parts differ in nature and are transformed when present in different kinds of souls. Perceptual principles share no single, common nature, present in all varieties of 'perception'. Instead, the nature of a given perceptual capacity reflects the kind of

soul in which it resides and the other psychic principles alongside which it is present. Accordingly, there could be no single account of perception that specifies its single nature. Instead, we would formulate multiple accounts that specify the various natures that perception has. We would pursue distinct particular accounts of human perception and animal perception, just as we would pursue particular accounts of the different kinds of soul. The same applies to accounts of nutrition (plant, animal, human) and intellect (human, divine). In general, because it treats whole souls as prior to their parts, a holistic conception requires particular accounts of particular varieties of psychic parts.

Consequently, disjunctive and holistic conceptions require common and particular accounts of psychic parts, respectively. Aristotle himself displays an awareness of these different approaches to psychic principles, perhaps most clearly in his treatment of locomotion:

(t9) The movement of the animals that belong to each genus, and how these are differentiated [τίνες διαφοραί], and what the reasons are for the accidental characteristics of each—all this we have considered elsewhere. But now we must consider in general [ὅλως] the *common cause* [τῆς κοινῆς αἰτίας] for moving with any movement whatever (for some animals move by flying, some by swimming, some by stepping, some in other comparable ways).⁷²

MA contains a common account of locomotion that illuminates the “common cause” (κοινή αἰτία) of any given locomotion: in brief, a psychic principle in the center of the body,⁷³ which produces motion through a combination of desire and cognition (perception, *phantasia*,

⁷² “Περὶ δὲ κινήσεως τῆς τῶν ζώων, ὅσα μὲν αὐτῶν περὶ ἕκαστον ὑπάρχει γένος, καὶ τίνες διαφοραί, καὶ τίνες αἰτίαι τῶν καθ’ ἕκαστον συμβεβηκότων αὐτοῖς, ἐπέσκεπται περὶ ἀπάντων ἐν ἑτέροις· ὅλως δὲ περὶ τῆς κοινῆς αἰτίας τοῦ κινεῖσθαι κίνησιν ὅποιαν οὖν (τὰ μὲν γὰρ πτήσει κινεῖται τὰ δὲ νεύσει τὰ δὲ πορεύει τῶν ζώων, τὰ δὲ κατ’ ἄλλους τρόπους τοιούτους) ἐπισκεπτόντων,” (*MA* 1, 698a1-7). See Nussbaum (1986, 274-278) for a discussion of this passage.

⁷³ “The principle of the movement-imparting soul must necessarily be in the middle,” (*MA* 9, 702b15-16)

thought).⁷⁴ This explanation can apply equally to all intentional movement—a snake’s slithering, a bird’s flying, or a human’s walking. Accordingly, he ignores the “differences” (διαφοραί)⁷⁵ that obtain between these kinds of animal locomotion, such as the required sorts of capacities (e.g., rational vs. nonrational) or physiology (e.g., wings vs. legs). He articulates a general schema into which any account of the particular forms of locomotion fits. In (t9), he explicitly distinguishes the pursuit of this common account from investigations into specific forms of locomotion (flying, walking, swimming), which are pursued elsewhere (presumably *HA* and *IA*). These latter investigations produce particular accounts of locomotion, which specify the essential features of particular forms of locomotion. *MA*’s common account effectively treats locomotion as a single distinct principle, uniformly shared by all animals. The particular accounts treat locomotion as a principle fundamentally embedded in a particular form of life and physiology.

Disjunctive and holistic conceptions share those advantages and shortcomings we identified in common and particular accounts of soul. The disjunctive conception provides an *efficient* methodology: sequential accounts of common features shared by all varieties of each psychic part. A common account provides a single general description of a given psychic part, avoiding unnecessary repetitions. Without such a common account, we would have to repetitively specify how each kind of nutritive principle (plant, animal, human) is a capacity for self-maintenance. With the common account required by a disjunctive conception, we could articulate this claim in a single, abstract description of nutrition.

More crucially, such common accounts bring into view the significant similarities in all cases of a given psychic part. In doing so, these accounts orient the psychologist and provide a

⁷⁴ “Now we see that the movers of the animal are reasoning and phantasm and choice and wish and appetite. And all of these can be reduced to thought and desire,” (*MA* 6, 700b17-19).

⁷⁵ *MA* 1, 698a2.

general basis on which to explore particular varieties of a given psychic part. Any subsequent account of a particular variety must “fit” the schema provided by these common accounts. Seeing that perception is a power to receive perceptual forms will provide a schema through which to investigate any variety of perception. Regardless of those unique aspects of human perception we saw in §1.3, any account of human perception must see it as some sort of reception of perceptible forms. Accordingly, as a common account of soul orients the psychologist, so common accounts of psychic parts orient the investigator of a given psychic part. This orientation, in turn, allows the psychologist to avoid false accounts of particular varieties of psychic parts. As Aristotle’s hylomorphic account of soul allows the psychologist to dismiss false general approaches to investigating the soul (e.g., as a self-moving number), so his common accounts of perception or nutrition allows the psychologist to dismiss misleading general theories of perception or nutrition (e.g., purely materialist theories).⁷⁶

Just as with common accounts of soul, there are drawbacks to a *purely* disjunctive conception of psychic structure. Common accounts, of both soul and psychic parts, are ultimately proper to nothing and empty. In understanding the part as prior to the whole, the disjunctive conception ignores the real differences between varieties of psychic parts, treating each part as a uniform, single principle. Yet, just as we found in (t8) that Aristotle sees fundamental differences between kinds of souls and lives, so we found in §1.3 that Aristotle thinks that varieties of psychic parts (e.g., human and animal perception) essentially differ and share no single uniform nature. This transformative character of psychic parts arises from central commitments of his psychology: his psychological hylomorphism and subsequent account of psychic unity. Hence, as there is no *Soul* beyond the various basic kinds of soul, so also there is no *Perception* beyond

⁷⁶ E.g., *DA* II.4, 415b29-416b19.

the basic varieties of perceptual powers. Neither *Soul* nor *Perception* could function as a determinate subject of a definition. Accordingly, the common accounts of a disjunctive conception lack a determinate subject and the ability to specify essences of particular varieties of psychic parts. Such common accounts only articulate shared features of psychic parts that “fit” all these varieties.

The particular accounts of psychic parts required by a holistic conception also have unique advantages. As just noted, Aristotle is ultimately committed to the existence of essential differences between varieties of psychic parts. Particular accounts specify the essences of the indivisible species of psychic parts, reflecting the essential difference between varieties of psychic parts, seeing each as fundamentally embedded in a particular soul and life. On this conception, we would not be content to describe the general character of perception or nutrition, but always seek further detailed accounts of human perception or plant nutrition. Like particular accounts of soul, these accounts constitute the full and concrete knowledge of the fundamental powers that determine a particular form of life. They are proper definitions, that specify the essence and nature of a particular variety of a psychic part.

Just as with any proper definitions, these particular accounts also allow the psychologist to expand their demonstrative knowledge. They help directly with explaining all the various subsequent features, activities, and capacities of a given life or soul. In giving a particular account of human perception, for example, we formulate an understanding of one of the fundamental aspects of human life. We can then use this understanding of human perception to explain many other aspects of human life—action, virtue, concept formation, etc. Any other particular account of a variety of a psychic part will allow us to similarly expand knowledge of the necessary features of an organism and its life. Accordingly, a holistic conception, which

requires particular accounts of psychic parts, allows the psychologist to provide essence-specifying, metaphysically robust explanations of psychic parts.

When taken in isolation, these holistic particular accounts also have drawbacks, similar to those of particular accounts of soul. Like all particular accounts, they are *inefficient*. They require the psychologist, for example, to repeat claims (e.g., that human perception and animal perception have their seats in the center of the body). Their central limitation, however, is their inability to provide a general orientation to the varieties of a psychic power. They prevent us from seeing the real connections or analogies between the lives of the different kinds of organisms. Although, metaphysically speaking, we have strong reasons to distinguish between varieties of nutrition, there are also deep continuities between them. The similarity between all forms of reproduction and nutrition, for example, form the basis of seeing life as a single fundamental activity.⁷⁷ Without common accounts to articulate this continuity, the psychologist would be at a loss in their general orientation towards a given psychic part.

DA's treatment of nutrition provides a useful illustration for these claims. Aristotle formulates a common account of nutrition that picks out a single central feature of all nutrition: "this principle of the soul [i.e., nutrition] is a capacity of the sort which preserves the thing which has it, as the sort of thing it is."⁷⁸ This general description is sufficient for the abstract purposes of *DA*, establishing a general orientation towards analyzing nutritive activities as acts of self-maintenance. Insofar as all earthly organisms perform this kind of activity, they can all be said to live. Yet this general description of nutrition is also empty. It does not specify how nutrition, and

⁷⁷ "This is both the first and most common capacity of the soul, in virtue of which living belongs to all living things, a capacity whose functions are generating and making use of nutrition," (*DA* II.4, 415a25-27).

⁷⁸ "ἡ μὲν τοιαύτη τῆς ψυχῆς ἀρχὴ δυνάμις ἐστὶν οἷα σώζειν τὸ ἔχον αὐτὴν ἢ τοιοῦτον," (*DA* II.4, 416b17-19).

the activities that follow from it, are performed within and shaped by an organism's whole life—e.g., how an animal's nutritive and reproductive activities can only be understood by reference to an animal's perception, desire, and locomotion. This emptiness is made apparent in Aristotle's definition, where he leaves unspecified "the sort of thing the organism is" (ἢ τοιοῦτον). A proper definition of a particular variety of a nutritive principle would reflect the particular kind of organism that maintains itself, as precisely the sort of organism that it is, and how or with what capacities it maintains itself.

It remains to be established that these two approaches to conceptualizing the structure of the soul are, in fact, compatible. Common and particular accounts of soul, we saw, stand in no direct conflict. The former orients and unifies the project of the psychologist; the latter constitutes the ultimate achievement of that project—detailed accounts of particular kinds of souls and psychic principles. Likewise, disjunctive and holistic conceptions are not only compatible, but each make up for the other's respective shortcomings. Much of the heavy lifting for this has already been accomplished in laying out the common-particular and disjunctive-holistic analogy. Because disjunctive and holistic conceptions similarly respond to different kinds of issues and pursue different aims, they ultimately are not in direct competition.

On the one hand, Aristotle is pushed to adopt a holistic picture based on *ontological* and *metaphysical* considerations, centrally about the unity of the soul and its status as a form. He wishes to describe how a soul could be a genuinely-unified principle, which is the form of a single organism and cause of a unified life. This, in turn, requires seeing the parts as prior and transformed by their presence in the whole. We must then seek particular, essence-specifying definitions of the varieties of a given psychic principle, which reflect how that part is transformed by and integrated into the relevant whole soul. Such accounts give metaphysically

rich and concrete pictures of what souls are and how an organism's various powers produce unified lives.

On the other, Aristotle is pushed to adopt a disjunctive picture based centrally on *methodological* considerations, which arise in the pursuit of a general, efficient, and far-ranging theory of life and soul. Even though it produces accounts that are, strictly speaking, empty—they specify no single shared essence—these accounts orient the psychologist, providing a general schema in which to explain the nature of a given variety of a psychic part. They clear the way, dismissing any misleading general theories of perception, nutrition, or thought. They do not fully accomplish the expressed intentions of *DA*, never providing an explanation of the nature and being of the soul, or its characteristic principles. Still, these common accounts do articulate useful general outlines of psychic parts, which serve the immediate purposes of *DA*—to give satisfactory accounts of the various central psychic parts and capacities of organisms.

In sum, Aristotle displays distinct conceptions of the structure of the soul. If taken as attempting to accomplish the same task, they appear to oppose each other, and lead to a contradiction within Aristotle's psychology. Yet we need not take them as attempting to accomplish the same task: one actually seeks metaphysically rich, essence-specifying accounts, while the other seeks accounts that develop the methodology and inquiry initiated in *DA*. Consequently, just as Aristotle explicitly endorses distinct approaches to explaining the soul as such, so he employs distinct approaches to psychic parthood. And just as Aristotle's two approaches to the soul complement and make up for each other's shortcomings, so too do his two approaches to the structure of the soul.

CONCLUSION

By way of conclusion, we can now take stock of what has been accomplished in the preceding six chapters. We began with a relatively straightforward textual question. Through *DA* and his biological texts, Aristotle employs, and at times explicitly reflects on, the term “part of soul”. A question that naturally arises, then, is how and why does Aristotle use this particular phrase? What philosophical and explanatory work does this phrase do and why would Aristotle opt to use it? Throughout, I have provided a response to these questions, arguing that the notion of psychic parthood plays a crucial role in Aristotle’s theoretical psychology, while also constituting a stubborn *problem* for him. I claimed that Aristotle’s employment of psychic parthood betrayed two further questions that lie at the heart of Aristotelian psychology. First, the *Problem of Psychic Parthood*: (1) what are the basic psychic principles responsible for all vital activities and how do they differ? Second, the *Problem of Psychic Unity*: (2) how can a soul be a genuine unity, a form, and a principle of unity, while also having parts?

First, having recognized the sheer diversity of life and its manifestations, Aristotle is led to endorse the “homonymy of life”—that living, and the psychic principles responsible for it, come in heterogeneous forms. This compels Aristotle to recognize internal complexity within the soul, which, I argued, ultimately amounted to a commitment to the existence of parts of the soul. Much of Aristotle’s explicit reflections on psychic parthood come in the form of criticisms of false conceptions of psychic parthood. He targets three central conceptions: the physiological conception (Chapter 2), as in Plato’s *Timaeus*, in which psychic parts are distinguished by spatial location and separability; Platonic tripartition and bipartition (Chapter 3), as in the *Republic*, which present anthropomorphic, ethically focused pictures of the soul; any conception that equates psychic part and psychic capacity (Chapter 3), as he argues Platonic tripartition and

bipartition do. Although these pictures might have some utility, these conceptions ultimately fail as scientifically, methodologically, and empirically viable pictures of the soul, and so cannot be incorporated into the theoretical psychology of *DA*.

From the ashes of these rejected conceptions of psychic parthood, we came to see Aristotle's own conception of psychic parthood. For Aristotle, psychic parts serve as the logically primitive and primary capacities of an organism, *in* which all the other capacities of an organism are and on which they depend. These are the nutritive, perceptual, and intellectual parts, which are defined by the basic nutritive, perceptual, and intellectual capacities. It is through these basic psychic parts that we explain—in 'dependency arguments'—all the other innumerable many capacities of an organism. We use perception, for example, to explain the nature of memory, dreaming, or *phantasia*. Through 'parthood arguments', Aristotle establishes that psychic parts are genuinely distinct parts, and so can serve to distinguish the basic varieties of life and organisms. Hence, psychic parts function as the fundamental explanatory building blocks on which Aristotle's entire capacity-based account of soul is built. With this conception of psychic parthood, and its contrast with the failed Platonic conceptions, we thereby come to see how and why the notion of psychic parthood can play a foundational role in a scientific psychology.

Second, having articulated a hylomorphic conception of soul according to which the soul is a unifying and unified form, Aristotle maintains the genuine unity of souls. Yet this commitment to psychic unity, on its face, appears to stand in direct tension with Aristotle's commitment to the existence of psychic parts, as detailed in the first four chapters. To resolve this tension, I detailed Aristotle's sophisticated account of psychic unity. I argue that Aristotle attacks an assumption at the heart of this tension, according to which parts are actually present,

distinct, and prior to wholes. Such an assumption compels the psychologist to futilely search for some external cause to bring together the parts of the soul into a single soul.

In contrast, we found that a soul is *actually* a single, genuine unity, which has within it parts that are merely *potentially* present and posterior to the whole. In the first instance, this potential presence is modeled on the series of geometric figures, in which an earlier member (e.g., a triangle) is potentially present within an actually-unified higher member (e.g., a square). Likewise, an animal's nutritive part is potentially present within its actually-unified perceptual soul. The viability of such a conception undermines the actualist assumption at the heart of Aristotle's worries about psychic unity. Moreover, this conception is at home in Aristotle's general metaphysics of form, according to which a form has both a material, potentially-present aspect, and a formal, actually-present aspect. These two parts are, in fact, the same single thing in different manners—one potentially and the other actually. In both the figure analogy and his general conception of form, Aristotle details how an alternative conception of parthood—potential parthood—can cure us of worries about psychic unity. Aristotle's conception of psychic unity is deflationary—when we properly understand the nature of psychic parthood and structure, and their connection to potentiality and actuality, we no longer feel anxieties around psychic unity and the pressure to identify some cause external to the soul to account for its unity.

Finally, these two problems and answers outlined above lead to two different conceptions of the structure of the soul: (1) a 'disjunctive' conception, according to which the soul is an aggregate of distinct, basic, and actually present principles, which are prior to the whole soul; (2) a 'holistic' conception, according to which the soul is an actual, single unity, which is prior to its parts. These two conceptions are distinct, but accomplish complementary explanatory tasks within *DA*, much as Aristotle employs both common and particular accounts of the soul in

general. Aristotle employs a disjunctive conception to give general, orienting accounts of a given psychic part (e.g., perception), as well as to avoid unnecessary repetitions. He employs a holistic conception to give precise, essential definitions of particular varieties of a given psychic part (e.g., animal and human perception), that answer to the actual metaphysical contours of nature.

In sum, Aristotle has provided the basis, which we have mined and reconstructed, for a substantial account of psychic structure. This account articulates how and why the soul can be a single, unified, and unifying form, even while possessing internal complexity and differentiation into parts. This account of psychic structure provides a methodological foundation for Aristotle's capacity-based inquiry into the soul, in which we seek precise accounts of the distinctive capacities and activities that define the life of different organisms. It as well supports a sophisticated metaphysical picture of the organism and its soul, relying on and emerging from his hylomorphic conception of substance articulated in the central books of the *Metaphysics*. It shows what central structural and metaphysical features the soul must have, if it is to genuinely function as an Aristotelian form. This account of psychic structure thereby shows the legitimacy and distinctive role that a notion of psychic parthood could and should have within a scientific psychology. In sum, then, Aristotle's conception of psychic structure, unity, and parthood illuminate the foundations of his inquiry into life and soul, and the aims and achievements of his *De Anima*.

APPENDIX

1 *Phantasia* is in the Perceptual Part of the Soul

As with memory,¹ Aristotle gives in *DA* III.3 a dependency argument about *phantasia* (φαντασία, that capacity “in virtue of which we say that some appearance comes about for us”).² *DA* III.3 is both controversial in its interpretation and varied in its purposes, so I here give only a schematic presentation of some aspects of its arguments. One of these purposes is, I contend, to show how *phantasia* does or does not depend on other central cognitive capacities, especially the perceptual and intellectual parts of the soul. He argues ultimately that *phantasia* bears a special relationship to perception: *phantasia* is a “movement” derived from some actual act of perceiving. Accordingly, *phantasia* is neither a distinct psychic part nor in the intellectual part, but is properly located in and logically posterior to the perceptual part of the soul.

As with memory, Aristotle’s treatment of *phantasia* follows the general schema articulated in Chapter 4, §2: (1) *phantasia* is not identical with any recognized psychic part (i.e., intellect or perception); (2) *phantasia* is not simply distinct from these parts, but bears some more intimate relationship to perception; (3) *phantasia* is a perceptual capacity, is in the perceptual part of the soul, and logically depends on perception.

First (*DA* II.3, 427b16-428b9), Aristotle contends that *phantasia* cannot be identical with perception and intellect: “*phantasia* is different from both perception and thinking.”³ He identifies, for example, a series of differences between perception, strictly understood, and

¹ See Chapter 4, §2.1

² “εἰ δὲ ἐστὶν ἡ φαντασία καθ’ ἣν λέγομεν φάντασμα τι ἡμῖν γίνεσθαι,” (*DA* 428a1-2).

³ “φαντασία γὰρ ἕτερον καὶ αἰσθήσεως καὶ διανοίας,” (*DA* III.3 427b14-15).

phantasia.⁴ Perception of proper sensibles is always true, while *phantasia* can be, and often is, false.⁵ Perception is present uniformly in all animals, whereas *phantasia* is not present in some of the most primitive animals (e.g., grubs), or present only in an indefinite way.⁶ These dissimilarities indicate that perception and *phantasia* cannot be simply identical, but must at least differ in being and account: “it is clear then that [*phantasia*] is not perception.”⁷ Aristotle likewise distinguishes *phantasia* from various intellectual capacities (intellect, conceiving, knowledge, belief, understanding), listing immediate differences between them—e.g., that *phantasia* and intellect are not coextensive.⁸ Again, this indicates that *phantasia* is not identical with any intellectual capacity (νοῦς broadly, or ὑπόληψις).

As with memory, if we take these arguments at face value and in a vacuum, they suggest that *phantasia* should constitute a distinct psychic part, over and above intellect and perception. Unlike with memory, Aristotle actually entertains this possibility in *DA* III.9’s discussion of psychic parthood, even if he does so with noticeable hesitancy:

(t1) There is the principle of *phantasia* [φανταστικόν], which differs from all [of the other capacities] in being, though there is considerable difficulty in saying—if one is

⁴ Aristotle notes other differences: perception ceases in sleep, yet *phantasia* can be active during sleep in dreams (*DA* III.3, 428a8); we refer to things “appearing” (φαίνεσθαι) for perception only in cases of indistinctness, whereas *all* cases of *phantasia* (φαντασία) invite talk of appearing (428a12-15); visual images (φαντάσματα) can appear to those with their eyes closed, even when they are unable to see (428a15-16).

⁵ “Perceptions are always true, whereas imaginings are for the most part false,” (*DA* III.3, 428a11-12).

⁶ Aristotle wavers on the question of whether *phantasia* and perception are genuinely coextensive. In *DA* III.3 he argues that “if [perception and *phantasia*] were the same in actuality, *phantasia* could belong to all beasts; but this does not seem to be the case. For instance, it belongs to the ant or the bee, but not to the grub.” (*DA* III.3 428a9-13) Later, he qualifies this position, claiming that *phantasia* is “present in [less developed animals], but present indeterminately,” (*DA* III.11, 434a4-5).

⁷ “ὅτι μὲν οὖν οὐκ ἔστιν αἰσθησις, δῆλον...” (*DA* III.3, 428a5).

⁸ “Among the beasts some have *phantasia*, but none has intellect,” (*DA* III.3, 428a23-24).

going to posit separate parts of the soul—with which of the others it will be the same or from which of the others will it differ.⁹

Aristotle has shown that *phantasia* is, in fact, different from perception or intellect. It remains to be seen in what way it differs, and whether this difference requires psychic partition and separation. Nonetheless, it is striking that Aristotle here still leaves open the possibility that *phantasia* could constitute a distinct part of the soul, treating this possibility as a serious “difficulty” (ἀπορίαν).

Second, Aristotle contends that this initial picture of the status of *phantasia* is incomplete. While *phantasia* can be said to differ from both perception or intellect, it bears a more notable and intimate connection to perception: “*phantasia* seems...not to occur without perception, but rather to occur in things which are perceiving and to be of those things of which perception is.”¹⁰ Just as he notes a series of differences between *phantasia* and perception, he notes a counterbalancing series of connections: all acts of *phantasia* occur with or follow acts of perception, all organisms that have *phantasia* also have perception, and perception is a necessary condition of *phantasia*. Most crucially, the objects of *phantasia* are, in a broad sense, perceptible objects. What appears to an animal in *phantasia*—“appearances”—are previous objects of perception that are retained in the soul, even if significantly distorted, altered, or rearranged. Just as we saw that the objects of memory are, in a sense, perceptible, so too are the objects of *phantasia*. As with memory, these connections indicate that an adequate account of *phantasia* must specify *phantasia*’s relation to perception—how *phantasia* is, in some broad sense, a

⁹ “ἔτι δὲ τὸ φανταστικόν, ὃ τῷ μὲν εἶναι πάντων ἕτερον, τίνι δὲ τούτων ταῦτόν ἢ ἕτερον ἔχει πολλὴν ἀπορίαν, εἴ τις θήσῃ κεχωρισμένα μόρια τῆς ψυχῆς,” (DA III.9, 432a31-432b3). This passage is treated in detail in Chapter 3, §1.5.

¹⁰ “ἢ δὲ φαντασία...δοκεῖ εἶναι καὶ οὐκ ἄνευ αἰσθήσεως γίνεσθαι ἀλλ’ αἰσθανομένοις καὶ ὧν αἰσθησις ἔστιν,” (DA III.2, 428b11-13; see also DA III.3, 427b15).

perceptual activity. This conclusion invites Aristotle to investigate in more detail the connection between *phantasia* and the perceptual part of the soul.

Third, Aristotle gives in *DA* III.3 an account of *phantasia* precisely in terms of its relationship to perception: “*phantasia* [is] a motion effected by actual perception.”¹¹ Tabling questions about whether this amounts to a genuine *definition* of *phantasia*,¹² this statement clearly constitutes an account of *phantasia*. *Phantasia*, Aristotle claims, is a “motion by” (κίνησις ὑπὸ) or resultant afterbirth of previous acts of perception. As perception is a motion in the perceiver caused by some perceptible object,¹³ so *phantasia* is a motion, which is itself caused by a motion of perception (i.e., “actual perceiving”): “it is possible for something being moved [i.e., perception] that another thing [i.e., *phantasia*] be moved by it.”¹⁴ As we saw in treating memory,¹⁵ *phantasia* is the capacity to possess and comprehend appearances that arise from previous acts of perceiving. This possession or comprehension is now cast as a kind of movement within the soul, which arises through an original perceptual motion.

There is substantial interpretive disagreement about the nature of *phantasia*’s precise causal genealogy, which sophisticated activities *phantasia* causes, and how *phantasia* accomplishes these activities. Yet even without addressing any of these worries, we can see that Aristotle establishes a determinate relationship between *phantasia* and perception. To understand what *phantasia* is, to elucidate its nature, Aristotle invokes perception (and not intellect or any

¹¹ “ἡ φαντασία ἂν εἴη κίνησις ὑπὸ τῆς αἰσθήσεως τῆς κατ’ ἐνέργειαν γιγνομένη,” (*DA* III.2, 429a1-2; see also *Insomn.* 1, 459a17).

¹² See Shields (2016, 291).

¹³ E.g., *DA* III.2, 427a1-3: “If something is sweet, it moves perception...in a certain way, while what is bitter moves these in an opposite way, and what is white differently again.”

¹⁴ “ἔστι κινήθentos τουδι κινεῖσθαι ἕτερον ὑπὸ τούτου,” (*DA* III.3, 428b10-11).

¹⁵ Chapter 4, §2.1.

intellectual capacities). Just as memory is an “affection” of the perceptual part, so *phantasia* is a “movement” of the perceptual part. Just as we must refer to perception to understand memory, so too we must refer to perception to understand *phantasia*. In its essence, then, *phantasia* is perceptual; in the language developed in Chapter 4,¹⁶ *phantasia* is logically posterior to and dependent on perception.

We might worry that at least some acts of *phantasia* have a more intimate relationship with intellect than the above account suggests. The *Rhetoric*, for example, employs *phantasia* to describe sophisticated, uniquely-human cognitive or emotional activities. “Shame [αἰσχύνη],” for example, “is *phantasia* of disgrace,”¹⁷ and is defined by a grasp of the “opinion” (δόξα) of people “who matter to us”.¹⁸ Likewise, *phantasia* serves a central role in our rational activities, supplying the matter through which intellect thinks.¹⁹ Such claims might be taken to suggest that, in these cases, *phantasia* is properly intellectual, and not perceptual. A similar worry was raised about whether the memory of intelligible objects (e.g., remembering a geometrical theorem) could be construed as a properly perceptual act, and not an act of the intellectual part of the soul.

Our response to such worries should mirror Aristotle’s response to analogous worries about memory in *DM* 1: that *phantasia*, like memory, is intellectual or related to intellect, but

¹⁶ See Chapter 4, §2.2

¹⁷ “περὶ ἀδοξίας φαντασία ἐστὶν ἡ αἰσχύνη,” (*Rhet.* III.6, 1384a22).

¹⁸ “ἀνάγκη τούτους αἰσχύνεσθαι ὧν λόγον ἔχει,” (*Rhet.* III.6, 1384a24-25).

¹⁹ See, for example, *DA* III.8, 432a4-9: “Since there is nothing beyond perceptible magnitudes, as it seems, nothing separate, the objects of reason are in perceptible forms, both those spoken of in abstraction and all those which are states and affections belonging to the objects of perception. And because of this, one who did not perceive anything would neither learn nor understand anything, and whenever one contemplates, one necessarily at the same time contemplates a sort of image; for images are just as perceptions are, except without matter.”

only “indirectly” (κατὰ συμβεβηκός).²⁰ *Phantasia*, like memory, is “essentially” or “in itself” (καθ’ αὐτὸ)²¹ perceptual and in the perceptual part. We remember intelligible objects through a perceptual capacity (memory) and such objects’ connections to perceptual experiences. We also “imagine” intelligible objects (i.e., supply images for intellect) through a perceptual capacity (*phantasia*) and those objects’ connections to previous perceptual experiences. While *phantasia* maintains a significant relationship to intellect, *phantasia* is, in its nature, perceptual.

This is confirmed by Aristotle’s frequent and explicit insistence that *phantasia* falls within the perceptual part of the soul. In *DM* 1, for example, Aristotle claims that, because memory “belongs to the same part as *phantasia*,”²² memory “belongs to the primary perceptual capacity.”²³ This inference—from memory and *phantasia* being in identical parts to memory being in the perceptual part—requires that *phantasia* itself belongs to the perceptual part. He puts similar conclusions in different language in *Insomn.* I, which explicitly refers to the argument of *DA* III.3: “we have, in our work *On the Soul*, treated of *phantasia*, and the principle of *phantasia* [φανταστικόν] is identical with the perceptual [part], though being for the principle of *phantasia* and the perceptual part are different.”²⁴ Although perception and *phantasia* differ logically and definitionally (i.e., they have distinct definitions), they constitute or are aspects of a

²⁰ *DM* I, 450a13.

²¹ *DM* I, 450a14.

²² “τίνος μὲν οὖν τῶν τῆς ψυχῆς ἐστὶ μνήμη, φανερόν, ὅτι οὐπερ καὶ ἡ φαντασία,” (*DM* I 450a22-24).

²³ “ἢ δὲ μνήμη, καὶ ἡ τῶν νοητῶν, οὐκ ἄνευ φαντάσματός ἐστιν, καὶ τὸ φάντασμα τῆς κοινῆς αἰσθήσεως πάθος ἐστίν· ὥστε τοῦ νοῦ μὲν κατὰ συμβεβηκός ἂν εἴη, καθ’ αὐτὸ δὲ τοῦ πρώτου αἰσθητικοῦ,” (*DM* I 450a12-14).

²⁴ “ἐπεὶ δὲ περὶ φαντασίας ἐν τοῖς Περὶ ψυχῆς εἴρηται, καὶ ἔστι μὲν τὸ αὐτὸ τῷ αἰσθητικῷ τὸ φανταστικόν, τὸ δ’ εἶναι φανταστικῷ καὶ αἰσθητικῷ ἕτερον,” (*Insomn.* I. 459a14-18; see also Nussbaum 1986, 234-6).

single part of the soul. Because perception is the more basic of the two aspects, and *phantasia* is defined in terms of it, this psychic part is the *perceptual* part. In *Insomn. I*, Aristotle uses this fact (taken to already have been established in *DA III.3*) to infer that, because dreaming is an exercise of *phantasia* (dreams are “of images”), so dreaming is in the perceptual part.²⁵

Hence, Aristotle in general thinks that *phantasia* is in the perceptual part of the soul. Aristotle shows that *phantasia* logically depends on perception, thereby giving an account of the former in terms of the latter. Any explanation of the nature and essence of *phantasia* must articulate its relationship to perception. This conclusion is significant not just because it provides another example of a dependency argument. *Phantasia* as well is the central bridge in explaining how so many other cognitive capacities, like memory or dreaming, are also in the perceptual part and arise with previous acts of perception. Especially in *PN*, Aristotle uses *phantasia* to explain how organisms who can perceive can perform other cognitive and locomotive activities, and how their perceptual powers constitute the basis of all their other cognitive powers.

²⁵ “It manifestly follows that dreaming is an activity of the capacity of perception, but belongs to this capacity *qua* imaginative,” (*Insomn. I*, 459a20-22).

2 Locomotion and Desire are Not Parts of the Soul

The most explicit parthood argument in *DA* is a *negative* parthood argument, asserting that the capacity responsible for locomotion, “the locomotive capacity” (τὸ κινεῖν κατὰ τόπον), does *not* constitute a distinct psychic part. In the course of this argument, Aristotle concludes that “the desiderative capacity” (τὸ ὀρεκτικὸν) is responsible for locomotion, and subsequently argues that this desiring capacity also does not constitute a distinct psychic part. His argument follows the inverse of the outline for parthood arguments given in Chapter 4, §3: (1) Aristotle initially entertains reasons to think that either desire or locomotion is a distinct psychic part, over and above perception and intellect; (2) contrary to those initial appearances, he argues that desire and locomotion logically depend on both perception and intellect, and so are in both the perceptual and intellectual parts of the soul (is a “common form” of both).¹ Throughout, I make use of my treatment in Chapter 3 of *DA* III.9-10’s account of locomotion and desire.

At the start of his account of locomotion in *DA* III.9-11, Aristotle explicitly raises the question of whether the locomotive capacity should be considered to be or define a distinct part of the soul:

(t1) It is necessary to inquire into whatever it is in the soul which moves [the animal]: whether [1] it is just some one part of the soul, being separate in either magnitude or account, or [2] the whole soul; and if it is some one part, whether [a] it is something

¹ In agreement with Whiting (at least with respect to nonrational desire and locomotion): “What we have here is ultimately a single unified part of soul which—because it is the part responsible for moving the animal—I shall call the ‘locomotive’ part, though Aristotle’s canonical term for it is τὸ αἰσθητικὸν [i.e., the perceptual part]...these capacities constitute a single, functionally integrated part of the soul that has two aspects—one an internal, representational aspect, and the other an external, behavioral aspect—each aspect being inseparable from the other insofar as an animal’s behavior is for the most part an expression of its representational states (including perceptual appearances, beliefs, and desires),” (Whiting 2002, 142).

special, beyond those customarily mentioned and already discussed, or [b] whether it is some one of them.²

Aristotle lays out three possibilities for how the soul brings about locomotion: either (1) the whole soul, as a single principle, causes locomotion or (2) one or more psychic parts causes locomotion. Aristotle rejects (1) without immediate argument, presumably because some elements of the animal or human soul (e.g., nutrition) play no direct part in locomotion.³ Hence, (2) must be correct, so that one or more parts of the soul are responsible for locomotion. The parthood argument that follows, then, considers whether (2a) there is a distinct locomotive part of the soul or (2b) locomotion is caused by one or more of the psychic parts already discussed in *DA* (i.e., the perceptual and intellectual parts). Although he initially entertains (2a), Aristotle ultimately affirms (2b), contending that locomotion (and, by extension, desire) does not constitute a distinct psychic part; it is logically posterior to and dependent on both perception and intellect.

First, Aristotle entertains reasons for (2a)—i.e., for thinking that the locomotive capacity constitutes a psychic part, distinct from the three parts already encountered in *DA* II.4-III.8 (nutrition, perception, intellect). Aristotle repeatedly notes throughout *DA* I that self-movement and locomotion was traditionally seen as characteristic and definitive of life. Aristotle himself endorses this claim, albeit with qualification.⁴ This leads Aristotle in *DA* II.2 to provisionally

² “περὶ δὲ τοῦ κινουίντος, τί ποτέ ἐστι τῆς ψυχῆς, σκεπτέον, πότερον ἔν τι μόνιον αὐτῆς χωριστὸν ὄν ἢ μεγέθει ἢ λόγῳ, ἢ πᾶσα ἢ ψυχῆ, καὶ εἰ μόνιον τι, πότερον ἴδιόν τι παρὰ τὰ εἰωθότα λέγεσθαι καὶ τὰ εἰρημένα, ἢ τούτων ἔν τι,” (*DA* III.9, 432a18-22).

³ See *DA* III.9, 432b14-18

⁴ E.g., “What is ensouled seems to differ from what is not ensouled chiefly in two respects: motion and perception,” (*DA* I.2, 403b24-26) He repeats this claim at the beginning of *DA* III.9: “the soul of animals has been defined in respect of two capacities, first the capacity of discrimination, which is the work of intellect and perception, and further by its performing locomotion,” (*DA* III.9, 432a15).

describe locomotion as one of the basic constitutive vital activities, and one of the discrete senses of “life”.⁵ This initially suggests that Aristotle considers locomotion to be a part of the soul, as he does with the capacities for the three other constitutive vital activities given in *DA* II.2 (nutrition, perception, and intellect).

When he actually turns to locomotion in *DA* III.9, Aristotle entertains more explicit arguments for this claim. Initially, he contends that no single psychic part could lay claim to being the cause for and “authoritative” (κύριος)⁶ over locomotion. Hence, it would appear that we must posit another principle that is responsible for locomotion—i.e., a locomotive part of the soul. Locomotion is not coextensive with perception (as shown by sessile animals, who perceive but do not locomote), and so cannot be caused by perception alone.⁷ Likewise, as I discuss in more detail in Appendix 3, the examples of the *enkratic* and *akratic* purportedly show that neither desire nor intellect could be authoritative over locomotion (though Aristotle shortly denies this claim about desire in *DA* III.10). In following their intellect in action, the *enkratic* does not appear to follow their desire. In following their desire in action, the *akratic* does not follow their intellect. In sum, because locomotion cannot be explained by any other capacity, it appears that we must posit a distinct locomotive part of the soul (2a).

Aristotle changes course in *DA* III.10, concluding that desire (properly understood) is, in fact, responsible for and authoritative over locomotion: “desire is the sort of capacity in the soul that moves [the animal].”⁸ Desire is uniquely responsible for all cases of locomotion, even that of

⁵ *DA* II.2, 413a22-25.

⁶ *DA* III.9, 433a5-6.

⁷ *DA* III.9, 432b19-26.

⁸ “ὅτι μὲν οὖν ἡ τοιαύτη δύναμις κινεῖ τῆς ψυχῆς, ἢ καλουμένη ὄρεξις, φανερόν,” (*DA* III.10, 433a31-b1).

the *enkritic* and their rational desires. It is always an organism's desire (e.g., for food, for health) that determines to what and how the organism moves (e.g., towards prey, away from sweets). To understand locomotion, then, we must invoke desire. Locomotion is causally and logically posterior to desire, just as memory is to perception. Accordingly, this suggests a variation on (2a): that the desiderative capacity, not the locomotive, is a distinct psychic part, over and above perception and intellect. Aristotle skeptically countenances this possibility: at least according to some divisions of the soul (but not his own), "parts of the soul...[would be] very many: the nutritive [capacity], perceptual, intellectual, deliberative, and, further, desiderative."⁹ More directly, in *NE* I.13's division of the soul, Aristotle explicitly recognizes within the nonrational part of the soul a distinct "appetitive part (indeed, a desiring part as a whole)."¹⁰ This, in sum, suggests that desire is a distinct psychic part.

Nonetheless, there is clear evidence that, at least in *DA*, Aristotle denies that desire is a distinct psychic part. As we saw in detail Chapter 3, he expresses in *DA* III.9-10 fears around the irresolvable methodological problems with treating desire (or *phantasia* or deliberation) as a distinct psychic part. When, in the passage just quoted, he entertains the possibility of a desiderative part, he suggests that such a part would initiate an indefinite proliferation of psychic parts, of the sort he attributes in *DA* III.9 to Platonic bipartition and tripartition:

(t2) For those who distinguish parts of the soul, there will turn out to be very many, if they distinguish and separate them in accordance with capacities: the nutritive [capacity], perceptual, intellectual, deliberative, and, further, desiderative.¹¹

⁹ "...τὰ μέρη τῆς ψυχῆς...πάμπολλα γίνεται, θρεπτικόν, αἰσθητικόν, νοητικόν, βουλευτικόν, ἔτι ὀρεκτικόν," (*DA* III.10, 433b1-3).

¹⁰ "τὸ δ' ἐπιθυμητικὸν καὶ ὅλως ὀρεκτικόν," (*NE* I.13, 1102b29).

¹¹ "τοῖς δὲ διαιροῦσι τὰ μέρη τῆς ψυχῆς, ἐὰν κατὰ τὰς δυνάμεις διαιρῶσι καὶ χωρίζωσι, πάμπολλα γίνεται, θρεπτικόν, αἰσθητικόν, νοητικόν, βουλευτικόν, ἔτι ὀρεκτικόν," (*DA* III.10, 433b1-4). For a more detailed discussion, see Chapter 3, §1.

As I argued in Chapter 3, a central lesson of Aristotle’s general reflections on psychic parthood is that we must, as far as possible, consistently seek to limit the number of psychic parts. Recognizing desire as a distinct psychic part, Aristotle fears, is a symptom of or would lead to an uncontrollable increase in psychic parts.

More positively, Aristotle consistently recognizes a close connection between the cognitive psychic parts—intellect or perception—and desire. I argued for this claim in Chapter 3 §2.2, as a background for Aristotle’s response to the Platonic Argument from Opposites. We can briefly return to this close connection between cognition and desire, now using it to see why Aristotle would deny that desire constitutes a distinct psychic part. This close connection, I argue, shows that desire is logically posterior to and dependent on, and so ‘in’, the perceptual and intellectual parts of the soul.

As a start, cognition is a *necessary condition* of desire (i.e., it allows one to apprehend and represent the object of desire): “the object of desire...moves...by being thought of or [perceptually] imagined.”¹² Yet this fact is not yet sufficient for showing that some capacity is *not* a distinct psychic part. Although *phantasia* (and so perception) is a necessary condition for intellect, intellect is a psychic part distinct from *phantasia* and perception.¹³ Likewise, just because desire requires perception or intellect does not yet show that it cannot constitute a distinct desiderative part. If we are right to think that desire does *not* constitute a distinct psychic part, we must see that desire has a more intimate relationship to perception and intellect.

¹² “τὸ ὀρεκτόν...κινεῖ...τῷ νοηθῆναι ἢ φαντασθῆναι,” (*DA* III.10, 433b11-12).

¹³ Chapter 4, §2.1.

Cognition is not just a prerequisite for desire, but is itself involved in the very act of desiring. In general, desire is always for “the good or the apparent good.”¹⁴ An animal or human, by definition, pursues what is or appears good, and avoids what is or appears bad. Crucially, we apprehend that an object is good, and so pursue that object in locomotion, by means of our cognitive powers. We do not merely apprehend through perception that coffee is brown, bitter, etc., or through intellect that it falls under generic categories (roasted bean, beverage, etc.). We also apprehend by perception and intellect that the coffee is good or bad—e.g., that it is or would be pleasant or painful, healthy or unhealthy, useful or useless, etc.

This is clearest in the case of perception. By definition, appetitive desire has as its object pleasure; pleasure is appetite’s good.¹⁵ Aristotle maintains that it is through perception that we apprehend that something is pleasant or painful. He sees “experiencing pleasure” as “the actualization of the mean of the perceptual [principle] in relation to what is good or bad insofar as they are such.”¹⁶ Accordingly, it is through perception that we apprehend something as good or bad, and so as an object to be desired and pursued: “whenever there is something pleasant or painful, [perception], by, so to speak, affirming or denying, pursues or avoids.”¹⁷ Although he devotes less attention to it in *DA*, he suggests that the same kind of analysis also applies to intellect: “whenever [intellect] affirms or denies that something is good or bad, it pursues or

¹⁴ “ἢ τὸ ἀγαθὸν ἢ τὸ φαινόμενον ἀγαθόν,” (*DA* III.10, 433a27-28).

¹⁵ See *DA* III.10, 433b7-9.

¹⁶ “καὶ ἔστι τὸ ἡδεσθαι καὶ λυπεῖσθαι τὸ ἐνεργεῖν τῇ αἰσθητικῇ μεσότητι πρὸς τὸ ἀγαθὸν ἢ κακόν, ἢ τοιαῦτα,” (*DA* III.7, 10-11).

¹⁷ “ὅταν δὲ ἡδὺ ἢ λυπηρόν, οἷον καταφᾶσα ἢ ἀποφᾶσα διώκει ἢ φεύγει,” (*DA* III.7, 431a9-10).

avoids.”¹⁸ Practical intellect apprehends the goodness of an object, and thereby prompts locomotion to pursue it.

In both cases, a cognitive part is said to “affirm or deny” (καταφάναι or ἀποφάναι) that something is good or bad. This is presented as broadly similar to how perception would affirm that some coffee is dark, or intellect would affirm that it falls under the class of coffee (whether all these cognitive affirmations are identical in nature is a further question). As noted above, insofar as the object is good or bad, that object is desirable or undesirable. In apprehending an object as good, intellect or perception then affirms that the object is desirable. This, in turn, gives rise to a desire for that object, which prompts the organism to pursue it. If intellect or perception apprehends the object as bad, the opposite occurs: there is an aversion to the object, which prompts the organism to avoid it or “encourages a pulling back.”¹⁹

Accordingly, to understand desire or locomotion, one must refer to the way in which an organism apprehends whether an object is good or bad, and so something to be desired and pursued. This cognition forms not just a prerequisite to desire, but a crucial aspect of desire itself. Abstractly, this mirrors the relationship between memory and perception. To understand desire, one must refer to perception; perception is not just a prerequisite to memory, but is part of the very nature and being of memory itself. As memory is in the perceptual part of the soul, so desire is in the perceptual and intellectual parts. Desire is a capacity of an organism to be responsive to objects apprehended as good by perception or intellect. Accordingly, with perception, Aristotle maintains generally that “the capacity for desire and the capacity for avoidance do not differ either from one another or from the perceptual capacity, though they do

¹⁸ “ὅταν δὲ ἀγαθὸν ἢ κακὸν φήσῃ ἢ ἀποφήσῃ, φεύγει ἢ διώκει,” (431a15-16).

¹⁹ “...ἀνθέλκειν κελεύει,” (DA III.10, 433b7).

differ in being.”²⁰ Such claims affirm that, though desire differs in being (i.e., possesses a distinct definition) from perception, it is not a separate psychic part, over and above perception.

Perception and desire are conceptually distinct aspects of a single part of soul. Desire is logically posterior to perception, and so can be said to be in the perceptual part of the soul. Though less thematized, the same sorts of claims are suggested with practical intellect, and the sorts of desires characteristic of the rational apprehension of the good. Hence, desire is likewise an aspect of and posterior to the intellectual part of the soul.

In sum, we would be unable to understand desire or locomotion without reference to perception or intellect. Desire and locomotion are both logically posterior to and dependent on perception and intellect. Our perceptual and intellectual apprehension of the world forms a crucial aspect of the nature of desire itself. Hence, neither desire nor locomotion is a distinct psychic part, over and above perception and intellect. Like memory or *phantasia*, desire and locomotion are not psychic parts, but must be understood and defined in relation to more basic psychic parts.

There is, however, a crucial difference between the cases of *phantasia* or memory, and those of desire or locomotion: Aristotle thinks that the latter, but not the former, are in *both* the perceptual and intellectual parts of the soul. It remains unclear how desire could simultaneously be in both parts. This is especially pressing because Aristotle maintains that desire, as the principle for locomotion, is a single principle (and not, for example, split into multiple intellectual and perceptual desiderative principles). In Appendix 3, I discuss how Aristotle

²⁰ “οὐχ ἕτερον τὸ ὀρεκτικὸν καὶ τὸ φευκτικόν, οὔτ’ ἀλλήλων οὔτε τοῦ αἰσθητικοῦ,” (*DA* III.7, 431a13-14).

resolves this problem in his account of desire as a “common form” shared by the perceptual and intellectual parts of the soul.

3 The Unity of Desire and the Argument from Opposites

In Chapter 3, we encountered the Platonic Argument from Opposites (*AO*) and, in the face of *AO*, Aristotle's defense of his own division of the soul.¹ Beyond attempting to provide positive evidence for Platonic bipartition and tripartition, *AO* further poses a stubborn difficulty for Aristotle's own positive account of locomotion and desire in *DA*. To summarize *AO*: The Principle of Opposites (*PO*) states that no single thing can sustain opposites. If something sustains opposites, it is not one thing, but divided and many. *AO* infers from the fact that there are opposing desires or beliefs within a single soul that there must be distinct psychic parts (e.g., appetite, spirit, reason), each of which function as principles of desire, action, or belief. Accordingly, Aristotle claims that Platonic bipartition and tripartition is compelled to "split up" (διασπᾶν)² desire itself—breaking what actually is a single desiderative principle up into two or three principles. In contrast, Aristotle contends that there is "one thing initiating motion, the desiderative [principle],"³ and so rejects the splitting up of desire. Nonetheless, as discussed in Chapter 3, Aristotle also recognizes the existence of opposing desires, and so feels the force of *AO*. Because Aristotle takes *AO* to split desire, at least for the Platonist, it remains unclear how he can both maintain that desire is unified and acknowledge the existence of opposing desires.

In §1, I present the reasons why Aristotle thinks desire should be unified and rejects the Platonic splitting up of desire, arguing that this commitment stems from his further commitment to the unity of the *object* of desire (the good). In §2, I argue that Aristotle's idiosyncratic analysis of opposing desires shows how he can maintain this commitment to the unity of desire, even in

¹ Chapter 3, §2.

² *DA* III.9, 432b5.

³ "ἓν δὴ τι τὸ κινουῦν, τὸ ὀρεκτικόν," (*DA* III.10, 433a21).

the face of *AO*. He argues that desire possesses a special kind of unity, constituting a single “common form” shared by both the perceptual and intellectual parts of the soul.

§1 Unitary and Aggregative Accounts of Locomotion

The bulk of *DA* III.9-10 presents a dialectic between two sorts of approaches to explaining locomotion. On the one hand, there are *aggregative* accounts of locomotion, according to which multiple distinct principles or psychic parts are independently responsible for different kinds of locomotion.⁴ Platonic tripartition is an example of an aggregative account, in which three independent principles (reason, spirit, appetite) are responsible for locomotion. Another example, which Aristotle himself momentarily entertains in *DA* III.9, holds that intellect and desire both serve as principles that can independently move the animal. On the other, there are *unitary* accounts of locomotion, in which a single principle is responsible for locomotion. Such an account appears natural when explaining the behavior of nonrational animals, who might reasonably be said to move by some monolithic “impulse” or “instinct”. More surprisingly, Aristotle’s own positive account holds that a single principle—desire—is responsible for the locomotion of nonrational and rational animals alike. One chief aim of *DA* III.10 is to defend desire as such a unified principle of locomotion.

To see why Aristotle opts for this unitary account of locomotion and desire, it will be helpful to briefly describe the dialectic that Aristotle presents between these two accounts. Aristotle initially appropriates *AO* to motivate an aggregative account of locomotion, according to which intellect and desire independently move the animal.⁵ Yet he ultimately rejects this

⁴ See also Whiting’s description of a “disjunctive” account of locomotion (Whiting 2002, 178).

⁵ Aristotle employs a similar argument for psychic parts at *NE* I.13, 1102b18-22: humans “evidently also have in them some other [part] that is by nature something apart from reason,

initial aggregative account, instead endorsing a unitary account of locomotion. The true mover, Aristotle claims, is “the object of desire” (τὸ ὀρεκτόν)—the good pursued or bad avoided in locomotion. Hence, an animal’s or human’s capacity to be responsive and pursue such objects—desire (ὄρεξις)—is the single psychic principle responsible for locomotion.

In the second half of *DA* III.9, Aristotle entertains an aggregative account of locomotion. The possibility of *akrasia* shows that intellect, broadly construed,⁶ is not the sole mover of humans. Though the *akratic* knows that sugar is unhealthy, and so her intellect commands her to avoid it, she adds sugar to her coffee anyways, in accordance with a desire for sugar. Hence, the action of the *akratic* requires a distinct desiderative principle that opposes intellect: “Even when [practical]⁷ intellect commands and thought says to flee or pursue something, one is not moved, but acts in accordance with appetite, as, for instance, the *akratic* person does.”⁸ Yet this same argument also appears to apply to desire itself. As desire appears to overcome intellect in the *akratic*, so intellect appears to overcome desire in the *enkratic*: “even desire is not authoritative

clashing and struggling with reason. For just as paralyzed parts of a body, when we decide to move them to the right, *do the contrary* and move off to the left, the same is true of the soul; for *enkratic* people have *impulses in contrary directions*.” The similarity between the argument of *NE* I.13, and *AO* in *Rep.* IV provides further evidence for the disparity between the account of psychic parts in the *DA* and the account within Aristotle’s practical works.

⁶ Similar to his use of αἴσθησις, Aristotle uses νοῦς in both specific and broad senses: 1) as a technical term for the most basic and fundamental intellectual principle, described in *DA* III.4-6 (i.e., the intellectual *capacity*); 2) as a label for the entire class of intellectual capacities (i.e., the intellectual *part*). The looseness of his language in *DA* III.9-10 indicates that he employs νοῦς there in the broader sense, covering “calculation” (τὸ λογιστικὸν), “intellect” (ὁ νοῦς), the “capacity for contemplation” (ὁ θεωρητικὸς), “knowledge” (ἡ ἐπιστήμη), and “thought” (ἡ διάνοια).

⁷ Contemplative intellect has no direct influence on locomotion: it “does not contemplate what is to be done, nor does it say anything at all about what is to be pursued or avoided, while motion always belongs to one who is avoiding or pursuing something,” (*DA* III.9, 432b26-28).

⁸ “ἔτι καὶ ἐπιτάττοντος τοῦ νοῦ καὶ λεγούσης τῆς διανοίας φεύγειν τι ἢ διώκειν οὐ κι νεῖται, ἀλλὰ κατὰ τὴν ἐπιθυμίαν πράττει, οἷον ὁ ἀκρατής,” (*DA* III.9, 433a1-3).

over motion [in place], since *enkritic* people, though they desire and have an appetite, do not act as desire bids, but instead follow intellect.”⁹ When the *enkritic* chooses to refrain from drinking the sweetened coffee, even as she feels the pressures of her desire for it, her rational thought (that the sugar is unhealthy) appears authoritative over her action. Hence, intellect also appears to oppose desire and produce locomotion. Although both intellect and desire (construed widely)¹⁰ influence locomotion, neither is always *the* authoritative mover.¹¹

Accordingly, by the end of *DA* III.9, Aristotle entertains an aggregative approach to the soul and action, reminiscent of Platonic bipartition. Socrates argues in *Rep.* IV that *akrasia* and *enkrateia* imply the existence of multiple distinct psychic parts (appetite, spirit, reason), each of which are responsible for distinct sorts of desires and actions. Similarly, Aristotle here suggests that these same phenomena appear to require a similar picture of locomotion, in which locomotion is the product of two distinct principles (desire and intellect).

In *DA* III.10, Aristotle rejects this initial aggregative account and endorses a unitary account of locomotion. Desire, he maintains, is always *for* an object (e.g., pleasure, health, honor).¹² In every case of locomotion, both those in accordance with intellect and those in

⁹ “ἀλλὰ μὴν οὐδ’ ἢ ὄρεξις ταύτης κυρία τῆς κινήσεως· οἱ γὰρ ἐγκρατεῖς ὀρεγόμενοι καὶ ἐπιθυμοῦντες οὐ πράττουσιν ὧν ἔχουσι τὴν ὄρεξιν, ἀλλ’ ἀκολουθοῦσι τῷ νῷ,” (*DA* III.9, 433a6-8).

¹⁰ Of course, we employ a much richer and more diverse vocabulary to describe locomotion than simply ‘intellect’ and ‘desire’. Nonetheless, Aristotle contends that “all of these [terms] can be reduced [ἀνάγεται] to intellect and desire,” (*MA* 6, 700b18-19; see also Nussbaum 1986, 334-336).

¹¹ “These two appear to move [the animal]: desire and intellect,” (*DA* III.10, 433a9-10; see also 433a17-18).

¹² “Desire...is always for the sake of something, since desire is for something [καὶ ἢ ὄρεξις ἔνεκά του πᾶσα· οὐ γὰρ ἢ ὄρεξις],” (*DA* III.10, 433a15-16). “Desire” (ὄρεξις), an Aristotelian technical term) literally translates to “a reaching out for.” As Nussbaum notes (1986, 273–5), this indicates both that desire is an activity of the organism, and that it is essentially directed towards an object.

accordance with appetite, an animal aims to pursue or avoid a particular object of desire. This object determines the animal's movement. I perform a particular action because I desire a particular object: I heat the kettle because an object of desire—coffee—moves me. Without this desired object, my movement would never occur. Because it determines locomotion, the object of desire functions as the primary principle of locomotion. Moreover, this desired object, Aristotle stipulates, is “the good or the apparent good.”¹³ By definition, an animal always pursues what is or seems to be good, and avoids what is or seems bad. When I correctly apprehend and aim for something good (e.g., health), I pursue the genuine good (healthy food). If I am mistaken about the good (pleasure), I pursue what only seems to be good (sugar).¹⁴ Accordingly, the good or apparent good is the primary mover of the animal.

The primacy of the object of desire extends also to the *capacity* for desire. As we have seen repeatedly in the preceding pages, Aristotle holds that capacities and activities are both posterior to and individuated by their proper objects.¹⁵ In the present case, this suggests that desire is defined as that capacity that has the object of desire as its proper object. It is the capacity of an animal to be moved by and towards the good. The object of desire can move the animal because the animal has a power to desire it. Because the desired object has primacy in locomotion, so too does the desiderative capacity. The animal moves because it actualizes its capacity to desire particular objects. Even if coffee were generally considered good or desirable, I pursue it only because *I* can

¹³ “ἢ τὸ ἀγαθὸν ἢ τὸ φαινόμενον ἀγαθόν,” (DA III.10, 433a27-28).

¹⁴ Moreover, the object of desire is a practical good: “the good concerned with what can be done, since what can be done is contingent and capable of being otherwise.” (III.10, 433a29-30).

¹⁵ DA II.4, 415a19-20.

desire it. Hence, Aristotle affirms a unitary account of locomotion, maintaining that there is ultimately a single capacity that is responsible for locomotion: desire.¹⁶

This approach might seem to be undermined by the *enkratic*, in whom a non-desiderative capacity—intellect—appears to overcome desire and move the animal. Yet even in this case, desire is actually responsible for locomotion. Because practical intellect “engages in calculation for the sake of” a desired object, this object of desire “is the starting point [ἀρχή] of practical intellect.”¹⁷ When practical intellect appears to be responsible for action, it takes up a desired object and reasons about how to possess or achieve it. When intellect commands that I refrain from sugar, it has authority only because it is prompted by an object of desire (health). If health were not desired, intellect would have no starting point, and so would not affect my action.¹⁸ Intellect’s power to move a human, then, appears to be parasitic on desire and its object: “the object of desire moves and because of this [διὰ τοῦτο] intellect moves...intellect apparently does not move without desire.”¹⁹ Even the *enkratic* is moved by a kind of desire (rational desire or “wish”, βούλησις): “since wish is desire, whenever something is moved in accordance with rationality, it is also moved in accordance with wish.”²⁰ The apparent conflict between intellect and desire in the *enkratic* should in fact be treated as a conflict between two desires (wish and appetite).

¹⁶ “Clearly, what is called desire is the sort of capacity in the soul that moves [the animal],” (*DA* III.10, 433a31-b1; a21-22).

¹⁷ “νοῦς δὲ ὁ ἔνεκά του λογιζόμενος καὶ ὁ πρακτικός...οὗ γὰρ ἡ ὄρεξις, αὕτη ἀρχὴ τοῦ πρακτικοῦ νοῦ,” (*DA* III.10, 433a13-7).

¹⁸ “Generally, we see that one with medical knowledge does not heal, there being something else—not his knowledge—in charge of his acting in accordance with his knowledge.” (*DA* III.9, 433a4-6; see also *Meta.* Θ.5 1048a10-13).

¹⁹ “τὸ ὀρεκτὸν γὰρ κινεῖ, καὶ διὰ τοῦτο ἡ διάνοια κινεῖ...ὁ μὲν νοῦς οὐ φαίνεται κινῶν ἄνευ ὀρέξεως,” (*DA* III.10, 433a17-22).

²⁰ “ἡ γὰρ βούλησις ὄρεξις, ὅταν δὲ κατὰ τὸν λογισμὸν κινῆται, καὶ κατὰ βούλησιν κινεῖται,” (*DA* III.10, 433a23-25).

In sum, Aristotle maintains that there is *one* principle, desire, that moves the animal, while intellect moves the animal only secondarily. A similar distinction obtains even in nonrational locomotion. Aristotle stipulates that another cognitive capacity, *phantasia*, holds the same relationship to nonrational desires as intellect does to wish. At least within an explanation of locomotion, Aristotle suggests that we should “posit *phantasia* as a sort of thinking [νόησίν].”²¹ Just as we can say that intellect rationally moves a human by recommending some course of action, likewise *phantasia* nonrationally moves the animal. Yet, just as wish is ultimately responsible for rational locomotion, so another kind of desire (appetite or spirit) is responsible for nonrational locomotion: “whenever *phantasia* moves, it does not do so without desire.”²² Hence, desire moves the animal primarily, while cognitive capacities (*phantasia* and intellect) influence locomotion secondarily.

§2 Desire as a Common Form

As initially noted, however, opposing desires and *AO* seem to require a splitting of desire into multiple distinct principles. Although we can say that any given instance of locomotion is caused by desire, desires themselves can oppose each other, as with *akrasia* or *enkrateia*. Hence, it would appear, there must be distinct desiderative principles, which are sources of distinct (and sometimes opposing) desires. On the Aristotelian picture, this would require that we distribute distinct desiderative principles across the intellectual and perceptual psychic parts. Perception and intellect would each have their own distinct desiderative capacity (e.g., appetite and wish), which operate independently and can oppose each other. This, in turn, leads to the same absurdity that

²¹ “εἴ τις τὴν φαντασίαν τιθεῖ ὡς νόησίν τινα,” (*DA* III.10, 433a9-10).

²² “ἡ φαντασία δὲ ὅταν κινῆ, οὐ κινεῖ ἄνευ ὀρέξεως,” (*DA* III.10 433a20-1).

Aristotle describes in *DA* III.9, in which the Platonist “splits” desire and distributes it across different psychic parts. Such a picture would be structurally identical to the Platonic account of desire, according to which “the three [psychic parts] also have three kinds of pleasure, one peculiar to each. The same holds of desires [ἐπιθυμίας].”²³ Accordingly, *AO* would seem to undermine any unitary account of desire and locomotion, suggesting that desire itself is partitioned into two distinct moving principles.

To defend his unitary account of locomotion against this threat, Aristotle shows how opposing desires does not require splitting the desiderative capacity:

(t1) Since... desires arise opposite to one another, and this occurs whenever reason and the appetites are opposed, and this comes about in those with a perception of time (since intellect encourages a pulling back because of what is going to happen, whereas appetite operates because of what is already present, since a present pleasure appears to be an unqualified pleasure, and an unqualified good, because of its not seeing what is going to happen) it follows that what moves is one in form: the desiderative capacity insofar as it is a desiderative capacity. But first of all is the object of desire, since this moves without being moved, by being thought of or imagined. In number, though, the things moving will be more than one.²⁴

In Chapter 3 §2, we looked at (t1) to determine how Aristotle’s analysis of opposing desires allows him to preserve his preferred psychic partition and reject Platonic partition. To do so, we saw that he treats opposing desires as products of opposing acts of cognition. With our present concerns, we can look (t1) to see how Aristotle can treat as compatible the existence of opposing acts of desire and the unity of the desiderative capacity. Desire, Aristotle contends, is *one in form*. Desire

²³ *Rep.* IX 580d. These three appetites or desires are 1) “for food, drink, sex, and all the things that go along with them,” (*Rep.* IX, 580e); 2) for “mastery, victory, and high repute,” (*Rep.* IX, 581a); 3) “know[ing] where the truth lies,” (*Rep.* IX, 581b).

²⁴ “πει δ’ ὀρέξεις γίνονται ἐναντία ἀλλήλαις, τοῦτο δὲ συμβαίνει ὅταν ὁ λόγος καὶ αἱ ἐπιθυμίας ἐναντία ὧσι, γίνεται δ’ ἐν τοῖς χρόνου αἴσθησιν ἔχουσιν (ὁ μὲν γὰρ νοῦς διὰ τὸ μέλλον ἀνθέλκειν κελεύει, ἢ δ’ ἐπιθυμία διὰ τὸ ἤδη· φαίνεται γὰρ τὸ ἤδη ἡδὺ καὶ ἀπλῶς ἡδὺ καὶ ἀγαθὸν ἀπλῶς, διὰ τὸ μὴ ὄραν τὸ μέλλον), εἶδει μὲν ἐν ἅν εἶη τὸ κινεῖν, τὸ ὀρεκτικόν, ἢ ὀρεκτικόν— πρῶτον δὲ πάντων τὸ ὀρεκτόν· τοῦτο γὰρ κινεῖ οὐ κινούμενον, τῷ νοηθῆναι ἢ φαντασθῆναι— ἀριθμῶ δὲ πλείω τὰ κινεῖντα,” (*DA* III.10, 433b5-13).

is a form shared by the perceptual and intellectual parts, which allows those parts to both cause locomotion and action.

Aristotle contends that the existence of opposing desires do not show that desire is fractured, but only that it possesses a more subtle kind of unity, claiming that desire is formally unified: “what moves is *one in form*, the desiderative capacity *qua* desiderative capacity.”²⁵ Generally, things that are one in form, that share a single form, are “things whose account [λόγος] is one.”²⁶ The account for both, which articulates the nature or some shared aspect of those things, is identical. This includes things that are one in number: a single person over time, whose matter changes but whose single human form remains unchanged.²⁷ This also includes things that are not one in number: a parent and child, although distinct individuals, share a single human form and definition.²⁸ Desire, Aristotle contends, constitutes a single shared form. The psychic parts responsible for locomotion—the perceptual and intellectual parts of the soul—are one in form, insofar as they are desiderative or share the single form *desire*.

This conclusion results from a more general principle about causation, which Aristotle explicitly voices in *DA* III.10: if two distinct things were causally responsible for a single activity, they would do so through sharing something—a “common form” (κοινὸν εἶδος) that allows both things to cause the relevant activity. As two humans share a single human form, so electric and gas engines share a single formal aspect, at some level of abstraction, that allows

²⁵ “εἶδει μὲν ἓν ἂν εἶη τὸ κινουῦν, τὸ ὀρεκτικόν, ἧ ὀρεκτικόν,” (*DA* III.10, 433b10-11).

²⁶ *Meta.* Δ.6, 1016b32.

²⁷ “In this way what has grown and is diminishing is one, because its formula is one,” (*Meta.* Δ.6, 1016a35-6).

²⁸ “That which generates another is like that which generates, not numerically one and the same but one in form [οὐδὲ ἓν τῷ ἀριθμῷ ἀλλὰ τῷ εἶδει]...for a human begets a human,” (*Meta.* Z.8, 1033b31-33).

them to move a car. The individuals are numerically distinct, but the shared form is one. This also holds, Aristotle contends, with locomotion and desire: “if there were two things that moved [the animal]...they would do so according to some common form.”²⁹

As we saw in both Chapter 3 and Appendix 2, we in fact *do* have two psychic parts responsible for locomotion—the perceptual and the intellectual parts. They move the animal through perceptually or rationally grasping some real or apparent good (i.e., an object of desire). Yet, as we also saw, desire is that principle by which both parts are responsive to the good and can cause locomotion. Both parts are able to contribute to locomotion through something they share: a common desiderative form. Hence, perception and intellect move insofar as they are both desiderative and possess a desiderative form. It is not insofar as an animal can cognize that it moves; there are forms of cognition (e.g., contemplative intellect) that do not produce motion.³⁰ I do not move because I can imagine or think about the many features of coffee, but because I desire the goodness or pleasure of coffee. We do not pursue objects insofar as they are merely perceptible or intelligible, but insofar as those objects are desirable (i.e., *qua* good). The perceptual and intellectual parts of the soul can apprehend the goodness or badness of objects. Yet they cause locomotion and action because they are both *evaluative* and *desiderative*—i.e., they possess a desiderative form. Accordingly, it is more proper to say that these parts move “*qua* desiderative [ἢ ὀρεκτικόν].”³¹

Importantly, this picture does *not* imply that there are distinct desiring capacities in each part. Instead, there are two psychic parts, each of which share a single desiderative form. Just as

²⁹ “εἰ γὰρ δύο...ἐκίνουν, κατὰ κοινὸν ἅν τι ἐκίνουν εἶδος,” (DA III.10, 433a22-23).

³⁰ See DA III.9, 433a27-433b2.

³¹ DA III.10, 433b11.

in two humans there are not two distinct humanities, but a single shared human form, so in locomotion there are not two distinct perceptual and rational desiderative capacities, but a single shared form. ‘Desire’ names this common form or aspect, shared by both the perceptual and intellectual parts of the soul, which allows the animal or human to pursue or avoid objects. Both psychic parts play a role in locomotion because they are desiderative.³²

In sum, although there are distinct intellectual and perceptual parts, desire itself is one. Even when intellect and perception are responsible for opposing desires, this is still caused by their single shared desiderative form. Desire is formally one, insofar as it is a single form shared by both perception and intellect. Because desire is the primary internal principle responsible for moving the animal, the principle of locomotion is also itself one. Accordingly, Aristotle can maintain his unitary account of locomotion and his commitment to the unity of desire, even while recognizing the existence of opposing desires.

³² Moreover, this desiderative form is shared *only* by the perceptual and intellectual parts. We might think that *all* natural things in the Aristotelian cosmos, including plants or the elements, are responsive to the good, and so share a desiderative form. Plants pursue their good by imitating the divine through self-maintenance and reproduction; fire pursues its good in moving upwards towards its natural location. Yet these orientations towards a good need not be cases of desire. Instead, desire refers more narrowly to that particular form of pursuing an end which is *intentional* and *cognitive*. Hence, desire can obtain only with beings (animals and humans) or principles (perception and intellect) that are intentional and cognitive.

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