

Why *De Anima* Needs III.12–13

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I

On the whole, Aristotle's *De Anima* (*DA*) is a cohesive work. Its aim, announced in its initial chapter, is “to consider and ascertain [the soul's] nature and essence, then the attributes belonging to it” (402a7–8). Throughout most of *DA*, Aristotle keeps this explanatory objective in view, justifying each step in his exposition by reference to its contribution to an account of soul's nature and essence.¹ To this general rule, however, *DA*'s final chapters are a striking exception. The opening lines of *DA* III.12 mark an abrupt shift from the topic of the immediately preceding chapters, yet Aristotle makes no attempt to connect the issues he explores in that chapter and its sequel to *DA*'s broader account of soul's nature and essence. It is therefore a pressing question for commentators how, or even whether, *DA* III.12–13 fit with the investigation of soul contained in the foregoing chapters of *DA*. Are these chapters the “impossible non-sequitur” they appear to be,² or are they instead an integral step in Aristotle's attempt to ascertain soul's nature and essence? What, if anything, do they contribute to the account of soul Aristotle develops in *DA*?

I intend to show that the final chapters of *DA* are not only integral to that work, but more central to Aristotle's account of soul than even the most optimistic commentators have acknowledged. On the interpretation I defend, *DA* III.12–13 are written in support of a claim on which Aristotle has premised the bulk of his investigation of soul and its capacities: that living things do whatever they do by nature for the sake of a single end, in most cases reproduction. This claim, I argue, reflects Aristotle's view that soul is a “complex activity” of an organic body, an actuality comprising a diverse set of vital activities that are nevertheless each modes of pursuit of a single, teleologically primary activity. Aristotle expresses commitment to this view of soul in his zoological works, but its role in *DA* has not fully been appreciated by commentators. By recognizing its crucial role in *DA*, I argue that we come also to see the essential contribution of *DA* III.12–13

¹Aristotle's attention to this expository detail is clearest in *DA* II.3–4, where he shifts focus to psychic capacities on the grounds that an account of them will also be the “most appropriate” (*οἰκειότατος*) account of soul (415a12–13); but see also the references to the explanatory objective *e.g.* in I.2 (403b20–24), II.1 (412a3–6), and II.2 (413a20–22).

²See Hutchinson 1987, p. 375.

to Aristotle's explanatory objective in that work.

I begin in section II with an overview of *DA* III.12–13 and its interpretive difficulties. Section III criticizes a recent attempt to connect these chapters to Aristotle's broader discussion of soul in *DA*. Section IV lays the foundation for a more satisfactory interpretation by outlining Aristotle's "complex activity model" of soul, which I trace to an argument for the priority of nutrition in *DA* II.4. Finally, in section V, I present a revised interpretation of *DA* III.12–13 as an effort to show how the vital activities naturally available to living things contribute to the achievement of their respective teleologically primary activities.

II

The lines spanning *DA* III.12–13, 434a22–435b25, do not divide neatly at the conventional chapter break at 435a10. We capture more naturally the progression of thought in these lines if we divide them into roughly five contiguous passages, as follows:

- A [434a22–b8] Aristotle begins by discussing the necessity whereby the nutritive and perceptive capacities of soul belong to living things. Nutrition belongs necessarily to every living thing that grows, reaches maturity, and declines, since achievement of these life stages would be impossible without the ability to use food. Perception is not likewise necessary for all such living things, but belongs only to some, the animals. Nevertheless, perception belongs necessarily to animals, since "nature does nothing in vain" (a30–1).
- B [434b8–27] Having noted that the body of a perceptive organism must be elementally composite, Aristotle turns to the necessity of the individual senses for animals. Contact senses, touch and taste, belong of necessity to all animals, since without these it is not possible to be an animal. Distance senses, sight, hearing, and smell, are not likewise necessary for all animals, but belong necessarily to some: the roaming animals. In framing this contrast Aristotle distinguishes two ways in which psychic capacities might belong to a psychological kind: either *for the sake of being* or *for the sake of well-being*.
- C [434b27–435a10] Discussion of the distance senses occasions remarks on the perceptual medium as a moved mover in episodes of distance perception.
- D [435a11–b3] Aristotle returns to the composition of the animal body. Since the animal must have touch, its body must be both compound and not earthen. This also explains why we do not perceive with earthy parts of our body like bones and hair, as well as why plants cannot perceive.
- E [435b4–25] Finally, Aristotle considers again why animals need the contact and distance senses. Animals as such must have both touch and taste, insofar as the

objects of taste are tangible. By contrast, animals have the other perceptual attributes they have, not for the sake of *being*, but for the sake of *well-being*.

The dominant focus of the passages is clear. **A**, **B**, and **E** focus on the necessity of certain psychic capacities (nutrition, perception, the senses) for different psychological kinds, including plants, stationary animals, and roaming animals; while **D** focuses on the elemental composition of the animal body, an issue first raised in **B**. Less clear is whether Aristotle's simultaneous discussion of these themes is motivated by any *unifying purpose* that justifies its inclusion in the study Aristotle sets out to accomplish in *DA*. For the discussion contained in these lines also appears haphazard in at least three respects: it seems discontinuous with the immediately preceding chapters; Aristotle's exposition of the dominant themes seems disorganized and repeatedly loops back on itself; and **C** is plainly a digression.

These deficiencies, coupled with the absence of any explicit mention of a unifying purpose, may invite pessimism about the prospects of interpreting III.12–13 as an integral step in the *DA* study of soul. Perhaps the lines known to us as III.12–13 were misplaced from their original position in *DA*,³ or perhaps they are not part of the main text of *DA* at all.⁴ But few commentators embrace such pessimistic conclusions. Instead, most attempt to supply III.12–13 with a unifying purpose by specifying how discussion of the chapters' dominant themes contributes to the account of soul Aristotle has been developing in *DA*. The two earliest extant commentaries on III.12–13 provide examples of this sort of strategy. According to one, III.12–13 aim to make good on Aristotle's earlier promise to determine which kinds of body are receptive to which kinds of soul, an objective finally accomplished in **D**.⁵ According to the other, III.12–13 are there to clarify Aristotle's remarks on animal locomotion in III.9–11 by indicating (in **A**, **B**, and **E**) how the roaming animals under consideration differ psychologically from plants, stationary animals, and superlunary movers like stars and planets.⁶

A version of the same approach has become standard among recent commentators on III.12–13.⁷ According to it, III.12–13 address a question whose answer Aristotle postponed several times in *DA* II, namely: why are psychic capacities distributed “serially” among psychological kinds?⁸ In II.2 Aristotle observed that some living things, the plants, have the capacity for nutrition but cannot perceive, whereas nothing that per-

³Perhaps between II.4 and II.5; see Hutchinson 1987 and, for criticism, Burnyeat 2002, p. 30n6, and Polansky 2007, p. 535n1.

⁴See Hamlyn 1993, p. 156.

⁵See ps.-Simplicius, *in de An.* 315.21–316.12 Hayduck.; cf. I.3, 407b15–17.

⁶See ps.-Philoponus, *in de An.* 594.19–27 Hayduck.

⁷See Aquinas, *in de An.* § 300, Hicks 1907, p. 573, Leunissen 2010, p. 59, Polansky 2007, p. 534, Shields 2016, p. 369.

⁸See II.2, 413b4–10, 413b32–414a4, and II.3, 414b33–415a1.

ceives lacks the capacity for nutrition. Among perceivers, he noticed that the contact senses are found in all animals, whereas only the roaming animals have distance senses. In II.3 he described this distribution as a hierarchy or nested series, analogous to the series of polygons in the kind *figure*. Just as the triangle is potentially present in the quadrangle, and the quadrangle in the pentagon, so too are the more widely distributed psychic capacities potentially present in the more narrowly distributed, the nutritive in the perceptive, for instance. Here too Aristotle postponed explanation of the serial relation among psychic capacities, and for many recent commentators, III.12–13 are where the the promised explanation is finally delivered.

According to the standard approach, then, the unifying purpose of III.12–13 is to explain the serial distribution of psychic capacities among psychological kinds. This proposal offers a *prima facie* attractive interpretation of the connection between III.12–13 and the rest of *DA*. But I believe it fails to account for a crucial detail of Aristotle's exposition in those chapters: the distinction belonging for the sake of being and belonging for the sake of well-being. The next section details this difficulty for the standard approach and points the way to a more satisfactory view of III.12–13's unifying purpose.

III

The standard approach interprets III.12–13, especially **A**, **B**, and **E**, as an attempt to explain why psychic capacities are distributed serially among psychological kinds—why, for instance, every kind of perishable organism has the nutritive capacity, while only animals have the perceptive. The explanation it takes Aristotle to provide is final causal, relying on a teleological principle to which he explicitly appeals in explaining why perception belongs of necessity only to the animals ([A] 434a30–b8):

But the animal must have perception, if nature does nothing in vain. For everything that is by nature belongs for the sake of something, otherwise it will be an attribute of things which are for the sake of something. If, then, every body were mobile but lacked perception, it would die and fail to reach the end that is the function of its nature. (For how will it nourish itself? This [sc. nourishment] is provided to stationary [bodies] from where they are naturally produced.) Nor is it possible to have soul and a discriminating intellect but not perception, if it is not stationary and generated—but not even if it is ungenerated. For why would it not have [perception]? It would have to be better for the soul or for the body, but in fact it is better for neither. For [the soul] will not think better, nor will [the body] be any better because of that. Therefore no non-stationary body has a soul that lacks perception.⁹

⁹Text following Siwek 1965.

The principle that nature does nothing in vain, which here makes its second appearance in *DA*, is familiar from Aristotle's zoological works.¹⁰ In those works the principle is typically used to explain the absence, in a given subkind, of an attribute that belongs by nature to other members of the wider kind, for instance the absence of legs in snakes. Here, by contrast, it is used as a constraint on what can be said to *belong* by nature to a given kind: if an attribute, such as a psychic capacity, belongs by nature to a kind, it must be present for the sake of some end, either by having that end as a final cause or by belonging on account of some other, goal-directed attribute.

Proponents of the standard approach see in this application of the principle a general strategy for explaining the serial distribution of psychic capacities. In general, they claim, the cause of any psychic capacity's being "potentially present" in another, such that the latter capacity is never found without the former but the former is sometimes found without the latter, is that the psychological kinds with ends that necessitate the presence of the latter capacity also have need of the former, whereas the converse is not universally true. Thus all perishable organisms require nutrition because all need food in order to grow, reach maturity, and decline; whereas only some, the animals, have perception, since only an animal needs to perceive in order to feed itself and attain "the end that is the function of its nature".¹¹

As the discussion proceeds, however, the principle begins to be applied in ways that do not seem to exemplify this explanatory strategy. Early in **B** Aristotle defends a contrast between the contact and distance senses that parallels the contrast drawn in **A** between nutrition and perception. The contact senses belong of necessity to all animals, touch because every animal's survival depends on its ability to avoid some tangible bodies and apprehend others (434b14–18), and taste because it is "the sense of what is tangible and nourishing" (b19–22); whereas the distance senses belong of necessity only to roaming animals, since only their survival depends additionally on perceiving from afar (b24–27). But then he introduces another contrast: in addition to being necessary for only some animals, the distance senses differ from the contact senses in being "for the sake of well-being" (b24). It is clear from subsequent discussion of the senses in **E** and the thematically continuous *De Sensu* (*Sens.*) 1 that the distinction is in fact a finer-grained application of the principle that nature does nothing in vain. Every natural attribute must belong for the sake of something, but there are *two* ways in which it might do so: by belonging for the sake of *being* (τοῦ εἶναι ἕνεκα) or by belonging for the sake of *well-being* (τοῦ εὖ εἶναι). However, it is obscure why a finer-grained application of the principle is needed to explain the serial distribution of the senses among animal kinds.

¹⁰See *DA* 432b21–26; cf. *DC* 271a33, 291b12–15, *Resp.* 476a11–15, *PA* 658a5–10, 659b17–19, 661b22–25, *IA* 704b12–18, 708a9–14, 711a17–19, *GA* 741b4–5, 744a36–38, *Pol.* 1253a9–18, 1256b20–22. For discussion, see Henry 2013, Lennox 2001, p. 205–223, and Leunissen 2010, p. 129–135.

¹¹See sect. V

Few proponents of the standard approach explicitly address this question. An exception is Mariska Leunissen, who argues that Aristotle's remark that the distance senses are for the sake of well-being is not a further contrast with the contact senses, but an *explanation* of why they belong only to some animals. In her view, the contrast between belonging for the sake of being and belonging for the sake of well-being parallels a contrast drawn in the zoological works between belonging "on account of the necessary" (*διὰ τὸ ἀναγκαῖον*) and belonging "on account of the better" (*διὰ τὸ βέλτιον*).¹² Aristotle uses the latter distinction to separate attributes that belong to every member of a biological kind from those that belong only to some. If an attribute belongs to all members of the relevant kind, Aristotle infers that it must belong to them necessarily; but if it belongs to only some members of that kind, he infers that it must belong "thanks to something better" (*βελτιονός τιως χάρις*).¹³ Similarly, Leunissen claims, Aristotle is using the being/well-being distinction to separate attributes that belong to every member of a psychological kind from those that belong only to some. What distinguishes attributes, like the distance senses, that belong for the sake of well-being is that they represent more complex performances of the vital functions required for the survival of every member of that kind, such as acquiring food. That such attributes belong to only *some* members of the kind indicates that these more complex performances are not necessary but merely *optimal* for members of that kind to achieve the relevant end(s), since other members of that kind achieve the same ends by other means, as for instance stationary animals acquire food using only the contact senses.

But the text of III.12–13 does not support the parallel on which Leunissen's interpretation relies. If the distinction between belonging for the sake of being and belonging for the sake of well-being paralleled the distinction between belonging on account of the necessary and belonging on account of the better, there would be no natural attribute that on Aristotle's view belonged to the same psychological kind for the sake of *both* being *and* well-being. For, if there were, the attribute would, impossibly, belong both to *all* and to some, but *not all*, members of that kind. However, Aristotle recognizes at least two types of sensory attribute that belong to the same kind for both being and well-being: taste and the distance senses.

The argument for taste appears in E. Aristotle has been arguing that every animal must have "touch", here taken to include the tactile sense and taste insofar as flavor is tangible (435b12–13), since no animal can survive the destruction of its tactile organ. To this extent, he claims, "touch" is distinct among animals' sensory attributes (b19–25):

But the animal has the other senses, as we said, not for the sake of being but for the sake of well-being. For instance, [it has] vision so that it may see, since it [is immersed] in air and water, and generally since it [is im-

¹²See Leunissen 2010, p. 60–62.

¹³See e.g. the famous discussion of testes in GA I.4, 717a15–21.

mersed] in transparent [stuff]; taste on account of pleasure and pain, in order to perceive and be moved by that in food and in appetite; hearing so that something may be signified to it; and a tongue so that it may signify something to another.

Recalling his claim in **B** (434b24–26), Aristotle again contrasts the senses in terms of their contributions to being and well-being. Here, however, taste is listed as an attribute belonging to animals *both* for the sake of being *and* well-being. This may appear problematic, since the passage seems to imply that the attributes belonging for the sake of well-being do *not* belong for the sake of being.¹⁴ But such a view would ignore the care with which Aristotle separates taste's contribution to animals' being from its contribution to their well-being. Taste is for the sake of being *insofar as it is a mode of touch* and so a prerequisite for the animal's continued existence; but it is for the sake of well-being *insofar as it provides for the experience of pleasure and pain and the satisfaction of appetitive desires*, which do not belong to taste insofar as it is a mode of touch.¹⁵

Aristotle is equally careful in distinguishing the distance senses' contributions to the being and well-being of a subclass of roaming animals (*Sens.* 1, 436b12–437a3):

Now, with respect to each [sense] in particular, touch and taste are consequent of necessity upon all [animals] But the distance senses, namely smell, hearing, and vision, [are consequent of necessity only] upon those among them that roam. They belong to all that have them for the sake of survival, so that they may pursue food and avoid what is bad and destructive by perceiving in advance; but to those who also have intelligence [they belong] for the sake of well-being. For they report many differences, from which arises intelligence about the objects of thought and of practical activity.

Distance senses contribute to the being—or “survival” (*σωτηρία*), as he puts it here¹⁶—of all roaming animals. But “to those who *also* have intelligence” (*τοῖς δὲ καὶ φρονήσεως τυγχάνουσι*) they belong for the sake of well-being, since they contribute to additional cognitive ends like practical and theoretical intelligence. Aristotle appears to be isolating a subclass of cognitively advanced roaming animals and claiming of them that the distance senses contribute to ends beyond those that explain their presence in other roaming animals. But if so, then intelligent roaming animals have distance senses for

¹⁴Cf. Leunissen 2010, p. 67n47, who approvingly cites the suggestion of Hutchinson 1987, p. 377n2, that ὄσφρησις be read for γεῦσις at 435b22.

¹⁵Cf. Aquinas, *in de An.* § 873, who refers helpfully to a parallel in the case of smell; see *Sens.* 443b17–444a28.

¹⁶Cf. **B**, 434b26–27

both being and well-being.¹⁷

These passages show that Aristotle’s actual usage of the being/well-being distinction conflicts with Leunissen’s suggestion, on behalf of the standard reading, that it is intended to separate attributes that belong to every member of a kind from those that belong only to some. Rather, it seems intended to distinguish types of *end* for whose sake natural attributes might belong to a psychological kind. A natural attribute belongs for the sake of *being* insofar as it promotes some basic or vital end(s) for members of a kind, but it belongs for the sake of *well-being* insofar as it promotes ends beyond those that explain its contribution to being. Thus taste belongs to animals for the sake of being because it is necessary for nutrition and survival; but it belongs for the sake of well-being because it also enables the experience of appetitive pleasure and pain. Similarly, the distance senses belong to intelligent roaming animals for the sake of being because, as roaming animals, they need to be able to spot opportunities and threats at a distance; but they belong for the sake of well-being to the extent that they also make available cognitive achievements like practical and theoretical intelligence. Here we might be reminded of considerations that lead Aristotle to assert elsewhere that the sentient life of an animal is intrinsically better than the insensate life of a plant (*GA* 731a24–b9). In his view, animals and plants share a “generating” or “reproducing” function (*τὸ γεννήσαι ἔργον*) that consists in the production of generative seed (*ἡ τοῦ σπέρματος γένεσις*). But to the extent that animals perceive, they also share in an additional function, *cognition* (*γνώσις*). Some animals of course enjoy a greater share than others, but even the scantest share has value that cannot be accounted for in terms of reproduction alone; even the life of a stationary animal, though paltry in comparison to the life of an intelligent animal, is supremely better than that of a plant (b1–3). Plausibly, then, Aristotle stresses the senses’ contributions to well-being in **B**, **E** and *Sens.* 1 in part to illustrate their contribution to ends beyond reproduction.

In what follows I defend a version of this suggestion. In my view, the unifying purpose of III.12–13 is to show that the psychic capacities naturally present in most psychological kinds are there to promote the organism’s reproductive function, and Aristotle uses the being/well-being distinction in part to isolate how certain capacities contribute to reproduction. But this gets us only part of the way to the conclusion that III.12–13 is an integral step in the *DA* study of soul. For even if their unifying purpose is to explain how psychic capacities promote organisms’ reproductive function, as I am suggesting, we would still need to know what this explanation contributes to Aristotle’s study of

¹⁷*Pace* Leunissen 2010, p. 67–68, Aristotle probably does not regard the distance senses as a “hybrid category” that is for the being of roaming animals but the well-being only of the stationary animals that possess them. For even if he tentatively extends distance senses to some stationary animals (*e.g.* stationary testacea, *HA* 534b11–535a25), he is much more inclined to compare stationary animals to rocks and plants than to attribute to them what he here calls “intelligence” (*φρόνησις*); see esp. *HA* 588b16–21, *GA* 731a24–b16. Cf. Labarrière 2005b, esp. p. 415–417.

the nature and essence of soul in *DA*. To appreciate III.12–13’s contribution to the *DA* account of soul, we must also take into account a model of soul that is operative in Aristotle’s zoological works, but whose significance for *DA* has not fully been acknowledged.

IV

The model of soul I have in mind is distinguished by the thesis that the soul of a perishable organism, an animal say, is a *complex activity* of its organic body. It is, in other words, an actuality characterized simultaneously by

- (1) a diverse set of functions (*ἔργα*) or activities (*πράξεις*)

that are, nevertheless,

- (2) each for the sake of a single, teleologically primary function or activity.

The clearest evidence of Aristotle’s commitment to this “complex activity” model of soul appears in his zoology, in a passage from *Parts of Animals* (*PA*) I.5 (645b14–20):

Since every instrument is for the sake of something, and each part of the body is for the sake of something, and what each is for the sake of is a certain activity, it is apparent that the whole body too has been constituted for the sake of a certain complex activity. For sawing does not come about for the saw’s sake, but the saw for the sake of sawing, since sawing is a certain use [of the saw]. So too is the body in a way for the sake of the soul, and the parts are for the sake of the functions for which each naturally developed.

The passage recalls a pair of analogies from *DA* II.1, where Aristotle presented an “outline” account of soul as “the first actuality of a natural organic body”, the potential for a range of vital activities present in a body naturally suited to realize those activities (412b9–413a10). There Aristotle compared the living body endowed with such a potential to an instrument—whether artificial, like a saw, or natural, like an eye—to illustrate soul’s status as the form and essence of the living body. As a saw would be a saw in name only without the power to saw, and as an eye would be an eye in name only without the power of sight, so too would the living body have life only nominally if it lacked the potential for the vital activities whereby it is said to be alive. Here, by contrast, the analogies are intended to illustrate soul’s status as the *end* and *final cause* of the organic body. As a saw is for the sake of sawing in the sense that it was made to be an instrument used for sawing, and as an eye is for the sake of seeing in the sense that it naturally developed to be an instrument used for seeing, so too is the animal soul—understood here, I suggest, not as a first actuality like sight but as a second actuality

like seeing—a certain use of the entire animal body, for whose sake the animal body naturally developed to be an instrument.

As I read the passage, Aristotle describes the use for which the animal body is instrumental, and which characterizes the animal soul, as “a certain complex activity” (*πρᾶξις τις πολυμερής*).¹⁸ The description calls attention to both aspects of the model of soul I sketched at the beginning of this section. (1) That the activity characteristic of soul is *complex* makes clear that it incorporates the activities for whose sake each of the body’s instrumental parts developed, including reproduction, growth, copulation, waking, sleep, and locomotion (cf. 645b33–35). (2) Yet it remains *an* activity, a single use for whose sake the body naturally developed. The diverse activities of the animal’s instrumental parts are aspects of a single (albeit complex) activity of its entire body because each is for the sake of the same teleologically primary activity. Aristotle signals the possibility that some psychic activities may be for the sake of another in this way a few lines after the quoted passage, where he claims that the teleological relations among the instrumental parts of the body mirror those among their respective activities (645b29–33). Some activities, he claims, are “for the sake of” others, which are therefore “prior to and end of” the former, while others belong to the animal, not for the sake of some end, but as a necessary consequence of other, goal-oriented activities; and in each case the instrumental parts of the animal’s body will relate to one another as the activities for which they are instrumental. In describing soul as a complex activity, I suggest, Aristotle is endorsing a special case of this teleological structure, one in which there is a *single* activity that is prior to and end of every other activity.

So read, *PA*’s description of soul as a complex activity reflects a significant development in Aristotle’s study of soul in *DA* II. Aristotle claimed in *DA* II.1 that, in general, soul is the first actuality of a natural organic body, but in II.2 he argued that this account will not suffice for an essence-revealing definition of soul (413a11–20). A definition of soul should make clear how it operates as the cause and principle of life in ensouled things. Life, however, is said in many ways. Some ensouled things are said to live simply

¹⁸This is the reading of ms. P, accepted by Charles 2000, p. 330, Düring 1992, Louis 1956, Menn 2002, p. 109n38, Ogle 1911, and Peck in Peck and Forster 1937. Several other commentators, following the majority of mss., read *πλήρης*, ‘complete’, in place of *πολυμερής*; see Balme 1992, Kullmann 2007, Labarrière 2005a, p. 242n6, Lennox 2002, Lennox 2010, p. 332n5, and Morel 2006, p. 135n70. I think the majority reading is inferior on both textual and philosophical grounds. Textually, it ignores compelling parallels of the phrase ‘complex activity’ at *PA* 646b14–15 and *Poet.* 1459b1; and it has plausibly been argued to be a corruption of the minority reading: see Düring 1992, p. 122–123. (Kullman’s suggestion, on behalf of the majority reading, that P is an attempt to correct problems with the argument cannot likewise account for the corruption to *πολυρους* in ms. E; see his 2007, p. 356.) Philosophically, it needlessly attributes a compositional fallacy to Aristotle; see Lennox 2002, p. 176, cf. *EN* 1097b24–1098a8. Aristotle can and does establish the instrumental relation between body and soul without resorting to a compositional fallacy; see *DA* II.4, 415b15–21. Moreover, we will see that the complex activity model reflects an important feature of Aristotle’s account of soul in *DA*.

because they grow and reproduce, others because they perceive and roam around, and still others because they understand and reason. Such multivocity of life indicates for Aristotle that there can be no generic definition of soul that captures its role as cause and principle of every activity whereby things are said to live. Instead, we must seek definitions of soul as a cause and principle of *each* of the principal vital activities living things engage in—definitions of *nutritive* soul, of *perceptive* soul, and so on.

But this conclusion should not be taken to imply that the soul is a mere collection of capacities for vital activities. What Aristotle takes to be the cause of psychic unity is controversial,¹⁹ but an important component of his explanation seems to be that the vital activities that soul makes available to living things are structured by relations of teleological priority.²⁰ For, after concluding that the most appropriate account of soul will be an account of its principal capacities, Aristotle attributes special priority to nutritive soul, the capacity jointly responsible for nutrition and reproduction (*DA* II.4, 415a23–b7):

For the nutritive soul belongs also to the others, and is the primary and most common capacity of soul in respect of which living belongs to all. (Its functions are reproducing and [in general] using food.) For the most natural function for living things—those that are complete and not maimed or have spontaneous generation—is for it to produce another like itself, an animal an animal, a plant a plant, so that they may share as much as possible in the eternal and divine. For all strive for that, and do whatever they do by nature for the sake of that. (And that for the sake of which is double: on the one hand that *of* which, on the other that *for* which.) So, since it cannot share in the eternal and divine in continuity, on account of the inability of any perishable thing to persist one and the same in number, each shares in it as much as it can partake, some more, some less; and not it but something like it persists, not one in number, but one in species.

That the nutritive is the primary capacity of soul is indicated by the fact that it is the most common among living things, an observation Aristotle made earlier in discussing the serial distribution of psychic capacities. Here, however, he appears to offer an *explanation* of the phenomenon. Nutrition is the primary and most common psychic capacity *because* most living things do whatever they do by nature for the sake of one of its functions, namely reproduction, since this activity is the best available means for them to share in the eternal and divine.

The explanation stresses precisely the sort of teleological priority outlined in *PA* I.5. Reproduction is the “most natural” (*φυσικώτατον*) function for most kinds of living

¹⁹For discussion, see Frey 2015, Johansen 2012, p. 47–72, and Whiting 2002; on the related issue of Aristotle’s criterion for psychic parthood, see also Corcilius and Gregoric 2010.

²⁰Cf. Matthews 1992.

thing because it is that for whose sake most kinds of living thing do “whatever they do by nature” (ὅσα πράττει κατὰ φύσιν). What a living thing “does by nature” comprises vital activities (πράξεις) such as growing and feeding, perceiving and locomoting, and generally any activity that corresponds to the exercise of inborn psychic capacities, since these are the activities available to it by virtue of soul, its formal nature.²¹ In claiming that most living things do all they do by nature for the sake of reproduction, then, Aristotle means that reproduction is the end of *each* of their vital activities, at least insofar as reproduction is the best available means for them to share in the eternal and divine. To this extent reproduction is also their *most* natural function, in the sense that it corresponds to the *end* of their formal nature—the end, not only of nutritive soul, but of the organism *as a whole*.²²

The idea that reproduction is the end for whose sake most living things perform the vital activities naturally available to them is therefore at the heart of Aristotle’s view that nutrition is the primary and most common capacity of soul. Living things do all they do by nature for the sake of sharing as much as possible in the eternal and divine, which for most psychological kinds is limited to reproduction. As the capacity responsible for reproduction, nutrition will therefore be the most common psychic capacity among living things. For the same reason, it will also be the primary psychic capacity. Since living things do *all* they do by nature for the sake of the most divine activity available to them, and since for most living things this activity is reproduction, most living things will be naturally endowed with the capacity for *only* those non-reproductive activities that promote their ability to achieve their primary reproductive end. For the most part, then, each of the psychic capacities with which nature has endowed a living thing will be present for the sake of reproduction, though in different ways: nutritive soul will be present for the sake of reproduction because reproduction is the end and primary function of that capacity,²³ whereas other capacities will be present for the sake of reproduction because, and insofar as, exercises of those capacities promote reproduction.

It is perhaps in order to bring out this contrast in the way that nutrition and other psychic capacities are for the sake of reproduction that Aristotle reminds us in this context that ‘that for the sake of which’ is said in at least two ways, as that *of* which and as that *for* which. According to many commentators, the distinction highlights two ways of being the end of some process or activity: on the one hand being the good achieved by the fulfillment of a process or activity (the “end *of* which”), and on the other being what

²¹Aristotle is never explicit about the identity between soul and the nature of a living thing, but cf. *DA* II.1, 412a19–20 (soul is form, cf. *PA* 641a17–18 *Met.* 1035b14–16) with *Phys.* II.1, 193b6–7 (form is nature in dominant sense, cf. *PA* 640b27–29, *Met.* 1015a13–15). For discussion, see e.g. Frey 2015, Johansen 2012, p. 85–89, Polansky 2007, p. 7.

²²Contrast Johansen 2012, p. 119, Polansky 2007, p. 205. Aristotle frequently refers to a thing’s end as its nature; see Bonitz 1870, 836a51–b28.

²³See *DA* II.4, 416b23–25.

benefits from the achievement of that good (the “end *for* which”). So, for instance, the end *of* which of a psychic capacity is its *function*, the good activity or product characterizing its exercise, whereas its end *for* which is who or what *benefits* from the achievement of that good.²⁴ Aristotle’s appeal to the distinction in this context has often been read as an attempt to discourage a potential implication of the claim that living things do what they do by nature for the sake of reproduction, namely that there is some beneficiary of an organism’s reproductive activity apart from the organism itself, such as god or the biological kind to which it belongs.²⁵ On the present interpretation, however, there is a more immediate concern for the distinction to address. Aristotle has just argued that, for the most part, each of the vital activities of which a living thing is naturally capable is for the sake of reproduction, and he has inferred from this that the *capacities* for these activities must belong to the psychological kinds that have them for the sake of reproduction. Yet, while it may be obvious that living things have the ability to produce generative seed for the sake of reproduction, it is far from clear that reproduction also explains why they are capable of such diverse non-reproductive activities as growth, self-nutrition, and perception. To show how reproduction could be the end for whose sake living things for the most part have *every* psychic capacity naturally present in them, Aristotle clarifies that we must think of reproduction as ‘that for the sake of which’ in *both* of its senses. Nutritive soul in its reproductive capacity belongs for the sake of reproduction as the end *of* which, the function characterizing the fulfillment of that capacity. By contrast, living things’ non-reproductive capacities belong for the sake of reproduction as the end *for* which, since for the most part it is as reproducers that they benefit from the exercise of those capacities.²⁶

But even if Aristotle distinguishes these two ways of being an end to clarify how reproduction can be the end for whose sake a living thing has each of the psychic capacities naturally belonging to it, substantial gaps remain in his exposition. If his view is that most living things possess only those non-reproductive capacities that benefit them as reproducers, it remains for him to state *how* the diverse capacities present in a psychological kind contribute to its members’ primary reproductive end—how, for in-

²⁴See Johansen 2015, Johnson 2005, p. 65–69, Kullmann 1985, Leunissen 2010, p. 56, and Menn 2002, p. 113. This reading takes the genitive expressed by τὸ οὐδ to be what Smyth (1956, § 1349) calls the “genitive of the end desired”, similar to the genitive verbs like ὀρέγεται and στοχάζεται take as object; whereas the dative expressed by τὸ ᾧ would be what Smyth (§ 1474, cf. § 1461) calls the “dative of interest” or benefit; cf. Sedley 1991, p. 180n3.

²⁵Cf. GA 731b24–732a1. The only exceptions I know of are Johnson 2005 and Johansen 2015.

²⁶Cf. *Phys.* 194a25–26: the function of helm-making is a helm (or the production of one), but it is the navigator who benefits as such from the achievement of that function. In contrast to Kullmann (1985), then, my interpretation aligns this passage with those, like *DA* II.4, 415b20–21 and the *Phys.* passage just cited, in which Aristotle seems to be spelling out the οὐδ ἔνεκά τιμι of some process or activity, rather than those in which he seems to be denying that some process or activity has a οὐδ ἔνεκά τιμι, as at *Met.* 1072b1–2 and *EE* 1249b15–16.

stance, plants and animals are benefited as reproducers by feeding and growing, while only animals are benefited as reproducers by perceiving. It also remains for him to consider the ends that explain the presence of psychic capacities in living things for whom reproduction is *not* the most divine activity. In arguing for the priority of nutritive soul for *most* psychological kinds, Aristotle implicitly acknowledged two types of living thing to which this generalization does not apply. One type comprises rational living things in possession of theoretical intellect, such as human beings and god.²⁷ Nutrition is not primary for these living things, for though some undoubtedly strive for reproduction,²⁸ it is not reproduction but *contemplation*, the exercise of theoretical intellect, that represents their best available means of sharing in the eternal and divine.²⁹ Another type comprises living things for whom reproduction is not an attainable end, either because they are congenitally sterile, like mules or spontaneously generated animals, or because they have suffered damage to their reproductive organs.³⁰ Since, for different reasons, reproduction is not the most divine activity available to these living things, it can neither be the teleologically primary activity for whose sake they have the psychic capacities with which nature has endowed them. If, then, there is some other teleologically primary activity that explains the presence of the psychic capacities belonging to these living things, Aristotle needs to specify what the relevant activities are, and how they are promoted by the presence of the capacities belonging by nature to the relevant kinds.

These are questions left open by Aristotle's discussion of the priority of nutrition in II.4, and what I suggest III.12–13 are meant to address. Having concluded in III.11 the examination of the principal capacities of soul inaugurated in II.4, and having determined the function definitive of each, Aristotle returns in III.12–13 to their final cause, the ends promoted by the achievement of their respective functions.³¹ His aim, as I've suggested, is to determine the contribution of the capacities present in the broadest psychological kinds he has considered—plants, stationary and roaming animals, and humans³²—to their teleologically primary activity, whether reproduction, contempla-

²⁷See *DA* II.3, 415a11–12.

²⁸See *Pol.* 1252a26–30.

²⁹See *EN* 1177a12–18, 1178b27–32.

³⁰I take these to be the cases Aristotle has in mind as the incomplete, maimed, or spontaneously generated organisms mentioned at 415a27–28. Significantly, I deny that the “incomplete” organisms mentioned there include adolescents of fertile kinds, since, as we will see, Aristotle takes growth and maturation to benefit fertile organisms as reproducers; contrast Aquinas, *in de An.* § 313, Philoponus, *in de An.* 267.24–25, and perhaps Shields 2016, p. 201.

³¹Hence I read the transitional $\mu\acute{\epsilon}\nu\ \omicron\delta\acute{\nu}$ at 434a22 as having a resumptive force. Contrast Johansen 2012, p. 277, who also reads III.12–13 as addressing the “beneficiary” of the principal capacities of soul but does not see the connection with II.4 I am defending.

³²Cf. *DA* II.3, 414b32–33

tion, or something else. To do so he appeals to the principle that nature does nothing in vain, which he here applies as a constraint on what can be said to belong by nature. Since psychic capacities number among living things' natural attributes, and since Aristotle has argued that each of the psychic capacities present in the living thing belongs for the sake of its teleologically primary activity, he can use the principle to identify the contribution of a psychic capacity by reasoning counterfactually from its absence to the organism's consequent inability to achieve its primary activity. I devote the final section to spelling out how this strategy unfolds in III.12–13, and I conclude by highlighting some lingering interpretive questions.

V

Aristotle begins with the capacities for nutrition and perception. All perishable living things must have nutritive soul, here conceived in its threptic capacity as the power to maintain an organism as such,³³ since none could grow, reach maturity, and decline without food ([A] 434a22–26). Though it may not initially be clear, reproduction has an important role to play in this explanation. In stressing the need for perishable living things to reach “maturity” (*ἀκμῆ*), Aristotle seems to have in mind specifically *reproductive* maturity, since, as recently as III.9, he has characterized as “complete” living things that “reproduce and have maturity and decline” (432b24–25). Hence, part of Aristotle's claim seems to be that nutritive soul in its threptic capacity benefits perishable living things as reproducers by enabling development into reproductive maturity. He may also intend for the account to apply to incomplete living things, like mules and barnacles, for whom sharing in the eternal and divine seems limited to self-maintenance and individual existence. For the account also makes clear that these ends are not attainable without nutritive soul in its threptic capacity.

Reproduction also has an important place in perception's contribution to animal life ([A] 434a27–b8). Perception, in Aristotle's view, is a *discriminative* capacity: its function is to discriminate objects' sensible attributes by receiving sensible form without the matter.³⁴ Without the ability to discriminate sensible attributes, no animal could feed itself, and hence none would be able to achieve “the end that is the function of its nature” (*τέλος . . . ὃ ἐστι φύσεως ἔργον*).³⁵ It is not initially clear what Aristotle is thinking of as the function of an animal's nature, but the reference comes into sharp

³³See DA II.4, 416b17–19.

³⁴See DA III.9, 432a16 with II.12, 424a17–19.

³⁵Although it is clear that Aristotle thinks all animals need at least contact senses, he oddly restricts his argument here to roaming animals. Perhaps he thought roaming animals would better emphasize perception's contribution to nutrition and reproduction, since in his view stationary animals live pretty much like plants.

relief against the background of another context in which he stresses the teleological priority of reproduction.³⁶ It is a basic principle of Aristotle’s developmental biology that reproduction is the “natural function” (ἔργον φύσει) of every complete animal and plant (GA II.1, 735a18–19). It explains, for instance, why the first part of the animal to develop is its primary nutritive organ, since this is the part “possessing the source and end of its entire nature” (τὸ πάσης ἔχον τῆς φύσεως ἀρχὴν καὶ τέλος), namely the power to reproduce, for whose sake the animal’s other instrumental parts are present and naturally develop.³⁷ The point made here about animals’ capacity to perceive is similar: because perception belongs to most animals for the sake of reproduction, it benefits them as reproducers, since without perception they could not nourish themselves and reach reproductive maturity.³⁸

Perception also benefits some animals in ways that go beyond nutrition and reproduction. Notably, it promotes thinking in rational animals, since without perception it would be impossible to acquire “discriminative intellect” (νοῦς κριτικός, [A] 434b3). Aristotle’s remark is telegraphic, but given that contemplation is the most divine activity available to rational animals, his point may be that perception benefits rational animals as *contemplators* as well as reproducers. But the cognitive benefits of perception are not limited to rational animals. In **B**, **E**, and *Sens.* 1 Aristotle considers the contributions of the individual senses, each of which functions to discriminate the sensible qualities it uniquely perceives. While the contact senses benefit all animals as self-nourishers and reproducers, since the qualities they discriminate are what nourish and grow animals, the distance senses benefit only roaming animals, since discrimination of their special objects enables remote perception of opportunities and threats. In some roaming animals, however, the distance senses also promote cognitive ends like practical and theoretical intelligence. In this respect they compare with taste, which Aristotle takes to benefit animals cognitively in addition to promoting nutrition and reproduction.

From the point of view of Aristotle’s project in III.12–13, there are at least two reasons to highlight these contributions to animal “well-being”. First, by distinguishing a capacity’s contribution to being from its contribution to well-being, Aristotle can isolate its contribution to its possessor’s teleologically primary activity from other goods promoted through its exercise. In doing so, however, Aristotle also indicates that pos-

³⁶Cf. Hicks 1907, p. 576–577.

³⁷See GA II.6, 742a27–33, b1–2. Unlike the nutritive organ, however, these parts are for the sake of reproduction, not as the dynamic source of the organism’s reproductive activity, but as instruments for the organism’s pursuit of its reproductive end. See Gelber (forthcoming) for a compelling interpretation of the τὸ οὐ/τὸ φῶ distinction based on the distinction between these two ways of being for the sake of something; cf. Rosen 2014, p. 98–101.

³⁸Hence animals’ *natural* function should be distinguished from what Aristotle at EN 1097b33–1098a3 calls their *peculiar* function, namely perception. I’m grateful to Jennifer Whiting for pressing me on this point.

session of a psychic capacity can make available goods whose value goes beyond the ends that explain its present in the relevant kind. For even if their benefit to animals as self-nourishers and reproducers explains the presence of taste and the distance senses in the animals that have them, they may nevertheless benefit their possessors by promoting cognitive ends whose value is not exhausted by any contribution to nutrition and reproduction.

This interpretation of III.12–13 leaves open several interpretive questions. I conclude by addressing three of them to the extent the scope of the present study will allow. First, there is the question of what do to with **C** and **D**. **C**, I claimed, is a digression on the conditions for distance perception occasioned by Aristotle's observation that roaming animals must be able to perceive remotely if they are to survive. But **D**, which argues in detail for the elemental compositeness of the animal body, appears more central to the discussion, since Aristotle has primed us for this topic earlier, in **B** (434b8–11). I suggest that Aristotle's remarks in **D** are a further application of the non-futility principle that has guided his examination of the final causes of psychic capacities. Animals could not nourish themselves and reproduce without contact perception, and since contact perception requires a body that is elementally composite ([**D**] 435a21–b4), for the same reason animals could not survive and reproduce without an elementally composite body.

Second, if the unifying purpose of III.12–13 is as I've suggested, one might wonder whether the chapters are not woefully inadequate to the task. Aristotle may have shown how nutrition, perception, and the senses contribute to the teleologically primary activity appropriate to various psychological kinds. But is this enough to show that *every* capacity belonging by nature to a living thing, including the capacities for locomotion, sleep, respiration, and other vital activities, is also for the sake of that activity? I suspect this worry underestimates what Aristotle takes himself to have accomplished in III.12–13. In establishing, for instance, that perception belongs to animals for the sake of reproduction, Aristotle plausibly takes himself to have also shown that the animal is capable of respiration, sleep, and death for the same end, since in his view these attributes belong to animals *on account of* their ability to perceive.³⁹ And in general, by explaining the presence of the *principal* capacities of soul in a psychological kind, Aristotle can plausibly take himself also to be explaining the presence of any capacity belonging to that kind on account of one or more of those principal capacities.⁴⁰

Finally, this interpretation of III.12–13 entails a controversial view of the teleological relations among the capacities present in a psychological kind. On my view, neither are higher (non-rational) psychic capacities like perception all present in a psychological kind for the sake of lower functions like nutrition and reproduction, nor are lower

³⁹See *Sens.* 436b3–6

⁴⁰See also Leunissen 2010, p. 70–74 for discussion of the ends promoted by locomotion.

capacities all present for the sake of higher functions like cognition.⁴¹ Rather, Aristotle distinguishes two fundamentally different types of teleological relation, which enables him to say that the same capacity can be for the sake of lower functions insofar as it contributes to an organism's *being* but for the sake of higher functions insofar as it contributes to its *well-being*. I have argued that, of these, what explains a capacity's presence in a psychological kind is its contribution to being. And while it is undeniable, on the present reading, that Aristotle takes a capacity's contributions to well-being to increase the objective value of an organism's life, it is unclear whether he regards these goods as strictly incidental to an organism's pursuit of its teleologically primary activity, or whether he envisions a more robust role for them in explaining the mode of living proper to that organism.⁴² III.12–13 do not help us to settle this important question, so full treatment lies outside the scope of the present study. But if the interpretation I have defended is correct, any explanatory role for a capacity's contributions to well-being will be distinct from an account of its presence in a psychological kind, which for Aristotle must be explained by its contribution to the teleologically primary activity appropriate to that kind.⁴³

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⁴¹For the first view, see e.g. Leunissen 2010, p. 59; for the second, see e.g. Johnson 2005, p. 5, and perhaps Menn 2002, p. 121. Contrast Johansen 2012, p. 280–281, and Polansky 2007, p. 541–542.

⁴²This may be an important point of contrast between rational and non-rational animals, but, at least in the context of III.12–13, Aristotle does *not* describe perception's contribution to thinking as a contribution to well-being. Though cf. his remarks on hearing's contribution to intellect at *Sens.* 437a5, 10–15.

⁴³I am grateful to participants in the *De Anima* III Workshop in Honor of Michel Crubellier at Université de Lille 3 and a spring 2017 graduate seminar on *De Anima* at the University of Pittsburgh for questions and comments; to Jessica Gelber and Jim Lennox for discussion of various aspects of this chapter; and especially to David Charles and Jennifer Whiting for written comments on earlier drafts.

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