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Aristotle's Fourfold Progression to Define the Soul[1]

LIANCHONG DENG

School of Philosophy, Zhejiang University, Hangzhou 310058, China
Department of Classical Studies, University of Michigan, Ann Arbor 48109, USA
dlchong@zju.edu.cn

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ABSTRACT: Aristotle introduces three soul-definitions in *De Anima* II.1: (i) 'form definition', (ii) 'actualization definition', and (iii) 'instrument-based definition'. Drawing on insights from *Parts of Animals* I.5, this paper proposes a reconstructed fourth one: (iv) 'telos definition'. Aristotle's inquiry is progressive, meaning each new definition is intended to resolve the inadequacies of the previous one. His final proposal is that the soul is the principle of life as the final cause in a natural body. This definition conforms to the criteria for a causal definition as outlined in *De Anima* II.2 and *Posterior Analytics* II.

KEYWORDS: conditional necessity, *De Anima*, *Parts of Animals*, soul-definition

1. Introduction

Talking of what the soul is just seems to invite trouble, and Aristotle knows it. Soul-definition is already on his mind in the very opening moves of *De Anima* (*DA*) II. Having barely mentioned the endoxic views about soul phenomena in the first few lines, he turns to inquire whether a universally valid soul-definition exists and, if so, how to talk about it. And then he fires off a fusillade of accounts, defining soul as: (i) 'form of a natural body', (ii) 'first actualization of a natural body', and (iii) 'first actualization of the instrumental, natural body' (*DA* II.1, 412a20, a27–28, b5–6).[2] The problem arises immediately. The presence of three distinct accounts not only complicates our understanding of their interrelations (Johansen 2014: 39–41) but also raises doubts about the very possibility of a single, unified definition (Philoponus 2005: 27; Johnston 2011: 186–187). More critically, Aristotle himself labels these formulations as mere preliminary sketches, suggesting they fail to meet the criteria for a causal definition required in *DA* II.2.

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[2] Translations are my own, unless otherwise specified.

Why does Aristotle engage in such apparent inconsistency? The prevailing answer is that his inquiry is progressive (Bolton 1978: 259; Owens 1981: 110; Polansky 2007: 163; Furth 2007: 150). The initial formulations in *DA* II.1 are intended to be superseded by more adequate accounts later in the treatise. The detailed discussion of the soul's specific capacities in the subsequent sections of *DA* (II.3 onwards), this thought runs, can be appropriately accommodated within his project of providing the proper definition required by *DA* II.2 (Johansen 2012: 93–106).

The capacities for organisms are surely part of the essence of the soul, but is it really the final word on what constitutes a causal definition for Aristotle? I would like to introduce a somewhat new explanation: the core of Aristotle's approach lies not in the soul's capacities, but in its teleological orientation. The suggestion I want to put forward is that several sections of *PA* I.5 regarding conditional necessity and teleology can deepen our understanding. This analysis reveals a 'fourth' soul-definition, the one required but left incomplete in *DA* II.[3]

2. The 'Form Definition' of the Soul

Some scholars, such as Menn, interpret Aristotle's conception of the soul through the lens of hylomorphism, emphasizing the parallel between the soul-body and form-matter relationships. Just as form and matter combine to make objects, the soul and body combine to constitute living beings. Menn argues that Aristotle successfully navigates past the errors of his predecessors regarding the essence of the soul. Specifically, Aristotle avoids two extremes: firstly, he rejects reductionism by asserting that the soul transcends mere physical existence; secondly, he steers clear of Platonic idealism by not depicting the soul as an entirely independent form. Thus, it seems that Aristotle's approach is to define the soul within the framework of the form-matter 'dualism' (Menn 2002: 90).

The motivation for a hylomorphic reading is directly supported by textual evidence. In *Metaphysics* (*Metaph.*) Z3, Aristotle refers to a statue as a 'composite' (σύνολον, 1029a5), which he explains as being constituted by its form (the shape) and its matter (the bronze). He applies this concept analogously to living beings, which he similarly regards as composites of form and matter. For instance, in *DA* II.1, he characterizes an organism as a 'composite' (συνθέτη), specifically delineating the body as the matter and the soul as the form (412a16).

[3] To facilitate discussion, the four definitions are summarized as follows: (i) 'form definition' (*DA* II.1, 412a19–21), (ii) 'actualization definition' (*DA* II.1, 412a27–28), (iii) 'instrument-based definition' (*DA* II.1, 412b5–6), and (iv) 'telos definition' (*PA* I.5, 645b14–20).

Here, we have the first soul-definition, 'as the form of a natural body' (ὡς εἶδος σώματος φυσικοῦ, *DA* II.1, 412a20). Julian is a staunch supporter of this definition. In his view, this is Aristotle's 'considered definition', and he argues that the subsequent sections of *DA* II are dedicated to explaining and defending this position (Julian 2020: 346–347). Intuitively, this view is difficult to accept. After all, if Aristotle provided his final answer to the 'what is the soul' question at the very beginning of *DA* II.1, why would this inquiry be called 'one of the most difficult [tasks]' (τῶν χαλεπωτάτων, *DA* I.1, 402a11)? Furthermore, if the 'form definition' were perfect, it would need to apply univocally to all its instances. Yet, Aristotle himself seems to believe it fails to do so. He indicates that it is the third 'instrument-based definition', not the first one, that successfully captures 'what is common to every soul' (τι κοινὸν ἐπὶ πάσης ψυχῆς, *DA* II.1, 412b4).

More importantly, it appears that Aristotle utilizes an art-based model to clarify the composite nature of form and matter in organisms. This approach, however, leads inevitably to what is known as Ackrill's problem for hylomorphism. The problem presents a dilemma. On the one hand, matter must have an identity independent from form; as Aristotle says, it is only enformed contingently (*Phys.* I.9, 192a27–32). On the other hand, Aristotle's 'homonymy principle' dictates that the matter of an organism is essentially enformed; for instance, a severed hand is not a hand at all, implying that matter is not, in fact, independent of its form (*DA* II.1, 412b10–24). This apparent incoherence within Aristotle's formulation of hylomorphism reflects the limitations of using this schema to define the soul (Ackrill 1973: 133; see Williams 2006: 219–222).[4] Specifically, the form-matter framework, while suitable for artifacts, fails to capture the unique features of living beings.

Consequently, Aristotle finds it necessary to develop a new terminology that more accurately addresses the essence of the soul. This development evolves from an initial definition of the soul as the 'form of a natural body' (εἶδος σώματος φυσικοῦ, *DA* II.1, 412a20) to a more sophisticated understanding as the 'first actualization of a natural body' (ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ, *DA* II.1, 412a27–28). A question regarding the idea of identifying actualization with the soul, however, is how Aristotle achieves this transition coherently. Polansky offers a valuable insight, suggesting that this

[4] It is worth noting that ambiguities in *DA* II.1, 413a3–7 have sparked a longstanding debate concerning the separability of a specific type of soul, namely, the productive *nous*. This disagreement has led to two primary interpretations. The naturalist approach posits that productive *nous* is inherently linked to the body and cannot exist without it. Conversely, the human separability approach asserts that it transcends human nature and can exist independently. For an in-depth examination of this topic, see Cohoe 2014: 594–604. However, this paper will not delve into this complex controversy; its focus will be on Aristotle's exploration of the soul within his natural philosophy.

terminological evolution cannot be comprehended solely through *DA*, as Aristotle's explanations of the soul draw upon foundational concepts articulated throughout his broader corpus (Polansky 2007: 163). Therefore, in the next section, I will explore the conceptual connection between these two definitions by examining discussions from Aristotle's other texts.

3. Movement, Substance, and the 'Actualization Definition'

In *Metaph.* Θ6, Aristotle links the conceptual pairs of potentiality/actualization and matter/form (1048b8–9). More specifically, he argues that this connection lies in the senses of 'movement' (κίνησις) and 'substance' (οὐσία). We briefly introduce his two clues here.

Aristotle's theory of movement involves three principles: (i) privation, (ii) an underlying subject, and (iii) form.[5] In this schema, privation and form mark the initial and final states of movement, and the underlying subject ensures identity. Movement, therefore, is a process from privation to form, based on the underlying subject (Gill 2005: 234). Aristotle then reframes this process using the concepts of potentiality and actualization. He does this by defining the moving thing as a composite: it is 'numerically one' (ἀριθμῷ…ἕν) but 'not one in form' (εἴδει…οὐχ ἕν).[6] For instance, when 'a person' (underlying subject) moves from an 'unmusical state' (privation) to a 'musical state' (form), this movement can also be regarded as a process from an 'unmusical person' (underlying subject + privation) to a 'musical person' (underlying subject + form). Now, the triadic schema turns to a dyadic one, parallel to the potentiality/actualization structure (Ross 1936: 497). The initial composite state represents potentiality, while the final state represents its actualization. Form, therefore, becomes intrinsically linked with actualization.

This link is further evidenced in his inquiry into substance. In *Metaph.* Z7, Aristotle identifies form as a primary candidate for substance (1032b1–2). It is only natural that Aristotle should be concerned about this concept, given his teacher's preoccupations. But, to safely accommodate this term in his

[5] In this section, I do not distinguish among the three concepts of 'movement' (κίνησις), 'change' (μεταβολή), and 'generation' (γένεσις) for two reasons. First, Aristotle himself does not make explicit distinctions between movement and generation when discussing the causes and principles of natural phenomena in *Phys.* I. Moreover, he sometimes identifies movement with change as synonymous terms (*Phys.* IV.1, 200b12–13). Second, all three terms—movement, change, and generation—employ a common triadic framework of the 'absence and presence' (ἀπουσίᾳ καὶ παρουσίᾳ) of form relative to the underlying subject (*Phys.* I.7, 191a7). This shared schema is crucial in transitioning our discussion from the matter/form theory to the potentiality/actualization paradigm.

[6] See *Phys.* I.7, 190a14–16; see also 190b11: 'composite' (συνθετόν).

own framework, he had to address the issue of separation.[7] His solution was to apply the potentiality-actualization framework. In this context, matter refers to potentiality—the possibility or capacity to be something—while form refers to the actualization of a potential state.[8] This redefines the relationship of matter and form within a substance: they are not merely two constituents, but rather two distinct existential modes (Korsgaard 2009: 135). In this analysis, the conceptual connection between form and actualization is also evident.

Based on this background, Aristotle endeavors to establish a robust connection between form and actualization. This conceptual linkage is crucial, as it facilitates his transition from a 'form-based definition' to an 'actualization-based definition' of the soul in *DA* II.1. Initially, Aristotle defines the soul as the form of a natural body, raising the aporia about the combination of its components—matter and form. Unlike artifacts, where external forces combine matter and form, living beings present a more complex case for this unity. In response, Aristotle introduces his potentiality/actualization doctrine, redefining the soul as a capacity that can be further actualized. This reconceptualization shifts the perceived relationship between the soul and the body, presenting them not as separate constituents but as different states of the same entity. Accordingly, Aristotle describes their intrinsic unity as 'a state of simultaneity' (ἅμα), where the body and soul are inseparably linked in the processes of natural transformation and activity.[9]

Notably, Aristotle's definition of the soul as the 'first actualization' in *DA* II.1 should not be understood as the fullest sense of actualization, which refers to actual activities. Instead, it denotes a state of preserved capacity. This characterization of the soul corresponds to how the sensory and intellectual aspects of the soul operate in practice. For example, the sensory soul primarily exists as a latent capacity within a living being, becoming fully actualized only when stimulated by specific sensory inputs. Similarly, the intellectual soul remains a potentiality within the organism until it is actively engaged in cognitive activities, such as reading or playing chess.

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[7] Aristotle explicitly discusses whether forms can exist independently from individual entities, exemplified through his analysis of a house; see *Metaph.* B4, 999b20–21, Θ3, 1043b20–21, Λ3, 1070a15–16.

[8] See *Metaph.* H1, 1042a27–28: 'Matter is not a particular this in actualization, but in potentiality' (ὕλην δὲ λέγω ἣ μὴ τόδε τι οὖσα ἐνεργείᾳ δυνάμει ἐστὶ τόδε τι); and H3, 1043b1–2: 'For what it was to be is present in the form as the actualization' (τὸ γὰρ τί ἦν εἶναι τῷ εἴδει καὶ τῇ ἐνεργείᾳ ὑπάρχει).

[9] See *Prior Analytics* (*APr*) II.27, 70b7–9: 'The body and soul change together' (ἅμα μεταβάλλειν τὸ σῶμα καὶ τὴν ψυχὴν). For an understanding of the term 'ἅμα', signifying inseparability or simultaneity, see *Metaph.* Θ2, 1048b22–34.

However, a challenge arises regarding the nutritive soul. Unlike sensory or intellectual aspects, which can remain in a state of primary actualization (as latent capacities), the nutritive soul must maintain a continuous state of second-level actualization to sustain the organism's life. Aristotle emphasizes that 'all living things' (τὸ ζῆν ἅπασιν), 'from birth to death' (ἀπὸ γενέσεως καὶ μέχρι φθορᾶς), possess the nutritive soul that is ceaselessly active (*DA* II.3, 415a25, III.12, 434a23). This is because, without this further actualization, the living being would cease to function and ultimately perish (*DA* II.4, 416b9–11). An example particularly relevant to this point occurs in *Eudemian Ethics* (*EE*) II.1:

> [T1] During sleep, the soul is inactive, 'not in actualization' (οὐκ ἐνέργεια, 1219b19–20).
> [T2] During sleep, the nutritive part [of the soul] is 'more active' (μᾶλλον ἐνεργεῖ), while the sensory and appetitive parts [of the soul] are inactive in sleep (1219b22–24).

In T1, Aristotle explains that during sleep, the soul is 'not in actualization' (οὐκ ἐνέργεια), with 'actualization' here specifically referring to 'second-level actualization' (Sprague 1977: 230–232). This indicates that while the sensory and intellectual aspects of the soul retain their capacities, they are not engaged in their full realization—meaning they are not actively performing sensory or intellectual activities. In contrast, T2 clarifies that the nutritive part of the soul remains 'more active' (μᾶλλον ἐνεργεῖ) during sleep, performing essential life-sustaining functions. This implies that, unlike the sensory and intellectual faculties, which can enter a dormant state, the nutritive soul does not merely exist as a latent capacity but instead operates in a state of continuous and complete actualization.

Notably, in *DA* II.1, when Aristotle attempts to define the soul, he posits that his objective is to articulate 'what is common to every soul' (τι κοινὸν ἐπὶ πάσης ψυχῆς, *DA* II.1, 412b4). Therefore, there is a methodological constraint on soul-definition, that is, it should be a common account that is universally applicable. More specifically, the 'actualization definition' was intentionally crafted to encompass the distinct types of soul he later classifies in *DA* II.3. Aristotle reinforces this principle later with an analogy from geometry. He argues that just as a 'common account' (λόγος κοινός) of a figure must apply to all specific types, a single definition of the soul must apply to all its specific kinds (*DA* II.3 414b20–25). For example, the definition of a triangle must be true for all its varieties (right, acute, and obtuse). Similarly, the

common definition of the soul must serve as the definitional foundation for each specific kind of soul.[10]

This universality requirement, however, presents a problem. The 'actualization definition' identifies the soul with first actualization, which is the possession of a capacity rather than its active use. If this definition is required to be generally applicable, it must apply to the nutritive soul. Yet, the nutritive soul defies this definition: its function of preserving life demands constant activity, precluding it from existing merely as a latent capacity. This inconsistency reveals a limitation in the 'actualization definition'. Although it aptly describes the sensory and intellectual dimensions of the soul, it does not fully capture the unique characteristic of the nutritive soul: its perpetual operation in a state of second-level actualization (Hicks 1965: 312). Thus, we need a revised approach to defining the soul.

4. The 'Instrument-Based Definition' and its Critics

Aristotle, perhaps recognizing the limitation of the 'actualization definition'—namely, its inadequacy in capturing the core feature of the nutritive soul—proposes an alternative approach. He redefines the soul as 'the first actualization of the instrumental natural body' (ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ ὀργανικοῦ, *DA* II.1, 412b5–6). This shift from the second to the third definition is quite natural. In Aristotle's text, the 'natural body potentially possessing life' (σώματος φυσικοῦ δυνάμει ζωὴν ἔχοντος), as mentioned in the second definition, correlates precisely with the 'instrumental natural body' in the third (*DA* II.1, 412a27–28). This is because the implication of 'possessing life' extends beyond merely sustaining life; it encompasses actively engaging in life processes. The 'instrument-based definition' underscores that the soul realizes its potentialities through the bodily organs, enabling vital activities such as swimming with fins in fish or grasping objects with hands in primates.

Notably, Aristotle uses an 'axe analogy' to clarify his 'instrument-based definition' of the soul. He states that the body serves as the soul's 'instrument' (ὄργανον), just as an axe is an instrument (*DA* II.1, 412b10–16).

[10] One could argue that Aristotle's 'common account' of the soul is merely a superficial description that ignores the specific mechanism of the soul he aims to clarify (Caston 2020: 210–211). However, this criticism regarding the explanatory power of the 'common account' does not affect its universal applicability. For example, the definition that best reveals the essence of a right-angled triangle is that it has a 90° angle, which is distinct from the 'common account' for all triangles: the sum of their interior angles is 180°. Nevertheless, the right-angled triangle is still necessarily covered by this 'common account'. Therefore, even if Aristotle's more detailed analysis of the nutritive soul is found in *DA* II.3–4, we must insist that the nutritive soul still satisfies the requirements of the broad soul-definition given in *DA* II.1.

Unfortunately, Aristotle does not explicitly state what the soul corresponds to in this analogy. When we describe X as an instrument for Y, Y can be conceived either as [1] the artisan who uses the instrument or as [2] the art or function associated with the instrument.[11] Correspondingly, this analogy presents two possible readings of the soul: [1] as the woodcutter who uses the axe, or [2] as the art or function of cutting.

Reading [1] is implausible. If the soul is understood as a woodcutter, we once again encounter the issue of separation. A woodcutter, after all, can pick up and put down his axe at will; this would imply that the soul could be separated from the body it uses as its instrument. In this case, the 'instrument-based definition' would fail to capture the inherent connection between the soul and the body, a relationship more accurately reflected in Aristotle's earlier 'actualization definition'.

Therefore, we must adopt reading [2], understanding the soul-body relationship as analogous to that between the art of cutting and the axe. The art of woodcutting inherently depends on an axe, as the art itself is defined through the act of using an axe to cut wood. Similarly, the axe's design and purpose are tailored specifically for the function of woodcutting. This mutual dependence illustrates that the axe is not merely an independent tool but an embodiment of the art of woodcutting. Likewise, in Aristotle's framework, the body is not just an instrument for the soul; rather, it embodies the soul's capabilities and essence.[12] Consequently, the 'instrument-based definition', when understood in this way, avoids the issue of separation.

Aristotle progressively refines his terminology to accurately define the soul, culminating in the 'instrument-based definition' presented. This definition not only clarifies the soul's role in the living process but also leaves no room for the issue of separation between the soul and body. More importantly, it captures the commonality across various types of souls—whether intellectual, sensitive, or nutritive—by identifying them all as functional principles that initiate biological activities. Based on this, at the end of

[11] Often, when Aristotle talks about the body as an instrument, he leaves it unclear whether the soul is analogous to the art or the artisan; see *PA* II.7, 652b13–15: 'To say that the soul is fire is similar to saying that the saw or the drill is the carpenter or the art of carpentry, because the result is accomplished when they [sc. the instrument and either the artisan or the art] are near one another' (ὅμοιον οὖν τὸ τὴν ψυχὴν εἶναι φάναι πῦρ, καὶ τὸ πρίονα ἢ τρύπανον τὸν τέκτονα ἢ τὴν τεκτονικήν, ὅτι τὸ ἔργον περαίνεται ἐγγὺς ἀλλήλων οὖσιν).

[12] Aristotle's 'eye analogy' also reveals this point. He states, 'If the eye were an animal, sight would be its soul' (*DA* II.1, 412b18–19). In this scenario, sight is not just a thing that comes along with the eye but its essential function. Without sight, the eye would not fulfill its definitional role.

DA II.1, Aristotle acknowledges that this 'instrument-based definition' results from a process of meticulous reasoning (412b10–16).[13]

Strikingly, despite endorsing the 'instrument-based definition' of the soul in *DA* II.1, Aristotle makes clear that it is not an entirely adequate treatment, much less a canonical definition. He argues that at the outset of *DA* II.1, it is only 'the most general account' (κοινότατος λόγος αὐτῆς, 412a5–6) and ends the section by saying that we should take it as merely 'sketching and defining the soul in outline' (τύπῳ μὲν οὖν ταύτῃ διωρίσθω καὶ ὑπογεγράφθω περὶ ψυχῆς, 413a9–10). The problem is that this general account lacks sufficient explanatory power. It may be evident in some sense (φανερωτέρων, 413a11), but it still needs clarification if it is to be more intelligible (τὸ σαφὲς καὶ κατὰ τὸν λόγον γνωριμώτερον, 413a11–13). More precisely, he says that this account only states 'the fact' (τὸ ὅτι), what the soul appears to be, without revealing its 'cause' (αἰτίαν, 413a13). Therefore, the 'instrument-based definition', just like Aristotle's first two attempts, fails to meet the requirement for soul-definition in *DA* II.2 (Bolton 1987: 259).

Here, two questions need to be clarified. The first is, [1] what is the normative standard for proper definition that *DA* II.2 implicitly invokes? And the second, [2] where does Aristotle articulate such a soul-definition?

Regarding [1], there is a consensus that *DA* II.2 alludes to the method of definition described in *Posterior Analytics* (*APo*) II (Polansky 2007: 172; Shields 2016: 181–183; Julian 2020: 334). The process begins by establishing an account of a fact in the form of a nominal definition, which functions as the conclusion of a demonstrative syllogism. With the fact established, the inquiry then proceeds to discover its cause, which serves as the middle term. The construction of a syllogism in *Barbara* using this causal middle term ultimately yields a proper scientific definition (Halper 2017: 57–69). This point is confirmed by *DA* II.2, where Aristotle compares the 'instrument-based definition' to the conclusion of a syllogism without the reasoning that leads to it: we are missing the middle term that clarifies why the terms belong to one another (413a16–20).

Question [2] presents a greater challenge, as Aristotle nowhere explicitly articulates a demonstrative syllogism for the soul in his texts. Thus, the soul-definition (the one displaying the middle term) is not directly visible; he perhaps expected his pupils or readers to undertake this analytical step (Lennox 1987: 90–99; Gotthelf 2012: 185–186). The predominant view, initially presented by Marcel De Corte, is that the material necessary for this causal definition is found in the subsequent sections of *DA* (II.2 onwards),

[13] This perspective has prompted a broad acceptance of a functionalist interpretation of Aristotle's concept of the soul, see Sorabji 1974: 63–89, and Shields 1991: 19–33.

where Aristotle examines the specific capacities of the soul (De Corte 1939: 473–476). This approach has been recently clarified and supported by Coates, who asserts that the soul is identified homonymously with the various life capacities found in natural bodies. Specifically, for plants, the soul is the nutritive capacity; for animals, the perceptive capacity; and for humans, the intellective capacity (Coates 2024: 464).

However, I disagree with this. The reason is that this view overlooks the crucial distinction between 'the soul *as* a cause' and 'the cause *of* the soul'. Proponents of this view fail to recognize that the discussion in *DA* II.2–4 establishes the fact that the soul is the cause of the organism, but it does not provide the reason why the soul is this cause. The latter is precisely the causal definition we are seeking. Johansen, noticing this core distinction, proposes an alternative account. Based on *DA* II.4 (415a16–22), he contends that the cause of the soul is the existence of the objects of nutrition, sensation, and intellection. And these objects are explanatorily prior to the soul itself (Johansen 2012: 93–100). Yet, I find this view problematic as well. An immediate difficulty is that the claim 'the objects of the soul's activities are prior to the soul itself' conflicts with a core tenet of Aristotle's metaphysical framework. In *Metaph.* Z11, Aristotle asserts the identity of a primary substance and its essence. As he states: 'in the case of the primary substances, the essence and the thing itself are the same' (τὸ τί ἦν εἶναι καὶ ἕκαστον…μὲν ταὐτό, ὥσπερ ἐπὶ τῶν πρώτων οὐσιῶν, 1037a33–b2). For a substance of this kind, its essence is identical to itself. This implies that its definitional account does not lie beyond its own scope. Crucially, Aristotle explicitly identifies the soul as a primary substance (δῆλον δὲ καὶ ὅτι ἡ μὲν ψυχὴ οὐσία ἡ πρώτη, Z11, 1037a5). Therefore, its essence or causal definition cannot be grounded in anything external to it. Consequently, the view that the cause of the soul is the extrinsic objects of its capacities must be rejected.[14]

[14] A further objection to Coates's idea is that Aristotle's concept of homonymy is insufficient to ground the claim that the soul has multiple definitions. Aristotle describes two types of homonymy. The first type is a form of polysemy, frequently indicated by the phrase 'πολλαχῶς λέγεται [said in multiple ways]' (see *Top.* I.15, 106a1–8 and 107a3–12). In this model, two things are homonymous if their definitions are distinct yet conceptually parallel, with neither being ontologically or conceptually prior to the other. The second type is often termed 'apparent homonymy', where one thing is named after another but fails to be a genuine instance because it lacks the other's essential function. The classic example is a dead hand: it is called a 'hand' by homonymy, but it is not a true hand (*PA* I.1, 640b35–641a5). Crucially, neither model adequately captures the systematic relationship among the three kinds of soul in *DA*. The souls exhibit a nested, hierarchical structure rather than a parallel one, which renders the first type of homonymy inapplicable. And, since all are considered genuine souls, the second type does not work either. For the discussion of two modes of homonymy, see Ward 2008: 98, and Stein 2011: 131.

Given the background, I argue that the proper soul-definition required by *DA* II.2 is not fully revealed within *DA*, or at least not in a complete manner. It is remarkable that Aristotle's conception of the soul is intricately linked to the notion of 'living' (ζῆν), which he identifies as the soul's fundamental feature (*DA* II.2, 413a20–21). In his framework, 'living' is not simply a static attribute but a dynamic process that unfolds through various soul functions such as perception, thought, and movement (*DA* II.2, 413b12). Therefore, a proper definition of the soul must capture this continuous process of 'living' as it manifests in living beings, highlighting that this process underpins all the soul's operations and characteristics. Thus, Aristotle's methodology in *DA* II.2 demands that any accurate soul-definition not only describe its functions but also clarify the generative processes through which these functions are realized. It is no doubt true, as Shields remarks, that 'nowhere' in *DA* does Aristotle offer such a good one (Shields 2016: 183). This motivates us to introduce a somewhat bold possibility: that Aristotle needs to speak of soul-definition in his broader biological works, especially his accounts of teleology in *PA*; that such talk helps him solve problems, quite aligning with his commitment to establishing a strictly scientific account.

However, the view that *DA* is incapable of addressing the definition of the soul, thus necessitating a search for the answer in *PA*, is bound to face methodological objections. [1] First, since Aristotle, at *Meteorology* (*Meteor.*) I.1, 338a19–339a9, implicitly excluded the study of the soul from the domain of natural inquiry (which includes biology), it is difficult to concede that studying biological phenomena can help in understanding the soul, which is, to some extent, a 'non-natural' entity. [2] Second, even if we were to grant that the teleological account of the soul is helpful for completing the soul-definition in *DA*, *DA* itself already contains a discussion of the teleological dimension of the soul (see *DA* II.4, 415b8–12). Thus, the necessity of referencing *PA* seems questionable. In fact, clear textual evidence can be found to respond to both of these criticisms.

Regarding objection [1], a strong counterargument can be made by highlighting that, from the outset of *DA*, Aristotle situates the study of the soul within the broader inquiry into nature. He asserts, 'knowledge of it [sc. the soul] seems to contribute greatly to all truth, and especially to [the study of] nature; for it is, as it were, a first principle of animals' (*DA* I.1, 402a4–7; see 403a26–27). This position is confirmed in *PA*, where he states, 'the inquirer into nature should speak about the soul' (*PA* I.1, 641a29–30). Aristotle's consideration seems to be that the object of biology (as part of natural study) is the organism, and the organism has a soul as its principle. Therefore, to study the organism comprehensively, we must also examine the soul. It is plausible to posit a reciprocal dependency here, as we cannot investigate a

certain 'principle' in isolation. To understand what the soul is, we must observe it in biological phenomena—by studying the behavior of the organism it animates. It is important to note that this connection does not depend on a commitment to the idea that the 'soul is not separable from the natural body'. For even if we were to concede that *DA* III.4–5 presents a type of soul (*nous*) separable from the natural body, this would only imply that the study of the soul cannot be entirely subsumed within the scope of natural/biological research. It would not mean that we cannot supplement and complete our understanding of the soul through the study of biological phenomena. Therefore, from a methodological standpoint, it is entirely reasonable to analyze *DA* within the broader biological context provided by *PA*.[15]

Regarding objection [2], while it is true that *DA* discusses the teleological dimension of the soul, this discussion does not suffice to form a soul-definition. The key passage appears in *DA* II.4, where Aristotle writes:

> The soul is the cause and origin of the living body. These terms are used in many ways, and similarly, the soul is a cause in the three ways that have been defined: for the soul is the cause as that from which motion originates, that for the sake of which, and as the substance of ensouled bodies. (*DA* II.4, 415b8–12)

Here, Aristotle identifies the soul as a causal factor in the activities of an organism. Specifically, the soul acts simultaneously as the efficient cause, the final cause, and the cause as substance (sc. the formal cause). However, the interpretation of this passage is contentious, leading to two main analytical paths. [a] The first approach views this text as an echo of *Phys.* II.7, 198a21–27. In that passage, Aristotle discusses the convergence of three of the four causes (formal, final, and efficient), aiming to reframe the four-cause model of natural change into a dualistic matter/telos model. This move is seen as a step toward developing his more mature doctrines of hylomorphism and hypothetical necessity (Rosen 2014: 78). [b] The second, and more mainstream, interpretation confines the passage's significance to the internal argument of *DA*. On this view, its role is to clarify the initial claim from *DA* I.1 that the soul is the 'principle of living things' (ἀρχὴ τῶν ζῴων, 402a5–6). The soul operates as this principle precisely because it exerts causal influence over the organism—acting as its substance, telos, and mover. Crucially, neither approach is sufficient for developing a proper soul-definition. Approach [a] is not concerned with the relationship between the soul and its telos; instead, its concern is to use the unity of the soul to guarantee the identity of the three causes it represents. And while approach [b] does emphasize that the soul

[15] Many scholars emphasize the importance of situating Aristotle's doctrine of the soul within his broader natural or biological inquiries, see Lennox 2006: 294, and Leunissen 2010: 49.

acts as a telos, its focus is on describing 'the soul as a cause' rather than 'the cause of the soul'. As argued previously, only the latter would satisfy the requirements for a proper definition set out in *DA* II.2.

The preceding discussion has demonstrated the incomplete project of soul-definition in *DA*. It has also clarified the methodological reasonableness and necessity of supplementing this account by drawing upon the arguments in *PA*. In the next section, we will examine how the teleological accounts in *PA* contribute to the development of the 'instrument-based definition' from *DA* II.1. The ultimate goal is to clarify what, for Aristotle, the soul truly is.

5. 'For the Sake of the Soul': Teleology in Aristotle's Approach

In the third 'instrument-based definition' of the soul, Aristotle describes it as the first actualization of a natural body designed for instrumental use, closely associated with the generative biological process. He delineates this process in four stages in *PA* II.1–2. The process begins with the identification of the 'natural elements' (τῶν φυσικῶν στοιχείων)—earth, water, air, and fire—which serve as the foundational substratum for all physical entities. From these, 'the homogeneous parts' (τῶν ὁμοιομερῶν) like blood and bones emerge, characterized by their uniform composition and straightforward functions. As biological complexity escalates, 'the heterogeneous parts' (τῶν ἀνομοιομερῶν), including organs like the heart and structures like the face, develop from varied tissue types designed for distinct functions. This progression ultimately leads to the formation of 'living beings' (ζῷα), in which both homogeneous and heterogeneous parts are integrated to constitute a fully functional organism.[16]

In short, in Aristotle's model of biological generation, fundamental matters initially form homogeneous parts, which then evolve into heterogeneous parts. These components ultimately merge to form a fully functional living being. This sequence from simplicity to complexity appears to be driven by the intrinsic properties and interactions of the matter itself. Within this framework, matter is depicted as the essential substrate that, under specific conditions, self-organizes to engender life. This perspective aligns with the conception of 'material necessity', which asserts that matter acts as a contributing causal factor required for organizing itself into life forms.[17]

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[16] See *PA* II.1, 646a21, 646a23, 646b11, II.2, 648b9–10. For a parallel account of this process, see *Metaph.* Z2, 1028b9–15, Z9, 1034b8–10, H1, 1042a7–10; *Meteor.* IV.12, 389b25–30.

[17] I do not endorse the conventional interpretation, often prompted by *Phys.* II.8, that material necessity does not arise directly from matter itself but rather from the necessity of matter given a specific telos. Contrary to this view, in *PA* I.1, Aristotle highlights the matters, as things 'possessed and naturally produced' (ἔχοντα καὶ πεφυκότα), themselves impose a form of

In this purely materialistic view, matter, by virtue of its inherent properties, functions as a crucial causal agent in biological phenomena. For instance, matter with earthy qualities, such as hardness, is naturally inclined to form structures like teeth and horns, which manifest the properties of their constituent materials.[18] This principle extends beyond physical structures to psychological traits. Animals with watery blood often exhibit superior sensory and cognitive abilities, though an excess can lead to a coldness that may cause timidity or fearfulness in reaction to external stimuli.[19] These observations strongly lend support to the doctrine of material necessity, which posits that the intrinsic characteristics of matter significantly influence the development of both physical and psychological traits in living beings.

Material necessity might seem capable of explaining all biological phenomena, yet Aristotle casts doubt on such an approach. In *Phys.* II.8, he contends that traits of matter, such as the sharpness of incisors or the broadness of molars, might merely 'happen to occur' (συμπεσεῖν) rather than exist 'for the sake of something' (τούτου ἕνεκα).[20] This challenges the notion of material necessity. Aristotle argues that while certain material configurations may influence the initial formation of biological traits, their enduring presence and functional effectiveness depend on their congruence with a natural telos. He asserts that biological features survive only if they are 'structured in a suitable way' (συστάντα ἐπιτηδείως), fulfilling a telos consistent with the organism's overarching goal. Traits that do not align with this criterion, such as the mythical 'man-headed ox', perished, demonstrating that matter alone is inadequate for sustaining viable natural forms (*Phys.* II.8, 198b28–32). Thus, Aristotle concludes that matter, lacking purposive determination, cannot solely account for the full range of biological phenomena.

In response to the limitations of material necessity as an explanatory principle, Aristotle introduces his doctrine of natural teleology, which offers

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necessity (642a31–b4). This implies that there is a type of necessity directly connected to matter, which might aptly be termed 'matter necessity'. For a deeper analysis, see Ebrey 2015: 68–69.

[18] See *PA* II.9, 655b9–13, III.2, 663b29–35, IV.10, 690a4–9; see also *Generation of Animals* (*GA*) II.6, 744b24–27, 745a1–4, V.3, 782a20–24. For relevant discussions, see Leunissen 2010: 19.

[19] See *PA* II.4, 650b26–29, 651a12–17. For a relevant account, see Leunissen 2017: 45.

[20] See *Phys.* II.8, 198b23–28. Notably, Aristotle insists that the study of natural phenomena must adhere to proper 'methods' (μεθόδους), which denote the systematic and replicable approach (*Phys.* I.1, 184a11). He contrasts phenomena driven by nature, which typically occur 'always in this way or for the most part' (ἢ αἰεὶ οὕτω γίγνεται ἢ ὡς ἐπὶ τὸ πολύ), with events arising 'by chance or spontaneity' (ἀπὸ τύχης καὶ τοῦ αὐτομάτου), characterized by their irregularity (*Phys.* II.8, 198b34–36). This distinction emphasizes his belief that natural phenomena are not merely random interactions of matter, but are governed by a systematic principle, specifically directed towards a telos.

a more nuanced explanation of how diverse materials integrate to form functionally specific organisms. In *PA*, Aristotle details this teleological approach, describing biological generation as fundamentally oriented towards a telos. He posits that each developmental stage of an organism exists for the sake of the next, stating:

> So that it must necessarily be that the elementary matter exists 'for the sake of' (ἕνεκεν) the homogeneous parts, since these are later in generation than the elements, and later than the homogeneous parts are the heterogeneous parts. For these have already reached 'the telos and boundary' (τὸ τέλος…καὶ τὸ πέρας), having achieved a constitution of the third sort, in which development often attains its final 'to be completed' (τελειοῦσθαι). (Transl. J. G. Lennox, modified, *PA* II.1, 646b5–10)

In Aristotle's framework, biological generation is not merely a random combination of elements but a purposive and ordered progression. Each developmental stage, from the basic elements to homogeneous parts like blood and flesh, and further to heterogeneous parts such as hands and heart, is meticulously structured 'for the sake of' (ἕνεκεν) the subsequent stage, culminating in the ultimate 'telos' (τέλος) of a living being: 'to be completed' (τελειοῦσθαι). This structured progression illustrates a determinate process where each stage serves a specific role, collectively advancing the organism towards the completion of a unified, functional whole.

Notably, Aristotle's concept of natural teleology extends beyond biological generation to the concrete activities of living beings. He maintains that the entirety of a living being's existence is grounded in the 'for the sake of something' (ἕνεκά τινος), which is realized through its 'functions and activities' (ἔργα καὶ πράξεις).[21] To illustrate this point, Aristotle uses the example of a saw, noting that: 'the saw is made for sawing, for sawing is an activity, and not sawing for the saw' (*PA* I.5, 645b17–19; see *PA* II.1, 646b12). This analogy highlights that just as the saw's purpose is justified by its activities of sawing, living beings are similarly characterized by their engagement in purposive activities. Consequently, Aristotle's teleological principle—that everything exists 'for the sake of something'—is further refined to mean everything exists 'for the sake of performing some activities' (πράξεώς τινος ἕνεκα, *PA* I.5, 645b15–16).

In a nutshell, for Aristotle, both biological generation and activities are guided by the natural telos. This perspective leads to a revised sense of matter: instead of serving as the agentive role in biological phenomena, matter is repositioned as a kind of necessary condition for achieving a specific telos. Aristotle states:

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[21] See *PA* I.1, 642a11–12; see also *PA* I.5, 645b15: 'for the sake of something' (ἕνεκά του).

> Such [matters] arise 'from a certain condition' (ἐξ ὑποθέσεως). For instance, in order for an axe to split wood, it must necessarily be hard. If an axe is hard, it must necessarily be made of bronze or iron. The same applies to the body, for it is a kind of 'instrumental body' (σῶμα ὄργανον). For each of the parts is for the sake of something, and likewise the whole, it is therefore necessary that it be of a certain kind and made of certain things, if that telos is to be achieved. (*PA* I.5, 642a9–12)[22]

This passage articulates Aristotle's notion of conditional necessity. It posits that a specific telos requires an appropriate matter for its realization. In his case, the function of a woodcutter—cutting wood—necessitates an axe made of a suitably hard material. Aristotle draws an analogy to the body (οὕτως καὶ ἐπεὶ τὸ σῶμα, 642a11), explaining that biological activities depend on this same principle. If a living being is to perform its characteristic functions, it requires the proper bodily conditions (Furth 1988: 85). His use of the term 'instrumental body' (σῶμα ὄργανον, 642a11) here echoes the expression from his 'instrument-based definition' in *DA* II.1 (σώματος…ὀργανικοῦ, 412b5–6). Based on this parallel, we can further suggest that the relationship between the soul (or its activities) and the body is that of a telos to the material conditions necessary for its realization.

In fact, the view is not an entirely new insight presented in *PA*. Aristotle subtly expressed it at the very beginning of *DA* in his critique of his predecessors. There, he faults earlier natural philosophers for 'not yet determining the body' (σώματος οὐθὲν ἔτι προσδιορίζουσιν, *DA* I.3, 407b21). More precisely, they failed to see that a body inhabited by a soul must 'possess a specific feature' (ἴδιον ἔχειν εἶδος, 407b23–24). As Leunissen helpfully states, this critique already shows Aristotle's 'implicit reliance on the notion of conditional necessity' (Leunissen 2010: 52). That is, the body serves as a proper matter relative to the soul, existing as a necessary condition for the soul's activities.

The foregoing analysis clarifies the intricate relationship between the soul and the natural telos. In Aristotle's framework, the material condition of a living being—described as the 'instrumental body'—and its activities are invariably directed toward specific purposes. Here, the soul acts as the organizing principle that aligns the body with its biological telos. This alignment indicates that when the soul engages in actualization, it enables the living being to achieve its natural completion. Aristotle explicitly articulates this kind of interconnection in *PA* I.5:

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[22] Although Aristotle uses an example of an artifact here, his primary intent is to illustrate a parallel in biological phenomena, for 'the telos and noble thing play an even greater role in the works of nature than in the works of art' (μᾶλλον δ' ἐστὶ τὸ οὗ ἕνεκακαὶ τὸ καλὸν ἐν τοῖς τῆς φύσεως ἔργοις ἢ ἐν τοῖς τῆς τέχνης, *PA* I.1, 639b19–21). For the relevant discussion, see *Metaph.* H2, 1043a9–10 and *Phys.* II.1, 193a16–18.

> As every instrumental bodily part is 'for the sake of something' (ἕνεκά του), that is, some activities, so the whole body must evidently be for the sake of complex activity. Thus, the saw is made for sawing, for sawing is a function, and not sawing for the saw. Similarly, the body too must somehow or other exist 'for the sake of the soul' (τῆς ψυχῆς ἕνεκεν), and each part of it for some subordinate function, to which it is adapted. (Transl. J. G. Lennox, modified, *PA* I.5, 645b14–20)

Instrumental or conditional body acts for the sake of something, and more precisely, that is 'for the sake of the soul'.[23] According to Aristotle, the body and soul share a clear teleological relationship: the body acts as an instrument, and the soul as telos. This means the soul operates through the body. In this process, the instrumental feature of the body is the conditionally necessary prerequisite for the realization of the potentials of an organism's life functions that constitute its soul. The body's primary role, specifically, is to provide the material condition for organisms to live, thereby supporting the potential for the soul's two-stage actualization.

In Aristotle's conceptualization, the 'first actualization' occurs during biological generation when the soul endows basic matter with the potential capacities necessary for life, such as sight, perception, and nutrition. This stage represents the initial formation of life. The 'second-level actualization' happens as these inherent biological capacities are employed through specific activities of the organism, like seeing, perceiving, and nourishing itself. By emphasizing the body's instrumental role, Aristotle not only highlights the functional dependency of the body on the soul but also illuminates the teleological order within which biological phenomena are situated.

Notably, Aristotle's evolution from the 'form definition' to the 'actualization definition' of the soul subtly incorporates the conception of natural telos.[24] The term *entelecheia*, commonly translated as 'actualization', etymologically means 'holding its telos in itself', highlighting the soul's role as the intrinsic telos of the living being.[25] Aristotle's progression to the 'instrument-based definition' further clarifies the soul's teleological nature. Since an instrument is used to perform a specific function, and each function is carried out 'for the sake of' an outcome, it is inherently directed toward a

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[23] The similar expressions frequently appear in Aristotle's works. See *Magna Moralia* (*MM*) II.10, 1208a7–8: 'the body is for the sake of the soul' (τὸ σῶμα τῆς ψυχῆς ἕνεκεν); *Pol.* VII.1, 1323b19: 'these things (sc. wealth and body) are by nature choiceworthy for the sake of the soul' (τῆς ψυχῆς ἕνεκεν ταῦτα πέφυκεν αἱρετὰ); *Protrepticus* (*Protr.*) fr. 23, 6: 'the body exists for the sake of the soul' (τὸ σῶμα τῆς ψυχῆς ἕνεκ' εἶναι).

[24] See Metaph. Θ6, 1048b22, Θ8, 1050a21. For the detailed discussion, see Liddell and Scott 1996: 575.

25 Aristotle's definition of the soul through the vocabulary of entelecheia, see *DA* II.1, 412a27–28, b5–6: 'the first actualization of a natural body potentially possessing life' (ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ δυνάμει ζωὴν ἔχοντος) and 'the first actualization of the instrumental natural body' (ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ ὀργανικοῦ).

telos (Code and Moravcsik 1995: 134). Ultimately, Aristotle specifies that this telos within his science of living beings manifests as 'for the sake of the soul' (τῆς ψυχῆς ἕνεκεν).[26] More precisely, the two-stage actualization of the soul—representing potential capacities and their concrete expression—depicts the living being's progression towards its ultimate telos: 'to be completed' (τελειοῦσθαι).

The time is ripe to properly identify the 'telos definition'. Recall the requirements for causal definition outlined in *DA* II.2 and *APo* II. We should first present a demonstrative syllogism, and then find the causal middle term that yields a proper scientific definition. We can make it more straightforward by providing the same logical analysis for soul as for thunder.

Demonstrative syllogism for thunder:
(1) Noise is the extinguishing of fire
(2) Thunder is the extinguishing of fire in a cloud
Therefore, thunder is some sort of noise in a cloud

'Why is it so?' question and answer:
Why is thunder considered some sort of noise in a cloud?
Because it is the extinguishing of fire in a cloud.

Sketching thunder in outline (from conclusion):
Thunder is a noise in a cloud.

Defining thunder (displaying middle term):
Thunder is a noise of fire being extinguished in a cloud.

Demonstrative syllogism for soul:
(1) The principle of life is the final cause
(2) Soul is the final cause in a natural body
Therefore, soul is some sort of principle of life in a natural body

'Why is it so?' question and answer:
Why is the soul considered the principle of life in a natural body?
Because it functions as the final cause of that body.

Sketching the soul in outline (from conclusion):
Soul is some sort of principle of life in a natural body.

Defining the soul (displaying middle term):
Soul is the principle of life as the final cause in a natural body.

26 To be sure, Aristotle mentions the connection between the soul and natural telos in *DA* II.4, 415b15–21. However, as noted, this discussion is insufficient to capture the full complexity of this relationship.

6. Conclusion

In this paper, I have endeavored to elucidate Aristotle's fourfold progression in defining the soul. The initial (i) 'form definition', based on hylomorphism, faces the challenge of soul-body separation. To resolve this, Aristotle establishes a conceptual connection between form and actualization, leveraging his theories of movement and substance to introduce the (ii) 'actualization definition'. This approach views the soul as a capacity with potential for actualization, yet it falls short in capturing the continuously actual nature of the nutritive soul. Consequently, Aristotle advances the (iii) 'instrument-based definition', which identifies the soul's functional role through a specific instrumental body. However, this formulation fails to satisfy the criteria for a causal definition outlined in *APo* II. Thus, I propose that Aristotle shifts to the (iv) 'telos definition' in *PA* I.5, which highlights the soul's teleological sense in biological generation and activities. This reconstructed fourth definition, rooted in his notion of conditional necessity, offers a comprehensive explanation of what the soul is and how it operates.

Below is a summarized table of Aristotle's progressive definitions of the soul:

Step	Definition	Theoretical Basis	Limitation
i	Form definition	Hylomorphism	Issue of separation
ii	Actualization definition	Theory of actualization	Inadequate for nutritive soul
iii	Instrument-based definition	Functionalism	Lacking a causal explanation
iv	Telos definition	Conditional necessity	/

Aristotle's Progressive Definitions of the Soul[27]

It seems that Aristotle's exploration of the soul's definitions, while complex, reflects a coherent progression that purposefully tackles 'one of the most challenging [issues]' (τῶν χαλεπωτάτων) within his philosophical system.

[27] While both hylomorphism and functionalism have been richly developed in contemporary philosophy, our focus here is on their more naïve significations. Hylomorphism explains natural change through the framework of form and matter; functionalism views the body as an instrument for the organism to realize its soul's functions.

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