ANTONIO FERRO

Aristotle on Self-Motion

The Criticism of Plato in *De Anima and Physics* VIII

PHILOSOPHICAL STUDIES IN ANCIENT THOUGHT



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Béatrice Lienemann, Christian Pfeiffer, Christof Rapp (eds.)

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Antonio Ferro

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The Criticism of Plato in *De Anima* and *Physics* VIII

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Foreword

Crebro itaque illa iactabat: σπεῦδε βραδέως [...] et: "sat celeriter fieri quidquid fiat satis bene".

Suet. Aug. 25.4

The present book is a substantially revised and updated version of my PhD thesis ("Aristotle on Self-Motion: Some Key-Texts"), which I defended in February 2017 at LMU Munich. However, my first foray into the topic of self-motion occurred much earlier. I was initially inspired by an advanced seminar on *de Motu Animalium* held by Prof. Dr. Ch. Rapp and Prof. Dr. O. Primavesi in preparation for the 19th *Symposium Aristotelicum*, which was to take place in Munich a few months later. Since then I have enormously profited from discussions with friends and colleagues in Germany and abroad.

The people who in various ways have helped me develop my - still somewhat half-baked - views about self-motion in Aristotle are far too numerous to mention, yet some deserve to be named. First and foremost, I would like to thank my Doktorvater, Prof. Dr. Ch. Rapp for his unflinching support throughout my PhD, my co-supervisor, Prof. Dr. Peter Adamson, for helping me realise that my original presentation of the issues in the dissertation could be made more readable, and my third examiner, Prof. Dr. Oliver Primavesi, for sharing with me drafts of his (still forthcoming) monumental MA commentary for the Akademie-Ausgabe. I am also grateful to Prof. Marwan Rashed, who encouraged me to pursue this project at a very early stage, and to Prof. Thomas K. Johansen, who helped me improve on still very rudimentary drafts of Chapter 3 during my research stay at Oxford. Moreover, I should like to mention Prof. Henry Mendell and Prof. Orna Harari, with whom I had exhilarating exchanges of views during a workshop on *Ph.* VIII 5-10 in Tel Aviv, and whom I met again later both in California and during my post-doc at the Martin Buber Society of Fellows in Jerusalem. I am also much obliged to the organiser, the funders and all participants of the 26th meeting of the European Society for Ancient Philosophy (ESAP) on Aristotle's Physics VIII 10, which was originally scheduled to take place in Rome last year, but then had to be held online only last March due to the ongoing pandemic: discounting the fact that my living room was a rather poor substitute for the Roman sky, the quality of the talks and the congenial atmosphere made the event not just plainly enjoyable, but also intellectually enriching.

I would also like to thank my former and present colleagues as well as audiences at LMU Munich, UC Berkeley (in particular, Michael Arsenault and Emily Jane Perry), the University of Bologna (in particular, Walter Cavini and Paola Gamberini), Goethe-Universität Frankfurt (in particular, Friedemann Buddensiek and Sebastian Odzuck), Tel Aviv University (in particular, Ido Yavetz), the University of Oxford (in particular, Leslie Brown, Luca Castagnoli, Ursula Coope, Paolo Fait, and Michail Peramatzis), the Martin Buber Society of Fellows at the Hebrew University of Jerusalem (in particular, Dan Baras, Chiara Caradonna, Orly Lewis, Elena Mucciarelli, Oded Na'aman, and Antonio Vargas), and Friedrich-Alexander Universität Erlangen-Nuremberg: many sections of the book have significantly benefited from their suggestions and critical remarks.

Moreover, I also feel I owe a deep debt of gratitude to Andreas Anagnostopoulos and Christian Pfeiffer: they – independently of each other – initiated me to the *sancta sanctorum* of Aristotle's physics (*Ph.* III 1–3; IV–VI) and metaphysics (*Metaph.* Z- Θ ; I) more than a decade ago, shortly after fate had brought me to Berlin, alone and still searching with respect to my own philosophical commitments: their rare philosophical talent and analytical rigour have been a model for me throughout the years. (This should not, however, be understood as a clumsy attempt to burden anyone with any of the claims I put forth in this book. Indeed, I am sure both of them will sharply disagree with many of the things I say here.)

Special thanks go to Prof. Dr. Béatrice Lienemann for helpful discussions, her encouragement to publish my work as a monograph despite my initial resistance as well as her constant advice and help in securing the necessary funding. Finally, this book would have never seen the light of day without the patience and support of Dr. Christian Barth and Sonja Peschutter at Schwabe Verlag.

However, the people who were almost literally caught in the toils of my (excruciatingly slow) writing process over the past few years are my mum Giuliana, my son Leonardo, and Alesia. I want to thank them from the bottom of my heart for constantly reminding me of all good things in the peculiar life of humans: after all, they are quite a few.

This book is dedicated to the memory of two other humans I dreadfully miss: my dad, Rodolfo Ferro (1948–2017), and late Prof. Eva Picardi (1948– 2017). I owe to the former the constant challenge of having to prove to him – a teacher and former philosophy graduate – (and thus also to myself) that philosophy is not a futile list of dysfunctional people and their crackpot ideas. To the latter I owe a living example that philosophy is worth pursuing especially in your dark times, when you have to pull yourself up by your bootstraps and the very fabric of society seems to be under threat. Perhaps even more importantly, Eva strengthened my inner conviction that there should be more women in philosophy. There should more of them not because they are inherently better than men, but rather because of the hardly fortuitous – and hardly irreversible – fact that, despite accounting for roughly half of the general population, there are still far too few of them around at the post-doc level and afterwards.

Munich, May 2021

Note to the reader

Unless otherwise indicated, all the translations of Aristotle used in the text are my own. For Plato I have usually adopted those in the volume edited by John M. Cooper (Plato: Complete Works, Indianapolis: Hackett, 1997). The editions on which the translations of Aristotle and Plato are based are those established by sir David Ross and, respectively, Burnet in the Oxford Classical Texts (OCT). As for Aristotle's de Anima, apart from Ross's minor (henceforth 'Ross 1956') and maior editio (henceforth 'Ross 1961'), which I usually follow in longer quotations of the original text in the footnotes, I have also benefited from Aurelius Förster's 1912 edition (henceforth 'Förster 1912') as well as from Paul Siwek's 1965 edition (henceforth 'Siwek 1965'), which is as a rule more reliable than both Förster and Ross. Major deviations from Ross's editions are indicated in the main body of the text or in the footnotes. The Greek commentators of Aristotle are cited by reference to page and line number in the corresponding volumes of the Commentaria in Aristotelem Graeca (CAG). The abbreviations of Greek authors and texts are as per H. G. Liddell and R. Scott, A Greek-English Lexicon (1940), revised and augmented by H. S. Jones and R. McKenzie with a revised Supplement, Oxford: Clarendon Press, 1996⁹ [henceforth abbreviated as 'LSJ']. R. Kühner, F. Blass and B. Gerth's Ausführliche Grammatik der griechischen Sprache (3rd edition, 1890-1904), H. W. Smyth's Greek Grammar (1956) and Denniston's Greek Particles (1950²) are abbreviated in the footnotes as 'Kühner-Gerth', 'Smyth', and 'Denniston', respectively. The references to Hermann Bonitz's Index Aristotelicus [henceforth 'Index'] are given in the usual way. Any factual errors, inaccuracies or omissions that remain are my sole responsibility.

Introduction

0.1 Preliminaries: A bird's eye view

[...] that any sort of motion should move itself [...] – all cases like this also produce disbelief in some, though perhaps there are some in whom it does not. What we need, my friend, is some great man to give an adequate interpretation of this point in every detail [...]

Pl. Chrm. 168e9-169a3

The present work covers a restricted range of topics all of which are intimately connected to Aristotle's treatment of self-motion in the context of his natural philosophy. Aristotle seems to regard animal locomotion as the primary (or perhaps the only genuine) instance of self-motion and, accordingly, animals as the paradigmatic (or perhaps the only genuine) self-movers. The chief aim of this introduction is to offer a broad overview of some fairly specific aspects of Aristotle's analysis of self-motion in the *corpus*, with a special emphasis on two treatises, namely *de Anima* I 3–4 and III 9–10, and *Physics* VIII 2 and 6.

It is worth stressing from the outset that the expression 'self-motion' (or 'self-mover')¹ has an exact counterpart in Aristotle's Greek, namely the reflexive phrase $\tau \dot{\sigma} \ a \dot{\sigma} \tau \dot{\sigma} \ \dot{\epsilon} a \upsilon \tau \dot{\sigma} \ (or \ a \dot{\upsilon} \tau \dot{\sigma}) \ \kappa \upsilon \varepsilon \tilde{\upsilon} \upsilon \ (active)$ or, equivalently, $\tau \dot{\sigma} \ a \dot{\upsilon} \tau \dot{\sigma} \ \dot{\omega} \dot{\sigma}'$ a $\dot{\upsilon} \tau \dot{\sigma} \ \dot{\omega} \ \dot{\omega}$

¹ I shall be using 'motion' and 'change' throughout as interchangeable terms. Some authors (e.g. Gill 1994) introduce a distinction between 'self-changes' and 'self-motions' that is not reflected in Aristotle's Greek.

The overarching question is, then, whether Aristotle's theoretical motivation, his analysis and the appeal to the notion in the context of *Ph*. VIII 1–6 yield a tolerably consistent picture. While most scholars at least since Furley's classic paper² are no longer prepared to question Aristotle's repeated claim that (at least) animals are (at least in some odd sense) genuine self-movers, the standard view is that self-motion simply cannot bear the explanatory burden Aristotle appears to impose on it in *Physics* VIII.³ Moreover, in *Ph*. VIII 6 Aristotle apparently *qualifies* this claim with respect to animals and there is still no consensus as to how his seeming qualification should be construed for it to take on the role it is supposed to fulfil in the overall argument of *Physics* VIII 1–6, which is most emphatically not about animals (alone).

As for the first challenge, one may start off by pointing out that the concept of self-motion (as well as the terminology itself) boasts a clear Platonic lineage,⁴ and it is well attested in a number of dialogues specifically devoted to the role of soul in the origination of (various kinds of) motion in the cosmos – most no-tably, *Phaedrus, Timaeus* and *Laws* X. Indeed, not only does Plato deploy arguments for the causal primacy of self-movers (or: soul as "the" self-mover in the singular) as first movers, that is genuine initiators of motion, but he also subscribes to a strict, definitional identity of self-mover (or rather "the" self-mover) and soul (or rather the World Soul) and, further, contrasts souls as primary self-movers both with ensouled bodies (e.g. animals) and, more importantly, with subjects of motion that owe their motion to an external source, namely, elemental bodies and, more generally, inanimate bodies. Embodied self-movers, such as non-rational animals and humans, are such only by proxy as it were, in so far as they partake of soul, which is *per definitionem* self-moving or, as Plato puts it in *Laws* X, "[the] motion capable of moving itself" (895c1–896a5).

Leaving many niceties (and obscurities) aside, Plato's theory purports to provide a unified treatment of self-motion, one that encompasses different domains of enquiry, namely psychology, ethics (the study of voluntary human action), ordinary physics and cosmology. Whereas Plato and Aristotle *appear* to concur at least in claiming that self-motion is essentially a *locomotion* ($\varphi o p \dot{\alpha}$), or, more generically, a *change in place* ($\kappa i v \eta \sigma \iota \zeta \, \kappa \alpha \tau \dot{\alpha} \, \tau \dot{\sigma} \pi \sigma \nu$), they are at variance on virtually every detail of their respective theories. For, on the one hand, the unified

² Furley 1994. A similar approach is characteristic of Nussbaum 1985.

³ Waterlow 1982, pp. 215–216; 243.

The description of soul as self-moving as well as the inference from its self-motion to its immortality are likely to date back to Alcmaeon of Croton (5th century BC) – at least if we judge by what we find in the doxographical tradition (DK 24 A12). Aristotle's testimony in *de Anima* I 2, 405a30–b1 (DK 24 B2) attests to a somewhat cruder strategy of argument, simply based on an analogy between the motion of soul and the eternal motion of the gods and the heavenly bodies. On Alcmaeon's influence on Plato, see Skemp 1942; Guthrie 1962, pp. 351–357 and, more recently, Hankinson 1998, pp. 30–33.

character of Plato's account reflects his assumption that life and self-motion are definitionally identical notions (Lg. X, 895c7-13; cf. Phdr. 245c5-9) and that the various life-forms (animals, humans, gods) share in the genus life - except that life comes in different degrees of perfection, the highest degree being disembodied thinking (voũc or vóŋσιc), which Timaeus describes as a circular motion (rotation) inherent to immortal soul, the lowest degree corresponding to the behaviour exhibited by the lower non-rational animals (Ti. 91d6-92c9).⁵ On the other hand, Aristotle's doctrine of the "core-dependent homonymy" of life seems to go hand in hand with a radical revision of the Platonic concept of self-motion, with reference to both its definition and extension (i.e. all the beings of which the definition can be truly said and only those), one major innovation being possibly that even stationary living beings such as plants should themselves be counted in some sense as self-movers, namely qua responsible for their own regulated growth and decay. By the same token, one could also speculate that heavenly bodies - to the extent that they are living beings - should be also counted as selfmovers in some sense. Yet, both cases are a matter of controversy as Aristotle's very sparse indications in the relevant texts are far from settling the issue.⁶

On that score, though, it is important to recall that even the qualification of self-motion as such, that is its restriction to locomotion or local change from one place to another, which is key to Aristotle's account, is not beyond dispute. For, in some passages, Aristotle is adamant that change in place (κ (ν ησις κ ατὰ τό π ον) and locomotion (φ ορά) are distinct, in that the former is the genus and the latter one of its species, and he explicitly blames Plato for "placing the genus inside the species" (*Top.* IV 2, 122b25–27), that is defining change in place in terms of locomotion (cf. Pl. *Tht.* 181c6–d6; *Prm.* 138c4–6). Arguably, Aristotle's some-

⁵ Admittedly, plants are themselves endowed with life, and they receive separate treatment in *Ti.* 76e7–77c5. There are reasons to disregard the case of plants in this context, namely that they are said to be living not on account of their participation (however imperfect or watered down) in circular motion or self-reflection, but rather because they "[partake] of the third type of soul", which is "totally devoid of opinion, reasoning or understanding, though it does share in sensation, pleasant and painful, and desires [αἰσθήσεως δὲ ἡδείας καὶ ἀλγεινῆς μετὰ ἐπιθυμιῶν]" (77b5–6). As a result, the genus of plants "is alive [ζ_Ĩ], to be sure, and unmistakably a living thing [οὐχ ἕτερον ζώου], but it stays put, standing fixed and rooted, since it lacks self-motion [διὰ τὸ τῆς ὑφ' ἑαυτοῦ κινήσεως ἐστερῆσθαι]" (77c3–5).

⁶ The point about plants as self-movers is severely underdetermined by textual evidence. Building on Aristotle's remarks in *Ph.* VIII 4, Coren 2019c develops a plausible argument against the view of growth and reproduction in plants as "self-changes". The issue about the status of heavenly spheres as self-movers is equally thorny, especially because of several well-known discrepancies between *de Caelo* I–II, on the one hand, and *Physics* VIII 8–10, and *Metaphysics* (most notably, Θ 8 and Λ 7–8), on the other. For a vigorous denial of the status of the latter as self-movers, see Blyth 2015, who claims that animals are the *only* kind of self-movers Aristotle countenances.

what baffling claim that quantitative change (growth and diminution) is itself a species of the genus κίνησις κατὰ τόπον (*Ph.* IV 4, 211a12–17; *GC* I 5, 320a10–25) is all of a piece with such a view. However, elsewhere, when discussing animal motion, he ostensibly employs the genus term to refer to the species locomotion, and also contrasts κίνησις κατὰ τόπον, understood specifically as displacement or progression (πορευτικὴ κίνησις), with κίνησις κατ' αὔξησιν καὶ φθίσιν (*de An.* III 9, 432b8–14).⁷

As far as *Ph.* VIII 2 and 6 are concerned, if the same implicit restriction is in place, then the central claim that animals move themselves with only one (kind of) motion, which Aristotle calls "change in place" (κίνησις κατὰ τόπον), obviously amounts to saying that, among the various kinds of motion they exhibit, only locomotion (i.e. motion from one place to another) can count as self-motion. However, once the tacit restriction is lifted, there would seem to be room left for the idea that both plants and animals might be regarded as self-movers to the extent that they grow and diminish. On the other hand, a number of passages (for instance, *Ph.* VIII 9, 265b33–266a5)⁸ at least *prima facie* clash with the idea

⁷ Aristotle's narrow use of a genus term to refer to one of its species is fairly common in the *corpus*. Familiar cases are those of ἀρετή, which can designate both the genus of character and intellectual virtues (e.g. *NE* VI 1, 1138b35–1139a1) and also character virtues specifically (e.g. *EN* II 6, 1106b36), and, more controversially, γνῶσις, which seems capable of designating both the genus of which ἐπιστήμη and all other forms of knowledge are species (e.g. *APo*. I 1, 71a1–2; II 19, 99b29) and also a species falling under the genus and distinct from ἐπιστήμη (e.g. *APo*. I 1, 89b34; II 2, 89b38–39, 90a8; II 8, 93a18–19; II 13, 97a16). I take it that the very fact that in *de An*. III 9 Aristotle first (432b8) employs the term κίνησις κατὰ τόπον and then (432b13–14) hastens to make clear that he has specifically locomotion (displacement) (ή πορευτικὴ κίνησις) in mind, as opposed to "the motion according to growth and diminution" (432b8–9), is sufficient evidence that the expression can be used to designate both the genus and one of its species. Which species is intended may in turn depend on whether animals or other living beings, such as plants, are at issue.

⁸ This passage from *Ph.* VIII 9 is particularly interesting because Aristotle is addressing "those who make soul the cause of motion", i.e. presumably Plato and his school (cf. Wagner 1967, p. 697 and Graham 1999, p. 165 *ad loc.*) and seems to credit them with the view that "the animal *and every ensouled being* moves itself *with local change*" (κινεῖ δὲ τὸ ζῷον καὶ πῶν τὸ ἕμψυχον τὴν κατὰ τόπον κίνησιν). It is *prima facie* unclear whether πῶν τὸ ἕμψυχον is supposed to cover living beings other than animals (for instance, plants or heavenly bodies). If it does, then τὴν κατὰ τόπον κίνησιν presumably does not only include displacement strictly speaking (i.e. motion from a place to another place), but also quantitative change (growth and diminution). Yet, lines 266a1–5 clash with this supposition, for they bear out a sharp contrast between "local change" (understood strictly as displacement) as an instance of being moved "in a *primary* sense" (266a1–2: κυρίως [...] κινεῖσθαί φαμεν) and other kinds of change (growth and diminution and alteration) as instances of being moved (only) in a *qualified* sense (266a4: πῃ κινεῖσθαι; 266a4–5: ἀπλῶς κινεῖσθαι οὕ φαμεν). In this particular context, Aristotle's repeated use of φαμεν probably suggests that he is conforming to a more widespread linguistic practice,

that *animals* are self-movers *also qua* having an internal principle of growth and diminution. For instance, the major finding of *de An*. III 10 is that an animal that is capable of moving itself has the capacity to the very extent that it has the capacity for desire (433b27–28: $\tilde{\eta}$ ὀρεκτικόν),⁹ and yet desire does not seem to play any significant role in Aristotle's account of animal growth and diminution, which rather invokes a distinct capacity of the animal's soul. However, the discussion at the end of *de An*. III is again avowedly confined to *animal* motion *qua* self-motion. Hence, it cannot be ruled out in principle that plants still count as self-movers, albeit in a different sense, that might be still somewhat loosely – that is, analogously – related to the sense in which *animal* self-movers are such. However, in what follows, I will deliberately avoid exploring this suggestion any further.¹⁰

In view of the numerous ramifications of the concept in Plato, it seems both methodologically sound and philosophically promising to look on Aristotle's own doctrine of self-motion as the latter's attempt to come to grips with his master's legacy in the field of natural philosophy – most notably, his treatment of living beings as well as his cosmology. In other words, by way of a comparison with the theoretical role of Platonic self-movers, we can gain an insight into the motivation behind Aristotle's own engagement with self-motion, in particular when it comes to setting out the rather unobvious connection presupposed in *Ph.* VIII between the analysis of animal motion as such, on the one hand, and cosmological concerns, on the other.¹¹

In the following three chapters I will have very little to say about the second challenge posed by the concept of self-motion, which one may call "analytical". A natural starting point at least for the modern reader is the surface grammar of the expression 'self-motion': at first glance, whenever we ascribe a self-motion to an item a ("a moves a"), we are saying that one and the same item, a, is both the agent and the patient of the corresponding (kind of) motion. In other terms, a self-moving thing would seem to be defined by reference to *both* its causing *and* its being affected by one and the same (kind of) motion. A challenge of this sort looms large in the *Charmides* passage (168e9–169a3) quoted at the beginning of this introduction. Plato seems aware of the need for a more satisfactory analysis

i.e. one that would by and large acceptable not only to a Platonist, but also to most predecessors.

⁹ Cf. Lorenz 2006, pp. 145–6.

¹⁰ See n. 6 above.

¹¹ The significance of the Platonic background for Aristotle's own treatment of self-motion in *Ph*. VIII has been seldom disputed since Jaeger. Solmsen 1971 has forcefully argued for the anti-Platonic character of 259b1–28. However, Furley 1994 voices misgivings about such a reading. According to Rashed 2014, *Ph*. VIII 6 testifies to a "mitigated anti-Platonic project" ("projet anti-platonicien mitigé").

of (at least *prima facie*) reflexive notions such as that of "the motion that is capable of moving itself" (κίνησις αὐτὴ ἑαυτὴν κινεῖν): what if the concept failed to be a proper reflexive? On the face of it, a similar question arises in the context of *Ph*. VIII, as we shall see: some interpreters appear to hold the view that the concept of self-motion is not genuinely reflexive and that this prompts Aristotle in *Ph*. VIII 6 to say that animals do not move themselves "strictly (or: properly) speaking" (κυρίως). While I am convinced that the analysis of self-movers is interesting, I think it is for reasons unrelated to those Plato seems to have in mind in the *Carmides*; thus, in Chapter 2, I will argue for an alternative reading of *Ph*. VIII 6.

Clearly, such an analysis still leaves open the possibility that a exhibits some degree of internal complexity or has parts – in a sense of 'part' to be made precise. More than that: Aristotle is committed to the claim that, in order for a to be both capable of moving (itself) and capable of being moved (by itself) with the same motion, it *must* admit of some internal differentiation.¹² What this means is minimally that mover and moved cannot be one and the same thing in form (*Ph*. VIII 5, 257b3-4: ἕν ὂν καὶ ἄτομον τῷ εἴδει). However, it proves difficult to give a clear and substantive characterisation of the requisite kind of complexity or parthood. For, on the one hand, we would like to do justice to the intuition that there is room for a principled distinction within *a* between agent and patient of motion (or: mover and moved), and yet, on the other hand, this very distinction - at least under some interpretations – threatens to make a mockery of the self-identity of a^{13} or seems at any rate to add a severe qualification to the claim that amoves a: one might reason that, since what "a moves a" actually means is that some part of a moves some (other) part of a, the parlance of self-motion is just what it is, a mere façon de parler.¹⁴ Unfortunately, though, on such an analysis, self-motion would seem to come down to an "other-motion": among other things, we would seem to be left with no clear criterion for distinguishing living beings (in particular, animals), which Aristotle both in *Physics* VIII, in *MA* and elsewhere regards as the paramount self-movers, and slightly more fanciful composites like, say, man-cum-stick, that is the composite made up by man and the stick he moves. For both would qualify as self-movers in the relevant sense.¹⁵ An obvious objection would then be that Aristotle's compositional analysis leaves us without a firm grasp of what is peculiar about animal motion (qua a self-motion), since it fails to provide a principled way of distinguishing self-movers from other items that do not deserve the title.

¹² Cf., for instance, *de An*. I 4, 409a3: διαφέρειν δεĩ.

¹³ Waterlow 1982, pp. 209–210.

¹⁴ Very roughly, this appears to be the reading defended in Morison 2004.

¹⁵ For an informative discussion of this problem and of Aristotle's possible solutions, see Coope 2015, pp. 259–264.

At least three main options should be considered: the relevant parts are either form and matter¹⁶ of the hylomorphic composite *a* or merely potential or "geometrical" parts (any two arbitrary parts into which *a*, *qua* continuous, and hence infinitely divisible magnitude, can be divided) or else two actual constituent parts of *a*.¹⁷ Clearly, as compared to the first two readings, the last one must place more specific constraints on the relevant notion of part. Support for it comes from several passages in book eight of the *Physics* (for instance, VIII 4, 255a12–18; VIII 5, 257a33–257b1; but also VIII 6, 259b16–20), but also, more crucially, from Aristotle's explicit remark that what is unclear about self-motion is how exactly the distinction between mover and moved should be drawn (VIII 4, 254b29: $\pi \omega \zeta \delta \varepsilon \delta \omega \alpha \beta \varepsilon \varepsilon$; cf. *Ph.* VII 1, $\alpha 242a39-43 / \beta 242a5-9$). I take it that such an issue would not be equally pressing on either of the two other readings.

Of course, this is not to deny that the "hylomorphic" reading poses some genuine explanatory challenges: one of these concerns the question how, given a hylomorphic composite, form can causally act upon the material substrate. For instance, we might ask just how the animal's soul can cause the body to change its place. Indeed, this issue takes centre stage in MA 6–10. However, throughout *Ph*. VIII, Aristotle is remarkably reluctant to draw upon his hylomorphic analysis of natural substances and change, nor does he appeal to teleological considerations in the course of his argument – except occasionally and in a very peculiar way (e.g. *Ph*. VIII 7). These are very conspicuous features of the inquiry carried out in the last book of the *Physics* as compared to the study of nature as matter and form in *Ph*. II and they should be duly taken into account.

Rather, Aristotle's discussion of various alternative models of the self-mover in *Ph.* VIII 5 suggests that his notion of part (or parthood) in *Ph.* VIII is meant to be fairly flexible. For instance, while the *moved* part, *qua per se* subject of a natural motion, must necessarily be an extended magnitude (an infinitely divisible body), no such constraint applies in principle to the *moving* part, which may or may not be an extended magnitude, depending on whether it is or it is not a suitable *per se* subject of a natural motion (e.g. whether or not it is reciprocally acted upon by the moved part). Aristotle's key claim against Plato in *Ph.* VIII 5 is merely that it is genuinely possible that the moving part may not be moved *per*

¹⁶ Like the majority of modern interpreters, Morison 2004 and Coope 2015 appear to favour (HYL), for they think that *Ph*. VIII identifies the unmoved mover with the animal's soul and the moved with its body. This also seems to be the line of interpretation adopted by Simplicius (cf. *in Ph.* 1208,27–1209,2; 1348,16–23 Diels). Rashed 2014 seems to be more cautious and rightly emphasises the absence of hylomorphic vocabulary and, more specifically, the lack of explicit references to soul as the relevant mover.

¹⁷ All three options are contemplated in Wardy 1990. However, he seems to regard all three options as ultimately unsatisfactory.

*se.*¹⁸ *Ph.* VIII 6 goes on to establish the further claim that some movers, namely those that are eternal, do not move themselves even accidentally.

Since the distinction between mover and moved (or moving and moved part) within a self-mover and the very criteria for singling them out are the key to Aristotle's analysis of self-motion,¹⁹ it is all the more striking that the difficulty highlighted in *Ph.* VIII 4 is left unresolved in the following chapters, where Aristotle seems to be operating throughout with a rather minimal conceptual machinery, and does not commit himself to a full-blown distinction between the relevant mover and moved, except for the all-important claim that the former does not move the latter by being itself in motion, that is by being naturally moved by itself or by another.

Arguably, Aristotle thinks that a precise and fine-grained distinction can only be drawn on a case-by-case basis, that is, by considering various species of animals. Yet, in *Ph*. VIII 4 he also seems to suggest that there still are some general criteria and in *MA* 1 he introduces his agenda by adverting to a "common cause" (κοινὴ aἰτία) of locomotion of any kind. Hence, Aristotle's avowed investigation into animal motion in *MA* requires a corresponding level of generality that is both more specific than the one presupposed in the *Physics* and probably distinct from the kind of generality allowed by the form-matter distinction.²⁰ In order to gain a proper understanding of the relevant sort of generality, one would have to be clear about the role and value of the auxiliary arguments he puts forward in *MA* 9–10 as well as his theoretical motivation behind the extensive employment of geometrical terms and models in his analysis of ordinary self-movers throughout *MA* – but also in *Ph*. VII 1 and occasionally in *Ph*. VIII 5.

More important for our present purposes is that one of Aristotle's main motivations here stems again from Aristotle's dissatisfaction with Plato's doctrine of the self-moving soul, in which no such distinction – no matter which sense of 'part' one picks – is applicable at least to the paradigmatic self-mover, namely *nous* or (disembodied) immortal soul. Hence, on the one hand, Aristotle espous-

Ursula Coope is certainly right to point out that Aristotle's aim in *Ph.* VIII 5 goes far beyond this claim, which "would not establish Aristotle's conclusion that within a self-mover there *must* be a part that is moved and a distinct, unmoved, part that is the mover" (2015, p. 251, emphasis mine). She takes the crucial argument for such a conclusion to be given at 257a31– b13 and she seems to believe that it basically relies on Aristotle's conception of motion as an incomplete actuality. If this is so, it is at least doubtful whether the argument really fares well as an anti-Platonic one. Aristotle, for his part, seems to think that the immobility of the internal mover necessarily follows only if *all the other* possible models considered in the central part of *Ph.* VIII 5 (that is, not only Plato's strictly reflexive model) have been successfully ruled out. **19** This is at least implied in the opening of *Ph.* VII 1 (cf. in particular α 241b39-44 / β 241b27-33), on which one should see Wardy 1990, *ad loc.* For a different reading, see Coren 2019b.

²⁰ For a perceptive treatment of this issue in the context of *MA* 1, see Rapp 2020.

es Plato's view that the concept of self-motion is legitimate and fruitful, to the extent that it enables us to circumscribe the behaviour of a specific class of natural substances, namely living beings (*Ph.* VIII 4, 255a6–7) such as animals (and perhaps, more controversially, plants). On the other hand, his analysis of the concept in *Ph.* VIII must at least partly be intended as a reaction to and a radically reformed version of Plato's doctrine. If this is right, then, again, it is crucial to show that his analysis is not eliminative or reductive in character: in other words, Aristotle's aim is not to show that the talk of self-motion is a dispensable *façon de parler*, but rather serves the purpose of *elucidating* the concept within the theoretical framework of his own philosophy of nature. This will be the main task of Chapter 2.

Another major issue, which will not be explored here in any detail, is whether Aristotle actually succeeds in drawing or even intends to draw a clear-cut distinction between natural motion and self-motion. Indeed, he is adamant that the two concepts do not coincide, the chief argument for his claim being that there are natural motions, such as those exhibited by the simple bodies, that do not count as self-motions (Ph. VIII 4). Part of the reason why the distinction between self-motion and natural motion is interesting is again that in Laws X Plato evidently takes his discussion of self-motion, understood as the circular motion of thinking or self-reflection, to yield a revised notion of nature, namely one that goes hand in hand with the (metaphysical) priority of soul over body (892a2c8) and is thus opposed to the understanding of nature allegedly countenanced by the "atheist" thinkers whose understanding of nature is mostly confined to the motions exhibited by the elements (fire, air, etc.). If the Platonic background to the notion of self-motion is relevant, then one may also wonder how exactly the pivotal role Aristotle attaches to desire - and thus also to motivational conflicts and error - in the very definition of the locomotive capacity in de An. III 9-10 is compatible with the status of self-motion, that is voluntary (desire-based) locomotion, as a *natural* motion. For, as I will argue in Chapter 3, Aristotle is fairly clear that the discussion in *de An*. III 9–10 is a necessary *complement* to the characterisation of the internal mover within self-movers found in *Ph.* VIII.

0.2 A roadmap

After providing a rather impressionistic overview of the wide range of issues connected with self-motion, I would like to say something about the actual scope of this study and the basic rationale for including some texts and excluding others, so as to dispel a possible worry about my approach upfront (§ 2.1). I will then (§ 2.2) give a chapter-by-chapter summary of the book, with particular emphasis on the division of labour they are ideally meant to reflect.

0.2.1 Scope of the present investigation : What is *not* found in this book

A striking feature of the present book is its conspicuously partial coverage of Aristotelian texts and materials. The reader may find it disappointing, for instance, that such an important treatise as *de Motu Animalium* receives only very cursory treatment:²¹ after all, according to Ph. VIII 2 and 6-7, animal self-motion just is animal locomotion and the "common cause" of animal locomotion is the declared subject of the treatise $(MA \ 1)$. By the same token, one could also protest that my analysis simply dodges vital questions such as the one arising in de Caelo I-II about the status of the heavenly spheres and their motions: are they self-movers or do they behave rather like simple bodies? Equally neglected is the issue about the causal relation between first eternal unmoved mover and first eternal moved in *Metaphysics* Λ and its precise difference from the corresponding relation between the *orekton* and the (human and non-human) agent in ordinary animal self-motion.²² Furthermore, every careful reader of book III of the Nichomachean Ethics at some point is led to wonder about the role played by self-motion - itself a natural motion - in the description of voluntary action.²³ Indeed, these are not only fundamental questions to be answered within the province of Aristotle's physics, cosmology and ethics, but, as a matter of fact, they were zestfully debated already in Antiquity and are to this day the subject of controversies among scholars.

Now, what has at first the appearance of an arbitrary restriction actually reflects a basic exceptical stricture and, further, a methodological preference. By stricture I mean that my attention is confined only to the Aristotelian texts where self-motion (or the word 'self-motion') is not just mentioned *en passant* or merely in the context of a cross-reference to other works, but (a) it constitutes the dominant topic of a sustained philosophical discussion, (b) it is regarded as a problem or at least as a concept that needs further elucidation. These constraints rule out not only *Metaph*. A and *de Caelo*, but also *de Motu Animalium*, where the legitimacy and fruitfulness of the concept is simply taken for granted and always employed with reference to the argument from *Physics* VIII.²⁴ The preference, on the other hand, has to do with the unmistakably Platonic background to

²¹ Cf. § 3.4 in Chapter 3.

²² Compulsory reading for anyone interested in *de Caelo* I–II, *Metaph*. A and *Ph*. VIII and the apparent discrepancies between them are Kosman 1994, Judson 1994, and Blyth 2015.

²³ Cf., for instance, EN III 1, 1110a15–19, where Aristotle has just introduced 'mixed' actions: πράττει δὲ ἑκών· καὶ γὰρ ἡ ἀρχὴ τοῦ κινεῖν τὰ ὀργανικὰ μέρη ἐν ταῖς τοιαὑταις πράξεσιν ἐν αὐτῷ ἑστίν· ὦν δ' ἐν αὐτῷ ἡ ἀρχή, ἐπ' αὐτῷ καὶ τὸ πράττειν καὶ μή. ἑκούσια δὴ τὰ τοιαῦτα, ἀπλῶς δ' ἴσως ἀκούσια· οὐδεἰς γὰρ ἂν ἕλοιτο καθ' αύτὸ τῶν τοιοὑτων οὐδέν. Cf. also the division of motion into voluntary (= self-motion), involuntary and non-voluntary in MA 11.

²⁴ Cf., e. g., *MA* 1, 698a7–11; 4, 700a7–8, a16–20.

the notion: throughout the inquiry, I try to shed light on Aristotelian key passages by setting them against the relevant Platonic texts and, conversely, try to gain a better understanding of the hallmarks of Plato's position by taking Aristotle to be engaged in a dialectical confrontation with Plato also in cases where the latter is not explicitly named. My chief reason for doing so is, quite simply, the high heuristic value of such an interpretative assumption: this approach results in a mutual illumination of the two competing theories with regard to the main options at stake and their theoretical pay-off, sources of tension and shortcomings, as well as possible ways out of major difficulties. It is particularly helpful when the main motivation behind Aristotle's worries about various aspects of the concept is not immediately discernible and even more so when Aristotle simply subscribes to important assumptions about self-motion without arguing for them (e.g. the otherwise dubious idea that animals move themselves *only* with one kind of motion, namely locomotion). Be that as it may, both in *de Anima* and in *Physics* VIII Plato or the Platonists do come to the fore, so it turns out that the methodological preference chimes in well with the aforementioned constraint.

However, one may object that even within the *Physics* (both in and outside *Ph.* VIII) there are at least two chapters falling outside the scope of my investigation, although self-motion does play an important role in them and Aristoteles appears to engage critically with flawed conceptions of the notion. These are *Ph.* VII 1 (in particular, $\alpha 241b35-242a49 / \beta 241b24-242a15$) and, even more importantly, *Ph.* VIII 5, which is often regarded as a *locus classicus* for Aristotle's theory of self-motion. Although some passing remarks about both texts are found in Chapter 2, they are not discussed in their own right.

One familiar reason why *Ph.* VII 1 is not included has to do with the very nature of the chapter, that is both its uncertain textual status (in particular, the occasionally striking discrepancies between the two versions α and β) and the seeming lack of an overarching goal of Aristotle's enquiry connecting it to the subsequent chapters. The other reason is that my own reading of the chapter does not significantly depart from the classic interpretation offered by Ingemar Düring, which has been unjustly neglected in contemporary scholarship.²⁵ Moreover, an original reconstruction of the argument, which constitutes a substantial improvement on previous work by both Wardy and Olshewsky, has been recently provided by Daniel Coren.²⁶

As for *Ph.* VIII 5, it is indeed true that it is the only chapter within the whole *Physics* where he provides a causal analysis of self-motion in terms of the causal operation of a *part* (the *per se* unmoved mover) on *another part* of the self-mover (the moved part, which does not move anything else except *per accidens*). It is also true that Aristotle introduces his preferred model by ruling out in turn a

²⁵ Düring 1966, p. 300, 307.

²⁶ See Coren 2019b, who explicitly takes Wardy 1990 and Olshewsky 1995 into account.

number of models for self-motion that he takes to be inadequate - possibly including Plato's own.²⁷ However, a proper treatment of the chapter in its own right would have required far more space than can be devoted to it in a study with an almost exclusive focus on *ordinary* or *animal* cases of self-motion as opposed to (putative) cosmic cases (suffice it to think of the motion exhibited by the outermost celestial sphere). The abstract model outlined in Ph. VIII 5, for its part, seems in principle applicable to both ordinary and cosmic self-movers. However, instead of following this thread, I want to direct attention to a different source of disagreement between Aristotle and Plato, which I take to be a distinct (and possibly even deeper) one: as will be clear from my detailed analysis in Chapter 2, showing that Aristotle's anti-Platonic point in *Ph.* VIII 6 is *not* the same as the one raised in Ph. VIII 5 about partition and reflexivity is a worthwhile task in itself and it may also lead to a reappraisal of the very function of *Ph*. VIII 5 within the overarching argument. This being said, in my conclusions I will offer some (if only somewhat inchoate) thoughts about the Ph. VIII 5 model and tentatively suggest that it may prove very fruitful when it comes to dealing with the difficult issue of the core-dependent homonymy of life.

0.2.2 Contents: What is found in this book

Since Plato's doctrine looms large in Aristotle's own treatment of the concept, the study of Aristotelian self-movers proper in Chapters 2 and 3 is preceded by a fairly detailed *précis* of the criticism of the Platonic self-mover(s) to be found in the first book of *De Anima*, which takes up the whole of Chapter 1. The present investigation is thus structured around three chapters: the first is devoted to the *pars destruens* of Aristotle's argument, whereas the last two chapters address Aristotle's (comparatively more) positive treatment with a sharp focus on two clusters of issues.

As for the *pars destruens* itself, *de Anima* I 3–4 bears witness to Aristotle's serious engagement with the Platonic theory of self-moving soul. Aristotle argues

The overall strategy in VIII 5, 256b14–258b9 consists in considering five different ways in which a self-mover may possibly move itself and then, assuming that the enumeration is exhaustive, showing that four of them lead to absurdities, so that the only model left (cf. (5) below) must hold of necessity: (1) *x* as a whole moves *x* as a whole (*Platonic model*: self-motion as a genuinely *reflexive* notion); (2) a part of *x* moves itself and the rest of the whole *x*; (3) the whole of *x* moves only a part of *x*; (4) the whole of *x* moves *x* through reciprocal motion, i.e. in that part P(x) moves P(y), P(y) moves P(z), and P(z) in turn moves P(x); and (5) one part of *x* that is *per se* not moved, moves another part of *x* that is therefore moved. On the face of it, (2)–(4) are mainly considered for the sake of exhaustivity, whereas (1) must reflect Plato's primary model for the soul's self-motion. Cf. Coope 2015 for an analysis of the argument against (1).

that it must ultimately fail on various counts. First, according to Aristotle, it essentially draws upon an illegitimate application of the general principle that "every mover moves something else only if it is itself in motion" (I 2, 403b29–30) to the causal relation of soul to (animal) body, where the principle is construed along "corporealistic" lines, i.e. such that both mover and moved are in motion in the same way bodies are. Not only does Aristotle cast doubt on the tenability of the principle under this interpretation, but he also seems to fore-shadow alternative ways of understanding the causal action of the animal's soul upon its body, which ultimately build upon the model of technical production. Basically, according to him, Plato's ambitious theory is blemished by the same shortcoming faced by the doctrines of most materialist predecessors: it fails to provide a comprehensive treatment of the necessary conditions on the soul's action upon body (I 3, 407b12–26).

Second, he shows that a claim to which Plato (or the Platonist) is committed either in virtue of his acceptance of the aforementioned principle or for independent reasons, namely a claim to the effect that soul itself is in motion (or moved) per se leads to consequences that are either straightforwardly unacceptable or at least not necessary for his dialectical opponent, namely the Platonic proponent of self-motion. Aristotle does so by going through all the kinds of *per* se motion which would make true the ascription of per se motion to soul: in particular, the soul's alleged *per se* motion can be neither a natural (φυσική or φύσει) motion nor a violent (βία or παρὰ φύσιν) one (I 3, 406a12-b11). Nor can it be a sui generis psychic motion, which is not itself natural, and yet involves a natural motion in the body – this the case of psychic affections (I 4, 408a30–b18): perception, διανοεισθαι, emotions, recollection. Nor again a sui generis motion, which is itself not natural and does not involve any natural motions in the body either (cf., in particular, I 4, 408b18-29, but also I 3, 407a2-b11). If Aristotle's refutation is successful, then he is entitled to the conclusion that soul cannot be in motion (or moved) per se, but only accidentally. Now, since it is reasonable to assume that something moves itself only if it is *per se* moved, the upshot must be then that soul cannot move itself (I 4, 408b30-31).

Particularly interesting in the context of Aristotle's refutation is a section (I 4, 408a30-b18) including two lines Jonathan Barnes has questionably baptised a "celebrated Rylean passage".²⁸ One reason why it must be taken into account here is that it condenses Aristotle's stance towards the very model of embodied mortal soul Plato presents in the *Timaeus*' account of what Timaeus collectively refers to as "perceptions" ($\alpha i \sigma \theta \eta \sigma \epsilon \iota \varsigma$), that is rectilinear motions from without that reach the soul "through the body", and thus interfere with or disrupt the circular motion proper to soul, that is the soul's primary self-motion. The obvious question to be asked is whether it is accurate to ascribe those externally caused motions

²⁸ Barnes 1971–1972, p. 104.

not only to the body, but also to soul itself as their proper subject. Aristotle's reply appears to be that the Timean model, far from necessitating the conclusion that soul is per se moved (408b5), is open to a major emendation. He can thus preserve some key aspects of Plato's picture – namely, the distinction between motions that originate from soul and motions that originate from without as well as the insight that soul has a causal role to play in both - while avoiding the untoward conclusion that soul itself undergoes per se motions that are not themselves natural, and yet involve other natural motions of some bodily part or other. More to the point, the various affections that Timaeus calls 'perceptions', despite having soul as their cause, just are the natural motions of some bodily part, and this is the only admissible sense in which they count as motions.²⁹ Hence, within the revised picture there is no longer room for the idea that *in addition* to and *in correspondence* with the bodily motions there are *sui generis* motions taking place in the soul and having soul as their *per se* subject. A further reason why the revised Timean model of the embodied soul is worth mentioning is that it serves as a blueprint for Aristotle's full-fledged explanatory model of animal motion in de Motu Animalium 11, which Corcilius and Gregorić have called the "CIOM model".30

There is another major worry Aristotle raises about Plato's definition $(\lambda \dot{0} \gamma 0 \varsigma)$ of soul as both "the thing that moves itself" (*Phaedrus*) and "the motion that is capable of moving itself" (Laws X): while the refutation of the claim that soul is moved per se entitles Aristotle to deny it self-motion altogether, Plato seems to subscribe to a stronger claim to the effect that self-motion is (identical with) the soul's very *ousia*. As a result, he is not only committed to the thesis that soul is a *per se* subject of motion, but also the view that motion (self-motion) belongs to it as a matter of definition (I 3, 405b31-406a2). The chief objection Aristotle seems to level against Plato is that his definition ends up introducing a motion of a motion, that is, a motion that has a motion as its subject, thereby conflating the subject of a *per se* motion and the *per se* motion itself. Clearly, by Aristotle's lights, this is a major shortcoming, for every definition, including the definition of soul, must exhibit a *per se* predicative structure, such that the genuscum-differentia (the definiens) is per se predicated of something that serves as subject of predication (the *definiendum*). More to the point, the lack of such a distinction, together with the assumption that every per se motion is "ekstatic", i.e. occurs from a contrary to another contrary, demonstrably leads to the absurd conclusion that soul is "dislodged" from its own ousia (de An. I 3, 406b11-15),

²⁹ However, thought or intellect ($vo\bar{v}_{\zeta}$) (in Plato's sense) cannot be treated under the same heading. Cf. *de An*. I 4, 408b18–29.

³⁰ CIOM is short for 'centralised incoming and outgoing motions' model (Corcilius/Gregorić 2013).

contrary to what Socrates avers in the *Phaedrus*' immortality proof, namely that what moves itself never "abandons" or "departs from" its *ousia*.

Aristotle's positive doctrine of self-motion is then dealt with in detail in Chapter 2 and 3, which are devoted to *Ph.* VIII 1–2, 6 and *de An.* III 9–10, respectively. The partition into these two chapters is meant to reflect a division of theoretical labour which I take to do justice to Aristotle's explanatory agenda. This includes, on the one hand, the treatment of the necessary conditions for selfmotion (animal locomotion) and the account of the alternation between local rest (privation of locomotion) and locomotion – which distinguishes animals from heavenly bodies, whose motion is eternal and continuous, i. e. does not admit of intervals of rest. On the other hand, it also encompasses the analysis of the cognitive and conative capacities involved in the occurrence of every episode of ordinary self-motion in *animals*. While it is uncontroversial to say that these two approaches complement one another, one should be wary of conflating them or even reducing one to the other, as has often been done in the most recent literature on self-motion and *de Motu Animalium*.

Here, again, what Aristotle himself regards as the major advances of his theory ought to be measured against the doctrine of the *Urheber*, namely Plato. For one thing, Aristotle sets out to show in *Ph*. VIII that self-movers can retain their causal role as first movers (or genuine initiators of motion) and "principles among things moved that are also movers" (VIII 7, 261a25–26) while also being subject to the same necessary conditions applying to any mover whatsoever: in other words, there is no conflict between the intuition that they are genuine initiators of their own motion and the fact that any occurrence of self-motion must be preceded by a prior motion that brings about the necessary conditions for selfmotion to occur. This in turn explains the rationale behind the commonplace observation that animals alternate between locomotion and rest, in that it accounts for the transition from rest to motion (or vice versa) in terms of a transition from the non-fulfilment to the fulfilment of the relevant conditions (or vice versa).³¹

On the contrary, not only does Plato in the *Phaedrus* define self-motion as the only motion that is ceaseless and does not admit of intervals of rest, but he also justifies this claim by appealing to an intuitively clear distinction between a motion that has an *internal* source (or arises from within the animal), i.e. the motion proper to soul as such, and a motion that has an *external* source (or arises from without the animal), i.e. the motion proper to body as such (that is, inanimate body, notably the simple bodies). In the light of such a characterisa-

³¹ The relevant kind of transition here is the one that takes place from sleep to the waking state (or vice versa). As *de Motu Animalium* makes clear, a slightly more robust account must be provided for the transition between locomotion and local rest (or vice versa) in the waking state.

tion, it is at least doubtful whether Plato can offer a principled account of why an ordinary self-mover (an animal), which is such only in so far as it participates in the soul's unceasing self-motion, starts and stops moving at the very time when it does. As for Aristotle, the observation *that* self-movers alternate between motion and rest plays a pivotal role in the argument developed through *Ph*. VIII 3-6. One of his central points in *Ph*. VIII is that a proper account of this key feature of ordinary self-motion, i.e. non-continuity, presupposes a distinction between moving and moved part within the self-mover, together with an analysis of their causal relation.

Chapter 3 covers Aristotle's treatment of capacity for animal locomotion in *de Anima* III 9–10. The discussion seems again mainly motivated by a worry about Plato's flawed analysis of desire (ὄρεξις), and, more generally, about the Timean doctrine of soul partition, according to which soul parts are separated (χωριστά) not only in account (λόγω), but also in magnitude or place (μεγέθει or τόπω) (cf. also *de An.* I 5, 411a26–b14; II 2, 413b13–32).³² The chief objection he levels against Plato (or some like-minded thinker) is that the way he divides (or, more specifically, "separates") soul parts severely threatens the unity of the locomotive capacity itself. Arguably, it does in so far as Plato's application of the method of dichotomous division to the soul ends up "tearing asunder" or "breaking up" (διασπᾶν) the conative capacity – a result Aristotle dismisses as downright absurd (432b4–5).

Aristotle's solution basically turns on a critical reappraisal of the cases of motivational conflict that lay at the core of the argument for tripartition in the *Republic.* The moot question here is whether Aristotle himself is presupposing a notion of "separation" in account, which is more robust than mere "difference" in account (i.e. having different definitions) and enables him to distinguish genuine soul parts from mere soul capacities, as some interpreters have argued.³³ If so, the further question arises whether, according to Aristotle, the locomotive capacity meets the criteria for separation or fails to do so. Alternatively, one might suppose that Aristotle is not – at least not fully and explicitly – establishing his own criteria for "separability", but rather takes it that separability in account actually comes down to distinctness in account, which is turn grounded in the difference in being between the objects of the various soul capacities, and otherwise confines himself to querying Plato's own method of soul partition. Unlike the former, the latter reading does not leave room for an interesting distinction in Aristotle between parts and capacities of the soul, but rather focuses on (primary) soul capacities for various kinds of natural motion (e.g. growth/diminution,

³² Cf. Price 1994, p. 190; Bastit 1996, pp. 15–18.

³³ The debate on soul parts and their (purported) separability (in magnitude or account) has been mainly influenced by Whiting 2004; Corcilius 2008; Corcilius/Gregorić 2010; Johansen 2012.

qualitative change, locomotion),³⁴ which are in turn teleologically ordered – with locomotion ranking highest within the hierarchy.³⁵

I will offer reasons for thinking that the latter option is to be preferred. More to the point, I want to argue that Aristotle provides a tolerably clear answer to the question raised at the beginning of *de An*. III 9: he neither dismisses the initial question about the relevant capacity as ill-posed nor does he claim that "the whole soul" is the sought mover. Rather, the relevant mover is one specific soul part (or capacity), namely the conative capacity (τ ò ἀρεκτικόν), which was not acknowledged as a soul part (or capacity) in its own right by any of the predecessors (in particular, Plato). According to Aristotle, it is definitionally distinct from and non-reducible to the perceptual capacity, *phantasia*, and thought, although it necessarily works in tandem with a cognitive capacity. Hence, Aristotle takes pains to specify the exact sense in which the mover counts as one, since in another – and perhaps more evident or commonly accepted – sense there are several.

As he argues at length in *de An*. III 10, the unity of the locomotive capacity ultimately rests on the formal (εἴδει) unity of the conative capacity, which is in turn fully compatible with the existence of numerically $(\dot{\alpha}\rho_i\theta_{\mu}\tilde{\omega})$ many movers (433b10-14). Importantly, such a view is in keeping with the general requirement stated in *de An*. II 4, 415a14–22 that each capacity be defined by reference to its object: the locomotive capacity is, as a matter of fact, defined by reference to the object of desire (τὸ ὀρεκτόν) or practicable good (τὸ πρακτὸν ἀγαθόν), which is one in the requisite sense (i.e. a single indivisible form). Nevertheless – and this is the crucial finding of de An. III 10 - the definition comes with the proviso that the object of desire qua a φαινόμενον ἀγαθόν is in each case accessible to the animal only in one mode of presentation or the other. The importance of the latter point ought not to be underestimated: indeed, Aristotle believes that the workings of *phantasia* (broadly understood) ultimately account for the possibility of (genuine) error and (genuine) motivational conflict (cf. de An. III 10, 433a25-29), which for Aristotle remains of paramount importance to a substantive theory of ordinary self-motion as voluntary or desire-based motion.

To recap: the momentous conclusion established in *de An*. III 10, 433b27-28 is that the animal – viz. an animal that possesses the capacity for self-motion

Admittedly, *nous* is an exception to the extent that it is *not* a capacity for a natural motion, i. e. a motion of the body that has soul (or a *pathos* that is common to the ensouled body), but rather a *pathos* that is peculiar to the soul itself. Equally problematic, according to the division employed above, is Aristotle's tantalising analysis of perception as "some kind of alteration" (ἀλλοίωσίς τις) in *de An*. II 5. Still, this is not a decisive objection, given that Aristotle's treatment of perception in *de An*. II 5 seems to be problematic on most accounts.

³⁵ In *Ph.* VIII 7, Aristotle presents several arguments in support of the (metaphysical) priority of locomotion. A number of them – directly or indirectly – rely on teleological considerations. For a detailed analysis of *Ph.* VIII 7, see Odzuck 2014.

 – is capable of moving itself (αὐτοῦ κινητικόν) to the extent that it is capable of desiring (ὀρεκτικόν). However, that conclusion has an equally important condition attached to it, namely that the animal is not capable of desiring unless it is endowed with *phantasia* (οὕκ ἄνευ φαντασίας). This seems to be the upshot of the discussion throughout de An. III 9 and 10, and it ought not to be understood as either a decision in favour of a "two-component model" of the mover (viz. desire-*cum*-cognition) or even of an alternative explanatory approach,³⁶ but rather as the specification of a necessary condition for the *exercise* of the conative capacity (that is, occurrent desires), which, as a matter of definition, is still identified as the only genuine mover. Intuitively, this does justice to the special problems connected with the relation between the conative capacity and its object, which are unparalleled in the other cases: in order to define a capacity, an appropriate object of the corresponding activity has to be cited, and yet, in the case of desire, no object can be cited unless objectual reference is secured by some cognitive capacity or other. At the same time, the appeal to distinct cognitive modes of presentation allows Aristotle to draw a clear-cut distinction between rational and non-rational desire and hence between numerically distinct movers, while also avoiding many of the undesirable consequences of Plato's account.

³⁶ According to the advocates of the "two-component model", the point of *de An*. III 10 is to show that desire and cognition (*nous*, i. e. perception and thinking) are only jointly sufficient to bring about an episode of locomotion. A reading along these lines is at least adumbrated by Seidl 2000.

Chapter 1. Self-motion in *de Anima* I 3–4: Aristotle *vis-à-vis* Plato

1.1 Dialectic and diaporetic method in *de An.* I 2–5: Three plausibility constraints

De Anima I is *not* a very fashionable book – at any rate, it is far less fashionable than is sometimes assumed. Quite the contrary: as a treatise on soul (and perhaps the mind), it is markedly outmoded. And this, as I hope to show in what follows, is precisely the reason why it still proves so challenging and thought-provoking for post-Cartesian readers such as we are.

Until recently, modern readers have often taken de An. I 2–5 as a ragbag of baffling statements that should at best come under the heading "Aristotle's Critique of the Predecessors". Indeed, the contrast between this group of chapters and de An. I.1 is rather striking. For the first chapter, which is relatively self-contained, not only offers a number of interesting methodological and programmatic remarks on the proper object and mode of enquiry of psychology, but also heavily relies on the doctrine of the *Posterior Analytics* about the relationship between definition and demonstration and the boundaries of different scientific disciplines. On the other hand, it seems very hard to make sense of the following chapters as autonomous unities. Moreover, they contain a great deal of material that is alien to Aristotle's own theory of science and the arguments are often so muddy and compressed that it is arduous to discern even what they are supposed to achieve. Yet, as I shall suggest in the following, Aristotle's aim can be better understood, if one takes seriously his own indications about the method of inquiry right at the beginning of de An. I 2.

Despite the widely shared presumption that the discussion somehow ought to pave the way for Aristotle's own attempts at a definition of soul in *de An*. II 1–3, modern interpreters disagree over how exactly it fulfils this purpose. On the one hand, there are the traditional "anti-dualistic" (or "Rylean") readings of *de An*. I,¹ on the other, in a recent study, Jason Carter² has made a case for the view that *de An*. I contains nothing short of a "scientific" investigation of the soul,

¹ Such a view is best exemplified by Barnes 1971–72 and Frede 1992.

² Carter 2019.

which does not only make use of the "demonstrative heuristics" laid out in the *Posterior Analytics*, but also relies on positive claims made in the *Physics*. In the following, I will not address the anti-dualistic readings at length,³ for some of their most severe shortcomings have already been laid bare by Christopher Shields⁴ and Stephen Menn,⁵ among others. Rather, I will confine myself to *de An*. I 3–4 and only flag up a few important points where my interpretation and Carter's approach substantially diverge.

In order to appraise the value of de An. I 3–4 and gain an understanding of their systematic function within both book I and the whole treatise, I propose that in the following we should pay attention to three main aspects, which we may also take to place as many "plausibility constraints" on any viable interpretation of these chapters.

The first aspect relates to the "dialectical" character of *de An.* I 2-5.6 Two questions appear to be particularly pressing here. The first question is whether Aristotle in *de An.* I 3-4 is speaking *in propria persona*, and thus presupposing substantial tenets he himself endorses (Cherniss 1944; Witt 1992; Shields 2007; Carter 2019) or whether he is rather engaged in an internal refutation of his predecessors (most notably Plato) and thus deploying premises his opponents would be in principle prepared to accept (Aquinas, *in de An.* 6. 74;⁷ Ross 1961; Menn 2002; Polansky 2007). The second question is whether he offers a charitable reading of his predecessor's doctrines, and, in particular, whether his report about the Timean account of *psychogonia* in the second half of *de An.* I 3 is reliable.⁸

8 A partial answer to this vexing question is found in Chapter 2, § 2.4.4.

³ But cf. the discussion of T9 below.

⁴ In particular, Shields 1988 and Shields 2009 against Barnes' "Rylean" reading of T9.

⁵ Compelling considerations against "anti-dualistic" readings of *de Anima* are articulated in Menn 2002.

⁶ The label 'endoxic' is used in Shields 2007, even though it may be partly misleading, given that Aristotle conceives of his discussion as an instance of the diaporetic method (cf. T1 below in the the main body of text), which in *Top.* I 2 is presented as a use of dialectic that is distinct from the collection of *endoxa*. In the following, it will soon become clear why the term 'dialectical', which covers both endoxic (or endoxastic) and diaporetic arguments, seems more appropriate in this context.

⁷ Aquinas, *in de An.* 6.74 (ed. Pirotta): Et quod non movetur per se, probat Aristoteles sex rationibus. Circa quas rationes considerandum est, quod licet rationes Aristotelis parum videantur valere, *nihilominus sunt efficaces*, *quia sunt ad positionem: aliter enim argumentandum est ad eum qui simpliciter intendit veritatem, quia ex veris oportet procedere: sed qui arguit ad positionem, procedit ex datis:* et ideo frequenter Aristoteles, et quando argumentatur ad positiones, videtur quod inducat rationes parum efficaces, quia *procedit ex datis ad interimendum positionem.* Indeed, this comes very close to the spirit of the dialectical interpretation I will be defending in this chapter.

As for the first question, there is consensus that Aristotle in the first book is not giving scientific demonstrations from necessary premisses, but rather critically surveying a number of significant opinions of the predecessors about the nature of soul, and their (unsuccessful) definitional efforts. This is confirmed by the opening of *de An.* I 2, where Aristotle succinctly characterises the method of the inquiry to follow: as he says,

[T1] In our investigation of the soul, while we go through the puzzles [$\delta ia \pi o \rho o \tilde{v} v \pi c_i$] which we must solve [$\epsilon \dot{v} \pi o \rho \epsilon \tilde{v} v$] as we make progress, we must include in our account the opinions of the predecessors who have made claims about the soul, so as to accept the things that were said correctly and be wary of that which has been said incorrectly.⁹

Although the $\delta_{i\alpha}\pi_{00}$ procedure according to the *Topics* illustrates one of the uses of dialectic that are conducive to the scientific investigation of a given subject, a far more contentious issue is what exactly the διαπορησαι procedure entails in this context. A clear answer to this question is crucial when it comes to adjudicating on several alternative reconstructions of the arguments put forward in de An. I 3-4 as well as explaining to what extent Aristotle's positive views on the matter (as reflected by de An. II and III) can be gleaned from them. A somewhat more contingent reason why it needs to be addressed is that the "dialectical" character of de An. I 3-4 has recently been called into question: as Carter points out, "Aristotle is conducting a *scientific* inquiry into the adequacy of the Platonic definition of soul on offer, rather than trying to give a *dialectical* refutation of it [...] [He] approaches Plato's definition in a more considerate manner, as if recognising that the territory is difficult to navigate".¹⁰ According to Carter, what this means is that Aristotle sets out to "test" the explanatory power of Plato's definition of soul against his "demonstrative heuristics" as it is developed in the Posterior Analytics and briefly recalled in de An. I 1 in application to the soul,¹¹ and also "based on premises drawn from his works on natural philosophy".12

⁹ de An. I 2, 403b20-24 (my translation): Ἐπισκοποῦντας δὲ περὶ ψυχῆς ἀναγκαῖον, ἅμα διαποροῦντας περὶ ὧν εὐπορεῖν δεῖ προελθόντας, τὰς τῶν προτέρωνδόξας συμπαραλαμβάνειν ὅσοι τι περὶ αὐτῆς ἀπεφήναντο, ὅπως τὰ μὲν καλῶς εἰρημένα λάβωμεν, εἰ δἑ τι μὴ καλῶς, τοῦτ' εὐλαβηθῶμεν.

¹⁰ Carter 2019, p. 62.

¹¹ For a characterisation of Aristotle's "demonstrative heuristics", see Carter 2019, ch. 1.

¹² Carter 2019, p. 76. Carter repeatedly states that Aristotle's arguments crucially depend on claims, theories and assumptions Aristotle defends elsewhere: e.g. "[Aristotle] assumes that the subject performing the test *has accepted the truth of certain theses from Phys. 5.6 and D.C. 1.8*" (p. 68, emphasis mine), "Aristotle also assumes as background scientific knowledge *his* theory that the elemental bodies are defined with respect to the places they tend to move and rest in by nature" (p. 68, emphasis mine), "Aristotle [...] offers us what seems to be a *hylomorphic suggestion*" (p. 75, emphasis mine).

Now, whereas it would be pointless to dispute that Aristotle's familiar claims from the *Physics* or his epistemology may help us shed light on various aspect of the argument of de An. I 2-5, it is less clear whether Carter's approach to the text accurately reflects Aristotle's avowed method in those chapters and, in particular, whether it entitles us to qualify the investigation as "scientific". As for the motivation behind this approach, Carter as well as other interpreters in the past decades (e.g. Witt 1992; Viano 1996) seem to have been driven by the urge to show that de An. I, far from having a merely preparatory or propaedeutic character, is philosophically more rewarding than has usually been assumed in Aristotelian scholarship. Now, while I partly share the spirit of these readings, they seem to overlook Aristotle's own description of the method in T1, which clearly marks off the kind of investigation to follow from the general methodological prescriptions contained in *de An*. I 1. Moreover, several recent studies¹³ have made a good case for the view that (at least one) use of dialectic that involves raising and solving aporiai is not only richer and more interesting from a methodological point of view, but also philosophically more substantial than traditional interpretations of Aristotle's dialectic have often claimed. Intuitively, it seems more promising to suppose that a refutation of the predecessors' tenets results from a close engagement with the *arguments* they marshalled in their support rather than having Aristotle oppose to their *claims* about the soul's motion his own positive theses about nature and change in the *Physics*. As obvious as this may seem, this point has been severely underappreciated by Aristotelian scholars not in only in the context of de Anima, but, more generally, in other discussions found in the corpus – and they are not few – where Aristotle is not in a position to argue from his own philosophical (or "scientific") commitments:14 I take it that one of the merits of the dialectical reading I will develop is that it can serve as a case study and that a similar interpretative strategy can be carried over to other works, so as to draw a more representative sample of specific applications of the dialectical method.

As for the semi-technical term διαπορῆσαι, a well-known passage from the *Topics* may provide illumination: while illustrating the philosophical utility of dialectic, Aristotle claims that those who have the ability to "go through puzzles on either side" (δυνάμενοι πρὸς ἀμφότερα διαπορῆσαι) will "more readily discern

¹³ Madigan 1999; Crubellier/Laks 2009; Rossi 2017; Rapp 2018.

¹⁴ This crucial point about the purpose of Aristotle's $\tau \circ \pi \circ \pi \circ \tau$ is duly stressed in Morison 2019. Morison draws an illuminating analogy with the "dialectical" use of the sceptical modes, where the focus is again not on opposing *claims*, but rather on opposing *arguments* having the same epistemic force. My impression is that the significance of this methodological point is still systematically neglected or underestimated in Aristotelian scholarship and that this underestimation often goes hand in hand with a fundamental misunderstanding about the philosophical value of dialectic.

the true as well as the false in any subject" (*Top.* I 2, 101a34–36, tr. Smith). Importantly, he is careful to keep this application of dialectic clearly distinct from its use in dealing with "accepted opinions" ($\xi\nu\delta\delta\xi\alpha$) in order to pave the way towards "the principles of all studies", which Aristotle goes on to describe in the following lines (101a36–b4) and has been the almost exclusive focus of Aristotelian scholarship over the past decades.¹⁵

Aristotle's understanding of the term is disputed, but most scholars agree that *Topics* passage is open to two main readings: The term can either refer to the activity (and the corresponding ability) of (δ_1) raising aporiai or, equivalently, "posing philosophical problems properly" or (δ_2) resolving aporiai, that is "going through the aporia considering and analysing the problem in order to find an answer to it".¹⁶ A study of the occurrences in the *corpus* bears out both meanings of the term. In T1 Aristotle clearly has (δ_2) in mind.¹⁷ What this means is probably that the skill intended in T1 is not that of merely raising genuine or proper difficulties in order to move from a somewhat deficient epistemic state to the acquisition of a fully-fledged scientific knowledge of the subject through "a synoptic view of the competing theoretical options and their respective advantages and drawbacks".¹⁸ Rather, he is probably thinking of the kind of headway only someone already engaging in a scientific investigation can make and which consists in an exhaustive review of the *aporiai* aiming at providing satisfactory solutions to the latter ($\varepsilon \dot{\nu} \pi o \rho \varepsilon \tilde{\nu}$).

In order to gain a better understanding of what exactly the resolution of *aporiai* amounts to and hence of the task Aristotle undertakes in *de An*. I 2–5, it suffices to contrast two readings of Aristotle's phrase $\pi\rho\delta\varsigma$ $\dot{\alpha}\mu\phi\delta\tau\epsilon\rho\alpha$ $\delta\iota\alpha\pi\rho\rho\eta\sigma\alpha\iota$ ("going through the *aporiai* on both sides") in *Top*. I 2: according to the traditional construal dating back to Alexander (*in Metaph*. 173,27–174,4 Hayduck), this involves "constructing arguments for both sides" ($\dot{\epsilon}\pi\iota\chi\epsilon\iota\rho\epsilon\tilde{\nu}$ $\epsilon\dot{\kappa}\dot{\kappa}\dot{\tau}\epsilon\rho\alpha$), or, more precisely, arguing dialectically for a thesis and its contradictory so as to establish the truth through the refutation of one of the two contradictory theses (e.g. by drawing consequences from both of them). According to an alternative reading, which has been persuasively defended by Gabriela Rossi,¹⁹ Alexander's description fits at most (δ_1) and thus can only account for the way genuine *aporiai* are raised. As for (δ_2), the starting point of the procedure are (genuine) *apori-*

¹⁵ See Frede 2012 for a persuasive criticism of the "endoxon mystique".

¹⁶ Rossi 2017, p. 225.

For a comprehensive list of passages exemplifying each of the two uses, cf. again Rossi 2017, p. 225 n. 38–39. The author explicitly groups T1 under the (δ_2) reading, but otherwise does not discuss Aristotle's application of (δ_2) in *de An*. I 2–5 at length.

¹⁸ Rapp 2018, p. 118.

¹⁹ For arguments against the traditional reading of *Top.* I 2, see Rossi 2017, sect. 3-5; a defence of the alternative reading is found in sect. 5-6.

ai in a "logico-methodological sense": the impasse or puzzlement is generated not just by the opposition of a pair of contradictory theses, but rather by the presence of (seemingly) equally persuasive arguments for two conflicting theses (Top. VI 6, 145b17–20; Metaph. B 1, 995a27–33). According to Rossi, the resolution (lysis) of an aporia, as opposed to a dialectical refutation (elenchos), which is also part and parcel of the dialectical training, is then a not so much a matter of attacking single theses or "producing" arguments for a thesis through refutation of the contradictory as rather a matter of "critically analysing arguments that constitute the *aporia*" so as to put an end to the epistemic state of puzzlement. If she is right, then (δ_2) includes at least two main modes of analysis or dialectical resolution (lysis) corresponding to two distinct kinds of infelicity in argument (*Top.* I 1, 100b23-25; SE 2, 165b7-8): the first consists in laying bare a "mistake" regarding [the] premises", which does not only require showing (e.g. by *reduc*tio) that they are (non-trivially) false but also that they are responsible for the unsoundness of the argument (i.e. the falsity of the conclusion), while the second is concerned with "an inferential mistake", that is the invalidity of the argument, and resolves the aporia "by drawing distinctions".20 Aristotle is not very forthcoming when it comes to characterising the second mode of resolution, and it seems that his point about "distinctions" admits of being framed in a number of different ways. Be that as it may, a familiar example is sufficient to illustrate both modes, namely Aristotle's refutation - or, as he rather says, "resolution", lysis of the Eleatic arguments in Ph. I 2-3, where Aristotle pellucidly distinguishes between false assumptions and formal invalidity (185a8-17; 186a4-7). Rossi appends at least three caveats to her reconstruction that are important for my present purposes. The first is that, although the diaporetic strategy (in the (δ_2) sense) seems to revolve around these two main types of resolution, it is inherently complex and versatile and thus allows for a variety of applications depending on the scientific context and the kind of theory being criticised, and accordingly, that the resolution may not always be full, but only partial, depending on the goals of the investigation and the matter at hand.²¹ The second is that, despite the obvious importance that the refutation (*elenchos*) of single premises of an argument carry in a resolution, one should be wary of confusing it with (δ_2) understood as the procedure of resolution (*lysis*), which always applies to whole *arguments*. Finally, the third is that in the most interesting cases of (δ_2) dialectical training alone is often not sufficient for a successful resolution: typically, "the identification of a premiss as false requires substantial philosophical knowledge about the subject

²⁰ Rossi 2017, pp. 215–218.

For a comprehensive case study of various applications of the resolution procedure in Aristotle's works, see Rossi 2017, pp. 219–223. In addition to the two main modes of resolution outlined above, Rossi also mentions Aristotle's treatment of thirteen kinds of deceptive refutations in SE 19–30, which she, however, does not analyse in detail.

matter under investigation, and this is not provided by dialectic as such", hence (δ_2) does not come down to a "merely formal business", but has "substantively philosophical" character, for it encompasses a "critical and creative task at the same time".²²

My main point here is programmatic: I think it is promising to look at the discussion in de An. I 3-4 from the perspective just described and thus view it as an application of the diaporetic procedure in the (δ_2) sense.²³ If this is right, then it does not seem appropriate to describe the investigation as "scientific" while at the same time opposing it to a merely "dialectical" game, as Carter 2019 and others do, both because this betrays an inadequate conception of dialectic and its multifarious philosophical uses, and also because Aristotle himself does conceive of διαπορῆσαι in this sense (cf. T1) as a dialectical method, which, despite being tightly integrated in scientific practice, has a distinctive rationale and yields a well-defined set of formal prescriptions - however flexible these may be in practice. As we shall see in the following, it is important to bear in mind that Aristotle's critical engagement with Plato in de An. I 3-4 does not simply result in the rejection of a number of isolated claims, but rather challenges the reader to ponder Plato's arguments about the soul's motion in different works by singling out problematic premisses (i.e. typically premisses that are not obviously false, but may lead to falsehoods or even absurdities), and occasionally pointing to formally invalid conclusions. For these reasons, a text-immanent reading of de An. I 3-4 is preferable to readings that manage to do justice to the main steps in the argument only by heavily relying on doctrines drawn from the Physics or other writings, where Aristotle is arguing from his own principles about nature, soul and motion. In de An. I Aristotle is careful to cast the premisses of his refutations in such a way that they are in principle acceptable for his opponent as well: what he has to show is precisely that apparently harmless (and even plausible) theses endorsed by the predecessors either lead to blatant inconsistencies or are simply not necessary, given other theoretical commitments they subscribe to. Indeed, in refuting specific claims attributed to his predecessors, he does occasionally refer to points argued at length elsewhere (cf. T8), but, as Aristotle's critique of Plato shows most clearly, this is again only part of a comprehensive analysis aimed at a battery of arguments that the opponent has at their disposal and are supposed to mutually reinforce one another. Hence, while it is perfectly legitimate to make use of positive Aristotelian doctrine and terminology to further elucidate some of the points being made in the course of the discussion, the success of Aristotle's

²² Rossi 2017, p. 250.

²³ In the following, I will be using 'refutation' fairly loosely, although I think the distinction stressed by Rossi 2017 between "resolution" and "refutation" is indeed a central one in Aristotle's dialectic.

critical analysis of arguments should not hinge upon controversial philosophical theses the opponent would not be prepared to grant.

A further reason why it is important to be clear about the diaporetic method as the application of a specific strategy of dialectical argument is that the overarching argument against Plato in *de An*. I 3–4 neatly mirrors Aristotle's prescriptions in *Top*. II 4, where Aristotle first outlines a procedure for attacking the genus of a proposed definition and then adverts to a possible complication that arises if the arguer is "not well equipped with an argument against the thesis" (111b12: μ \u00e0 evotor $\delta e in \chi \epsilon i \eta \alpha \tau o \pi \rho \delta c \tau \eta v \theta e i \sigma v).²⁴ This is particularly$ interesting because it may indicate that, according to Aristotle, the argument in*de An*. I 3–4 can only succeed if it is able to circumvent a deep and far-reachingdisagreement about the definition of motion or change (κίνησις): indeed, arguingfrom his own definition of nature (*Ph*. II 1) and motion (*Ph*. III 1–3) and thusmerely gainsaying that the instances of (psychic) motion countenanced by theopponent are genuine cases of motion would hardly make for a successful resolution of the*aporiai*connected with Plato's conception of the self-moving soul.

The second question relating to the dialectical character of *de An*. I 2–5 has been answered mostly in the negative from Aquinas (*in de An*. § 107) – who incidentally takes Aristotle's "literalism" as evidence of a sound philosophical method – onwards. On the other hand, Neoplatonist authors (Plotinus, Hermias, Iamblichus) tried to expand on Plato's own account of self-moving soul in order to show that it is immune to Aristotle's objections: evidently, they took Aristotle's criticism to lay bare some of the blind spots and pitfalls of Plato's theory in a very effective way, or at least regarded it as a productive and challenging misunderstanding of Plato and hence deemed it necessary to come up with additional arguments and more refined distinctions in order to vindicate Plato's doctrine.²⁵ More recent interpreters have often complained that Aristotle mistakes Plato's vivid metaphors, imagery and the like for literal claims about "natural" – or "physical", as they usually put it – motions of the soul. Instead, they have insisted that claims of this sort are utterly alien to Plato, who could for his part press the point that those motions are only "psychic" or *sui generis*. According to them, Aristotle

²⁴ Carter (2019, pp. 65–66) does refer the reader to *Top*. II 4, 111b4–8 and even acknowledges that "this attacking point sheds some logical light on [*de An*. I 3, 406a12–22]", but then he concludes that "Aristotle's deductions [...] are both more complicated and have a different intent". However, I submit that Aristotle's remark in the following lines lends support to a reading along the lines I am suggesting. Such a reading is not too far from Alexander's interpretation of 111b12–16.

²⁵ On the Neoplatonic tradition on self-motion, see Gertz 2010, Menn 2012b, and Opsomer 2012.

is guilty of maliciously overlooking important distinctions and conceptual resources that were already available to Plato.²⁶

However, the reading of de An. I 3–4 I will be presenting is partly motivated by the intuition that the alternative literalism/non-literalism is not by itself sufficient to meet Aristotle's challenge: Aristotle does not simply confine himself to "literalising" Plato. Rather, Aristotle's crucial point is that Plato's claims, if taken non-literally, just come down to merely vacuous metaphors that do not add much to the circular definition of "psychic" motions as all (and only) the motions *psychê* has. If this result is to be avoided, then the only alternative is to take them at face value, i. e. as literal claims about motions. But this will not do either: regardless of whether one takes these motions to be like those of bodies (say, natural motions in Aristotle's sense) or like those of numbers or magnitudes (lines, surfaces, solids), major difficulties arise. If this is so, then it is pointless to insist that Plato's assertions have to be taken metaphorically or non-literally, unless one is also able show that Plato's metaphors retain some genuine explanatory value, which would be irredeemably lost in literalisation. Yet, as we will shortly see, Aristotle seems to question precisely that point.

The second interpretative constraint has to do with Aristotle's own philosophical agenda in *de An*. I 2–5. On this point, there is a general consensus among both earlier and recent interpreters, probably because Aristotle's twofold aim in *de An*. I is quite clearly stated. Aristotle wants to refute various claims about the causal role of soul:

- (CP) claims about soul *qua* principle of *cognition* (*de An*. I 4–5);
- (MP) claims about soul qua principle of motion (de An. I 3-4)

Both points are introduced at the beginning of *de An*. I 2 and they reflect the predecessors' common approach to the definition of soul (403b25–28). Most of them thought that soul must be invoked to account both for the fact that we perceive and know things, and for the fact that we, as well as animals in general, typically start and stop moving around without being pulled and pushed from other (visible) bodies in the environment. These points are then restated at 404b7–11 with the addition that the advocates of (MP) took soul to be the thing most capable of causing motion (κ IV η TIK ω TaTOV), and the advocates of (CP) – most of which, as it turns out, held a thoroughgoing materialistic theory of cognition and endorsed a principle to the effect that cognition (of whatever kind) is such that cogniser and cognised are always qualitatively identical things or stuffs – identified soul with one or more material substances, the exact number of them

²⁶ This is the strategy often adopted by Cherniss 1944. For a brief discussion of Cherniss' approach, see also Viano 1996.

depending on their overall metaphysical stance (monism/pluralism; relation between the material principles, etc.).

In the last section of *de An*. I 2, Aristotle goes on to establish an explicit link between (CP) and (MP), on the one hand, and what might call his *definitional* enterprise, on the other hand, that is the attempt to come up with a formula or account of soul itself (405b11: $\dot{0}\rho$ (ζ 0vrat [...] $\pi\dot{\alpha}$ vre ζ τ $\dot{\gamma}$ ψ $\psi\chi$ $\dot{\gamma}$ v τ ρ i σ). Curiously enough, in this later passage Aristotle mentions a third defining characteristic, which was conspicuously left out in the two previous sections, namely incorporeality (405b12: $\tau \ddot{\phi} \dot{\alpha} \sigma \omega \dot{\alpha} \tau \dot{\phi}$). Although Aristotle does not say that in so many words, such a distinguishing mark of soul is intimately connected to the arguments of his predecessors for (CP) and (MP):²⁷ regardless of whether their primary interest lay in the account of the way soul moves the animal body or rather in (a thoroughgoingly materialistic) explanation of cognition, the majority of them tended to conceive of soul as a very fine, light and imperceptible kind of matter or body or even as a proportion of different kinds of matter (or bodily components) – although, as I will try to show in what follows, Plato's doctrine (especially in the *Timaeus*) involves considerable sophistication.

Since none of the doctrines criticised in *de An*. I – at least if we judge by Aristotle's own presentation of them – seem to be driven by strong dualistic intuitions opposing, say, an immaterial mental stuff and a material bodily stuff, but all of them rather proceed from a contrast between the matter of bodies and a "psychic matter" of sorts, it is important for our purposes to emphasise that our chapters do not in the least seem to be motivated by a radical anti-dualistic stance in the overriding sense of 'dualism' that is relevant and widespread nowadays. Aristotle's challenge rather consists in resisting all those conceptions of the soul that, wittingly or unwittingly, end up ascribing to it features only bodies can have and thus making soul itself into a body – if only of a very mysterious sort:²⁸

²⁷ Note that the term ἀσώματος is used in the *corpus* to refer to both (a) non-bodily substances (things which are *not* bodies, such as, for instance, mathematical objects; cf. Bonitz, *Index*, 118a52–57 for a survey of the (a)-uses) and (b) lighter elements (air and fire); while the (a)-use does not admit of degrees (either something is a body or it is not), the (b)-use obviously does (an element can be more or less incorporeal than another). In *de An*. I 2 it is used once in the former sense (404b31) and twice in the latter (405a7; 405a27) – for the latter usage, cf. also I 5, 409b21. As for our passage (405b12), the term presumably covers either only (b).

This point is duly stressed and argued at some length in Menn 2002. A fortiori, Aristotle's arguments do not entail or presuppose either a naturalisation of soul (*pace* Cherniss 1944; Shields 2007) or a proto-Rylean theory of the mental (*pace* Barnes 1971–1972; Frede 1992), that is, roughly, a theory according to which soul is eliminatively *reduced* to a set of bodily dispositions, and hence not an appropriate subject of mental predicates. In a nutshell, the main reason why it cannot be reduced to a set of bodily dispositions is simply that it has an attribute nothing else has, namely thinking or intellection (voɛiv). To put it yet differently, thinking is the only attribute peculiar (iδiov) to it, and not common to the body (cf. *de An.* I 1 and III 5).

as is well known, a significant part of his criticism is devoted to both causal and epistemological principles, whereby agent and patient of change or knower and known must be qualitatively similar. In the following, I will confine myself to discussing the relevance of like-by-like causal principles for (MP), although (CP) should also be taken into account.

Finally, I would like to address the third aspect (or plausibility constraint), which concerns the philosophical moral to be drawn from the discussion and thus also the transition from the $\delta_{i\alpha\pi\rho\rho\eta\sigma\alpha}$ procedure in *de An*. I to the definitional enterprise in *de An*. II, where Aristotle is unequivocally operating with his own philosophical terminology und presupposing claims and distinctions introduced elsewhere. To put it in a nutshell, the function of *de An*. I is to provide a dialectical underpinning for three key claims about soul that inform the whole enquiry in *de An*. II–III:

(FORM) soul is the form (εἶδος) of body,
(1M) soul is a *per se* unmoved first mover (efficient cause),

and

(ACT) soul is the (first) actuality (ἐντελέχεια) of a natural body.

As is well known, (FORM), (1M), (ACT) are intimately connected; the most straightforward connection is forged *via* the concept of life ($\tau \delta \zeta \tilde{\eta} v$) and living being, which Aristotle repeatedly invokes in *de An*. II 2–3.

As to (FORM), Aristotle's main opponents throughout *de An*. I subscribe to doctrines that make soul either a μ é γ e θ o ς , a continuous, infinitely divisible magnitude, or an unextended point or a collection of discrete bodily, if only very fine and imperceptible, entities (e.g. Atomists, some Pythagoreans) or mathematical units (Xenocrates) or, alternatively, a ratio of material components (the *harmonia* doctrine in I 4). Hence, Aristotle's arguments against all these views already adumbrate the claim that soul is not itself a material or extended entity in any of the senses just listed, but rather the irreducible form of a body. While this claim represents a radical departure from those views, it is still open to major misunderstandings, both when it comes to the existential separability of form from the matter of a living being and also with respect to the analysis of formal causation. As for the latter, I will emphasise that Aristotle is preoccupied with faulty conceptions of psychic causality in terms of the "transmission" or the "spillover" of

Indeed, Aristotle often speaks as though he regards the ascription of mental predicates – at least one particular mental predicate, namely thinking or intellection – to the soul as unobjection-able. For some discussion, see Shields 1988 and Shields 2007.

something from the soul onto the body (cf. Concern 2 under § 1.2 below). Interestingly enough, though, it turns out that this intuition is common both to hardline materialists and to Plato. Once mistaken conceptions of formal causality are discarded, (ACT), which is only introduced in *de An*. II 1, must then serve to flesh out Aristotle's considered solution.

Aristotle's worry about psychic causation straightforwardly bring us to (1M), which is addressed in de An. I 2-3 (see again Concern 2 below): virtually all of Aristotle's predecessors who had an interest in soul qua principle of motion endorse the general claim that something can move something else only if it is itself moved. Against them, Aristotle points out both that the general principle that only things that are *per se* in motion can move other things *per se* falls short of necessity and he argues that the fundamental assumption that soul is a per se moved mover is bound to lead to absurdities. Aristotle's more positive contention here is that there is a viable alternative to that picture and that an alternative model of causation can be devised by looking more closely at the features of causality that is peculiar to purposive agency as it is exhibited in technical production. The role of the craft analogy, which is key to Aristotle's general understanding of nature (Ph. II), turns out to be indispensable for an analysis of the causal relationship between body and soul. Given the extraordinarily important function of the same analogy in Plato, one has to be clear about the fundamental differences between Aristotle's and Plato's views as to the character, the purpose and the scope of the analogy.

As is well known, the craft analogy is a vital ingredient in Aristotle's approach to (ACT) in *de An.* II 1, 412a19–413a10. For there (ACT) is clearly introduced as an *explicatum* of (FORM), and Aristotle appears to think that the former notion avoids serious drawbacks the latter has. Very roughly, this has to do with the momentous claim in *de An.* II that the body is an instrument of the soul (and further that only a body that is living, in that it has instrumental parts, can be such). This claim is in turn tightly tied both to the issue of the (alleged) existential separability of the soul *qua* irreducible form of a body and to the role of soul as a final cause. Aristotle is prepared to acknowledge that different models are available here (cf. *de An.* II 1, 413a7–9): the craft analogy lends itself to being fleshed out in radically different ways and taken by itself it is fully compatible with a strong separability claim. Aristotle's contention, though, seems to be that, in spite of important qualifications concerning the special case of intellect or thought, (ACT) is key to getting the craft analogy right and thus also to settling the issue of separability.

Finally, something should be said about the relationship between (FORM) and (ACT), on the one hand, and (1M), on the other. (ACT) enables Aristotle to develop a uniform treatment of soul both as principle of cognition and a principle of motion, whereas (1M) is less general, for it primarily speaks to the peculiar causal role of soul in the origination of the kind of changes living beings typically

display (most notably, locomotion). To put it differently: a hallmark of Aristotle's hylomorphism is that (FORM) must provide a solution to the general question about how soul acts as an efficient cause and this is compatible with the key role of form and form-transmission in Aristotle's general account of efficient causation in nature. (1M) allows Aristotle to narrow down the difference between ordinary efficient causes, that is between natural substances as moved movers and soul as an efficient cause in the distinctive sense of an unmoved mover and a principle of life within living beings. As it emerges from *de An*. II, (ACT) proves to be essential when it comes to defining single soul capacities (i.e. both discriminative capacities and the capacity for motion) by exploiting the relation of finalcausal priority between exercises of the capacities and their objects (understood as ends). The contribution of the discussion in *de An*. I 3–4 is again not entirely negligible: Aristotle first shows that absurdities follow from the claim that soul causes motion in the same way bodies do – a claim which partly depends on an erroneous conception of causal "transmission" (cf. again Concern 2 below); then, he briefly adverts to the availability of an alternative model for (1M), namely the craft model. Hence, in de An. II 1-2 he seems entitled to characterise soul in terms of *that* kind of efficient cause, drawing on (FORM) and (ACT). Of course, this only a blueprint for the specific investigation of the single capacities: notorious difficulties arise in connection with both intellect (or thought), which, as Aristotle is ready to concede in de An. II 2, fulfils (ACT) in a deviant way,²⁹ and the capacity responsible for locomotion, especially given Aristotle's claim in de An. III 10 that it is moved by the object of desire, itself an unmoved mover. On

²⁹ In the following, I will not deal with the controversial issues surrounding the exceptional status of thought or intellect (de An. III 4–6) nor with the theological ramifications it seems to have in *Metaph*. Λ 7–9. However, an interesting contrast may be drawn between Aristotle's own definition(s) of soul in de An. II 1-3, (i) a possible reading of Plato's definition of soul in Laws X and Phaedrus (as implying an identification of soul as self-moving motion with soul as the subject of such a motion: cf. the discussion of T10 below) and (ii) Aristotle's own characterisation of God as pure activity and noêsis noêseôs in Metaph. A 7 and 9. According to Cherniss 1944, the latter involves a similar conflation of the thinking activity and the subject of the activity. He argues that Aristotle's avoidance of the pitfalls of Plato's doctrine of soul comes at a high price when it comes to dealing with the divine unmoved mover. It should be noted that his interpretation is at variance with the traditional one (the "Narcissus-like view of noesis noeseos", as Brunschwig 2000, p. 306 labels it), endorsed by most modern commentators. Brunschwig himself argues that the claim made in *Metaph*. Λ 9 is to be explained away genetically and speculates that it reflects a phase of Aristotle's reflection that predates the composition of Metaph. A 7. The moot point is also whether Metaph. A 9 is actually meant to provide an account of the activity of the divine mover alone (cf. Brunschwig 2000, p. 277) or whether the account applies to every cosmic mover, including each of the alleged moving intellects (cf., for instance, Frede 2000, pp. 37, 42 and Donini 2011, pp. 28 ff.). A hotly disputed issue is also whether Aristotle's God can be legitimately identified with the unmoved mover of Ph. VIII 6-10: for a criticism of the conventional view, see Bordt 2011.

the face of it, the latter claim is particularly baffling or out of place, for it seems to flatly contradict (1M).

Concerning the third plausibility constraint, it is important to distinguish between two possible interpretative stances towards the status of the first book of de Anima in general and de An. I 3-4 in particular. It is one thing to claim that Aristotle, while resolving the relevant *aporiai*, is already building a strong case for his hylomorphic view of ensouled beings, it is another thing to assert, as, for instance, Witt 1992 and Carter 2019 seem prone to do, that his very resolution of the aporiai stands and falls with central metaphysical tenets of Aristotle's hylomorphism or, at the very least, with theses and definitions drawn from Aristotle's natural science. While I wholeheartedly subscribe to the first claim, I think the second is seriously misleading for reasons that have been already stated and are connected with the aims and norms of the diaporetic method. Indeed, an appeal to Aristotle's positive characterisation of the notion of change, nature, being moved per se and per accidens, etc., occasionally helps get a better grasp of his reasons for thinking that specific theses of the predecessors are false: for instance, a reference to the argument *Ph.* VIII 5 may shed further light on his claim that it is not necessary for a mover to be itself in motion. Further, I agree with Carter that Aristotle's "demonstrative heuristics", his conception of definition and demonstration, the relationship between demonstrative principles and theorems (together with the distinction between definitional per se attributes and per se accidents) also helps the interpreter to make good sense of the results achieved in de An. I 3 and the arrangement of the topics under discussion.³⁰ However, this still leaves us completely in the dark about the role the predecessors' false theses played in their arguments or - as is the case with Plato - in a whole battery of arguments and thus also about the appropriate strategy of resolution.

I take these general methodological considerations to apply to *the whole* of *de An*. I 2–5. Yet, large portions of chapters 4 and 5, where Aristotle attends to the role of soul in cognition, lie outside the scope of the present investigation, which is instead primarily devoted to soul as a self-mover. Hence, in what follows, I will first focus on two issues that lie at the heart of Aristotle's attack on Plato's theory in *de An*. I 3–4 (§ 1.2) and then clarify how the diaporetic procedure is applied to their resolution (§ 1.3).

³⁰ Cf. Carter 2019, pp. 75–78 for a summary of the results achieved in *de An*. I 3. His suggestion that Aristotle conceives of soul as the "φύσις or internal principle of motion and rest of living beings" and that this is hinted at in *de An*. I 1, 402a6 is also plausible, although the text of *de An*. I 3 hardly offers any positive evidence in its support.

1.2 de An. I 3-4: Two concerns

a) Concern 1: The definition of soul as self-motion

Aristotle's first and foremost concern in *de An*. I 3 is about Plato's definition (λόγος) of soul, as it is found both in the *Phaedrus* and in *Laws* X.³¹ According to Plato's definition, which was only partly taken up by his successors at the Academy,³² motion (κίνησις) has to be the *genus* of soul, which in turn implies that it is a *per se* attribute of soul. Further, the soul's essence (οὐσία) is captured by a specific kind of motion, namely self-motion or, more precisely, the "motion that moves (or: is capable of moving) itself" (ή δυναμένη αὐτὴν αὐτὴν κινεῖν κίνησις). In other words, soul is by definition "that which moves itself" (τὸ αὐτὸ κινοῦν).

Hence, the chief task Aristotle sets himself in *de An.* I 3 is basically to show against Plato that motion cannot be the genus of soul, but rather only an accident thereof by showing that there is no tolerable sense among those, wittingly or unwittingly, considered by the opponent in which the soul may be moved *per se.* Of course, such a goal can be achieved in a number of different ways. In the *Topics* Aristotle seems to consider two possible strategies (see below, § 1.3.1): on the one hand, drawing on his doctrine of categories, he holds that motion is not a predicable falling under the category of substance, but rather an "action or affection" and a contingent predicable, in that it "can belong and not belong"; on the other hand, in the same treatise he also gives more detailed prescriptions that shed light on the far more complex argument in *de An.* I 3–4.

b) Concern 2: Soul as a first mover

Aristotle's second major concern in *de An.* I 2–3 has to do with the role of soul as a first mover ($\pi\rho\tilde{\omega}\tau\sigma\nu\kappa\nu\sigma\tilde{\nu}\nu$), initiator or efficient cause of animal motion;³³ needless to say, this issue is directly related to (MP) above, one of the defining traits of soul according to most predecessors. There is a cluster of (different, and yet evidently connected) preoccupations that come under the heading of *Concern* 2, namely, on the one hand, soul as the efficient cause of the body's motion, and, on the other hand, soul as the efficient cause of the soul's own (purported) *per se*

Arguably, the treatment of soul in both dialogues is compatible with the final argument for the immortality of soul from the form of life in the *Phaedo* (102b-107b).

³² Xenocrates' definition receives a separate and rather detailed treatment in *de An*. I 4, for, though self-motion explicitly features in it, still it takes number ($\dot{\alpha}\rho_1\theta_\mu\dot{\alpha}\varsigma$) and not motion as the genus of soul. Cf. also *Top*. VI 3, 140b2–5.

³³ Although the paradigmatic case of *per se* motion of soul for Aristotle's predecessors is certainly local motion in the sense of $\varphi o \rho \dot{\alpha}$, Aristotle's remarks about soul as a first mover are designed to apply to other kinds of (natural) motion as well (alteration, quantitative change).

motion. As to the latter, Aristotle apparently distinguishes two general answers: the first is Democritus' model (cf. I 2, 404a5-9; I 3, 406b15-17) – a variant of which Aristotle also traces back to "some Pythagoreans" – according to which the soul's motion is entirely accounted for in terms of its material constituents, i.e. imperceptible fiery corpuscles, very fine motes in the air, or the like. The second is the model of self-moving soul (cf. § 1.3.2 below) in the two variants considered in the text: according to the first, motion itself is the genus of soul as the self-moving motion (Plato), whereas according to the second, number is its appropriate genus, such that soul is by definition the self-moving number (Xenocrates).

The aim Aristotle pursues in *de An*. I 2-4 is a complex and ambitious one. This must be clear, though: the discussion must ultimately lead to a philosophical reassessment of the soul's role as a first mover, and thereby envisage a model of the soul's efficient causality that is radically alternative to a mechanistic pushand-pull theory. Aristotle can achieve this overriding goal only after showing the issue of the causal origination of psychic motion to be bogus: if the refutation outlined above is successful and soul cannot be in motion *per se*, then there is obviously no need to posit a *per se* efficient cause of its motion. On the other hand, it can be independently shown that Plato's model of the self-moving soul presupposes a conceptual error that is also involved in Democritus' theory (cf. T11 below). As for Xenocrates' definition of soul as the self-moving number, it is liable to other objections already levelled against the Platonic model, but also entails further absurd consequences of its own – some of which also affect the Democritean model – and hence calls for a separate treatment under the heading of *Concern* 1.³⁴

Aristotle's basic move here seems to complement the strategy adopted in addressing *Concern* 1. For, on the one hand, the conclusion that soul is *per se* moved can be independently shown to lead to absurdities (cf. § 1.3.1 below). On the other hand, the inference to the conclusion that soul is in motion *per se* can also be blocked by giving up an unrestricted principle about efficient causation of the kind upheld by virtually every predecessor: for, the thesis that soul is in motion *per se* can be derived from the claim that soul moves the animal body *per se*

For the claim that Xenocrates' definition faces the same difficulties as Plato's, besides entailing further absurdities of its own, see *de An*. I 4, 408b32–409a1; for the similarities between Xenocrates' theory and Democritus' model of the soul as a "fine-grained" body, see 409a31– 409b18. The atomistic-Pythagorean model and Plato's self-moving soul are distinguished with respect to the causation of soul's (alleged) motion in *de An*. I 5, 409b19–21: the basic distinction seems to stem from the fact that the Atomists and the Pythagoreans ground the soul's purported motion in some particular geometrical or physical property thereof (spherical shape and minimal weight, respectively), whereas Plato alone (followed by his school) introduces the notion of self-motion, i. e. explicitly considers soul itself, a non-bodily item, as a cause of its own motion.