Aristotle's Aporia about Being and the One: The Background, Discussion and Solution of a Metaphysical Dilemma

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This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text.

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Aristotle's *Aporia* about Being and the One:  

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**Summary**

This dissertation consists of three chapters, each developing one of the three elements of the subtitle. The first, 'Aristotle against Eleatic monism', analyses Aristotle's refutation of Eleatic monism in *Physics* 1.2-3 in parallel with Plato's parricide of Parmenides (*Sophist* 242b6-5e5) and then compares the *Physics*’ refutation with Aristotle's treatment of the Eleatics in *Metaphysics* A.3-5. It concludes that from this background Aristotle draws a necessary requirement for his own metaphysical investigation, namely that we regard being as not univocal.

The second chapter, 'Aristotle's parricide of Plato', completes the parallelism between the *Sophist* and the *Metaphysics* by examining Aristotle's formulation and discussion of the eleventh *aporia* in *Metaphysics* Beta: 'Are being (τὸ ὄν) and the one (τὸ ἕν) the substance(s) of all things or are they just attributes of some other underlying thing?'. It focuses on a particular characteristic of *aporia* 11, namely its allocation of the two alternatives of the dilemma to Plato and the Pythagoreans on the one hand and to Empedocles and the physicists on the other. Crucially, it shows that Aristotle not only borrows from the *Sophist* the arguments which he levels against the pluralists, but also turns the Platonic critique of Parmenides against Plato himself.

The third chapter, 'Aristotle's last word on *aporia* 11', explains how Aristotle resolves this metaphysical dilemma in *Metaphysics* I.2. It shows that he does not return to it until he has developed new weapons against Plato and against the Pythagoreans: these are a criterion for what counts and does not count as a substance (provided in *Metaphysics* Z.13-16) and the definition of unity in terms of indivisibility (formulated in I.1). On this basis, Aristotle claims not only that the one is not itself a substance, but also that it is not the substance of anything.
This dissertation has the following three main results. First, it demonstrates that Aristotle's dialectic cannot be regarded as monolithic but needs to be explored on a case-by-case basis. Second, it re-evaluates Aristotle's engagement with his predecessors, in particular the Eleatics. Third, it presents an argument which strongly tells in favour of a unitarian reading of Aristotle's *Metaphysics*. 
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As a Greek saying goes, τὰ ἀγαθὰ κόποις κτῶνται: 'good things are obtained with toil'. I began my doctorate prepared for the toil; what, however, I did not know four years ago is how many the 'good things' would be.

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Introduction

If *Metaphysics* Zeta is the Mount Everest of ancient philosophy,\(^1\) Iota could be aptly described as its K2. However, though no less challenging, it has been considerably less explored than its cousin. This dissertation traces a path to the point of *Metaphysics* Iota where Aristotle explicitly resolves *aporia* \(^{11}\) (Met., 996a4-9), which he regards as the hardest *aporia* of those listed in Beta and which concerns the metaphysical status of being (τὸ ὄν) and the one (τὸ ἕν).\(^2\) That resolution is the result of a journey that can be traced back through Aristotle's explicit references from the solution of *aporia* \(^{11}\) (I.2) to its first formulation and discussion (B.1, B.4) and on to its background in Aristotle's engagement both inside and outside the *Metaphysics* with a particular and peculiar earlier attempt to relate being and the one: Eleatic monism (A.3-5, *Physics* 1.2-3, Plato's *Sophist*). I shall retrace those steps in my ascent.

Aristotle's *aporia* about being and the one has been studied in a number of articles and books, which I shall discuss in chapter 2.\(^3\) However, it has not yet been the object of a dedicated monograph. Accordingly, the primary aim of this dissertation is to fill this gap in the scholarship. Given its prominence in Aristotle's metaphysical inquiry, the examination of the eleventh *aporia* will touch upon central parts of Aristotle's investigation and will have important ramifications for our overall understanding of his metaphysical project.

\(^1\) Burnyeat 2001, 1.

\(^2\) I shall be using the expression 'the one'—instead of 'unity'—as a calque for τὸ ἕν, so as to preserve the ambiguities of the Greek expression. Depending on context, τὸ ἕν can refer not only to the property of being one but also to a given thing described as 'one' or even to the single thing that, on a specific metaphysical view, is posited as being. We shall see that, in his arguments, Aristotle takes great pains to disambiguate precisely what is meant by 'the one'.

\(^3\) Lowe 1977; Madigan 1999, 197–18; Bell 2000; Berti 2003; Halper 2009, 261–2; Cavini 2009; Castelli 2013, 37–48; Castelli 2018a, 94–5.
Although both being and the one are mentioned in its formulation, the *aporia*'s special focus is on the metaphysical status of the one. Hence, the first question which this dissertation addresses is: why is Aristotle interested in τὸ ἕν in the first place? Much of the answer will depend on the background of the eleventh *aporia*, which I shall explore in chapter 1; for Aristotle thinks that the one plays an important role in the metaphysical doctrines of his predecessors. Furthermore, we shall see that monism also acquires a pivotal role in the arguments against the two alternative views at stake in the *aporia*, to which chapter 2 is devoted. As a result, Aristotle's own solution will settle the question by providing a satisfactory metaphysical account of the one, which will be reconstructed in chapter 3.\(^4\) This is the point in which the eleventh *aporia* meets Iota, to which I now shall turn.

The tenth book is by far one of the least studied of Aristotle's *Metaphysics*. The first modern commentary was published by Leo Elders in 1961 with the title *Aristotle's Theory of the One*.\(^5\) This commentary is useful insofar as it indicates Aristotelian parallel passages and suggests interesting references to Academic doctrines. However, Elders relies heavily on controversial assumptions regarding the development of Aristotle's thought, which lead him to doubt the authenticity of many lines of Iota. As a result, Elders' commentary offers a fragmented picture of the book, making it hard to read Iota as a whole. As we shall see, things appear in a significantly different light when we instead suppose that—despite its obscurity—most of the text of Iota (or at least I.1-2) should be read as it stands.

The second modern commentary on Iota was edited in Italian by Bruno Centrone almost 45 years later.\(^6\) It consists of eight contributions by different scholars focusing on single chapters or problems in Iota, preceded by an annotated translation and an introduction by the editor. Centrone's introduction contains a thorough discussion of scholarly opinions on Iota\(^7\) as well as a general overview of its main tenets.\(^8\) However, while the individual

\(^4\) Aristotle's own reflections on the one have been thoroughly studied in Laura Castelli's *Problems and Paradigms of Unity*, which also offers a review of secondary literature on this topic: Castelli 2010, 11–3.

\(^5\) Elders 1961.

\(^6\) Centrone 2005.

\(^7\) Centrone 2005, 37–49.

\(^8\) Centrone 2005, 49–64.
contributions are certainly helpful in making good sense of Iota's arguments, a comprehensive perspective on Iota as a whole falls outside the scope of the volume.

Such a perspective was finally offered by Laura Castelli's 2018 volume for the Clarendon Series.9 Castelli not only provides a detailed running commentary on Iota, but also devotes some crucial pages to its role within Aristotle's science of being qua being and to its place in the economy of the Metaphysics as a whole.10 In tracing a path to I.2, this dissertation has made use of Castelli's commentary as a map of Metaphysics Iota. While, however, most of my analysis will follow the lines traced by this commentary, the major point on which it departs from it concerns precisely the eleventh aporia. In fact, chapter 3 will argue that, despite drawing heavily upon Zeta's study of substance, it is Iota, rather than Zeta, which resolves it. This reading will shed new light on Iota itself as well as on its role within the Metaphysics.

The tenth book of the Metaphysics has a curious status in Aristotelian scholarship, which can be summarised in the following three common views. (1) Iota is a sort of spin-off of the story Aristotle tells in the Metaphysics, insofar as it deals with topics which are included in but not central to his main line of inquiry—such as unity, sameness, equality, similarity and contrariety.11 (2) Iota is also a liminal book, in that it is not well connected to the rest of the Metaphysics.12 Lastly, (3) Iota offers only a negative contribution to Aristotle's investigation, because it reveals a merely polemic aim in discussing unity and issues of contrariety.13 With respect to these points, this dissertation will suggest that Iota is much better integrated within the Metaphysics than is usually acknowledged. To begin with, (1) relocating the resolution of the hardest and most necessary aporia of the Metaphysics to I.2 makes Iota an

9 Castelli 2018a.
10 In particular, Castelli 2018a, xi–xxiv.
11 Both Ravaission 1837–1845 and Bonitz 1842 (referred to in Centrone 2005, 39) regard Iota as an independent treatise which Aristotle intended (but did not have time) to connect to the rest of the Metaphysics. Düring 1966, 279–81, instead, goes as far as to consider Iota an old treatise which was linked to other books by means of later additions.
12 Besides Ravaission, Düring and Bonitz, Brandis 1834 and Schwegler 1847–1848 too think that Iota interrupts the continuity between Theta and Lambda. Ross 1924 also expresses dissatisfaction with Iota's little relation to the rest of the Metaphysics. Finally, Jaeger 1934 believes that Iota's references to other books witness that it is a late treatise and that the books on substance (ΕΖΘ) originally constituted an autonomous treatise.
13 This view is championed by Elders 1961 and, more recently, Menn in progress, 125.
essential chapter in Aristotle's story. Further, (2) once we study the details of Aristotle's arguments, many references to previous books of the *Metaphysics* can be substantiated, thus making Iota integral to rather than liminal vis-à-vis the rest of the work. Finally, (3) the very solution to the eleventh *aporia* presumes a good deal of Aristotle's own tenets, one of which is represented by I.1's metaphysical account of τὸ ἕν; this suggests that Iota also contributes positively to Aristotle's investigation.

One broader question which needs consideration in this introduction is the *vexata quæstio* of the unity of the *Metaphysics*. Scholarly opinions span a spectrum of positions which connect either all of the 14 books of the *Metaphysics* or (almost) none or only some of them. Following Stephen Menn, the scholarly debate can be reduced to 5 positions: (a) At the lower end of the spectrum there is the view that the *Metaphysics* is purely the result of an editorial operation, which patched together treatises produced in different chronological and doctrinal phases of Aristotle's activity. (b) On a more nuanced view, ΑΒΓΕΖΗΘ represents a continuous series, to which Ι, Μ-Ν and possibly Λ have a looser connection. (c) On another interpretation, the *Metaphysics* consists of two treatises, i.e. ΑΒΓΕΙΜΝ and a series which was added only later: ΖΗΘ. (d) The dominant view, however, is that ΑΒΓΕΖΗΘΙΜΝ is intended as a single treatise, with or without Λ. Finally, (e) at the upper end of the spectrum, there is the view that all the books of the *Metaphysics* form one single treatise, with the sole exception of α.

As a consequence of my reconstruction of the eleventh *aporia*, this dissertation will suggest a different picture, in a way close to Menn's

14 This perspective is not entirely new, but goes back at least to Jaeger 1912. However, I shall stress how Zeta solves the *aporia* only in part, whereas Iota provides the full answer—as suggested in Centrone 2005, 49.
15 A list of all the back references present in Iota is found in Centrone 2005, 38. However, a complete discussion will not be developed until the end of this dissertation.
16 As emphasised by Castelli 2018a.
17 Menn in progress, I21, n. 5, here presented in a different order.
19 Brandis 1834 and Bonitz 1842, quoted in Menn in progress, I21, n. 5.
20 Jaeger 1912.
21 Natorp 1888 and perhaps Frede 1987, 82 include Lambda in the main series Ross 1924, Jaeger 1934 and Frede & Patzig 1988 exclude it.
view. Menn restores Delta and Lambda as parts of one single treatise (ΑΒΓΔΕΖΗΘΙΜΝΛ)—although he regards IMN as forming a cluster difficult to locate precisely. Indeed, my analysis will provide some confirmation of the inclusion of Delta and Lambda in the *Metaphysics*; however, the chief difference with Menn will concern precisely where to situate Iota in this story. On the one hand, while Iota has more than one connection to M and N, I shall suggest that these two books are not some sort of appendix to Iota, but rather that Iota distils and readapts views expressed in M and N to a more specific context. On the other, I shall show that there are solid reasons to believe that Iota is part of a single project introduced by A and B. As such, *aporia* 11 will offer a *fil rouge* which tells in favour of a unitary reading of the *Metaphysics*.

Finally, as I shall argue in chapter 2, the salient characteristic of the eleventh *aporia* is that it ascribes the two alternatives of the dilemma to some predecessors, whom it mentions by name. Its ‘endoxic’ nature places this *aporia* at the intersection of two further broad issues within Aristotelian scholarship, namely Aristotle’s dialectical method and his engagement with the doctrines of his predecessors.

The role of reputable opinions (ἔνδοξα) in Aristotle’s thought has been widely explored; however, how exactly dialectic is applied to Aristotle’s metaphysical investigation is still a matter of controversy. In particular, the scholarship is divided between those who defend a dialectical interpretation of the *Metaphysics* and those who instead regard it as a demonstrative science. Although this dissertation will not engage with this debate explicitly, the picture it offers suggests an alternative to these positions by showing how Aristotle deploys different dialectical strategies to serve specific purposes within his inquiry.

23 Menn in progress, 1a5.
25 See in particular Berti 1975 and Irwin 1988. Irwin distinguishes between ‘strong’ and ‘pure’ (or ‘weak’) dialectic, assigning the former to the inquiry into metaphysical principles and the latter to a general investigation that is not concerned with truth. Against the distinction of two kinds of dialectic within a dialectical interpretation, see also Berti 1996.
26 See in particular Bell 2004.
The landmark contribution to the study of Aristotle's engagement with his predecessors is the work of Harold Cherniss. On his interpretation, which has become traditional, Aristotle's testimonies can hardly be trusted on account of seven sources of mistake. (i) Typically, Aristotle wilfully misrepresents the views of his predecessors for the particular purposes of his own arguments. However, (2) he sometimes reinterprets their doctrines incorrectly either due to his own misunderstanding or because he is following a Platonic antecedent; more specifically, (3) he may fail to grasp the very fundamentals of a doctrine or (4) be misled by his translation of earlier theories into current terminology. Similarly, (5) he supposes that current ideas must have been present in the words of past thinkers even when their words do not suggest so. Moreover, (6) he displays a tendency to find necessary antecedents of his own doctrines in earlier theories. Finally, (7) he has an inadequate conception of the historical relationships between his early predecessors. There are good reasons to resist many of these claims. Timothy Clarke's newly published book on *Aristotle and the Eleatic One*, for example, convincingly shows that Aristotle based his arguments against the Eleatics upon a close reading of the primary sources at his disposal, thus rehabilitating Aristotle's views as plausible interpretations of Melissus and Parmenides. This dissertation will take this contention a step further, clarifying the key role played by Plato in the picture.

A final consideration concerns the method I have followed. I have often made use of the late antique and medieval commentators on Aristotle's *Physics* and *Metaphysics*: Alexander of Aphrodisias, Themistius, Syrianus, Simplicius, John Philoponus, Asclepius of Tralles, Averroes and Thomas Aquinas. In passages where the extant Greek manuscripts are problematic, particular attention has been devoted to the Arabic translations which are reproduced in Averroes' *Long Commentary or Tafsīr*. Comparing the Greek and the Arabic texts involves a number of difficulties. Averroes' commentary is organised in the traditional fashion, in which sections of the *Metaphysics* are followed by comments on the individual *lemmata*. However, the translations of Aristotelian passages in the *textus* are sometimes different from the quotations found in the *lemmata*; moreover, in the single *commenta*
Averroes often paraphrases the lemma in question and even quotes an alternative translation from a different source.\(^3^0\) Furthermore, the Arabic version of the *Metaphysics* appears as a collection of translations by different scholars.\(^3^1\) However, on the whole, these translations are extremely literal, to the point that they often sacrifice fluency—if not intelligibility—to literality; this facilitates the task of guessing the original even in cases where the overall rendering is hazy. Furthermore, the Arabic translators worked on manuscripts which are different and most probably older than those currently extant in Greek.\(^3^2\) Thus, the Arabic will be used as a precious testimony for reconstructing the text of the *Metaphysics*,\(^3^3\) with the proviso that the textual evidence provided by the Arabic will never be the sole proof for a specific reading.

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This dissertation consists of three chapters, each developing one of the three elements of the subtitle. The first, entitled 'Aristotle against Eleatic monism', analyses *Metaphysics* A.3-5 in conjunction with *Physics* 1.2-3, to which A.3 refers explicitly. It begins by showing that Aristotle regards both Melissus and Parmenides as proponents of an extreme form of monism: one which, Aristotle argues, precludes the very possibility of a physical or metaphysical investigation. It then analyses Aristotle's refutation of Eleatic monism in *Physics* 1.2-3 in parallel with Plato's parricide of Parmenides (*Sophist* 242b6-5e5). Finally, it returns to *Metaphysics* A and compares the *Physics'* refutation with Aristotle's treatment of the Eleatics in his survey of previous metaphysical theories. It concludes that from this background Aristotle draws a necessary requirement for his own metaphysical investigation, namely that we regard being as not univocal and that we posit more than one single principle.

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\(^3^0\) On the general structure of Averroes' commentary, see Bouyges 1938, XIII–XXIII. Pierre Bouyges' *Notice* is surely the pioneering work in the comparison between the Greek and the Arabic.

\(^3^1\) Bouyges 1938, CXXVII–XXXII. The identity of these translators has been confirmed by Bertolacci 2005, revised in Bertolacci 2006, 5–35. Alpha Meizon (which, in Arabic, starts at 987a6) was translated by Naẓīf ibn Yumn; Beta and Iota, by Usṭāṯ. Finally, the different translation reported in some passages of Iota is most probably by Isḥāq ibn Ḥunayn.

\(^3^2\) This point was made in Bouyges 1938, CXXIV–VI, CLXXV–XXX.

\(^3^3\) The practice of considering the Arabic as a useful, albeit 'capricieux', witness of the Greek manuscript tradition was initiated by Bouyges 1948.
The second chapter, ‘Aristotle's parricide of Plato’, completes the parallelism between the *Sophist* and the *Metaphysics* by considering Aristotle's formulation and discussion of the eleventh *aporia* in *Metaphysics* Beta: 'Are being (τὸ ὄν) and the one (τὸ ἕν) the substance(s) of all things or are they just attributes of some other underlying thing?'. First, it pins down the characteristics of Aristotle's aporetic method of inquiry, elucidating how Beta carries out the metaphysical investigation introduced in Alpha Meizon. Second, it examines a particular characteristic of *aporia* 11, namely its allocation of the two alternatives of the dilemma to Plato and the Pythagoreans on the one hand and to Empedocles and the physicists on the other. Crucially, it shows that Aristotle not only borrows from the *Sophist* the arguments which he levels against the pluralists, but he also turns the Platonic critique of Parmenides against Plato himself. As a result, Aristotle's discussion provides a solid grounding for a fresh start.

The third and final chapter, entitled ‘Aristotle's last word on *aporia* 11’, attends to this new beginning and explains how Aristotle resolves this metaphysical dilemma in *Metaphysics* I.2. It shows that he does not return to it until he has developed new weapons against Plato and against the Pythagoreans: these are a criterion for what counts and does not count as a substance (provided in *Metaphysics* Z.13-16) and the definition of unity in terms of indivisibility (formulated in I.1). On this basis, Aristotle claims not only that the one is not itself a substance, but also that it is not the substance of anything, thus depriving unity of the prominence it had enjoyed in previous metaphysical theories. Accordingly, the chapter ends by shedding new light on Aristotle's own account of the one and on the so-called convertibility of ‘one’ and ‘being’.

Overall, this dissertation offers a comprehensive reconstruction of the most pressing of the *aporiai* formulated in Aristotle's *Metaphysics*. It clarifies why Aristotle is interested in being and the one in the first place and how he works through this metaphysical dilemma to put forward his solution. It has the following three main results. First, it demonstrates that Aristotle's dialectic cannot be regarded as monolithic but needs to be explored on a case-by-case basis. Second, it re-evaluates Aristotle's engagement with his predecessors, placing particular emphasis on his debt to the Eleatics. Third, it has ramifications for our general

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34 Although Beta defines as extremely hard more than one difficulty (cf. *Met.*, 999a24-25 and 1000a5), I shall clarify the singularity of the eleventh *aporia* in 2.2.1.
interpretation of the *Metaphysics* as a single work, in that it presents an argument which tells in favour of a unitarian reading of Aristotle's *magnum opus*. 
1. Aristotle Against Eleatic Monism

Introduction

In the opening book of the *Metaphysics*, Aristotle presents the doctrines of his predecessors and engages in a dialectical confrontation with them. Within this discussion, the Eleatics receive a special treatment on account of their peculiar monistic claim, according to which there is only one being and nothing else is. Although these theories are not the main focus of the eleventh *aporia*, we shall see that Aristotle's rejection of Eleatic monism lies at the core of this metaphysical dilemma. Thus, the aim of this chapter is to analyse the way in which Aristotle criticises Melissus' and Parmenides' theses and how this criticism is an important preliminary to his own engagement with the question of the relationship between being and the one. In particular, in *Metaphysics* A, Aristotle refers his readers to the refutation of Eleaticism that he has set out in the first book of the *Physics*. These two books will thus constitute the focus of the present chapter, which is divided into five sections.

In sections 1-4, I shall start by defining the kind of monism that Aristotle ascribes to the Eleatics, which can be appreciated when compared with alternative ways of postulating one single principle of being. I shall then move on to some considerations concerning the place that a discussion of Eleatic monism should occupy within Aristotle's own investigation into principles. This will then allow me to tackle his confrontation with the Eleatics in *Physics* 1.2-3. In particular, I shall try to make sense of Aristotle's arguments by evaluating his debt to the refutation of Parmenides' monistic claims presented in Plato's *Sophist*. This first part of the analysis will enable me to build the background for a thorough examination of Aristotle's discussion of Eleaticism in *Metaphysics* A.

In section 5, I therefore explore the counterpart of Aristotle's treatment of the Eleatics in the *Metaphysics*, illustrating his discussion of Melissus and Parmenides within his broader
treatment of monism. Finally, I develop a comparison between *Metaphysics* A.3-5 and *Physics* 1.2-3 in order to evaluate how their respective discussions of Eleaticism fit with each other and to draw some more general conclusions about the nature and purpose of Aristotle's confrontation with Eleatic monism. This comparison will involve some considerations regarding Aristotle's use of dialectic and, more importantly, how a confrontation with Eleaticism is meant to contribute to his inquiry into principles.

1.1. Parmenidean monism

In the first book of the *Physics*, Aristotle undertakes an inquiry into the number and character of the principles of nature. After outlining the scope and method of the book, *Physics* 1.2 starts off with a crisp division of the possible number and characteristics of first principles. They must necessarily either be (a) one or (b) more than one. If there is only one principle, then it can either be (a.1) unchangeable or (a.2) changeable. If, on the contrary, there are many, they can either be (b.1) limited in number or (b.2) unlimited. Finally, if they are finite in number, they can be two, three, four or more, while, if they are infinite, they can be one in kind but different in form or also opposites.\(^3^5\)

Philoponous emphasises that Aristotle's division is at once scientific and lucid: it is ἐπιστημονική because it is based on contradiction (ἀντίφασις), which leaves no escape; ἐναργής, because it is based on common knowledge (Philop., *In Phys.*, 20.22-21.1). However, it is worth noting that Aristotle does not consider the case of multiple unchanging principles, for he seems to assume that only in case (a) can the one principle be seen as either changeable or unchangeable. According to Simplicius' report, Alexander justifies the neglected item by emphasising that, since Aristotle demonstrates that, if one posits a single principle, this cannot be unchangeable, a fortiori many principles cannot be unchangeable either (42.20-22). Although this line of thought may clarify why Aristotle would not be interested in this option, it does not justify why he does not list it as an option at all. Simplicius' own (somewhat puzzling) explanation is that principles must have something in common (κοινωνεῖν) in order to function as such, so, if one posits multiple principles, they cannot possibly be unchangeable. This is why (he thinks) this tenet has no exponent among the first philosophers and does not therefore appear in Aristotle's list (42.7-10). The thought behind Simplicius' explanation may be that, if principles are many, they must interact and, by acting on each other, they are not at rest; however, such a train of thought can hardly be Aristotelian. Finally, while Averroes limits himself to supposing that either none of Aristotle's predecessors had posited multiple principles ‘at rest’ (quiescentia) or—simply enough—Aristotle
The discussion of the position of the Eleatics is set up within this framework. Specifically, (a.1) is the position attributed to Parmenides and Melissus, whose tenets will be analysed in detail in the rest of *Physics* 1.2 and in 1.3. In contrast, (a.2) is attributed to a group of philosophers generally referred to as the physicists (οἱ φυσικοί) and whose doctrines will be dealt with only in *Physics* 1.4. The opposition between the Eleatics and the physicists suggests that we should not regard the former as properly concerned with physical problems. This is confirmed immediately in the text, when Aristotle points out that the discussion of the Eleatic theses does not belong to physics.\(^{36}\) In fact, by denying any form of change whatsoever, the Eleatics preclude the possibility of talking about principles, let alone of physical principles.\(^{37}\) On the other hand, this opposition is applied within different kinds of monism, so what Parmenides and Melissus are propounding is an extreme form of it. Against this background, 1.2-3 constitutes Aristotle’s expanded discussion of what can be referred to as strict monism.\(^{38}\)

With respect to the attribution of this label, scholars have expressed contrasting opinions: in particular, it is debated whether and to what extent it does justice to Parmenides’ doctrine.\(^{39}\) A more important question for our purposes, though, is whether Aristotle really interpreted Parmenides as a strict monist. As John Palmer points out, there are at least two reasons for believing that he ultimately did not. First, Aristotle emphasises a difference between the two exponents of Eleatic monism, describing Parmenides as a more

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\(^{36}\) *Phys.*, 18a25ff. I shall dwell on this point in the next section.

\(^{37}\) Throughout this thesis I shall limit myself to reconstructing Aristotle’s general worry with the consequences of strict monism, leaving aside what led Parmenides himself to reject change.

\(^{38}\) Strict monism has been recently defined in terms of entity monism (there is just one entity) and essence monism (reality is all of the same essence): Clarke 2019, 4–5.

\(^{39}\) For a detailed account of the different interpretations of Parmenides, ancient as well as modern, see Palmer 2009, 1–45.
sophisticated thinker than Melissus. This gives room for ascribing strict monism only to Melissus, i.e. a monism in which only one continuous and indivisible extension is posited. Second, Aristotle's comment on Parmenides' theory in *Metaphysics* A.5 speaks in favour of an interpretation whereby Parmenides posited a single substance (or kind of substance), yet allowed for a plurality of phenomenal qualities. In the first book of the *Physics* itself, Aristotle mentions Parmenides among the thinkers who posited the opposites as principles—thus allowing for a pluralism of some sort. How are we to account for these conflicting representations of Parmenides' thought? In order to discuss this issue, it is useful to sketch an overview of the places in which Aristotle mentions Parmenides, as displayed in the following table:

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<th>Παρμενίδης</th>
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<td><em>De cael.</em></td>
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<td>298b17 (3.4)</td>
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<td><em>De gen. et corr.</em></td>
<td>318b6 (1.3)</td>
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<td>330b14 (2.3)</td>
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<td><em>Metaph.</em></td>
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<td>984b3 (A.3)</td>
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<td>984b25 (A.3)</td>
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<td>1001a32 (B.4)</td>
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<td>1089a3 (N.2)</td>
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<td><em>De part. anim.</em></td>
<td>648a29 (2.2)</td>
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<td><em>Phys.</em></td>
<td>184b16 (1.2)</td>
<td>185a9 (1.2)</td>
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<td>185b18 (1.2)</td>
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<td>186a32 (1.3)</td>
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<td>192a1 (1.9)</td>
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<td>207a15 (3.6)</td>
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<td><em>Soph. el.</em></td>
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<td>182b26 (ch. 33)</td>
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The hypothesis that Aristotle might have changed his mind after writing *Physics* 1.1 is not satisfactory. Although we might imagine that the quick remark in chapter 5 is a later addition, other passages from works commonly considered to be at least as early as the *Physics* speak of opposite principles in Parmenides' thought. In particular, in *The Parts of Animals*, Aristotle attributes to Parmenides the view that women are hotter than men—which suggests that Parmenides spoke of hot and cold as principles. On the other hand, in the two different places of his *On Generation and Corruption*, Aristotle affirms that Parmenides spoke of fire and earth in terms of respectively being and not being, while positing air and water as mixtures of fire and earth (hence, supposedly of being and not being, too). This passage is particularly telling when compared with the lines of *Metaphysics* A.5 where Aristotle devotes a particular attention to Parmenides.

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\textit{Met.}, 986b25-987a2

οὗτοι μὲν οὖν, καθάπερ εἶπομεν, ἀφετέοι \[πρὸς τὴν νῦν ζήτησιν, οἱ μὲν δύο καὶ πάμπαν ώς ὄντες μικρὸν ἀγροικότεροι, Ξενοφάνης καὶ Μέλισσος· Παρμενίδης δὲ μᾶ•ον βλέπων ἑοικε που λέγειν παρὰ γάρ τὸ ἐν τῷ μὴ ὅν εὐθέν ἄξιον εἶναι, ὥς ἀνάγκης ἐν οἷον εἶναι, τὸ ἐν, καὶ ἄλλα σύνεν (περὶ σαφέστερον ἐν τοῖς περὶ φύσεως εἰρήκαροι), ἀναγκαζόμενος δὲ ἀκολουθεῖν τῷ σαφεστέρου ἐν τοῖς περὶ φύσεως εἰρήκαροι, ἀναγκαζόμενος δὲ ἀκολουθεῖν τῷ σαφεστέρου ἐν τοῖς περὶ φύσεως εἰρήκαροι, ἀναγκαζόμενος δὲ ἀκολουθεῖν τῷ σαφεστέρου ἐν τοῖς περὶ φύσεως εἰρήκαροι, ἀναγκαζόμενος δὲ ἀκολουθεῖν τῷ σαφεστέρου ἐν τοῖς περὶ φύσεως εἰρήκαροι, ἀναγκαζόμενος δὲ ἀκολουθεῖν τῷ σαφεστέρου ἐν τοῖς περὶ φύσεως εἰρήκα

Now these thinkers, as we said, must be set aside for the purposes of the present inquiry—two of them altogether, since they are a bit too crude, Xenophanes and Melissus; but Parmenides seems perhaps to speak with more insight. For by claiming that besides being there is no such thing as not being, he necessarily thinks that being is one, and that there is nothing else (on this topic we have spoken more clearly in our writings on nature). But finding himself forced to go along with things as they evidently are, he makes the hypothesis that there is one thing in reason but a plurality in sensation, and posits after all two causes and two principles, hot and cold, that is by speaking of fire and earth; and of these he ranges the one with being, the other with not being.

\footnote{41 This suggestion is found in Mansfeld 1986, 15.}
This passage plays a key role in understanding Aristotle's confrontation with the Eleatics. For the time being, I confine myself to drawing attention to the terms in which Parmenides' theories are presented. Aristotle not only describes him as more insightful than Melissus, but also attributes to him two principles after classifying him as a monist. To solve this contrast, Palmer draws attention to the fact that Aristotle reports a Parmenidean distinction between unity in account and multiplicity in perception, which implies the view that Parmenides did not deny all kinds of plurality. In the light of his own understanding of the claim that what is is one, Parmenides was hence portrayed by Aristotle as an advocate of a more 'generous' monism: what is is one because (1) everything that is is substance and because (2) the account of everything is identical. Such a theory is compatible with a plurality in perception and can be labelled as 'aspectual interpretation' in that it recognises two Parmenidean perspectives on one and the same thing (i.e. τὸ ὄν).

Although this suggestion is grounded in some textual evidence, I think this evidence yields less than is hoped. First of all, even if Aristotle undoubtedly acknowledges a difference between Melissus and Parmenides, he does group them in the same class of thinkers, i.e. those who posit one unchangeable being. In Physics 1.2, it is therefore difficult to claim that Aristotle views Parmenides as a 'generous' monist. As for Metaphysics A.5, its reference back to the Physics implies not only that the two texts present compatible accounts of Parmenides' thought, but also that Aristotle confirms the analysis he has provided in the Physics. As a result, if what he claims in the Physics is that Parmenides is a strict monist, we must expect him to hold the same view in the Metaphysics passage. As we shall see, even though—to use Aristotle's metaphor—Parmenides saw further (μᾶς βλέπων, Met., 986b28) than his fellow Eleatics, he could not yet see (οὔπω συνεώρα, Phys., 186a32) that there are different (kinds of) beings, and not only one.

In our passage from A.5, Parmenides is introduced as a supporter of the view that there is only one thing, so his distinctiveness still falls within the boundaries of strict monism. Aristotle even emphasises the grounds for such a tenet, namely, the claim that only being is. Because of this assumption, Parmenides necessarily (ἐξ ἀνάγκης) commits himself to the

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43 At 986b17 he says that these thinkers said that being is unchangeable (unlike 'the physicists'): σὺτοι δὲ ἀκίνητον εἶναι φασίν.
thesis that being is one. However, Aristotle also emphasises that Parmenides was obliged to posit some principles of change in order to follow appearances (τοίς φαινομένοις). In the text, this constraint (marked by the participle ἀναγκαζόμενος) is on a par with that of accepting the consequence of postulating that only being is and that not-being is not (marked by the phrase ἐξ ἀνάγκης). In other words, on this reading, Parmenides’ view on being and not-being necessarily commits him to his extreme form of monism, which is expressed by the claim that there is only one being. On the other hand, he is also forced to come to terms with τὰ φαινόμενα and hence account for our experiencing change through sense perception. However, he acknowledges this, as it were, because of an external compulsion and despite his denial of multiplicity. To phrase it in terms of the Alētheia/Doxa distinction, we can thus agree with Clarke’s reconstruction of Aristotle’s take on the relationship between the two parts of Parmenides’ poem. For Aristotle, Parmenides’ official theory seems confined to the Alētheia. In connection with this, it should be noted that to express the contrast between unity and multiplicity, Aristotle ascribes to Parmenides a distinction between unity κατὰ τὸν λόγον and multiplicity κατὰ τὴν αἴσθησιν. On the grounds of this attribution, Asclepius interprets this passage as suggesting that Parmenides had an intuition of what Aristotle will call the formal cause—which corresponds to the definition (λόγος) of being. Although this view is undermined by the very fact that Aristotle explicitly attributes the discovery of the formal cause to the Pythagoreans and not to Parmenides, this point raises an important problem for our discussion: what is the force of λόγος in the expression ἓν κατὰ τὸν λόγον?

It might be tempting to follow Asclepius in viewing Aristotle as being content with this distinction. However, a parallel description of monism in the first book of the Physics tells against this possibility:

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44 Thus, I diverge from Schofield’s translation in taking ἐξ ἀνάγκης to depend on οἴεται and not on εἶναι.
46 Clarke 2019, 41–47.
48 Met., 987a20.
μέχρι μὲν οὖν ἐπὶ τοσοῦτον σχεδὸν συνηκολουθήκασι καὶ τῶν ἄλλων οἱ πλεῖστοι, καθάπερ εἶπομεν πρότερον πάντες γὰρ τὰ στοιχεῖα καὶ τὰς ὑπ’ αὐτῶν καλουμένας ἀρχάς, κατείχαν εἰς γόνου τιθέντες, ὡμως τάναντι λέγοντες ὥσπερ ἡ ἀληθεία ἀναγκασθέντες, διαφέρουσι δ’ ἄλληλων τῷ τοὺς μὲν πρότερα τοὺς δ’ ὕστερα λαμβάνειν, καὶ τοὺς μὲν γνωριμώτερα κατὰ τὸν λόγον τοὺς δὲ κατὰ τὴν αἴσθησιν (οἱ μὲν γὰρ θερμὸν καὶ ψυχρόν, οἱ δ’ ὑγρὸν καὶ ξηρὸν, ἕτεροι δὲ περιττὸν καὶ ἄρτιον ή νεῖκος καὶ φιλίαν αἰτίας τίθενται τῆς γενέσεως· ταῦτα δ’ ἄλληλων διαφέρει κατὰ τὸν εἰρημένον τρόπον (...) So far most thinkers are prepared to go along with us, as I said above. For they all represent their elements and what they call their principles as opposites, even if they give no reason for doing so, as though the truth itself were forcing them on. They differ among themselves in that some take pairs which are prior and some take pairs which are posterior, and some choose pairs which are more readily known by reason, and some choose pairs which are more readily known by perception: for some put forward hot and cold as the causes of coming to be, and others wet and dry, and others odd and even or strife and love, and these differ in the manner just stated.

This passage is important for two reasons: first, it helps us to understand how much emphasis we can place on Parmenides' alleged distinction κατὰ τὸν λόγον/κατὰ τὴν αἴσθησιν; second, it provides some important hints as to the search for truth (ἀλήθεια) more generally. Regarding the first point, it should be noted that the two passages we are taking into consideration both deal with the principle of movement. In the context of Physics 1, Aristotle is drawing our attention to the fact that all thinkers who attempted to explain change introduced some opposite principles. On the other hand, in Metaphysics A.5, the Eleatics are mentioned after Aristotle has outlined the Pythagorean table of opposites. What we find in Physics 1.5 is a clarification of his predecessors' attitude towards these principles: in Aristotle's view, their disagreement over what the opposites are depends on the different criteria by which their principles can be known. The key expression here is γνωριμώτερα κατὰ τὸν λόγον, as opposed to γνωριμώτερα κατὰ τὴν αἴσθησιν. These terms seem to describe through which faculty opposites are (taken to be) known; considering, in particular, that λόγος is contrasted with αἴσθησις, they should most likely be understood as respectively 'reason' and 'perception'. Although in the Metaphysics passage Aristotle is not explicitly relating the expression κατὰ τὸν λόγον to γνωριμώτερα, the object of reference seems to be the
same. In fact, in the *Physics* passage, it is reasonable to assume that thinkers who posited principles ‘more knowable according to perception’ posited hot and cold, which are the very same principles attributed to Parmenides both at the beginning of 1.5 and in *Metaphysics* A.5. Accordingly, we should conclude that the kind of unity Parmenides postulated is a unity according to reason, which contrasts with the phenomenal plurality experienced through sense perception. Although the more specific meaning of ‘definition’ is still compatible with this reconstruction, it is more likely that in this instance λόγος carries the broader meaning of ‘reason’.

The mention of necessity is prominent in the passage from the *Physics*, too. In fact, although—in Aristotle’s opinion—all predecessors failed to analyse φύσις correctly, they still somehow contributed to this research. In both passages Aristotle refers to a constraint that forced the Eleatics (in the case of the *Metaphysics*) or some other predecessors (in the passage from the *Physics*) to proceed in the right direction. In the *Physics*, however, the terms in which Aristotle describes his predecessors can shed light on his overall study of earlier thinkers. In fact, while trying to show that all his predecessors posited the opposites as principles, he not only accuses them of not accounting for their principles (ἄνευ λόγου τιθέντες), but he also says that, notwithstanding, they nonetheless contributed to our investigation, as if compelled by truth itself (ὥσπερ ὑπ’ αὐτῆς τῆς ἀληθείας ἀναγκασθέντες). Even if truth is not mentioned in the *Metaphysics* passage and although the assertion in the *Physics* is qualified by a ὥσπερ, the very starting point of the investigation that Aristotle undertakes in the *Metaphysics* seems to be grounded in the attempt to inherit the fruit of previous philosophical activity precisely to progress on the path that leads to truth. Before turning to that investigation, I shall clarify my reconstruction of Aristotle’s interpretation of Parmenides.

There is a further point that can corroborate this interpretation. In the final lines of the passage quoted above, Aristotle associates being and not being with hot and cold respectively. This attribution plays an important role in our reconstruction of Aristotle’s reading of Parmenides’ philosophy. In fact, if he thinks that Parmenides exclusively posited being (τὸ ὄν), these lines cannot possibly be referring to one and the same doctrine, because they would introduce not being (τὸ μὴ ὄν). Accordingly, we should either suppose that
Parmenides is intentionally conflating two contrasting perspectives or we must take them as incompatible in such a way that only one can truly be attributed to him. In other words, the contradiction between Parmenides' strict monism on the one hand and his 'generous' monism on the other can be explained by ascribing a contradiction either to Aristotle or to Parmenides himself (seen through Aristotle's eyes). I propose that the latter is the case. Hence, if my reconstruction of Aristotle's reading of Parmenides' philosophy is correct, then Aristotle here is not only pointing at an undesired consequence of Parmenides' theories, but is also providing us with a proof that we cannot attribute to him an aspectual interpretation of Parmenides. In fact, by itself, the aspectual reading is compatible with some degree of plurality, provided that the Way of Truth and that of Belief are two descriptions of one and the same entity. However, Aristotle explicitly presents the two parts of Parmenides' philosophy as incompatible. In other words, Palmer's 'aspectual reading' ultimately requires both perspectives on the one being to be legitimate descriptions of it. However, what can be inferred from my reconstruction is rather that, on Aristotle's reading, Parmenides maintains that there is only one thing, although he must concede, despite himself, that we perceive a plurality of objects. Furthermore, as will become clear in the next section, Aristotle firmly believes that Eleaticism can be traced back to the claim that there is only one thing and is equally clear that it does not deal with nature except 'by accident'. Accordingly, contrary to Palmer's suggestion, two basic theses of the traditional interpretation of Parmenides seem to be espoused by Aristotle: Parmenides was a proponent of strict monism and believed that the world of our ordinary experience is but an illusion.

The last passage in which Parmenides is mentioned (alongside Melissus) that is worth quoting is found in the De Caelo. Here not only does Aristotle confirm the reading defended above, but he also introduces the next point that will need to be considered. In chapter 3, before turning to his analysis of the sublunar elements, he mentions that some of his predecessors denied the existence of generation:

49 The ancient Greek commentators noticed a potential clash within Aristotle's presentation of Parmenides' doctrines. They substantially agree in regarding Parmenides' two ways to imply that, while dealing with plurality in the Way of Belief, only in the Way of Truth did he treat what really is (i.e. τὸ νοητὸν ὄν, τὸ ὄντως ὄν, τὸ κυρίως ὄν in Alexander; τὸ ὄντως ὄν in Simplicius; τὰ ὄντως ὄντα in Philoponus).

50 These correspond to (T1) and (T2) in Palmer's summary of Guthrie's interpretation, see Palmer 2009, 17.
Some of them flatly denied generation and destruction, maintaining that nothing which is either comes into being or perishes; it only seems to us as if they do. Such were the followers of Melissus and Parmenides. Of them we must hold that, though some of what they say may be right, yet they do not speak as students of nature, since the existence of certain substances subject neither to generation nor to any other kind of motion is not a matter for natural science but rather for another and higher study. They, however, being unaware of the existence of anything beyond the substance of sensible objects, and perceiving for the first time that unchangeable entities were demanded if knowledge and wisdom were to be possible, naturally transferred to sensible objects the description of the higher.

In this passage Aristotle clearly ascribes to the Eleatics a denial of change (in particular, of generation and corruption), which only appears to us as real (μόνον δοκεῖν ἡμῖν). Moreover, as remarked by Palmer, he seems to be propounding a substantial interpretation of Parmenides' (and Melissus') thought, according to which the Eleatics, while studying being, were, unawares, describing what he would call οὐσία. More importantly, Aristotle assigns the study of the Eleatic doctrines not to physics, but to a different investigation or to one prior to physics. With respect to this point, I would like to emphasise that the terms in which Aristotle describes the particular form of monism propounded by the Eleatics has to do with the lack of any form of change whatsoever. As such, I prefer to call their doctrine change-free monism. The advantage of such a label is that it focuses on the very obstacle which, in

51 Alexander seems to go in this very direction when he glosses Parmenides' true being as the principle and cause of all things that are in whatsoever way (ὅπερ ἀρχή καὶ αἰτία πάντων τῶν ὑποστηθητῶν ὄντων ἐστι, 45,32). In so doing, he also construes Parmenides' philosophy as an inquiry into causes, which is not a position shared by all commentators.
Aristotle's opinion, undermines any physical investigation. This point will become pivotal in the next section.

1.2. An inquiry that does not belong to physics

In *Physics* 1.1, Aristotle had pointed out that knowledge of anything involves knowledge of its first principles. In accordance with this tenet, his inquiry will provide a causal explanation of change. By contrast, not all the physical investigations of his predecessors can legitimately be considered to be causal. In particular, Eleaticism undermines the very foundation of any inquiry into principles. As such, Aristotle's critique requires a preliminary discussion:

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<td>τὸ μὲν οὖν εἰ ἑν καὶ ἀκίνητον τὸ ἐν σκοπεῖν ου̣ περὶ φύσεως ἐστὶ σκοπεῖν:</td>
<td>Now, to investigate whether what is is one and unchanging is not to investigate into nature. For, just as</td>
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<td>ὦστερ γὰρ καὶ τῷ γεωμέτρῃ σκόπετι λόγος ἐστι πρὸς τὸν ἀνελόντα τὰς ἀρχὰς, ἀλλ' ἦτοι ἐτέρας ἐπιστήμης ἢ πασῶν κοινῆς, οὕτως οὐ̣δὲ τῷ περὶ ἀρχῶν· οὐ̣ γὰρ ἐστὶν ἐρίζειν, ἐν μόνον καὶ οὕτως ἐν ἐστιν, ἡ γὰρ ἀρχὴ τινὸς ἢ τινῶν.</td>
<td>for the geometer too there is no longer any argument to give against an opponent who destroys the principles, but this is instead something either for another science or for one common to all, so too for the person [investigating] principles. For there is no longer any principle if it is only one, and one in this way; for a principle is a principle of some thing or things.</td>
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<td>ἐμοιον δὴ τὸ σκοπεῖν εἰ οὕτως ἐν καὶ πρὸς ἀλλὴν θέσιν ὑποσκοπουσι διαλέγεσθαι τῶν λόγων ἔννεκα λεγομένων (οἷον τὴν Ἦρακλείτειον, ἢ εἶ τις φαίη ἄνθρωπον ἕνα τὸ ἐν ἐναί), ἢ λύειν λόγων ἐριστικον, ἢ ἀμφότεροι μὲν μὴ ἔχουσιν εἰ λόγοι, καὶ οὗτοι λόγοι δὲ τῷ Μελίσσου καὶ τῷ Παρμενίδου· καὶ γὰρ ὑπεύθυνα ηλαμβάνουσι καὶ ἀσυλλογιστοὶ εἰσὶν μᾶλλον δ' ὁ Μελίσσου, ἢ Παρμενίδου καὶ γὰρ σὺ ἕχων ἀποφάσιν, ἢ λέγως ἄτοπου ἔστι τὸ κατὰ λογισμὸν διάκρισιν νοημον.</td>
<td>So, to investigate whether it is one in this way is like arguing dialectically against any other thesis put forward for the sake of argument (like the Heraclitean thesis, or if someone should say that what is is one human being), or like solving eristical arguments which is just what both arguments contain, both Melissus' and Parmenides'. For they assume falsehoods, and are not deductive. Or rather, the argument of Melissus is crude and contains no difficulty—grant</td>
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</table>

I shall be using 'principles' and 'causes' as roughly interchangeable; cf. *Met.*, 1013a16–20.
In the initial lines of this passage we find what could be regarded as a general argument against change-free monism. Since any principle, as such, needs a thing of which it is a principle, positing a principle implies positing at least two beings. If the only thing there is is the one being of the strict monist, then there will be no principle of this one thing, because the principle would be a second thing. As a consequence, change-free monism is untenable as an account of principles from the very outset, for any account of principles must admit of some form of plurality. However, the paragraph seems to have a more specific purpose, that is, to explain why Eleatic monism does not fall within the boundaries of physical inquiry. In fact, as other sciences, physics starts from principles which are specific to it. Because of the general argument against change-free monism, the being posited by the Eleatics cannot function as a principle—for, if it did, it would be the principle of nothing at all. Moreover, the Eleatic one being is described as unchanging, which contrasts with the basic assumption that physics deals with being insofar as it undergoes change (cf. ἡμὲν δ᾽ ὑποκείσθω τὰ φύσει ἢ πάντα ἢ ἑνὶ κινούμενοι εἶναι). As such, inquiring whether there is one unchangeable being exceeds the domain of physics.
This point has three fundamental consequences. With regard to Aristotle's interpretation of Parmenides, it is again clear that his monism is considered to be change-free. If this were not the case, then Aristotle could not formulate his argument in the terms in which he does, but should at least qualify it or limit its relevance to the case of Melissus. Since, however, he does not, we are entitled to assume that he thinks Parmenides' theory is such that it is undermined by his argument.

The second consequence we can draw is pinpointed by Averroes in his Long Commentary, of which a Latin translation is extant. There, Averroes explains that Melissus and Parmenides did not say that there is one unchangeable principle (principium esse unum immobile), but rather one unchangeable being (ens unum immobile). Averroes sharply distinguishes between those thinkers who use the term ‘being’ instead of ‘principle’ (utuntur hoc nomine ens pro principio, i.e. they speak about being but really describe a principle) and those who, on the contrary, use the term ‘being’ to signify being itself (utuntur hoc nomine ens pro ipso ente, i.e. they speak about and refer to being). So, what Aristotle claims is that only discussion of the former has a place within natural investigation. In view of this, when Averroes comments on Aristotle's general argument against change-free monism, he adds an implicit premise, namely, that we should imagine that Parmenides and Melissus use the term ‘being’ to mean ‘principle’ (si imaginati fuerimus quod Parmenides et Melissus utuntur hoc nomine ens pro principio, p. 8). Although we do not need to go as far as to understand ὄν as literally meaning ‘principle’, this way of presenting the matter clarifies an important step in the exposition of Eleatic monism. In fact, at 184b22-25, Aristotle had observed that ‘all those who inquire into the number of beings (τὰ ὄντα ζητοῦντες πόσα) inquire in a similar fashion’ to those who inquire into the number of principles or elements. In the light of the present argument, Averroes' distinction makes it explicit that this passage is fundamental for justifying the inclusion of the Eleatics in Aristotle's initial list, although they do not inquire explicitly into principles, but study being as such.

53 This point was also made by Philoponus and Simplicius, who however do not develop it into a twofold classification.

54 Crubellier 2019, 58 remarks a parallel passage at Soph., 242b–250d. The Platonic dialogue will play a fundamental role in section 1.3.
In connection with this, the third and fundamental consequence of Aristotle’s general argument is that discussing Eleaticism is not the business of physics, but belongs to either another science or one common to all sciences. This is explained by means of an analogy with geometry. As refusing to accept its principles prevents the geometer from applying his or her knowledge, so too, if we deny change, we can undertake no physical inquiry. Aristotle defines this denial on the part of Parmenides and Melissus as eristic and contrasts their form of sophistry with his own assumption that things by nature (τὰ φύσει) are changeable. Immediately afterwards, he repeats the analogy with geometry so as to confirm that this part of the inquiry into principles does not pertain to natural science. Crucially, though, he also says that, in their inquiries into being, Parmenides and Melissus happen to raise some natural puzzles, which renders the discussion of their position of some philosophical interest (ἔχει γὰρ φιλοσοφίαν).

But what, then, is the science appropriate to dealing with the Eleatic claims? The ancient commentators have interpreted the disjunctive phrase ἦτοι ἑτέρας ἐπιστήμης ή πασῶν κοινῆς in different ways. In his paraphrase, Themistius reads the phrase in question in a sort of progressive order: if there is a science prior to physics, then physics will take its principles from it; otherwise, it will use ‘the procedure common to all the arts that is rooted through reputable opinions’ (τῇ κοινῇ πασῶν τῶν τεχνῶν μεθόδῳ τῇ δι᾽ ἐνδόξων). Either way—he concludes—Aristotle is not going to proceed as a physicist, but ‘as a dialectician or as a philosopher’. The problem with this view is highlighted by Ross, who reminds us that Aristotle does not consider dialectic to be a science. Upon closer inspection, though, Themistius’ text is open to an alternative interpretation, whereby the discussion of such eristic claims must be led by the philosopher, who will be using dialectic as his or her

55 Note that it can hardly be by chance that Aristotle criticises Melissus’ argument for strict monism in the Sophistical Refutations, see SE, 167b13–20; 168b35–40; 181a27–30.
56 It is not clear whether Aristotle is referring to the fact that dealing with these theories can contribute to our study of nature via negativa or whether he has in mind a more precise way in which the Eleatics made some positive contribution. On this point see Clarke 2019, 17–8.
57 The particle τοι seems to emphasise the force of the disjunction. See Denniston 1966/1934, 553. (7).
58 Them., In Phys., 108.16-109.1. Here the disjunction can either be intended as exclusive or inclusive.
59 Ross 1979, 461.
method. Note that, on this reading, Aristotle's discussion of monism is at once dialectical and metaphysical. If this is correct, Themistius seems to agree with Alexander, in whose view Aristotle is going to speak not as a physicist, but as a philosopher—he then indicates dialectic as the method that the philosopher is supposed to adopt. Contrary to this line of interpretation, Simplicius and Philoponus merge Platonic dialectic and Aristotelian first philosophy. They assert that the science which is supposed to demonstrate the principles of all others is hence what Plato would call ‘dialectic’, i.e. what Aristotle calls ‘first philosophy’. Philoponus even seems to conflate ‘first and unhypothetical philosophy' with Aristotelian dialectic, as, in his view, both of them demonstrate the principles of all sciences.

The main divergence between these groups of thinkers ultimately seems to be based on different views of dialectic. On Alexander's and (possibly) Themistius' interpretations, dialectic is not regarded as a science, but as a method of inquiry. As a result, the choice with which we are faced is between a science superior to physics or a science common to all. In other words, Themistius and Alexander take it that Aristotle is referring to only two sciences, i.e. 'another science' and the one ‘common to all'. While dialectic is not a viable option seeing as it lacks its proper object of inquiry, first philosophy seems to comply with both criteria. This could explain why Alexander immediately identifies the science that should deal with the Eleatic theories as first philosophy. On the other hand, the Platonic commentators consider dialectic to be a good candidate for this purpose alongside first philosophy. They assume that the sciences at stake are three, i.e. the 'other science' and two disciplines that can be described as πασῶν κοιναί (i.e. dialectic and first philosophy). As a consequence, they conflate either Platonic dialectic and Aristotelian first philosophy or, as in Philoponus’ case, Aristotle's dialectic and metaphysics. This conflation is also found in Averroes' and Aquinas' commentaries, where the scientia communis is opposed to other particular sciences and said to be respectively 'first philosophy or dialectic (primam philosophiam aut artem disputandi)' and 'logic or metaphysics (logicam vel metaphysicam)'. In fact, Averroes then maintains that Parmenides’ and Melissus’ theses are to be discussed dialectically (disputative), for, even if speaking with them (loqui cum eis) is not the task of the natural philosopher, it is indeed the task of the first philosopher. In this interpretation he is followed by Aquinas, who points out
that no other science is required to argue against opinions that are overtly false and improbable (opiniones manifeste falsas et improbabiles).

In order to evaluate these construals, a passage from the Sophistical Refutations is particularly helpful:

\[
\text{SE, 171b34-172a9} \quad \text{(trans. Forster 1955)}
\]

That contentious arguer bears much the same relation to the dialectician as the drawer of false geometrical figures bears to the geometrician; for he reasons falsely on the same basis as the dialectician, while the drawer of false figures argues on the same basis as the true geometrician. But the latter is not a contentious reasoner, because he constructs his false figure on the principles and conclusions which come under the art of geometry, whereas the former, arguing on principles which come under dialectic, will clearly be contentious on the other subjects. For example, the squaring of the circle by means of lunules is not contentious, whereas Bryson's method is contentious. It is impossible to transfer the former outside the sphere of geometry because it is based on principles which are peculiar to geometry, whereas the latter can be used against many disputants, namely, all those who do not know what is possible and what impossible in any particular case; for it will always be applicable. And the same is true of the way in which Antiphon used to square the circle. Or, again, if someone were to deny that it is better to take a walk after dinner because of Zeno's argument; for it is of a general application.

In the lines immediately preceding this passage, Aristotle had differentiated eristic from sophistry in view of the different goals they aim to achieve, i.e. respectively victory over one's adversary and semblance of knowledge. In the lines quoted, he mentions Antiphon's squaring of the circle—alongside Bryson's—and draws an analogy with geometry as in
Physics 1.2. The first reason this passage is relevant to our discussion of the Physics is that it helps us to understand the force of ἐριστικός, which Aristotle predicates of the Eleatics. To this end, it is useful to draw a comparison between the two analogies. In the Sophistical Refutations, the relation that eristic talk bears to dialectic is the same as the one a drawer of false geometrical figures bears to a geometer. Crucially, though, Aristotle points out that a drawer of false geometrical figures is not eristic, because he or she makes use of principles and consequences that fall within the art (ὑπὸ τὴν τέχνην). By contrast, it is eristic to discuss problems specific to a particular science or discipline without using the principles of that science or discipline. To clarify, dialectic can surely start from the endoxa of a particular science; however, it discusses those endoxa by using very general principles which apply to any discipline. If we take a look at the Physics again, in 1.2 the analogy involved the following four terms: as rejecting a demonstration that does not start from geometrical premises is not the business of the geometer, so a demonstration that does not accept the principles of physics should not be rejected by the physicist. Now, in the light of the parallel passage above, if Melissus' and Parmenides' claims are eristic, we can infer an additional point of the argument. Indeed, the comparison seems to confirm that such theses ought to be dealt with dialectically. But there is a further point that emerges from the Sophistical Refutations. Aristotle emphasises at once that dialectic is a very general τέχνη and that, because it concerns no particular genus, it cannot serve the purpose of demonstrating the nature of something. This implies that there is a fundamental difference between dialectic and geometry, which is worth stressing. A few lines after the previous quotation, Aristotle says:

60 Melissus' theses are defined as paradoxical also at Top., 104b22.

61 Dialectic, like rhetoric, remains at a very general level and never resorts to the principles of some specific science. Cf. Rhet. 1.2, 1355b25-34, where Aristotle specifies that, if one hits on the principles of some particular science, the argument is not rhetorical or dialectical anymore.
Dialectic is at the same time an art of examination; for neither is the art of examination of the same nature as geometry but it is an art which a man could possess even without any scientific knowledge, if the latter makes concessions based not on what he knows nor on the special principles of the subject but on the consequential facts, which are such that, though to know them does not prevent him from being ignorant of the art in question, yet not to know them necessarily involves ignorance of it. Clearly, therefore, the art of examination is not knowledge of any definite subject, and it therefore follows that it deals with every subject; for all the arts employ also certain common principles. Accordingly, everyone, including the unscientific, makes some kind of use of dialectic and the art of examination; for all, up to a certain point, attempt to test those who profess knowledge.

The relevance of this passage for the general matter of this section is that it defines dialectic as a discipline that is neither suitable for demonstrating the nature of things nor confined to a particular subject. As a consequence, what we can safely assume, in line with the interpretation of the Peripatetic commentators, is that Aristotle is going to use dialectic to discuss the Eleatic theses. Its very general nature makes dialectic compatible with the particular use for which any science might want to exploit it. Since, however, Aristotle states that a discussion of change-free monism falls outside the domain of physics, we are left with the option of assigning such a discussion to metaphysics. In fact, there are good reasons to believe that this discussion will fall within the domain of a metaphysical investigation, as Gamma shows that it is the business of metaphysics to deal with general notions commonly used by dialecticians, such as ‘one’, ‘same’, ‘other’ and so on.\(^6a\)

\(^6a\) In particular, it will involve discussion of the fifth aporia of Metaphysics B (1995b18-25) and its solution in book \(\Gamma\). Although it cannot be developed here, this line of inquiry might answer Clarke’s worry (Clarke 2019, 15–6)
1.3. Two arguments against Eleatic monism

In *Physics* 1 Aristotle sets out two arguments against Eleatic monism. As is well-known, his refutation is akin to the Stranger's attack on Parmenides and his followers in Plato's *Sophist.*

In the next paragraphs I am going to dwell on this parallelism in order to check the terms in which it can contribute to our understanding of the *Physics*’ arguments. To this end, I am going to present the Stranger's refutation and single out its salient points. What I hope to demonstrate is that a comparison between these Platonic passages and the arguments of the *Physics* will elucidate the dialectical nature of Aristotle's rejection.

That Aristotle draws heavily on the *Sophist* while writing *Physics* 1.2-3 can hardly escape our notice. As Crubellier remarks, the very introductory list of the number and characteristics of the principles posited by the predecessors is reminiscent of *Sophist* 242bff.

In fact, Aristotle's inclusion of ‘those who inquire into the number of beings (οἱ τὰ ἄντα ζητοῦντες πόσα, Phys., 184b23-24)’ parallels the Stranger's mention of Parmenides and ‘whoever undertook the task of defining how many and how beings are (τὰ ἄντα ... πόσα τε καὶ ποιὰ ἐστιν, Soph., 242b4-6)’. However, it is what comes next in the dialogue that needs close inspection. After lamenting the obscurity with which his predecessors delivered their doctrines, the Eleatic stranger starts his investigation of what is. Crucially, he clearly sets out the way they are going to proceed:

Soph., 243d4-8 (trans. Fowler 1977)

*ΘΕΑΙ. Τίνος δὴ λέγεις; ἢ δήλον ὅτι τὸ*  
*ὅν φῆς πρῶτον δεῖν διερευνήσασθαι τί ποθ’*  
*οἱ λέγοντες αὐτὸ δηλοῦν ἡγοῦνται;*  
*ΞΕ. Κατὰ πόδα γε, ὦ Θεάειτη,*  
*Str. You have caught my meaning at once,*

that, since Aristotle's point at 185a1-5 is general, no investigation of principles has the task of dealing with the Eleatics. The problem whether being is one and unchanging belongs to the domain of metaphysics; however, it can only be discussed through a meticulous dialectical analysis.

63 Parallels with the *Sophist* can be found in both Philoponus’ and Simplicius' commentaries. In particular, the latter quotes lines 244b6–245e5 in full (Simpl., *In Phys.*, 80.30-90.20) to show that, as Aristotle, Plato does not reject Parmenides out of love for strife (οὐ διὰ φιλεριστίαν). However, he does not undertake a discussion of the passage, although acknowledging the matter would require a longer digression (παρέκβασιν τυν μακροστέραν).
The Stranger. For I certainly do mean that this is the best method for us to use, by questioning them directly, as if they were present in person.

No matter what the specific force of ‘μέθοδος’ is in this occurrence, the Stranger is clear that he and Theaetetus will have to engage in a dialogue with the supporters of pluralism (first) and monism (next) in order to understand what their theories amount to. Hence, when dealing with Parmenidean theses, the Stranger is going to imagine what Parmenides and his followers meant and how they would defend themselves, if they were questioned. The refutation consists of two complementary arguments that draw contradictory conclusions from Parmenides’ claim, thus corralling his speech into a blind alley. For our purposes it is relevant to show that these two steps of the refutation aim to exhaust the possibilities of making sense of Parmenides’ claim that there is only one thing.

1.3.1. The Stranger’s first argument against Parmenidean monism

The Stranger’s first argument concerns the relationship between ὄνομα and πρᾶγμα.

Soph., 244b6-d13  
(trans. Crivelli 2012, slightly modified)

<table>
<thead>
<tr>
<th>ΞΕ. Τί δὲ; παρὰ τῶν ἐν τῷ πᾶν λεγόντων ἄρ’</th>
<th>Str. Now, shouldn't we as far as possible find out from those who say that the totality of things is one what they call being?</th>
</tr>
</thead>
<tbody>
<tr>
<td>οὐ πευστέον εἰς δύναμιν τί ποτε λέγουσι τὸ δν;</td>
<td>Theae. Why not?</td>
</tr>
<tr>
<td>ἩΕΑΙ. Πώς γάρ οὐ;</td>
<td>Str. Let them answer this question, then: 'You somehow say that only one is?'—'We surely say that', they will say, won't they?</td>
</tr>
<tr>
<td>ΞΕ. Τὸδε τοῖνυν ἀποκρινέσθων. Ἑν πού φατε μόνον εἶναι; — ἩΦΑΜΕΝ γὰρ, φήσουσιν. ἦ γάρ;</td>
<td>Theae. Yes.</td>
</tr>
<tr>
<td>ἩΕΑΙ. Ναι.</td>
<td>Str. 'And do you call something “being”?'</td>
</tr>
<tr>
<td>ΞΕ. &quot;Τί δὲ; ἐν καλεῖτε τι;&quot;</td>
<td></td>
</tr>
<tr>
<td>ἩΕΑΙ. Ναι.</td>
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</table>
"Πότερον ὅπερ ἕν, ἐπὶ τῷ αὐτῷ προσχρώμενοι δυοῖν ὀνόμασιν, ἢ πῶς;"

Τις οὖν αὐτοῖς ἡ μετὰ τοῦτ', ὦ ξένε, ἀπόκρισις;

Δῆλον, ὦ Θεαίτητε, ὅτι τῷ ταῦτῃ τὴν ὑπάρχοντα ὑποθέσιμον πρὸς τὸ νῦν ἐρωτηθέν καὶ πρὸς ἄλλο δὲ ὁτιοῦ ὡς πάντων βάσταν ἀποκρίνασθαι.

Πῶς; (A)

Το τε δύο ὀνόματα ὁμολογεῖν εἶναι μηδὲν θέμενον πλὴν ἓν καταγέλαστόν που.

Καὶ τὸ παράπαν γε ἀποδέχεσθαι τοῦ λέγοντος ὡς ἐστὶν ὄνομα τι, λόγον οὐκ ἂν ἔχον.

Τιθείς τε τοὔνομα τοῦ πράγματος ἕτερον δύο λέγει πού τινε.

Καὶ μὴν ἂν ταὐτόν γε αὐτῷ τιθή τούνομα, ἢ μηθενὸς ὄνομα ἀναγκασθῆται λέγειν, εἰ δὲ τινος αὐτὸ φῆσει, συμβήσεται τὸ ὄνομα ὄνοματος ὄνομα μόνον, ἄλλου δὲ οὐδένος ὄν.

Τιθείς τε τοὔνομα τοῦ πράγματος ἕτερον δύο λέγει πού τινε.

Καὶ τὸ ἕν γε, ἑνὸς ὄνομα ὡς καὶ τοῦ ὄνοματος οὐ τὸ ἐν ὄν.

Ἀνάγκη.

Theae. Yes. Str. ‘Is it the very thing you call “one”, by using two names for the same thing, or what?’

Theae. What is their answer to this, stranger?

Str. Clearly, Theaetetus, it is not the easiest thing in the world for one who has hypothesised this hypothesis to answer the present question, or any other.

Theae. How so?

(A) Str. To agree that there are two names after positing that there is nothing but one thing is most ridiculous—

Theae. Right.

Str. And even to accept someone’s statement that there is some name is unreasonable.

Theae. How so?

(a.1) Str. By positing the name as different from the object, one somehow speaks of two things.

Theae. Yes.

(a.2) Str. And if one posits the name as identical to it, one will be obliged to say either that it is a name of nothing, or, if one says that it is of something, the name will result to be a name of a name only and of nothing else—

Theae. Yes.

Str. And the one will result to be one of one only by being also in turn the one of the name.

Theae. Necessarily.

The Stranger imagines asking his fellow Eleatics if, by saying that there is only one thing (ἐν μόνον εἶναι), they are using ‘one’ and ‘being’ (ὅν) as two different terms (όνοματα) referring to one and the same thing (πρᾶγμα).65 Once this has been granted, their monistic claim is at

65 From the formulation of the Stranger’s starting point, Wedin 2014, 249–50 infers that Plato thinks there cannot
great risk. On the one hand, positing that there is some name (ὄνομά τι, i.e. at least one) apart from the things it may describe is at odds with the thesis that there is only one thing; specifically, (a.1) positing that the name is different from the thing it designates implies that there are two things (i.e. the name and the named thing). On the other, (a.2) positing the name as identical to the thing is problematic, too; for the name will be either a name of nothing or, in fact, a name of something. In the former case, it will be a name that does not name anything; in the latter, a name will necessarily name another name, because — contra (a.1) — we are supposing that there are only names and nothing else. As a consequence, τὸ ἕν will only be a name of one thing (i.e. one name) and of nothing else; in turn, it will also be the 'one' of that name — whatever this might mean — and not its name. As Bluck points out, this argument is based on the view that names must always designate things other than themselves: so, a name cannot be a name of another name or of itself. That is why the Stranger affirms that the very idea of accepting the claim that there is a name would not make any sense from Parmenides' perspective.

be two names if there is only one thing. In particular, every name must have a discrete semantic match, so that the significance of a name depends on its unique nominatum. However, lines 244c8-9 are probably to be taken ironically. What the Stranger finds ridiculous is that somebody first asserts that there is only one thing but is then eager to agree that there are two names (by which you can describe the alleged one thing). On this reading, the real argument only starts at c11, which is also the point where Theaetetus asks for explanation.

66 Plato points to the fact that the name would become void. We can imagine that, as a result, the name would ultimately not be a name any more. Hence, since names must name something, this consequence is unacceptable. Bluck 1975, 73 claims that the absurdity is thus generated by the monist's denial of a commonly accepted way of using words. De Rijk 1986, 95 rather thinks that the first attempt to avoid the assumption of 'one thing-two names' would render 'being' an empty name, thus contradicting Parmenides' very assumption.

67 Bluck 1975, 73. In expressing this interpretation, Bluck rejects Moravcsik 1962’s claim that the Stranger’s argument presupposes that terms exist in the same sense as the things which they designate, because for it to be valid, it suffices that ‘are’ can be applied to names and named things alike. On the other hand, he disagrees with Cornford 1935’s suggestion that we should presuppose Plato’s own view that names refer to forms.

68 Wedin 2014, 249 rejects the following inference as invalid: if the Eleatic being is something that is and it has a corresponding name, then there will be two things, i.e. the name and the nominatum. In particular, he argues that this difference does not commit Parmenides to the existence of two things. In truth, the Stranger’s argument is aimed at showing that Parmenides’ monism does not allow him to have terms alongside things, quite regardless of how we might understand the existence or non-existence of terms and things. Since they
With reference to this point, the phrase λόγον οὐκ ἄν ἔχον (244d1) has received a great deal of attention. Cornford 1935 and Fowler 1977 seem to refer the participle to the ὡς-clause expressing the content of the claim; Bluck 1975 and De Rijk 1986, instead, take it with ὄνομα. Finally, Bluck takes the phrase to explain why we should not accept the claim in question (i.e. because the name ‘could not explain itself’); in contrast, De Rijk takes ἔχον attributively, thus translating it as ‘some name which would be lacking sense’. Bluck’s solution is preferable to De Rijk’s for syntactical reasons. Since the present participle (ἔχον) governs the particle ἄν, it functions as either an imperfect indicative (ἅν εἶχε) or as a present optative (ἄν ἔχει). In either case, the Greek phrase can only be understood as expressing a consequence, not a condition. However, Bluck’s solution is not fully satisfactory either, because, while ‘λόγον οὐκ ἄν ἔχον’ can hardly work as a dependent clause, it would require some connective particle (such as γάρ) in order to be a distinct independent clause. For these reasons, it is preferable to follow what seem to be Crivelli’s and Taylor’s readings. In fact, if we refer ‘λόγον οὐκ ἄν ἔχον’ to the infinitive ‘τὸ ἀποδέχεσθαι’, we get an independent clause where the participle is predicated of its subject without the copula—very much as in the Stranger’s previous sentence (‘τὸ ... ὁμολογεῖν... καταγέλαστον’) and in the exposition of absurd consequences from 244d5 onwards. Indeed, as we saw, the gist of the Stranger’s first argument is precisely that accepting that there are names alongside things is sufficient to both can be defined as ὄντα, but are not one and the same thing, they clash with the hypothesis that there is only one ὄν.


70 When we find ἄν in a protasis, fused with εἰ or some other conjunction, it governs the subjunctive. Kühner & Gerth 1898, II, §570, 482 also mentions a use of the optative with ἄν, but exclusively in a protasis introduced by εἰ, which here is missing. Since he also states that (II, § 570, 463, n. 3), in Plato, ἄν is more common than its contracted form ἄν, we can be fairly sure that the ἄν we are facing is a particle and not the contraction of the particle with a conjunction. In fact, in such a construction the ἄν would be governed by the optative and would not be a part of a composite conjunction. Finally, we can find ἄν with an historical tense of the indicative, but, again, only if we have an εἰ-clause. Kühner points out (p. 483) that this is an Attic use in which the addition of an ἄν can only be made if the condition mentioned is to be expressed as being in its turn conditioned.

71 Taylor translates it as ‘[it is] no less irrational’ (Klibansky & Anscombe 1961, 139). Crivelli 2012, 78 also refers the ἔχον to ἀποδέχεσθαι but takes it as the complement of an understood ‘εἰ’. This reading implies that οὐκ ἄν would be governed by a lacking form of εἴη. This reading implies that οὐκ ἄν would correctly reflects the most probable meaning of the Greek.
question Parmenides' monistic assumption—no matter how exactly names are supposed to relate to things.

1.3.2. The Stranger's second argument against Parmenidean monism

The second argument against Parmenides' monism takes into account the relationship between being (τὸ ὄν), the one (τὸ ἕν) and the whole (τὸ ὅλον).

Soph., 244d14-245d11

<table>
<thead>
<tr>
<th>(B) Str.</th>
<th>(trans. Crivelli 2012, modified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΞΕ. Πώς γάρ οὐ φήσουσι τε καὶ φασίν;</td>
<td>Theae. How will they not say it? Indeed, they do say it.</td>
</tr>
<tr>
<td>ΘΕΑΙ. Πῶς γὰρ οὐ φήσουσί τε καὶ φασίν;</td>
<td>(b.1.1) Str. If then it is a whole, as Parmenides also says,</td>
</tr>
<tr>
<td>ΞΕ. Εἰ τούνν ὄλον ἐστίν, ὅπερ καὶ Παρμενίδης λέγει, Πάντοθεν εὐκύκλου σφαίρης ἐναλίγκιον ὄγκῳ, μεσσόθεν ἑσπερίας πάντην τὸ γάρ όσε οὔτε τοῖς μέσοις οὔτε τι βαιώτερον πελείναι χρεόν ἐστι τῇ ἡ τῇ, τοιούτων γε ὅν τὸ ὃν μέσον τε καὶ ἐσχάτη ἔχει, ταύτα δὲ ἔχον πάσα ἀνάγκη μέρη ἔχειν ἡ πώς;</td>
<td>... in every way like the mass of a well-rounded sphere, opposing equal resistance from the middle in all directions: for it is not appropriate that it be larger or weaker here than here, ...</td>
</tr>
<tr>
<td>ΘΕΑΙ. Πῶς;</td>
<td>Theae. How so?</td>
</tr>
<tr>
<td>ΞΕ. Ἀμερὴς δήπου δεῖ παντελῶς τὸ γε ἅμαι συνοικοδομεῖ τοὺς μέσους τοὺς μέσους ἐσχάτης, καὶ ταύτῃ δὴ πᾶν τε ὅν καὶ ὄλον ἐν εἶναι.</td>
<td>Str. But isn't it impossible for what has these characteristics itself to be the one itself?</td>
</tr>
<tr>
<td>ΘΕΑΙ. Πώς;</td>
<td>Theae. How not?</td>
</tr>
<tr>
<td>ΞΕ. Αἱμερὲς δὴ τὸ γε παντελῶς τὸ γε ἀρχαῖος ἐν κατὰ τὸν ὅρθραν λόγον εἰρήσθαι.</td>
<td>Str. But nothing prevents what is divided into parts from having the characteristic of unity with respect to all the parts, and from being in this way one, since it is both all and whole.</td>
</tr>
<tr>
<td>ΘΕΑΙ. Πώς;</td>
<td>Theae. Why not?</td>
</tr>
<tr>
<td>ΞΕ. Τὸ δὲ πεπονθὸς ταῦτα ἄρ’ οὐκ ἀδύνατον αὐτὸ γε τὸ ἤν αὐτὸ εἶναι;</td>
<td>Str. But isn't it impossible for what has these characteristics itself to be the one itself?</td>
</tr>
<tr>
<td>ΘΕΑΙ. Πώς;</td>
<td>Theae. How so?</td>
</tr>
<tr>
<td>ΞΕ. Τὸ δὲ γε τοιούτον ἐκ πολλῶν μερῶν ἐν</td>
<td>Str. What is truly one, according to its correct definition, must be called completely partless.</td>
</tr>
</tbody>
</table>
οὐ συμφωνήσει τῷ [ hüküm] λόγῳ.

ΤΕΑΙ. Μανθάνω.

ΞΕ. Πότερον δὴ πάθος ἔχον τὸ δὲ τοῦ ἑνὸς
οὕτως ἐν τε ἔσται καὶ ὄλον, ἢ παντάπασι
μὴ λέγουμεν ὄλον εἶναι τὸ δὲ;

ΤΕΑΙ. Χαλεπὴν προβέβληκας ἁίρεις. (b.1.1)

πεπονθός τε γὰρ τὸ ὄν ἓν εἶναί πως σὺ
tαὐτὸν δὴ τῷ ἑνῷ φανεῖται, καὶ πλέον δὴ
tὰ πάντα ἑνὸς ἔσται.

ΤΕΑΙ. Χαλεπὴν προβέβληκας ἁίρεις. (b.1.1)

πεπονθός τε γὰρ τὸ ὄν ἓν εἶναί πως σὺ
tαὐτὸν δὴ τῷ ἑνῷ φανεῖται, καὶ πλέον δὴ
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ΤΕΑΙ. Χαλεπὴν προβέβληκας ἁίρεις. (b.1.1)

πεπονθός τε γὰρ τὸ ὄν ἓν εἶναί πως σὺ
tαὐτὸν δὴ τῷ ἑνῷ φανεῖται, καὶ πλέον δὴ
tὰ πάντα ἑνὸς ἔσται.

ΤΕΑΙ. Χαλεπὴν προβέβληκας ἁίρεις. (b.1.1)

πεπονθός τε γὰρ τὸ ὄν ἓν εἶναί πως σὺ
tαὐτὸν δὴ τῷ ἑνῷ φανεῖται, καὶ πλέον δὴ
tὰ πάντα ἑνὸς ἔσται.
Str. And (b.2) what is not a whole must not even be of a certain quantity: for, by being of a certain quantity, however much it is, it is necessary for it to be such as a whole.

Theae. Absolutely.

The Stranger starts from the assumption that Parmenides describes the one-being as a whole. However, if the whole is the same as the one-being, as Parmenides says in his poem, then it must have parts. If it does, it can surely be one, but as a unity of parts. Now, this is at odds with the very description of Parmenides' one itself (αὐτὸ τὸ ἕν), because the latter cannot have parts in any sense—whereas the whole has parts at least in some sense. Accordingly, the Stranger asks Theaetetus whether we could regard being as a whole in this sense or if we should rather deny that being is a whole. Both horns of the dilemma lead to an impasse. The first possibility is problematic, because, if we take the whole to be a characteristic (πάθος) of the one, although not the one itself, then being a whole amounts to being one only somehow. Crivelli is right in pointing out that the use of πως at 245b8 confirms the distinction of a more genuine way of being one (αὐτὸ τὸ ἕν, τὸ ἀληθῶς ἕν) from other less genuine ways.²² I would like to suggest that the same distinction applies to τὸ ὅλον; or rather, the Stranger is setting apart a less genuine way of being a whole (as a whole of parts) from a more genuine one (as an entire without any parts). In order to show this, I shall defend a different reading of lines 245c1-7 from the traditional one. Since the second possibility left to Parmenides and his followers is not considered until 245c8, it is not clear—at least prima facie—how the preceding passage should fit within the question formulated by the Stranger.

According to the traditional interpretation of this question, the Stranger is supposing on the one hand (1) that being is not a whole, on the other (2) that the whole exists. From these two premises the unpalatable consequence follows that being will be deprived of itself. Crivelli seems to offer the most convincing reconstruction of this deduction. If we accept

²² Crivelli 2012, 81.
that the argument is still governed by the Parmenidean claim that being is a whole, then assuming that there is no whole amounts to depriving being of its very nature.\footnote{Crivelli 2012, 83–4, who also discusses and rejects other attempts to explain this rather obscure argument: Campbell 1867, 114; Cornford 1935; Ambuel 2005, 211. For similar construals, see also Palmer 1999, 177 and Harte 2002, 104.}

In favour of this reading one could mention that hypothesis (2) contrasts with the final passage of the Stranger’s refutation, i.e. with the hypothesis that there is no whole at all. This would imply that (2) represents the positive horn of the same dilemma to which the latter hypothesis belongs.\footnote{See Cornford 1935, 225.} However, there are two main reasons to question this reading. First, although the contrast between (2) and the negation of the existence of τὸ ὅλον holds, (2) is too weak a premise for us to conclude that being cannot be being. In fact, the existence of the whole is presupposed for the entire group of hypotheses of the Stranger’s second argument, so it would not make much sense for Plato to have him introduce it only now.\footnote{We should not forget that the Stranger’s initial presupposition is that Parmenides calls the one-being a whole. This amounts to assuming that there is something that we call a whole.}

This is confirmed by the fact that only at c11 does the Stranger assume that the whole does not exist. This is why Crivelli needs to supply an additional (implicit) premise in order for the argument to reach its conclusion.\footnote{The complexity of this claim also seems to contrast with the fact that, unlike previous moments in this very argument, Theaetetus does not display any puzzlement in agreeing with the Stranger’s point.} Second, assuming that being is not a whole seems to anticipate a point that will not be made until c8–9—thus resulting in a redundancy hard to justify. If being is not a whole, but there is something that is a whole, then Parmenides needs to admit that there are two things, against his monistic assumption. This also shows that the kind of absurdity generated by these premises is that it implies pluralism, not that being will be deprived of itself.

Upon closer inspection, the text does not seem to suggest that being is not a whole, but rather that it is indeed a whole, but not in that particular sense in which it constitutes a unity ‘only somehow’. As such, the presupposition implies taking into account the alternative possibility that being is a whole in the very way Parmenides’ claim requires. In fact, the interpretation I am suggesting relies on a different reading of the phrase expressing the second premise of the argument: ἂ δὲ αὐτὸ τὸ ὅλον. In particular, I argue that we should take

\footnote{38}
the verb ‘to be’ as a copula and the rest of the phrase as its nominal complement: ‘[if being] instead is the whole itself’. If this is our second premise, the conclusion we can draw, if not straightforward, is rather immediate: if being is the whole itself, then it cannot be anything else; therefore, it is not being (but it is rather just ‘the whole itself’). In other words, being αὐτὸ τὸ ὅλον amounts to being exclusively a whole; this implies that this whole thing cannot receive any attributes whatsoever: Parmenides needs to choose between wholeness (unity) and being:

As far as the role of this claim within the broader argument is concerned, the Stranger has just presented Theaetetus with the following alternatives: either (I) being is a whole in the sense that it has a characteristic of the one or (II) it is not at all a whole. The difficulty in opting for (I) is that it leads us to define being as one only somehow, therefore not really one. On the other hand, what should deter Parmenides from choosing (II) is that in order for being and the whole to be different, he would be forced to accept that there are at least two things, namely, being and the whole. Now, the piece of the argument we are dealing with still falls under (I). After ruling out the hypothesis that Parmenides would refer to the whole in a sense that allows for plurality, he now envisages an alternative: ‘If being is not a whole by having been affected by the characteristic that falls under that thing [i.e. the one], but is the whole itself, then it will consequently be lacking itself’. We can distinguish two senses of τὸ ὅλον and refer to the weaker sense by ‘whole(1)’ and to the stronger by ‘whole(2)’. At 245a1 τὸ ὅλον is understood as τὸ μεμερισμένον and is said to have a πάθος τοῦ ἑνός (characteristic of the one) regarding all its parts: it is a whole(1). However, something that has acquired this characteristic (τὸ πεπονθός ταῦτα, 245a5) cannot possibly be the one itself (αὐτὸ τὸ ἕν), because that which is truly one (τὸ ἀληθῶς ἕν, a8), i.e. a whole(2), is completely without parts (ἀμερὲς παντελῶς), and a being made out of parts would not conform to Parmenides’ account. At this point, the Stranger asks if we should say that, by having a πάθος τοῦ ἑνός, being will be thus both one and whole (ὁὕτως ἕν τε... καὶ ὅλον) or if we should on no account say (παντάπασι μὴ λέγωμεν) that it is a whole. In the development of the aporia, he recalls the former option with the words ‘πεπονθός... τὸ ἕν ἐναὶ πως’, so we are still dealing with

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77 Leigh 2010, 73 seems to presuppose a similar reading of 245c1-3.

78 Note that this argument reminds us of the first deduction at Parm., 139b7-c2: if the one is identical to something other than itself, it is not going to be itself any more, but only that something.
whole(1). Now, at 245ci-12, it is this very option that he denies when he assumes that being is not a ‘ὤλον διὰ τὸ πεπονθέναι τὸ ὑπ᾽ ἐκείνου [i.e. of the one] πάθος’. In fact, it is important to remark that here the negation μή follows εἶναι, so it is not meant to negate the verb but rather the phrase just quoted in Greek (‘ὤλον διὰ τὸ πεπονθέναι τὸ ὑπ᾽ ἐκείνου πάθος’).\(^\text{79}\) This, together with the qualification represented by the διὰ-phrase, implies that we should expect the Stranger to mention an alternative way of being a whole, i.e. whole(2). On my reading, this is exactly what he does, by taking being to be the whole itself (αὐτὸ τὸ ὅλον). We can be reasonably confident that he is not trying to deny that being is a whole, because that is what he is going to do at 245c8-9, when he considers the second horn of the dilemma (i.e. that being is by no means a whole). More importantly, though, if he were already dealing with this possibility now, he would have neglected a crucial alternative of his refutation that could easily save Parmenides' claim: being is not a whole in the same way as a compound of parts, but is completely partless as an indivisible entire.\(^\text{80}\) Finally, how could he leave this possibility open, after he himself has shown Theaetetus that something one can surely have parts, but not if it supposed to be the Parmenidean one?

After refuting the two branches of this dilemma, the last part of the Stranger's argument considers two undesired consequences of a further hypothesis. As we saw, supposing that being is different from the whole would oblige the monist to accept that there are two things, i.e. τὸ ὄν on the one hand and τὸ ὅλον on the other. However, if we wanted to avoid this consequence by denying that there is anything such as τὸ ὅλον, then the consequences for being will be irremediably destructive: since all that comes to be comes to be as a whole, not only will τὸ ὄν not be, but nor will it ever become a being.\(^\text{81}\) This option has been interpreted as external to Parmenides' talk insofar as it allegedly presupposes the existence of becoming.

\(^{79}\) This cannot be seen from the translation, because in English the position of the negation after 'to be' cannot be changed. We should rather think of non-auxiliary verbs, so that the Greek could sound like 'being constitutes not a whole by having such and such characteristic' as opposed to 'being does not constitute a whole by having such and such characteristic'.

\(^{80}\) Wedin 2014, 251 indicates precisely this escape.

\(^{81}\) Bluck 1975, 81 n. 1 accuses Plato of confusing two different senses of 'whole', which first meant 'a whole of parts' but is now used in the sense of 'entire'. If my reading is correct, Plato's argument is not undermined by this remark.
—which Parmenides (at least in Plato’s view) would not endorse.\textsuperscript{82} However, I think the Stranger here is rather emphasising how extreme the consequences of this last hypothesis are: being is not and could not possibly ever become a being. Finally, the reference to quantities is meant to highlight a contradiction in Parmenides’ discourse. If being is not a whole, it can in no way have size, which is at odds with the very words with which Parmenides describes it in the fragment quoted.

1.3.3. Retrospective and prospective considerations

The reconstruction of the \textit{Sophist} arguments against Parmenides’ monism can be summarised in the following scheme:

\begin{align*}
\text{A) NAMES} & \quad / \quad / \\
& \quad \text{b.1) being is a whole} \\
& \quad \text{b.1.1) being is a whole(1)} \\
& \quad / \\
& \quad \text{b.1.2) being is a whole(2)} \\
& \quad / \\
& \quad \text{b.2) being is not a whole} \\
& \quad \text{b.2.1) being is not a whole(1)} \\
& \quad / \\
& \quad \text{b.2.2) being is not a whole(2)} \\
\text{B) THINGS} & \quad / \quad / \\
& \quad \text{b') the whole does not exist}
\end{align*}

Despite their compressed form, the Stranger’s arguments follow a precise dilemmatic pattern, so as to leave no escape to his adversary. Once both horns of all the dilemmas have been shown to result in absurdities, Parmenides and his followers are obliged to give up their monistic claim.\textsuperscript{83} As we shall see, this is the same strategy that Aristotle adopts in \textit{Physics} 1.2-3. There are, however, other relevant points that will play a role in the analysis of this part of

\textsuperscript{82} Seligman 1974, 28.

\textsuperscript{83} It should be noted that Plato adopts a literal interpretation of Parmenides’ poem, as can probably be confirmed by 243a6-b1.
the *Physics*. Regarding the general structure of the arguments, in the *Sophist* the Stranger explicitly engages in an imaginary dialogue with Parmenides himself or a follower of Parmenides’ doctrine. As will be clear in section 4, in his *Physics* Aristotle will proceed along the very same lines, by setting out a *dialectical* discussion with the Eleatics which follows a dilemmatic pattern. As we saw in the previous paragraphs, this is probably due to the fact that dialectic (and not any specific science) is the appropriate method to deal with these thinkers. As far as the content of the arguments is concerned, we shall see that the Stranger’s two arguments will both have a great resonance in the *Physics*. In conclusion, the three elements that will require most attention in the comparison between the two rejections of Eleaticism are the dialectic form of the argument, the relationship between terms and things and, lastly, the discussion of parts and wholes.

### 1.4. Aristotle against Eleatic monism

Aristotle deals with Eleatic monism in both *Physics* 1.2 and in 1.3. The relationship between these two chapters represented an issue already for the ancient commentators. Philoponus, Simplicius and Alexander take 1.2 and 1.3 to correspond to a study of unity and being first διὰ τὸ ὄνομα and then τῷ πράγματι. Averroes refers to ‘meanings’ (*intentiones*) taken first as universal and then as particular; accordingly, Aristotle would be first checking whether each single understanding of ὄν is predicated of being and would then move on to his attack on the Eleatic fallacies. Finally, Aquinas thinks that Aristotle first argues against Melissus’ and Parmenides’ theses and then against their arguments. Among modern commentators, Gershenson and Greenberg claim that Aristotle’s attacks on the Eleatics in the *Physics* constitute two independent arguments, characterised, in the one case, by the use of Aristotelian technical terms and a dismissive tone, and, in the other, by the lack of technical language and a generally respectful attitude.84 Quarantotto 2019 also remarks that, while 1.2 seems to be addressed to an Aristotelian audience, 1.3 is intended to be an internal criticism.

84 Gershenson & Greenberg 1962, 150.
From 185a20 to 186a3 Aristotle sets out an argument against the Eleatic doctrines in which two moments can be distinguished. Overall, he exposes some ambiguities that hide behind the assertion that all things are one. In this first section he tries to clarify what understanding of being should be presupposed in order to make sense of the thesis. In the section which follows he will deal with the different understandings of ‘being one’ for the same purpose. I shall present the two arguments in the next paragraphs.

1.4.1. Aristotle’s first argument against Eleatic monism

1.4.1.1. *Ex parte entis*\(^8\)

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) ἀρχῇ δὲ οἰκειοτάτη πασῶν,</td>
<td>(A) Since being is said in many ways, the most</td>
</tr>
<tr>
<td>ἐπειδὴ πολλαχώς λέγεται τὸ ὄν, πῶς</td>
<td>appropriate starting point of all is to ask in what way</td>
</tr>
<tr>
<td>λέγουσιν οἱ λέγοντες εἶναι ἐν τὰ πάντα,</td>
<td>those who say that ‘all things are one’ speak [of being]</td>
</tr>
<tr>
<td>(1) πότερον οὐσίαν τὰ πάντα ἢ ποσά ἢ</td>
<td>—(1) whether all things are substance, or quantities,</td>
</tr>
<tr>
<td>ποιά, καὶ πάλιν (2) πότερον οὐσίαν μίαν</td>
<td>or qualities, and again (2) whether all things are one</td>
</tr>
<tr>
<td>τὰ πάντα, οἷον ἄνθρωπον ἢ ἵππον ἢ να ἡ</td>
<td>substance, like one human being, or one horse, or one</td>
</tr>
<tr>
<td>ψυχήν μίαν, ἢ ποιὸν ἐν δὲ τῶν, οἷον</td>
<td>soul, or whether all things are quality, and this is one,</td>
</tr>
<tr>
<td>λευκὸν ἢ δερμὸν ἢ τῶν ἄλλων τις τῶν</td>
<td>like white or hot or one of the other things of this sort.</td>
</tr>
<tr>
<td>τοιούτων. ταῦτα γὰρ πάντα διαφέρει τε</td>
<td>For all these differ a great deal, and all are impossible</td>
</tr>
<tr>
<td>πολὺ καὶ ἀδύνατα λέγειν.</td>
<td>to maintain.</td>
</tr>
<tr>
<td>(A.1) εἰ μὲν γὰρ ἔσται καὶ οὐσία καὶ</td>
<td>(A.1) For if, on the one hand, there is substance</td>
</tr>
<tr>
<td>ποιὸν καὶ ποσόν, καὶ ταῦτα εἰς ἀπόλε-</td>
<td>and quality and quantity, then whether these things</td>
</tr>
<tr>
<td>λυμένα ἀπ’ ἄλλων εἴη μὴ, πολλά τὰ</td>
<td>are detached from one another or not, the things that</td>
</tr>
<tr>
<td>ὄντα: (A.2) εἰ δὲ πάντα ποιὸν ἢ ποσόν,</td>
<td>are will be many. (A.2) But if, on the other hand, all</td>
</tr>
<tr>
<td>εἰς οὐσίας οὐσίας εἴη μὴ οὐσίς, ἀτοπόν,</td>
<td>things are quality or quantity, then whether substance</td>
</tr>
<tr>
<td>εἰ δὲ ἀτοπόν λέγειν τὸ ἅδυνατον. οὐδὲν</td>
<td>is or is not, this is absurd, if one should call the</td>
</tr>
<tr>
<td>γάρ τῶν ἄλλων χαριστὸν ἐστὶ παρὰ τὴν</td>
<td>impossible absurd. For none of the others is separate</td>
</tr>
<tr>
<td>οὐσίαν πάντα γάρ καὶ ὑποκειμένου</td>
<td>apart from substance. For all [the others] are said of</td>
</tr>
<tr>
<td>λέγει τῆς οὐσίας.</td>
<td>substance as a subject.</td>
</tr>
</tbody>
</table>

\(^8\) I borrow Aquinas’ expressions for the two parts of the argument, Thom., *In Phys.*, 20.
And Melissus says that what is is unlimited. Therefore what is is a quantity. For the unlimited is in [the category of] quantity, and it is not possible for a substance or a quality or an affection to be unlimited, except accidentally, if they are at the same time also certain quantities. For the account of the unlimited employs quantity, but not substance or quality. If, therefore, it is both substance and quantity, what is is two and not one. But if it is substance alone, then it is not unlimited, nor even will it have any magnitude at all. For then it will be a quantity.

‘Being is one’ amounts to asserting one of the following:

(1) All being is either substance or quality or quantity.

(2) Being is one single substance or one single quality.

Both (1) and (2) are dismissed as absurdities. On the one hand, if τὸ ὄν is both substance, quality, quantity and so on, it is not one but multiple, even if the single name we use includes all these things. On the other hand, it is impossible that all things be qualities or quantities because the only thing that can be separate is substance. The former argument aims to show that the plurality of things involves the plurality of ways of being. On the contrary, the latter seems to underscore that among the different understandings of being there is one that is more fundamental than the others, namely substance. As a consequence, not only is it absurd to insist that there is exclusively one way of being, but it is also wrong to choose quantity and not substance as the univocal way in which to understand what is. This is what Melissus instead turns out to be doing when he posits the unlimited as the one and only principle. Since limit is a determination within the predication of quantity, his thesis is traced back to the claim that ‘being is a quantity’. It is not possible that something else is meant, for a substance cannot be unlimited unless it is also a quantity (it is, as it were, quantified). Yet, in this case, being would not be one, but manifold. On the other hand, if

86 Top., 185a35.
there were only substance, it could not be either limited or unlimited, because this would require quantity, that is to say, again a manifold being.

As for (2), Aristotle limits himself to saying that it is absurd to maintain that all things are one single individual—be it a substance or something in any other category. He exemplifies the absurdity by saying that this would amount to saying that all things are one man or one colour, which is impossible.

The ancient commentators, starting from Themistius, emphasise that a reference is made here to the categories—even if Aristotle does not mention all of them—as first exposed in the work of that title. This opens the general problem of whether and to what extent we can regard the critique of the Eleatics as dialectical. The initial move of the full section may be read as the application of one of the principles for dialectical discussion set out in the *Topics*: discerning in how many ways something is spoken of is foundational to any discussion.87 However, since Melissus and Parmenides did not distinguish different ways of being and certainly did not do so according to Aristotle's division of categories, Aristotle's argument has a premise that could not be endorsed by the target of his criticisms.88 In this sense, his argument is going to represent an external critique. Does this undermine the discussion of the rest of the chapter? It can be argued that in *Physics* 1.2 Aristotle is merely interested in showing that he has good reasons for not accepting Eleatic monism. As we shall see, only in chapter 3 will he pursue the objective of rejecting their position on account of their internal contradictions. In contrast, these earlier passages are intended as criticisms that are justified from an Aristotelian perspective. Why we—and the Eleatics too—ought to embrace the view that being is said in many ways will be clarified in the next chapter.

Before moving on to the second part of the argument, it is interesting to note that in this chapter Aristotle mentions the possibility of a substance being also a quantity accidentally. What he means is that a substance can also be a quantity, but not in the sense that quantity is going to be its definition. I shall focus on the role of the distinction between *per se* and accidental predications in paragraph 1.4.2. What Aristotle will introduce in the next section

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87 Cf. *Top.*, 105a32.

88 Note, however, that Aristotle's basic worry does not necessarily depend on any specific categorial distinction, but seems to consist in asking 'if what is is one, then it is one what?'.

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is, rather, the complementary passage of his critique. In what sense of unity did the Eleatics claim that all is one?

1.4.1.2. *Ex parte unius*  

*Phys.*, 185b5-186a3  

(trans. Clarke 2019)

Further, since one itself is also said in many ways, just as being is, it is necessary to investigate in what way they say that the universe is *one*. And we call one either *(1)* the continuous, or *(2)* the indivisible, or *(3)* those things of which the account of their essence is one and the same, such as *methu* and *oinos*.

Now, if it is continuous, the One is many. For the continuous is divisible to infinity. (And there is a difficulty with regard to the part and the whole, although presumably it is not [a difficulty] for the argument, but [a difficulty] in its own right. That is, whether the part and the whole are one or more than one, and how they are one or more than one, and if they are more, how they are more. This also applies with regard to non-continuous parts. And if each [part] is one with the whole by being indivisible [with respect to the whole], then [there is the difficulty] that they [sc. the parts] also bear this relation to one another.)

But if it is one by being indivisible, then nothing will be a quantity or a quality, nor then will what is be unlimited, as Melissus says, nor limited, as Parmenides says. For the limit is indivisible, but not the limited thing.

But if all beings are one in account, as are mantle and cloak, then it follows that they are affirming the account of Heraclitus. For to be good and bad will be the same, and to be good and not-good, so
οὐκ ἀγαθόν, καὶ ἄνθρωπος καὶ ἵππος, καὶ οὐ περὶ τοῦ ἕν εἶναι τὰ ἄντα ὁ λόγος ἔσται ἀλλὰ περὶ τοῦ μηδέν—καὶ τὸ τοιούτῳ εἶναι καὶ τοσοῦτον ταυτόν.

that the same thing will be good and not-good, and a human and a horse, and their account will not be about the fact that the beings are one, but about the fact that they are nothing. And to be this quality and this quantity will be the same.

The section displays Aristotle’s distinction of three different senses of unity, each of which turns out not to be a helpful way of understanding the Eleatic hypothesis. In order for the argument to work, the list of ways of being one needs to be exhaustive—or at least to consist of the only sensible options we should take into account. However, if compared with other places of the Aristotelian corpus, it does not appear to meet this requirement, at least prima facie. In the next table, I sketch the descriptions of τὸ ἕν that can be found throughout the Corpus Aristotelicum.

<table>
<thead>
<tr>
<th>Physics</th>
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<tr>
<td>1.2</td>
<td>Δ.6</td>
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<tr>
<td>accidental unity</td>
<td>(Δ.1) unity as continuity</td>
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<td>(1) unity as continuity</td>
<td>(I.1a) unity as continuity</td>
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<td>(2) unity as indivisibility</td>
<td>(I.1b) unity as wholeness</td>
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<td>(3) unity because the definition of the essence is one</td>
<td>(Δ.3) unity because the definition of the essence is one</td>
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<tr>
<td>(1.2a) unity as being a universal</td>
<td>(I.2a) unity as being a universal</td>
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<tr>
<td>(I.2b) unity as being a particular</td>
<td>(Δ.3) unity because the definition of the essence is one</td>
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89 It should be observed that, even if Aristotle carefully discerns different understandings of ‘being one’, he never clearly discriminates between different uses of this notion. In particular, he does not seem to differentiate between a monadic and a dyadic (or polyadic) use of ‘one’. See, in particular, Mariani 2005. As can be seen in the table, Aristotle treats at least one case of dyadic unity (i.e. 3) within his discussion of τὸ ἕν.
There seems to be a certain agreement between our text and the list found in *Metaphysics* Δ.6. What we do not find in the *Physics* (but do find in Delta) is a distinction between accidental and proper ways of speaking of unity. However, this difference can be easily explained in view of the general purpose of *Physics* 1.2. If Aristotle's argument selects the way of understanding ‘one’ that could make sense of the Eleatic claim, the cases of accidental unity are not a reasonable option—especially because, in general, they are considered not to be proper ways in which words are predicated.  

More importantly, Iota suggests that there is a general notion of unity that applies to all cases, i.e. indivisibility. Specifically, while the correspondence between (3)/(Δ.3) and (I.2a-b) is not straightforward, in Iota continuity and wholeness are regarded as two understandings of one and the same notion: indivisibility in time. Following this thought, there is another chapter of Delta that we should turn to: the one dealing with ὅλον. In fact, within the treatment of wholeness, Aristotle distinguishes two understandings of ὅλον that seem to reflect (or be reflected by) (1) and (2) in the *Physics*:

- (a) ἢ γὰρ ὡς ἐκαστὸν ἐν ἦ ὡς ἐκ τῶν τὸ ἕν. τὸ μὲν γὰρ καθόλου, καὶ τὸ ὅλως λεγόμενον ὡς ὅλον τι δυ, οὕτως ἐστι καθόλου ὡς πολλά περιέχει τῷ κατηγορεῖσθαι καθ' ἑκάστου καὶ ἓπαντα εἶναι ὡς ἐκαστὸν, ὃν ἄνθρωπον ἢππον θεόν, διότι ἅπαντα ζώα· (b) τὸ δὲ συνεχὲς καὶ πεπερασμένον, ἵνα ἐν ἓν ἐκ πλειστῶν ἦ, ἐνυπαρχόντων μᾶλιστα μὲν δυνάμει, εἰ δὲ μή, ἑνεργείᾳ.

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(a) For that which is true of a whole class and is said to hold good as a whole (which implies that it is a kind of whole) is true of a whole in the sense that it contains many things by being predicated of each, and by all of them, e.g. man, horse, god, being severally one single thing, because all are living things. 

(b) But the continuous and limited is a whole, when it is a unity consisting of several parts especially if they are present only potentially, but, failing this, even if they are present actually.

The fact that the difficulty raised in *Physics* 1 concerns parts and wholes might already suggest that it is here that we should look for a criterion for the exhaustivity of our argument.

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90 To be precise, Δ.6 presents another list of ways in which ‘one’ is said at 1018a4-9; on the correspondence between the two lists, see Mariani 2005.

91 Indivisibility will play a key role in chapter 3.
But, in addition, in Δ.26 τὸ πᾶν also appears, which is the subject of the Eleatic thesis dealt with in this part of the critique (ἐν τὸ πᾶν).

\[\text{Met., 1024a1-6} \quad \text{(trans. Ross 1963)}\]

\[\text{ἔτι τοῦ ποσοῦ ἔχοντος δὲ ἀρχὴ καὶ μέσον καὶ ἔσχατον, ὅσων μὲν μὴ ποιεῖ ἡ θέσις διαφοράν, πᾶν λέγεται, ὅσων δὲ ποιεῖ, ὅλον. ὅσα δὲ ἄμφω ἐνδέχεται, καὶ ἔλα καὶ πάντα: ἔστι δὲ ταῦτα ὅσων ἡ μὲν φύσις ἡ αὐτὴ μένει τῇ μεταθέσει, ἡ δὲ μορφή οὔ, οἷον κηρὸς καὶ ἱμάτιον· καὶ γὰρ ὅλον καὶ πᾶν λέγεται: ἔχει γὰρ ἄμφω ἄμφω.}\]

Again, of quanta that have a beginning and a middle and an end, those to which the position does not make a difference are called totals, and those to which it does, wholes. Those which admit of both descriptions are both wholes and totals. These are the things whose nature remains the same after transposition, but whose form does not, e.g. wax or a coat; they are called both wholes and totals; for they have both characteristics.

This passage is the key to understanding why the list of ways in which 'one' is spoken of considered in the Physics is exhaustive. In fact, in the argument, Aristotle is discussing the thesis that τὸ πᾶν is ἕν. Since he has already discussed the thesis that all things are one (τὰ πάντα ἓν), this new formulation of the claim points at a single object. The first two understandings of 'being one' he mentions are continuity and wholeness, which represent monadic uses of unity. As was remarked before, this distinction in use is not followed strictly by Aristotle. However, since what is at stake is the kind of monism propounded by the Eleatics, in this particular place he focuses exclusively on those understandings of 'one' that have to do with a single object. He is entitled to assume this since his opponents want there to be only one thing. Moreover, he explicitly treats the case of τὸ πᾶν being one after dealing, in the previous section, with τὰ πάντα being one. If the object of inquiry is τὸ πᾶν contrasted with τὰ πάντα, then the senses of unity we need to check are those that have to do with monadic unity. That is why the notion of ὅλον is the one specifically needed here. To continuity and indivisibility, he adds a case that could be defined as synonymy (in a non-technical sense)—which prevents the possibility that the whole question is reduced to a terminological matter. By so doing, Aristotle covers all the understandings of unity for which the Eleatic claim could possibly make sense from an Aristotelian perspective.

92 On this part of Aristotle’s argument see Crubellier 2019, 73–6.
1.4.2. Aristotle’s second argument against Eleatic monism

1.4.2.1. Against Melissus

Phys., 186a4-22 (trans. Clarke 2019)

Τόν τε δὴ τρόπον τούτον ἐπιούσιν ἀδύνατον φαίνεται τὰ ὄντα ἓν εἶναι, καὶ έξ ήν ἐπιθεικόνουσι, λύειν οὐ χαλεπόν. ἀμφότεροι γὰρ ἑριστικῶς συνογίζονται, καὶ Μέλισσος καὶ Παρμενίδης, ὅτι μὲν οὖν παραλογίζεται Μέλισσος, δήλον (i) ὃιεται γὰρ εἰληφέναι, εἰ τὸ γενόμενον ἔχηι ἀρχήν ἀπαν, ὅτι καὶ τὸ μὴ γενόμενον οὐκ ἔχει. εἰτα (ii) καὶ τοῦτο ἀττητοι, τὸ παντὸς εἶναι ἀρχήν—τοῦ πράγματος καὶ μή τοῦ χρόνου, καὶ γενέσεως μή τῆς ἀρχῆς ἀλλὰ καὶ ἀλλοιώσεως, ὃσπερ οὐκ ἀθρόαις γιγνόμενης μεταβολῆς. ἐπεὶ τί (iii) ἀκίνητον, εἰ ἕν; ὥσπερ γὰρ καὶ τὸ μέρος ἕν ὄν, τὸδὶ τὸ ὕδωρ, κινεῖται ἐν ἑαυτῷ, διὰ τί οὐ καὶ τὸ πᾶν; ἐπεὶ τί (iv) ἀλλοιώσις διὰ τί οὐκ ἄν εἰς; ἀλλὰ μὴν σοδῆ τῷ ἐίθει οἶδε τοῦ τῇ ἕν εἶναι, πλὴν τῷ ἐξ ὧν (ἑτέρους δὲ ἐν καὶ τῶν φυσικῶν τινες λέγουσιν, ἐκείνως δ’ οὐ’ ἀνδρώπος γὰρ ἔπειται ἐτερον τῷ ἐίθει καὶ τάναντι ἅλληλαν.

Τόν τε δὴ τρόπον τούτον ἐπιούσιν ἀδύνατον φαίνεται τὰ ὄντα ἓν εἶναι, καὶ έξ ήν ἐπιθεικόνουσι, λύειν οὐ χαλεπόν. ἀμφότεροι γὰρ ἑριστικῶς συνογίζονται, καὶ Μέλισσος καὶ Παρμενίδης, ὅτι μὲν οὖν παραλογίζεται Μέλισσος, δήλον (i) ὃιεται γὰρ εἰληφέναι, εἰ τὸ γενόμενον ἔχηι ἀρχήν ἀπαν, ὅτι καὶ τὸ μὴ γενόμενον οὐκ ἔχει. εἰτα (ii) καὶ τοῦτο ἀττητοι, τὸ παντὸς εἶναι ἀρχήν—τοῦ πράγματος καὶ μή τοῦ χρόνου, καὶ γενέσεως μή τῆς ἀρχῆς ἀλλὰ καὶ ἀλλοιώσεως, ὃσπερ οὐκ ἀθρόαις γιγνόμενης μεταβολῆς. ἐπεὶ τί (iii) ἀκίνητον, εἰ ἕν; ὥσπερ γὰρ καὶ τὸ μέρος ἕν ὄν, τὸδὶ τὸ ὕδωρ, κινεῖται ἐν ἑαυτῷ, διὰ τί οὐ καὶ τὸ πᾶν; ἐπεὶ τί (iv) ἀλλοιώσις διὰ τί οὐκ ἄν εἰς; ἀλλὰ μὴν σοδῆ τῷ ἐίθει οἶδε τοῦ τῇ ἕν εἶναι, πλὴν τῷ ἐξ ὧν (ἑτέρους δὲ ἐν καὶ τῶν φυσικῶν τινες λέγουσιν, ἐκείνως δ’ οὐ’ ἀνδρώπος γὰρ ἔπειται ἐτερον τῷ ἐίθει καὶ τάναντι ἅλληλαν.

In the previous section, Aristotle has shown that the conclusion of the Eleatics is absurd; now he goes on to show that their arguments are unsound. The general way he proceeds consists in spotting the logical fallacies that underlie their arguments.

The main logical fallacy that Aristotle spots in Melissus' argument could be formalised as follows. Melissus argues: if p, then q, but ¬p, then ¬q, but the negation of the antecedent...
does not logically imply the negation of the consequent. It is not true that, if all that comes 
to be has a beginning, that which does not come to be has none. What can be deduced from 
the first conditional is that, if something has no beginning (¬q), then it is not a γενόμενον 
(¬p).93

The second mistake found in Melissus’ argument is presented in a very compressed 
form.94 Ross observes (p. 471) that, unlike Melissus, Aristotle does not think that all change 
takes place in a particular part of a thing first and then spreads to the whole. In fact, some 
kinds of change do not happen gradually, but rather immediately, as when water freezes 
(according to Aristotle).95 If that is the case, we may draw the conclusion that Melissus’ 
argument is not valid for all kinds of change.

The third absurdity is represented by the thesis that unity implies motionlessness. In fact, 
even if there is only one thing, it can still have motion within itself, as happens with a mass 
of water.

Finally, Aristotle concludes by making two distinct points. First, monism with respect to a 
substrate does not rule out other kinds of χίνησις; no matter in what sense of unity the 
universe is one, there must be at least one respect in which change takes place. Second, it is 
absurd to deny that human beings and horses are different, so there must be some way to 
account for this difference.

1.4.2.2. Against Parmenides

Phys., 186a22-b14

καὶ πρὸς Παρμενίδην δὲ ὁ αὐτὸς 
τρόπος τῶν λόγων, καὶ εἴ τινες ἄλλοι 
eἰσίν Ίθι: καὶ ἡ λύσις τῇ μὲν ὅτι ψευδής 
τῇ δὲ ὅτι οὐ συμπεραίνεται, (I) ψευδής 
μὲν ἡ ἀπλῶς λαμβάνει τὸ ὄν λέγεσθαι, 
And the same sorts of arguments apply to 
Parmenides too, even if certain other arguments are 
specific [to him]. The solution [to Parmenides’ 
argument] is partly that it is false, and partly that it does 
not establish its conclusion. (I) It is false because it

93 Cf. Aristotle’s attack on Melissus at SE, 167b13-23; 168b35-40; 181a27-30. The fact that Melissus’ claims are also 
rejected in the Sophistical Refutations corroborates the idea that Aristotle is dealing with his theses dialectically.
94 A full critical exploration of Melissus’ argument against motion is provided in Phys. 6.4; Aristotle has probably 
in mind Melissus’ fragment B7.
95 Cf. Phys., 236a27; 253b23.

51
λεγομένου πολλαχός, (II) ἀσυμπέραντος δὲ ὅτι, εἰ μόνα τὰ λευκὰ ληφθείσα, σημαίνοντος ἐν τοῦ λευκοῦ, ὀὐθεν ἴπτον πολλὰ τὰ λευκὰ καὶ οὐκ ἐν οὐτε γάρ τῇ συνεχείᾳ ἐν ἑσται τὸ λευκὸν οὐτε τῷ λόγῳ. ἄλλο γὰρ ἑσται τὸ εἶναι λευκῷ καὶ τῷ δεδεγμένῳ καὶ οὐκ ἑσται παρὰ τὸ λευκὸν οὐθὲν χωριστὸν· οὐ γὰρ ἂν χωριστὸν ἄλλα τὸ εἶναι ἑτερον τὸ λευκὸν καὶ ἂν ὑπάρχει, ἄλλα τοῦτο Παρμενίδης οὔπω συνεώρα. ἀνάγκη δὲ λαβεῖν ἐν σημαίνειν τὸ ὄν, καθ’ οὐκ ἐν κατηγορηθῇ, ἄλλα καὶ ἑπερ ἐν καὶ ἑπερ ἐν τῷ γὰρ συμβεβηκὸς καθ’ ὑποκειμένου τινὸς λέγεται, ἀλλ’ ὑπὸκειται τὸ ὄν σημαίνειν ἕν. εἰ οὖν τὸ ὄν μηδενὶ συμβέβηκεν ἄλλα τὰ ἄλλα ἐκείνῳ, τί μακρὸν τὸ ὄν ἑσται τὸ ὄν ἢ μὴ ὄν; εἰ γὰρ ἑσται τὸ ὄν τοῦτο καὶ λευκὸν, τὸ λευκῷ δ’ ἐναι μὴ ἑσται ὑπὲρ ἐν (οὐδὲ γὰρ συμβεβηκέναι αὐτῷ οἶν το τὸ ὄν ὑπέρ γὰρ ἐν ὃ οὐκ ἑπερ ἐν), οὐκ ἄρα ἐν τῷ λευκῷ· οὐχ οὕτω δὲ ἑπερ ἐν τῷ ἐσται τοῦτο οὐχ ἑσται εἰπεῖν ὃτι λευκὸν, τοῦτο ἐν οὐθεν ἑσται εἰπεῖν. 

assumes that being is said in a single way, when in fact it is said in many ways. (II) And it is inconclusive because if the white things were assumed to be the only things, and if the white signifies one thing, nevertheless the white things will be many and not one. For the white will not be one by continuity, nor in account. For to be white and to be the thing that has received [it] will be different—and there will not be anything separate beyond the white; for it is not by being separate but in being that the white and that to which it belongs are different. But Parmenides did not yet see this. It is necessary, then, [for him] to assume not only that being signifies one thing of whatever it is predicated of, but that it signifies both what is being as such and what is one as such. For the accident is said of an underlying subject in such a way that the thing to which being is accidental will not be; for it is different from being. So, there will be a non-being. Now, what is being as such will not be something that belongs to something different. For it will be impossible for it to be a being, unless being signifies many things in such a way that each is something. But being is assumed to signify one thing.

So, if what is being as such is accidental to nothing, but <the other things> are accidental to that, then why does what is being as such signify what is rather than what is not? For if what is being as such is this [sc. being] and white, and to be white is not being as such—for nor can being be accidental to it, for nothing is a being which is not being as such—then the white will be a non-being. And [it will be a non-being] not insofar as it is not something, but insofar as it is not at all. So,
what is being as such is a non-being. For it is true to say that it is white, and this signified a non-being. So, the white too signifies what is being as such. But then being signifies more than one thing. Therefore, nor even will what is have magnitude, if indeed what is is what is being as such. For the being of each of the two parts will be different.

The second section of *Physics* 1.3 is devoted to the refutation of Parmenides’ arguments in support of his thesis that being is one. Parmenides’ general mistake is twofold. On the one hand, Parmenides’ assumption that being is univocal is false. On the other hand, he invalidly draws from its univocity the consequence that there is no plurality. There seems to be a difference in how we should regard the two aspects of the mistake, although they both contribute to the rejection of Parmenides’ theses. In fact, accepting or not accepting the univocity of being could hardly work as a rejection unless the choice is grounded in some deeper reason. This is why Aristotle’s argument has to show that it is this very assumption that results in absurdities. Since it is possible to draw true conclusions even from false premises, Aristotle needs to show that assuming *ex hypothesi* Parmenides’ premise leads us into contradiction.

The argument against Parmenides appears to be in a very condensed form, in which two moments can be distinguished: before and after line 186a32. Aristotle’s general strategy is a *reductio ad absurdum*: (1) he starts by accepting the hypothesis that being means ‘one’; (2) he then tests this hypothesis for the different understandings of ‘one’, and (3) finally shows that the conclusions we can draw from each case contradict our hypothesis. The part of the argument that ends at 186a31 is aimed at demonstrating that Parmenides was failing to see an important distinction within being. What we see after 186a32 is Aristotle correcting his understanding of the initial hypothesis. In order for it to be acceptable, the thesis that being is one should be meant in a more precise sense: being as such is one as such. However, this new hypothesis also results in a contradiction, so the Parmenidean hypothesis must be rejected.
As a first move in his argument, Aristotle substitutes ‘being’ with ‘white’: our hypothesis becomes that there are only white things (μόνα τὰ λευκὰ). Now, presupposing that ‘white’ only signifies one thing does not prevent us from acknowledging many white things. The reason Aristotle adduces is that ‘the white’ cannot be one either by continuity or by being identical in definition. Ross supposes that Aristotle omits the third of the modes of unity that he had listed at 185b7-9 because it is sufficiently obvious that it should be excluded, too. However, that the white might be something indivisible does not seem more peculiar than hypothesising that it should be continuous or one in account. If Aristotle mentions two modes of unity out of three, the reader is rather led to consider the missing mode as the one he or she should accept by means of exclusion. This seems to be very much in line with the aim of the argument. In fact, if the white is not one in the two senses mentioned, then it must be one insofar as it is something indivisible. As a consequence, it is true, at least in some sense, to maintain that there is nothing apart (χωριστόν) from the white. However, Aristotle shows that this is still not enough to guarantee that the white is one. In fact, the colour white and the thing coloured are different ὅπερ ὄν not because they are separate from each other (which would be false in our example), but insofar as the latter is the subject in which the former inheres. In other words, if the white is understood as an indivisible whole, it will still contain in itself two different things, although they form something unitary. Hence, of the elements that compose this unitary whole, τὸ λευκὸν would only represent one out of two—which is at odds with the very hypothesis that there are only λευκὰ.

This part of the proof has been led by presupposing that ‘being’ works in the same way as ‘white’. However, this has turned out not to be the case, because ‘being white’ is different from that thing which, in some sense or other, has received τὸ λευκὸν. Since this first attempt to make sense of the Eleatic tenet has failed, Aristotle now tests the same hypothesis for the alternative possibility.

In the second part of Aristotle's argument, the initial hypothesis is not only that being merely signifies one thing, but that it also signifies both δὲ περὶ ὅν and δὲ περὶ ὅν. These two
expressions are far from clear, at least prima facie, and have given rise to various translations.\textsuperscript{98} I have rendered them as being and unity ‘as such’ and I shall account for my choice in 2.4.

The way the argument works can be reconstructed as follows. In order to make any headway, we have to understand being not as an accidental property, but as said in its own right. Because of this assumption, whatever is predicated of being as such is going to be something different from being. In fact, we have excluded the possibility that being as such inheres in anything else. If we were instead to call both different things ‘beings’, we would be forced to admit that being signifies two things and not only one. In other words, if we want to stick to our new hypothesis, we have to suppose that being only signifies being as such and nothing else. However, this hypothesis too leads to absurdities. On the one hand, if we say that being is being as such and is also white, we shall end up affirming that being as such is nothing. In fact, if being as such is the only being there is, anything that is not being as such will be nothing. So, if white is different from being as such, it signifies nothing.\textsuperscript{99} But if it is true to say that being as such is white, then it is also true to say that being as such is nothing. As a result, being will signify not being rather than being. On the other hand, this also implies that being will turn out to signify both being as such and white, which amounts to saying that it does not only signify one thing (i.e. being as such), but many. This contradicts our initial hypothesis.

Aristotle’s strategy ultimately consists in forcing Parmenides into a dilemma in which neither horn can be accepted. If the Eleatics want being to signify unity, the only understanding of ‘being one’ they can opt for is indivisibility. However, the indivisibility signified by being cannot be reduced to mere separability, because the separable object itself contains at least two different beings: a subject and its attributes. As a consequence, if we want to defend the claim that being is one, we shall have to check if it holds for one and only

\textsuperscript{98} Charlton 1970 and Ross 1979 translate them as ‘what just is’ and ‘what is just one’; Castelli 2018 as ‘what is precisely being’ and ‘what is precisely one’; Clarke 2019 as ‘essentially being’ and ‘essentially one’. The Latin translation used by Aquinas in his commentary has ‘quod vere est’ and ‘quod vere unum est’; in the Latin version of Averroes’ long commentary we also find the alternative translations ‘illud quod est ens’ and ‘illud quod est unum’.

\textsuperscript{99} On the force of σημαίνειν here see Castelli 2018, 87–91.
one of these two elements. However, if we take being to function like an attribute (e.g. white), we have to admit of a plurality of referents; instead, if we take being exclusively to signify being as such, then it will not be possible to predicate unity or any attribute whatsoever of it, unless we are willing to affirm that being is not being. As a result, the dilemma into which Parmenides is forced is a checkmate: either way, his claim that being is one is untenable.\textsuperscript{100}

The dilemmaatic structure of Aristotle’s argument recalls the rejection of Parmenidean monism in Plato’s \textit{Sophist}. Besides this general strategy (which is surely not a \textit{unicum} for either Aristotle or Plato), Aristotle clearly draws on the Stranger’s second argument. In fact, just as in the case of Plato the argument was based on the distinction between two senses of ‘whole’, here too there is a contrast between two senses of being and unity, namely, an accidental and an essential sense. In particular, as in the \textit{Sophist}, here Aristotle also argues that if being is understood as τὸ ἔπερ ἕν, then it cannot be τὸ ἔπερ ἕν and vice versa. This point seems therefore to be the very core of both Aristotle’s and Plato’s rejection of Parmenides’ monism.

1.4.3. ὅπερ ἕν καὶ ἔπερ ἕν

1.4.3.1. On Aristotle’s use of ἔπερ

As was remarked at the end of the previous section, Aristotle’s argument in \textit{Physics} 1.3 hinges on a specific sense in which we should understand Parmenidean being, which is expressed by the phrase τὸ ἔπερ ἕν. Commentators have been puzzled by this expression since antiquity.\textsuperscript{101} The debate can be traced back to the following alternative: either there is a (non-technical or semi-technical) sense in which the ἔπερ-expression plays an important role in the dialectical argument or it should rather be understood as a technical formula denoting what is primarily (κυρίως) and mostly (μᾶλιστα) being. In this case, being would correspond to being itself (τὸ αὐτὸ ἕν) in Platonic terms and to substance (οὐσία) in Aristotle’s more usual terminology. As Castelli remarks, this alternative is less strict than it could appear

\textsuperscript{100} I shall leave aside the last part of Aristotle’s refutation (analysed in Clarke 2019, 133–43), which is only of relative interest for our purposes.

\textsuperscript{101} Starting from Them., \textit{In Phys.}, 10.7-21; see Castelli 2018b, 94.
at first glance. Taking up this suggestion, I shall examine some parallel passages that help us to clarify what is meant by this use of ὅπερ. I shall then reflect more broadly on the phrase as it seems to be used in Aristotle and, finally, I shall consider whether the origins of the ὅπερ-expression can be traced back to the passage of the *Sophist* on which we have been focusing.

To this end, it is useful to have a look at the occurrences of these expressions in the *Corpus Aristotelicum*, which is displayed in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Metaphysics</th>
<th>Physics</th>
</tr>
</thead>
<tbody>
<tr>
<td>δπερ ὅν</td>
<td>Γ (1), H (1)</td>
<td>1 (18)</td>
</tr>
<tr>
<td>δπερ ἕν</td>
<td>Β (1), H (2)</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

It appears that the two expressions are used in only a very few places; moreover, they occur together in both *Metaphysics* H and *Physics* 1. However, such a limited distribution only exacerbates the difficulty of rendering them into English. If we therefore expand our textual search to the occurrences of the expressions δπερ x or δπερ x τι (where x is a nominal element), things appear in a different light:102

102 In the table, the references in bold are the cases where x stands for ὅν; those underlined, the cases where x stands for ἕν.
<table>
<thead>
<tr>
<th>δπερ X</th>
<th>APr</th>
<th>Apo</th>
<th>EN</th>
<th>GC</th>
<th>Met.</th>
<th>Phys.</th>
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<tr>
<td>(1)</td>
<td>49a18</td>
<td>49a18</td>
<td>(2)</td>
<td>(B)</td>
<td>1001a26</td>
<td>186a33</td>
<td>179a5</td>
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<td>1003b33</td>
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<td>(I)</td>
<td>104b6</td>
<td>104b6</td>
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<td>Tot. 93</td>
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<td>16</td>
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<td>4</td>
<td>20</td>
<td>20</td>
<td>5</td>
<td>23</td>
</tr>
</tbody>
</table>
The greatest number of occurrences, besides those in the *Physics*, are concentrated in the *Posterior Analytics*, in the *Metaphysics* and in the *Topics*. Examining some chosen passages will enable us to reflect on the way in which this expression is used.

The most interesting case to analyse is found in *Posterior Analytics* 1.22, which sets out a very important distinction between predications.

Again, the things signifying a reality (τὰ μὲν οὐσίαν σημαίνοντα) signify of what they are predicated of just what is that thing (ὢπερ ἐκείνο) or just what is a particular sort of it (ὦ ὢπερ ἐκείνῳ τί); but the things which do not signify a reality but are said of some other underlying subject which is neither just what is that thing nor just what is a particular sort of it, are incidental, e.g. white of the man. For the man is neither just what is white (ὦπερ λευκόν) nor just what is some white (ὦπερ λευκόν τί)—but presumably animal; for a man is just what is an animal (ὦπερ... ζῷον). But the things that do not signify a reality must be predicated of some underlying subject, and there cannot be anything white which is not white through being something different.\(^3\)

The distinction is between accidental and essential predications. What is of particular interest for the present inquiry is that Aristotle uses the ὢπερ-phrase to clarify what he means by *per se* predication. This has a fundamental consequence: ὢπερ δὲ and ὢπερ δὲ τί should probably not be regarded as technical expressions. The fact that Aristotle uses them to clarify a technical expression (καθ᾽ αὑτό) makes it likely that they are not technical expressions themselves. However, they are certainly used in a rather specific sense, which can be better understood by taking into account a passage from the same book of the *Posterior Analytics*:

Again, what is not said of some other underlying subject—as what is walking is something different walking (and white), while a reality (ὦσία), and whatever signifies some this (ὦσα τόδε τί σημαίναι), is just what it is (ἐστιν ὢπερ ἐστίν) without being something else. Thus things which are not <said> of an underlying subject I call things in themselves (καθ᾽ αὑτά), and those which <are said> of an underlying subject <I call> incidentals (συμβεβηκότα).\(^4\)

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\(^{104}\) APo, 73b5-10, trans. Barnes 1984.
Unlike the previous passage, this quotation does not correspond to an entry in the table above, because it is not in the form of δπερ χ. Nevertheless, it is still clear that we are faced with very much the same case as before. A δπερ-clause exemplifies an essential predication. However, here the terms of this exemplification are then set out in a more straightforward fashion: if something signifies a determinate particular, this something will be precisely that which it is (i.e. ἔστιν δπερ ἔστιν) and nothing more. The additional aspect that is pointed out here is the exclusive value of the δπερ-phrase. Hence, it is used to contrast predications where some additional characteristic of an object of reference is given with predications where it is the object itself that is signified. The former is the predication of an accident (συμβεβηκός), the latter of the thing itself (αὑτό) that is in question. In other words, Aristotle is exploiting this value of the strengthened relative pronoun to identify exclusively the proper referent of an expression, by separating it from all the rest of its attributes.

The very same point is used in the Topics, when Aristotle reflects on the choice of some predicates over others in a dialectical discussion; in particular, it is preferable to predicate something belonging to a genus rather than something external to it:

Next, that which is just of a certain kind (τὰ δπερ τόδε τι) is more worthy of choice than that which is not in the genus of that thing, for example, justice is more worthy of choice than the just thing; for the former is in the genus ‘good’, but the latter is not, and the former is that which is just good (δπερ ἀγαθόν), but the latter is not. For nothing is said to be just the genus (δπερ τὸ γένος) which does not actually belong to the genus; for example, the white man is not that which is just a colour (δπερ χρῶμα) and so likewise in the other cases.\footnote{Top., 116a23-28; trans. Tredennick & Forster 1960, slightly modified.}

If we take ‘good’ to work as a genus, the reason ‘justice’ is a better predicate than ‘just thing’ is that, while ‘justice’ can be regarded as a particular of the genus, ‘just thing’ does not belong to the genus. Also in this case, in order to phrase this relation, Aristotle uses the δπερ-expression. He thus shows not only that all things of which we say they are δπερ χ (where χ is a genus) belong to one and the same χ, but also that they are the only things that belong to χ. In that sense, checking whether we can say that ‘white man’ is δπερ χρῶμα is a reliable test of
whether two things belong or do not belong to the same genus because of the exclusive force of ὅπερ: it picks exactly what belongs to the genus ‘colour’.

The passage where the force of ὅπερ is most clearly exclusive is found in *Metaphysics* Γ:

And in general those who say this do away with substance and essence (τὸ τί ἦν εἶναι). For they must say that all attributes are accidents, and that there is no such thing as ‘being a man as such’ (τὸ ὅπερ ἀνθρώπῳ εἶναι) or ‘an animal’ (ἢ ζῷῳ εἶναι). For if there is to be any such thing as ‘being a man as such’ this will not be ‘being a not-man’ or ‘not being a man’ (yet these are negations of it); for there was one thing which it meant, and this was the substance of something. And denoting the substance of a thing means that the essence of the thing is nothing else. But if its being a man as such is to be the same as either being a not-man as such or not being a man as such, then its essence will be something else. Therefore our opponents must say that there cannot be such a definition of anything, but that all attributes are accidental; for this is the distinction between substance and accident—‘white’ is accidental to man, because though he is white, he is not white as such (ὅπερ λευκόν).

In this passage, Aristotle is discussing the position of those thinkers who deny the principle of non-contradiction. What is interesting for our purposes is that Aristotle uses the expression ὅπερ in order to point out that signifying substance amounts to stating that something is nothing other than itself. In fact, if we affirm that man is both ‘a man as such’ and its negation (either ‘not a man as such’ or ‘a not-man as such’), we shall not have a definition anymore, for all predications will be accidental. It appears therefore that, in this case too, Aristotle is using this expression because of its exclusive value. As such, the passage seems to be in line with the previous ones, even though each belonged to a different context. What we can conclude from this rapid overview of the supposedly technical use of ὅπερ is the following: Aristotle does not use ὅπερ in a technical sense, but rather emphasises and exploits the sense of exclusively defining the object to which it refers. If we now look back


107 Hence, while I agree with Clarke 2019, 118–21, I prefer to think that Aristotle’s use of the ὅπερ-expression in place of καθ᾽ αὑτό is justified by the dialectical context and because of its exclusive force, which plays a crucial role in Aristotle’s refutation. This is why in my translation I opt for ‘being/one as such’ as opposed to ‘essentially being/one’.
at the argument in Physics 1.3, we can confirm these conclusions. In fact, the contradiction underlying Parmenides’ position arises because he imposed too tight a relation between being and unity. As becomes manifest, after Aristotle’s rephrasing of the initial hypothesis in his rejection, Parmenides’ being must signify both ὅπερ ὄν and ὅπερ ἕν; however, each excludes the other.

1.4.3.2. ὅπερ ἕν in the Sophist

The expression ὅπερ ἕν also appears at Sophist, 244c1. In the next paragraphs I am going to present an overview of ὅπερ ἕν in the Platonic corpus in order to see if we can find a use of the expression analogous to that found in Aristotle. The following table displays all the occurrences of ὅπερ ἕν where—as in the Aristotelian case—x is a nominal element.

<table>
<thead>
<tr>
<th>Charmides</th>
<th>Gorgias</th>
<th>Phaedo</th>
<th>Sophist</th>
</tr>
</thead>
<tbody>
<tr>
<td>160e4</td>
<td>448b6</td>
<td>103c13</td>
<td>244c1</td>
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<td></td>
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The first datum that can be noticed in the table is that the number of occurrences is considerably lower than in Aristotle’s case. Furthermore, in both the Gorgias and the Phaedo, the phrase is apparently used unemphatically. However, it is useful to have a look at these passages, because they might shed light on the use of the same expression in the Sophist.

(1) Well, I think, he said, that temperance makes men ashamed or bashful, and that temperance is just what modesty is (ὅπερ αἰδὼς). (Charm., 160e4-5; trans. Lamb 1979, slightly modified)

(2) Then I ask you, if Gorgias chanced to be skilled in the same art as his brother Herodicus, what should we be justified in calling him? Just what we call his brother (ὅπερ ἐκεῖνον), should we not? (Gorg., 448b4-6; trans. Lamb 1975, slightly modified)

(3) ‘Moving on then, consider the following’, he said: “and see if you can agree. You call something hot and something cold, don’t you?”
‘I do.’
‘Are they just what you call “snow” and “fire” (ὅπερ χιόνα καὶ πῦρ)?’ (Phdo, 103c10-13; trans. Sedley & Long 2010)

(4) ‘(…) presumably the odd must always be given this name that we are now uttering, mustn’t it?’

‘Certainly.’

‘Is it the only thing of which that is true – this is my question – or is there also something else, which is not just what the odd is (οὐχ ὅπερ τὸ περιττὸν), but all the same must always be called “odd” too, together with its own name, because its nature is such that it is never deprived of the odd? (…) Consider the case of threeness. Don’t you think that threeness should always be called both by its own name and by the name of the odd? The odd is not just what threeness is (οὐχ ὅπερ τῆς τριάδος), but nevertheless threeness, fiveness, and an entire half of the number series are somehow naturally such that each of them is always odd, despite not being just what the odd is (ὅπερ τὸ περιττὸν). Again, the two, the four and in its turn the entire other column of the number series are each always even, despite not being just what the even is (ὅπερ τὸ ἄρτιον). Do you accept that or not? (Phdo, 103e9-104b4; trans. Sedley & Long 2010)

Unlike the instances we have seen in Aristotle, it seems that here ὅπερ has a less emphatic force. In examples (2) and (3) the verb that needs to be understood in order to complete the clause is καλῶ—not εἰμί. This rules out the possibility that we are facing a technical use of the same expression. By contrast, in (1) and (4) the verb governed by ὅπερ is, explicitly or implicitly, εἰμί. So, in these cases ὅπερ x can be interpreted as having an emphatic nuance, especially when it is contrasted with things that only take the name of x or that are x but not that which x is—as in the closing lines of the last passage.

After marking this distinction, we can turn back to the Sophist passage, which reads as follows:
As can be seen from the Greek, the passage seems to allow for both interpretations of the ὅπερ ἕν. However, the use of καλεῖτε immediately before the Stranger’s second question strongly suggests that this is the verb that is omitted—as in examples (2) and (3) rather than (1) and (4): ‘ὅπερ ἕν καλεῖτε;’ (‘is it that very thing which you call “one”?’). In the light of this, what importance can we attribute to the fact that ὅπερ ἕν is found both here and in the Physics?

In section 1.3.3, it was established that the rejection of the Eleatics in the Physics is closely related to the discussion of Parmenidean monism in the Sophist. After surveying both the Aristotelian and the Platonic uses of ὅπερ, we can draw the conclusion that Aristotle relies on a well-established, although probably not fully regimented, technical use of ὅπερ-phrases in Plato’s philosophical language. Within this framework, what we can safely affirm with respect to the ὅπερ-expression in the Sophist is that it confirms that Aristotle has in mind the Platonic passage in question. However, we could even go so far as to suppose that Aristotle borrows the formulation of the problem from the Sophist and loads the ὅπερ with a more regimented and technical sense than in the Platonic passage. In the text of the Physics this happens in two steps. Aristotle first expresses his perplexity in exactly the same terms as the Stranger: Parmenides must have considered not only that being signifies one thing, but that the single thing signified is precisely the same thing that being and unity signify. The problem with this identification is that it is too tight; it is also exclusive, as the opponent claims there is just one thing. On the other hand, the Stranger also claims that, if we understand ἕν as whole in a strong sense (i.e. as completely partless), then we cannot say that being is one. Although the expression Plato uses is αὐτὸ τὸ ἔλον—and not τὸ ὅπερ ἔλον—the argument seems to be grounded in the very same idea that underlies Aristotle’s. In both the Sophist and the Physics, these expressions have an exclusive force. Accordingly, we can
conclude that the ὅπερ-expression in Aristotle’s *Physics* 1.3 is used in a technical sense that does not, however, presuppose Aristotelian substance. Τὸ ὅπερ ἕν and τὸ ὅπερ ὄν mean respectively ‘exclusively “one”’ and ‘exclusively “being”’, whatever ‘one’ and ‘being’ might be taken to mean. That said, this interpretation does not prevent ὅπερ from being used to define substance in particular occurrences, but this will depend on the context of use rather than on the intrinsic meaning of the expression.

If my reconstruction of the usage of this expression in Aristotle is correct, it plays a crucial role in *Physics* 1.3, insofar as it leads us to focus on the very core of Eleatic monism: the problems with claiming that being signifies one thing (ἓν σημαίνειν τὸ ὄν).

Aristotle’s λύσις therefore demonstrates why it is false to assume that being signifies one thing. Since this assumption was incompatible with any investigation of principles, once this point has been accepted, the ground is clear for an inquiry into causes. This introduces a broader question as to the role of unity and being not in physics, but in ‘another science or one common to all’. We too should thus turn to ‘the books that come after the Physics’.

1.5. **One being but many causes**

In the *Metaphysics*, Aristotle’s discussion of τὸ ἕν makes its first appearance in book Alpha Meizon, once again in the context of his confrontation with his predecessors. Aristotle thinks that the majority of these philosophers maintained that the principles of all things are material principles. They shared the view that this principle is (a) that of which all beings are constituted and at the same time (b) that from which they stem and into which they are going to dissolve. What they disagree on is the number and the kind of such principles. In this section, I am going to focus on Aristotle’s remarks on those thinkers who posited only one principle, among whom Parmenides seems to occupy a special position.

After recalling his predecessors from Thales down to Anaxagoras, Aristotle points out that their principles turn out to be insufficient to explain generation and corruption. In fact, whether they posit one or more elements, they cannot answer the question ‘why does change occur?’ or ‘what is the cause of change?’. In other words, the one principle that they posit as a material substrate cannot additionally be the cause of its becoming. They ought to
have remarked that the latter is rather a different principle from the material cause, namely what Aristotle calls ‘that from which change occurs’:

Met., 984a25-b1  (trans. Barney 2012, modified)

τὸ δὲ τοῦτο ζητεῖν ἐστὶ τὸ τὴν ἑτέραν ἀρχὴν ζητεῖν, ὡς ἂν ἡμεῖς φαίημεν, ὡθεὶς ἀρχή τῆς κινήσεως. οἱ μὲν οὖν πάμπαν ἐξ ἁψάμενοι τῆς μεθόδου τῆς τοιαύτης καὶ ἐν φάσκοντες εἶναι τὸ ὑποκείμενον οὐθέν ἐδυσχέραναν ἑαυτοῖς, ἀλλὰ ἔνιοί γε τῶν ἓν λεγόντων, ὡσπερ ἡττηθέντες ὑπὸ ταύτης τῆς ζητήσεως, τὸ ἓν ἀκίνητόν φασίν εἶναι καὶ τὴν φύσιν ὅλην οὐ μόνον κατὰ γένεσιν καὶ φθοράν καὶ κατὰ τὴν ἄλλην μεταβολὴν πάσαν.

To search for this is to search for the other cause, as we would say, that from which comes the beginning of change. Well then, those who at the very beginning touched on this subject, and said that the underlying substrate was one, didn't give themselves a hard time about it; but some of those who said it was one, as if defeated by this search, say that the one and nature as a whole is unchangeable, not only in respect of generation and destruction but also in respect of all other change.

The general picture emerging from this passage is that none of the monists\textsuperscript{108} was able to discover a cause other than matter, even though they were engaged in a physical investigation. However, Aristotle remarks that a second group of thinkers (in all likelihood, the Eleatics) was somehow defeated by the search itself for a cause of change. This may strike the reader as somewhat bizarre, given that, in Phys. 1.2, Aristotle had argued that their strict monism would not allow any kind of principle nor, \textit{afortiori}, any principle of change whatsoever. However, the contrast with the attitude displayed by the other monists—who \textit{οὐθέν ἐδυσχέραναν ἑαυτοῖς}—strongly suggests that the Eleatics did try to explain at least some form of change, albeit unsuccessfully. Starting from the premise that there is no generation or destruction, they were forced to deny all other forms of change as well. A reason for this philosophical defeat is suggested by Alexander: having hypothesised that the all is one, they wondered how this one thing was supposed to change from itself but were no longer able to save (\textit{σώζειν}) the oneness of their being, if not by denying what is evident (τὰ φανερά).\textsuperscript{109} That said, Aristotle seems to regard Parmenides as an exception even among the Eleatics.

\textsuperscript{108}The Milesian school, Heraclitus and the Eleatics are included.

\textsuperscript{109}Alex., \textit{In Met.}, 321.1–6.
Following the metaphor used in the preceding lines, we can conclude that Parmenides was probably not completely defeated by the search for an efficient cause. Here Alexander’s commentary reports Theophrastus’ *Physical Opinions* in support of what he considers to be Aristotle’s position. According to Theophrastus’ interpretation, Parmenides both affirms that the universe is eternal and tries to account for the generation of beings; however, only from the viewpoint of truth does he assume that everything is one and ungenerated, whereas, following the opinion of the many, he posits two principles to explain how things come to be. These principles are fire and earth, which respectively function as a material and an efficient cause. Accordingly, in Aristotle’s history of his predecessors, Parmenides is described as an exception not *qua* monist, but insofar as he attempted an explanation of things that come to be and pass away.\textsuperscript{110} Given the context of the *Metaphysics*, he thus seems to make some headway in the study of the principles of being. His intuition is confirmed by the opening lines of A.4, where Aristotle attributes the discovery of the efficient cause to Hermotimus of Clazomenae, but then leaves open the possibility of dating it further back to previous thinkers.

\textsuperscript{110} Alex., *In Met.*, 31.9–16.
After Hermotimus, Aristotle had mentioned his fellow citizen Anaxagoras, whereas now, after introducing love, he will move on to deal with Empedocles. Even if these philosophers have contributed to our investigation of causes, Aristotle does not, as it were, ascribe to them the full merit of their intuitions. In fact, what he is interested in is less what causes they might have happened to introduce than *how* they used them as principles of explanation. This point is made clear in the following passage and will play a crucial role in the next section.

Met., 985a10-18 (trans. Betegh 2012, slightly modified)

—οὗτοι μὲν οὖν, ὡσπερ λέγομεν, καὶ μέχρι τούτου θεῦν αἴτιαν ἐφῆψαν ὃν ἡμεῖς διωρίσαμεν ἐν τοῖς περὶ φύσεως, τῆς τε ὑλῆς καὶ τοῦ ὅθεν ἡ κίνησις, ἀμυδρῶς μέντοι καὶ οὐθέν σαφῶς ἀλλ᾽ οἶν ἐν ταῖς μάχαις οἱ ἀγόμναστοι ποιοῦσιν καὶ γάρ ἐκείνοι περιφερόμενοι τύπτουσι πολλάκις καλὰς πληγὰς, ἀλλ᾽ οὔτε ἐκείνοι ἀπὸ ἐπιστήμης οὔτε οὗτοι ἐοίκασιν εἰδόσι λέγειν ὅ τι λέγουσιν· σχεδὸν γὰρ οὐθὲν χρωμενοὶ φαίνονται τούτοις ἀλλ᾽ ἡ κατὰ μικρόν.

These people then, just as we say and up to this point, got engaged with two of the causes that we distinguished in our work on nature—i.e. with both the matter and the source of change—indistinctly however and in no respect clearly, but acting like unexercised men in fights; for these too often bring in nice blows as they circle around their enemies, but they do not do it on the basis of knowledge, just as these do not look like people who know how to say what they say; for they evidently make practically no use of these causes, if not to a small extent.

In *Metaphysics* A.5, Aristotle turns to considering the doctrines of the Pythagoreans, who explicitly posited τὸ ἕν as a principle. Within his exposition of their theories, Aristotle again mentions the Eleatics, declaring that they should be left aside for the purpose of his present investigation. As we saw, this passage provides some interesting hints as to Aristotle's overall interpretation of Parmenides' monism. What should be considered now is the role of these lines within Aristotle's general discussion of his predecessors.

At 987a9-13, introducing those philosophers whom he calls οἱ Ἰταλικοί, Aristotle points out an important difference that distinguishes them from other thinkers, both earlier than and contemporary with their schools. Modern editors, with the exception of Primavesi, accept the following reading of the manuscripts:

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μέχρι μὲν οὖν τῶν Ἰταλικῶν καὶ χωρίς ἐκείνων μορυχώτερον εἰρήκασιν οἱ άλλοι περὶ αὐτῶν, πλὴν ὡσπέρ εἴπομεν δυον τε αἰτίαιν τυγχάνοσι κεχρημένοι, καὶ τού-των τὴν ἑτέραν οἱ μὲν μίαν οἱ δὲ δύο ποιοῦσι, τὴν δὲν ἡ κίνησις.

So up to the Italians, and aside from them, the rest spoke rather obscurely about them, except as we said we find them making use of two causes, and of these some make the second—the source of change—one, others two. (trans. Schofield 2012)

The adverb μορυχώτερον is problematic in many respects but seems to have two advantages: it is a lectio difficilior and it reflects a negative judgment that Aristotle expresses vis-à-vis his predecessors throughout the whole first book of the Metaphysics. However, some good reasons to reject this reading and to accept an alternative can be found as early as Alexander's commentary. While accepting μοναχώτερον ('too monistically'), Alexander mentions that some manuscripts read μορυχώτερον—which is thus, in his view, an alternative reading. For that term itself he suggests two possible explanations: 'more obscurely' (σκοτεινότερον) or 'more imprecisely' (μαλακώτερον). Alexander claims that, besides being an unfamiliar word, this reading is also inconsistent with Aristotle's general discourse, in which the Pythagoreans too are charged with unclarity. Moreover, had he wanted to say 'more imprecisely', Aristotle could have chosen μαλακώτερον or other expressions that he more commonly uses. Finally, at the very end of book A, Aristotle says that all previous philosophers that expressed their views on principles talked vaguely (ἀμυδρῶς). 111 To these arguments, we should add that the adverb μορυχώτερον is a hapax legomenon in Greek, insofar as it only occurs in this place of Aristotle's Metaphysics and in Alexander's comment on this very passage. This also suggests that it could be a corruption of μοναχώτερον rather than an alternative reading. 112 As a result, at this point of his investigation,

111 Met., 993a13.
112 The Arabic translation of Aristotle's passage seems to confirm this reading: ‘Ilà waqti l-īṭālīyyīna wa-takallama fī hádīhi l-āḥarīna ᵍgayru ḥū’dî l-kalāmān yasīrân ḍayrû annahī fīl-ḥarakatun l-ūlâ ṣnaṭâni ʾa’nî l-šay’a llâḏī anhu takūnu l-ḥarakatun (Averr., Tafsīr 1, 56.15-57.2).’ ‘Up to the time of the Italians, (and) the others different from these spoke about these things in simple words, except that, as I said, those who made the causes two differ regarding the other cause, because some of them say that it is one and some two, I mean the thing from which movement is.’ Although 'simple' cannot be regarded as a good translation of μοναχώτερον, it
what Aristotle laments regarding this first group of thinkers as opposed to the Pythagoreans is not their unclarity, but their treating all causes in a rather—perhaps excessively—monistic way. That this is a sound reading of the text is confirmed by the syntactic opposition between μοναχώτερον and the concession made for those thinkers who somehow worked with two or more principles (marked by πλὴν).

The way in which this reading improves our understanding of the text is the following: at this point of the Metaphysics, Aristotle is clear that the main problem with positing merely one principle is that this one principle takes on many different causal roles. Since, however, each of these roles expresses the function of a different causal principle, we are ultimately facing some form of pluralism, rather than monism. In other terms, the problem at stake in these pages of Metaphysics A is the unity of causes, as was remarked by Betegh.113 Showing that this problem is crucial for Aristotle’s own investigation will be the next step in my research.

1.6. **The pay-off of Aristotle’s confrontation with the Eleatics**

In this section I have examined Aristotle’s confrontation with the Eleatics in two places of the Corpus Aristotelicum. I have pointed out that Aristotle views Eleaticism as an extreme form of monism and that Parmenides distinguishes himself for being a more refined proponent of what can be called change-free monism. Such a philosophical position is problematic for at least two reasons. First, in his general argument against monism, Aristotle shows that positing only one being prevents the philosopher from admitting principles or treating the one being as a principle. This undermines the very possibility of undertaking an inquiry into causes. As a result, Eleatic monism leaves no room whatsoever not only for an investigation of change, but more generally for any causal inquiry. Second, Aristotle shows that Melissus’ and Parmenides’ arguments are faulty insofar as they rest on a wrong, monistic, premise. In the Physics, Aristotle divides his critique into two distinct sections, of which the former is aimed at clarifying how one could understand the Eleatic theses, the

113 Betegh 2012, 127.
latter more explicitly at rejecting them. As such, the dialectical analysis provided is of elenctic character—as the comparison with Plato’s *Sophist* has contributed to showing.

There is, however, an important sense in which a critique of Parmenides’ and Melissus’ theses can be used to the advantage of Aristotle’s own study of the causes of being. Alpha Meizon’s attitude towards earlier thinkers has been recently described by Rachel Barney as dialectic in a very specific sense. Aristotle undertakes a dialogic examination at once refutative and constructive, in that, although superficially elenctic, it aims to clarify the claims of his predecessors, refute what is false in them and extract what is true for constructive use. As such, this kind of ‘clarification-dialectic’ can serve the purpose of adjusting the views of previous philosophers so that they can contribute to our own knowledge of truth. This is particularly important if we wish to draw more general conclusions about the *Metaphysics* as a whole. If we accept that, rather than a preliminary discussion, book A already constitutes the beginning of the metaphysical inquiry, it provides us with some precious hints as to Aristotle’s overall investigation.

Against this background we can reflect on how the present analysis also contributes positively to the study of being and the one in the *Metaphysics*. Crucially, Parmenidean monism will play a key role in the dialectical investigation that will follow in *Metaphysics* B. In particular, Parmenides is mentioned—along with Pythagoras and Plato—in B.4, where Aristotle develops the *aporia* that concerns the substantiality of being and the one (*aporia 11*). Thus, the pay-off of Aristotle’s critique of the Eleatics is a necessary requirement for his own metaphysical investigation, namely that we regard being as not univocal, but said in many ways. This examination of Aristotle’s attitude towards the Eleatics is therefore fundamental as a prolegomenon to the study of being and the one, to which I shall now turn.

2. Aristotle's Parricide of Plato

Introduction

In the first chapter of my thesis I reconstructed Aristotle's rejection of Eleatic monism, which enabled me to infer a necessary requirement for Aristotle's metaphysical investigation, namely that we regard being as not univocal, but said in many ways. On Aristotle's view, the Eleatics' failure to recognise the multivocity of being cost them the very possibility of undertaking an inquiry into principles and causes—as well as a prominent position in Metaphysics A's survey of previous philosophers. Specifically, since the Eleatics were not aware of the distinction between essential and accidental predication, they admitted only one being, thus rejecting not only any kind of plurality but also the possibility of talking about principles of the one being or treating the one being as the principle of something else. However, Parmenides will still play a crucial role in the aporia of Metaphysics Beta which deals with the ontological status of being and the one: 'Are being and the one the substances of all things or is there something else which underlies them?'. It will turn out that, as a sort of ancestral sin, Parmenides' mistake is inherited by his philosophical descendants, amongst whom Aristotle places Plato himself. More importantly, Aristotle's discussion of the eleventh aporia will reveal the philosophical relevance of his engagement with his predecessors in the economy of the Metaphysics. To this end, in the first half of this chapter (2.1) I shall pin down the general characteristics of Metaphysics Beta, while in the second half (2.2) I shall analyse Aristotle's discussion of what he defines as the hardest of all difficulties.
2.1. The aporiai of book Beta

The third book of the Metaphysics sets out a series of difficulties that will have to be discussed and solved in order to discover the characteristics of the sought-for science. That is why scholars agree that Beta is dialectical, aporetic, and preliminary to the books that follow in the Metaphysics. However, it is not clear in what sense Beta has these three characteristics.

I shall devote sections 2.1.2-3 to showing how this treatise contributes to the general project of Aristotle's work. To this end, I shall divide this section into three parts. The first point that requires scrutiny is whether Aristotle is following a specific method in Beta and what this tells us about the difficulties he raises. Accordingly, in 2.1.1 I shall deal with the problem of Beta's general dialectical character, while in 2.1.2 I shall address the question of how Beta is aporetic in a specific sense. Finally, in the third and last part of this section, I shall show how Beta as a whole follows on from the programme begun in the first books of the Metaphysics and is supposed to contribute to the remainder of Aristotle's Metaphysics. This will enable me to outline the framework within which Aristotle's eleventh aporia is formulated.

2.1.1. Investigating through aporiai

Book Beta is traditionally referred to as the book of aporiai. In its opening, Aristotle states that we must consider some fundamental problems prior to undertaking our search for σοφία. Before listing such problems, he also provides three claims to persuade the reader that this ought to be the first item on our agenda. (1) Those who do not know how a knot has been tied are unable to loosen it, so, if they have been tied, they cannot free themselves and move forward; (2) those who are at a loss are similar to people who do not know which direction to take and who would fail to recognise their destination, even if they should have

115 Madigan 1999, xii–xl.
116 Aristotle himself refers to Beta as the book of ἀπορίαι at I.2, 1053b10, M.2, 1076b1, M.10, 1086b15.
reached it; (3) a judge who has listened to the reasons of both parties is in a better condition to formulate his or her verdict.\textsuperscript{17}

Claims 1 and 2 are based on a comparison between our condition and that of somebody who is unable to move forward; in contrast, the last argument has rather to do with a deliberative context, whereby the choice between two opponents in court is at stake. It should be noted that these arguments seem mainly aimed at gaining the reader’s assent; as a result, we ought to be careful in charging them with specific argumentative value. That said, Aristotle’s language in Beta is reminiscent of the \textit{Topics}, where Aristotle states that the aim of dialectic is to discover a method to discuss any issue whatsoever by starting from reputable opinions (ἔνδοξα) without contradicting oneself. At \textit{Topics} 1.2, 101a34-36, Aristotle explains that this discipline is useful ‘for those which are sciences according to philosophy (πρὸς δὲ τὰς κατὰ φιλοσοφίαν ἐπιστήμας),’ ‘because, if we are able to raise difficulties on both sides, we will more easily discern both truth and falsehood on each point (ἦτι δυνάμενοι πρὸς ἀμφότερα διαπορήσαι βάρον ἐν ἑκάστοις κατοψῷμεθα τάληθες τε καὶ τὸ ψεῦδος).’ This passage seems to echo the very same idea that was expressed in B.1 in support of the necessity of raising \textit{aporiai}. In line with the third claim adduced there, we can say that raising difficulties in both directions puts us in a better position to discern and judge what is true and what is false.\textsuperscript{18}

This general application of dialectic is found in many different parts of the \textit{Corpus Aristotelicum} and has received a great deal of attention.\textsuperscript{19} Within the debate on the role of dialectic as an Aristotelian method, Enrico Berti advanced a suggestion that should be discussed in detail. At the beginning of his \textit{Eudemian Ethics}, Aristotle establishes a criterion according to which one should select the opinions which are worth considering in an ethical inquiry. He distinguishes three kinds: those expressed by children, ill or insane people; those expressed by the majority of people; finally, those of the wise. Only the latter are said to be relevant to the analysis: ταύτας οὖν καλῶς ἔχειν τὰς δόξας ἔξετάξειν, ‘it is good to examine these opinions’. In contrast, regarding the things said by children, by the ill or by the insane, he states: ἂν ὁμοθέσις νοῦν ἔχων διαπορήσειν, ‘no sane person would raise \textit{aporiai}.’ Now, the parallelism between the two sentences suggests that the meanings of διαπορέω and ἔξετάξω

\textsuperscript{17} \textit{Met.}, 995a33-b4.

\textsuperscript{18} For a detailed account of this use of dialectic see Rapp 2018.

\textsuperscript{19} See \textit{Introduction}.
here are basically the same. However, upon closer inspection, the two verbs display a morphological difference which has important consequences for their meanings. On the one hand, the aorist ‘διαπορήσειν’ seems to denote the beginning of an action in a given context. On the other hand, the present infinitive ‘ἐξετάζειν’ conveys an idea of continuity or repetition and seems thus to refer to a general habit. This suggests that, although the two verbs can have very close meanings, their resemblance should be qualified. Accordingly, this passage cannot be regarded as evidence for identifying dialectic and aporetic method. What it seems to suggest is that, when starting an investigation, (1) one should ἐξετάζειν the reputable opinions that have been expressed on that given subject; (2) the first step of this procedure is to διαπορῆσαι, to raise difficulties. I shall come back to the vocabulary of aporia and to its scientific role in the next paragraph; in what follows I shall briefly address a broader problem that has to do with dialectic and its relation to other disciplines.

In the second part of *Topics* 1.2, Aristotle defines dialectic precisely as a procedure of examination.

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\[\textit{Top.}, \textit{101a36-b4} \quad \text{(trans. Tredennick & Forster 1960)}\]

\begin{quote}
έτι δὲ πρὸς τὰ πρῶτα τῶν περὶ ἐκάστην ἐπιστήμην. ἐκ μὲν γὰρ τῶν οἰκείων τῶν κατὰ τὴν προτεθεῖσαν ἐπιστήμην ἀρχῶν ἀδύνατον εἰπεῖν τι περὶ αὐτῶν, ἐπειδὴ πρῶται αἱ ἀρχαὶ ἁπάντων εἰσί, διὰ δὲ τῶν περὶ ἱκατα τά ἵνα διέλθειν. τοῦτο δ’ ἴδιον ἢ μάλιστα οἰκεῖον τῆς διαλεκτικῆς ἐστιν ἐξεταστικὴ γὰρ ὅσα πρὸς τὰς ἁπασῶν τῶν μεθόδων ἀρχάς ὁδὸν ἔχει.
\end{quote}

Further, it is useful in connexion with the ultimate bases of each science; for it is impossible to discuss them at all on the basis of the principles peculiar to the science in question, since the principles are primary in relation to everything else, and it is necessary to deal with them through the reputable opinions on each point. This process belongs peculiarly, or most appropriately, to dialectic; for, being of the nature of an investigation, it has access to the principles of all disciplines.

It is not clear whether Aristotle is adding a fourth use of dialectic or whether he is simply presenting a further point within the same use. However, what should be noted is that in

120 This was first noticed in Barnes 1980; see also Berti 1995.
121 Aoristus ingressivus, see Kühner & Gerth 1898, I, 155, 5.
these lines Aristotle seems to mention a precise object of inquiry (first principles: τὰ πρῶτα). In contrast, in the previous lines of the passage, he had limited himself to explaining why the dialectical method was useful for sciences in general, not for studying some specific object. On the basis of this passage, scholars have maintained or rejected the idea that it is the business of dialectic to discover first principles.\textsuperscript{123} An exhaustive discussion of this issue would require much more space than can be afforded here. However, the following considerations are relevant to the overall aim of this chapter. Aristotle does not state that dialectic studies the first principles of all sciences, but that it enables us to say something about them. Moreover, this capability is unique to dialectic, because all other sciences rely upon some principles which are proper to a specific domain of knowledge, whereas dialectic alone can deal with principles which are prior to any other specific principle. This suggests that dialectic is the discipline one resorts to whenever one has to do with principles that cannot be treated within the domain of one science.

In general, what can be safely stated after reading these passages of the \textit{Topics} is that Aristotle, in assigning a scientific role to dialectic, is very cautious.\textsuperscript{124} On the one hand, he emphasises the broad domain to which it applies: it has a use that ranges over all disciplines or methods. On the other hand, he confines himself to saying that dialectic ‘has access (ὁδὸν ἔχει)’ to any discipline.\textsuperscript{125} In other words, he does not say that these disciplines (or their first principles) constitute the object of dialectic, but that dialectic helps us to evaluate the authoritative opinions expressed about the first principles of any other discipline whatsoever. The explanation that is given as to why discussing something through ἔνδοξα is the peculiar process of dialectic is that dialectic is an ‘examinative’ discipline. In the light of the parallel passage of the \textit{Eudemian Ethics}, it seems reasonable to conclude that dialectic is designed for examining reputable opinions, even when it comes to things that are prior to anything else. This process might amount to (but is not limited to) analysing the reasons pro and contra any given thesis, so as to be in the best possible position to evaluate the claim in question.

\textsuperscript{123} On relevant secondary literature see \textit{Introduction}.

\textsuperscript{124} On this point, see in particular Menn 1995, 316–8.

\textsuperscript{125} This expression has a parallel in the \textit{Metaphysics} (I.4, 1055a7).
Now, the *Metaphysics* is far from being the only work of the *corpus* where Aristotle’s analysis is introduced by the previous discussion of a group of difficulties.\(^{126}\) However, *Beta* seems to follow a particular pattern, which, according to Michel Crubellier and André Laks, exhibits the following three characteristics:

(a) each question gives rise to two mutually exclusive theses;

(b) the development of each *aporia* involves two (series of) arguments that tackle each of the alternative theses;

(c) no indications are given as to which thesis should be preferred.

By way of introduction, I should like to take a closer look at these three characteristics by studying Aristotle’s vocabulary of *aporia*. The set of words related to ἀπορία has been thoroughly analysed in Motte-Rutten 2001, where four basic meanings of the term are singled out. Ἀπορία can denote a condition of physical lack in either (i) a physiological or (ii) a material sense; it can further convey (iii) an ethical or psychological nuance, describing either a lack of affection or perplexity as to how to conduct oneself in a given situation; finally, it can have (iv) an epistemological or methodological value, signifying critical examination of theoretical difficulties. Although the fourth sense appears to be the only one represented in the occurrences of this and related words in the *Metaphysics*,\(^{127}\) the boundaries between these different nuances are not so sharp. In particular, it is interesting to reflect on the relationship between meanings (iii) and (iv).

Aristotle seems to provide a definition of ἀπορία at *Topics* 6.6, 145b1-19, where he discusses one of the mistakes which concern definitions. It is a mistake to attribute an affection to something that cannot admit of it, e.g. to say that ἡ ἀπορία ἐστὶν ἀντίων λογισμῶν (*an equality of contrary reasonings*), because perplexity is an affection of the soul and not of reasonings.\(^{128}\) In the light of this passage, the core meaning of ἀπορία seems to be its sense (iii): *aporia* is an affection of the soul resulting from the equality of two contrary reasonings. This entails a problem regarding the epistemological status of this equality: do these reasonings need to be contrary reasonings or is it sufficient that they appear to be such?\(^{129}\)

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128 Zadro 1981, 487.
Although Aristotle does not seem to clarify the matter, in most cases he mentions some difficulties precisely in order to opt for one of the alternatives. In fact, Aristotle tends to present *aporiai* as choices between contradictory—rather than simply contrary—alternatives.\(^{130}\) As such, one of the two theses at stake ought to be necessarily true and the other, false. Finally—and more importantly—the *Topics* passage also suggests that the sense of embarrassment does not coincide with the impasse itself, but rather is its effect. These reflections prepare the ground for studying the singular case of book Beta, to which I shall turn in the next section.

Before doing so, a quick historical note, to which I shall return at the end of this chapter. The dilemmatic practice which Aristotle deploys in *Metaphysics* Beta recalls, at least in its general outline, the argumentative strategy which operates in the second part of Plato's *Parmenides*. Given Aristotle's close engagement with the Eleatics in my previous chapter, in the present chapter I shall entertain the possibility of an Eleatic heritage to this procedure, precisely via Plato's later dialogues. Now, although the *Parmenides* has an indisputably methodological character, Verity Harte has recently argued that this is not tied to the dialogue's own use of *aporia* language.\(^{131}\) On the contrary, Plato makes abundant use of ἀπορία and its cognates in the middle part of the *Sophist*, which has already played a crucial role in the first part of my dissertation. As will turn out at the end of this chapter, the analysis of Aristotle's *aporia* on being and the one will enable me to take a further step in the evaluation of Aristotle's debt towards the *Sophist*. Specifically, I shall claim that Aristotle not only inherits Plato's problems but also his very method of going about resolving them. In this respect, it will be useful to take up Lesley Brown's suggestion that, in the *Sophist*, Plato uses *aporiai* to reach results, thus marking off a philosophical application of them from a sophistical one.\(^{132}\)

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\(^{130}\) Aristotle hence seems to think that contrariety is sufficient to give rise to a condition of *aporia*, but almost exclusively discusses pairs of contradictory propositions.

\(^{131}\) Harte 2018.

\(^{132}\) Brown 2018.
2.1.2. The diaporetic method

In the *Metaphysics*, Aristotle refers back to Beta three times by means of the phrase ἐν τοῖς διαπορήμασιν. This gives us some grounds to define it as a diaporetic treatise. In particular, unlike other places in the *Corpus Aristotelicum*, here a whole book is exclusively devoted to listing and discussing a series of *aporiai*, as we read in the opening lines of the book.


\[\begin{array}{l}
\text{ἔστι δὲ τοῖς ἐὐπορήσαι βουλομένοις} \\
\text{προὔργου τὸ διαπορήσαι καλῶς ἢ γὰρ} \\
\text{ὕστερον εὐπορία λύσις τῶν πρότερον} \\
\text{ἀπορομένων ἐστὶ, λύειν δ’ οἷς ἐστὶν} \\
\text{ἀγνοοῦντας τὸν δεσμόν} \ldots \\
\text{For those who wish to get clear of difficulties it is} \\
\text{advantageous to discuss the difficulties well; for the} \\
\text{subsequent free play of thought implies the solution of} \\
\text{the previous difficulties, and it is not possible to untie a} \\
\text{knot of which one does not know} \ldots \\
\end{array}\]

As we saw, the two fundamental meanings conveyed by *ἀπορία* are that of a lack—be it of physiological, material or psychological character—and that of being at a loss as to how to proceed—both with ethical and epistemological implications. The same nuances are conveyed by the verb *ἀπορέω*. As for the compound form *διαπορέω*, telling it apart from *ἀπορέω* is not as straightforward as it might seem. *Διαπορέω* can either work as a synonym of *ἀπορέω* or it can express a more precise meaning: to examine an *aporia*, to go through all its aspects. Accordingly, context plays a fundamental role in establishing whether we are facing an instance of the former or of the latter meaning.

In the *Metaphysics*, all the occurrences of *ἀπορία* we come across can be traced back to its epistemological sense—hence, the usual rendering into English as ‘difficulty’. In the specific case of B.1, we find *ἀπορέω* alongside its derivate forms, which excludes the possibility that *διαπορέω* is understood as a synonym of its cognate. Therefore, the triad *ἀπορέω*, *διαπορέω*, *εὐπορέω* should rather be understood as ‘to raise, develop and solve a difficulty’. As such, it seems to constitute a set of technical terms which describe how one should proceed in

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133 I.2, 1053b10; M.2, 1076b1; M.10, 1086b15.

134 In the *APo* too the expression ἐν τοῖς διαπορήμασιν is used with reference to a previous list and discussion of puzzles.

tackling theoretical problems. However, this first impression is not free from interpretative issues.

The first commentator who described book Beta as διαπορητικόν was Syrianus.\textsuperscript{136} In the introductory remarks to his commentary, he points out that the puzzles raised in this treatise will find no solution before book Gamma, which he in contrast defines as ψηφισματικόν (‘expository’). That said, the first attempts to read the book as complying with a precise epistemological procedure are found only in much more recent scholarship.\textsuperscript{137} In order to check to what extent we can attribute some degree of systematicity to Aristotle’s way of proceeding, I shall take into consideration some relevant passages of his works. In the following table I list all the occurrences of διαπόρευω outside the *Metaphysics* which are accompanied by the adverb πρῶτον.

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<td>4.10</td>
<td>7.15</td>
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<td>90a38</td>
<td>277b29</td>
<td>1225b18</td>
<td>1145b4</td>
<td>464b22</td>
<td>342b26</td>
<td>217b30</td>
<td>1336b26</td>
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<tr>
<td>4.1</td>
<td></td>
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<td>1.13</td>
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<tr>
<td>308a5</td>
<td></td>
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<td></td>
<td>349a14</td>
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</tbody>
</table>

In all these passages, Aristotle sets out to discuss some theoretical difficulties prior to undertaking his own investigation. In the *Posterior Analytics*, a survey of some difficulties related to definition and demonstration precede (in 2.3-7) Aristotle’s positive inquiry into their relationship (in 2.8). Likewise, in the first occurrence of the *De Caelo*, the way for his proof of the uniqueness of the world is paved by the discussion of some difficulties related to its form and matter and by the distinction of the different ways in which we refer to the word ωὐρανός. Finally, the same also applies to the discussion of choice (προαίρεσις) in the *Eudemian Ethics*, to the discussion of comets and the Milky Way first and of winds, rivers and the sea later in the *Meteorologica*, and finally to the discussion of time in the *Physics*. Although in *Physics* 4.10 Aristotle emphasises that undertaking this discussion of difficulties

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\textsuperscript{136} Syr., *In Met.*, 1.19-20 (873b2-3). He uses ‘διαπορητικόν’ interchangeably with ‘ἀπορητικόν’, as appears from 54. 5 (865a1-2).

\textsuperscript{137} Curiously, the family of *aporia* terms has no systematic translation into Arabic (Bauloye 2001) or into Latin (Lambert 2001).
is good (καλῶς ἔχει), this first group of passages displays an order of investigation but provides no hints as to why this should be our first step.

In contrast, the remaining occurrences constitute a group of greater interest for the sake of our inquiry, in that they explicitly state why we must start by raising and discussing *aporiai* on a given topic. In these cases, διαπορέω is both accompanied by πρῶτον and connected to an expression of necessity: the verb δεῖ in the *Nicomachean Ethics* and the adjective ἀναγκαῖος in the *De caelo*, in the *De longitudine et brevitate vitae* and in the *Politics*. This last passage is not useful for our purposes and should thus be excluded: Aristotle promises he will go back to some points of the physical training of young citizens which he had already mentioned, this time by raising and discussing first of all the question of whether they should be excluded or not from such training. Hence, the priority of this question is relative to the local context of utterance, not to the necessity of starting from some preliminary difficulties.138

The second occurrence of διαπορέω alongside πρῶτον in Aristotle's *De Caelo* turns out to be more interesting; in his chapter devoted to the study of weight and lightness, Aristotle states: ‘Let us then first see what others have said, then state the difficulties whose recognition is demanded (ἀναγκαῖον) by the subject, and so reach an explanation of our own view’.139 In this case, two points should draw our attention: (1) the discussion of the difficulties raised on the subject focuses on problems that it is necessary to investigate; (2) this discussion ought to follow an overview of previous opinions expressed on the matter. These two points should be kept distinct, although they constitute two operations which should *both* be carried out at the outset of any investigation. As such, they are *both* described as preparing the ground for Aristotle's own investigation, which implies that these operations have a certain degree of complementarity. As for why the discussion of these difficulties takes place before Aristotle's own, we find but a brief justification: it is required by the subject itself.

138 ἀναγκαῖον, in this context, is not governed by διαπορέω but belongs to the phrase ὅσον ἀναγκαῖον, ‘as far as [it was] necessary’.
139 DC, 308a4-6: Ἰδόντες οὖν πρῶτον τὰ παρὰ τῶν ἄλλων εἰρημένα, καὶ διαπορήσαντες ὅσα πρὸς τὴν σκέψιν ταύτην διελεῖν ἀναγκαῖον, οὕτω καὶ τὸ φαινόμενον ἡμῖν εἴπωμεν περὶ αὐτῶν (trans. Guthrie 1939).
The necessity of diaporetic discussion is also manifest at the beginning of the treatise *De longitudine et brevitate vitae*, which belongs to the *Parva Naturalia*:

*De long.*, 464b19-24  
(trans. Hett 1935)

Περὶ δὲ τοῦ τὰ μὲν εἶναι μακρόβια τῶν ζῴων τὰ δὲ βραχύβια, καὶ περὶ ζωῆς ἄλως μῆκους καὶ βραχύτητας, ἐπισκεπτέον τὰς αἰτίας, ἀρχὴ δὲ τῆς σκέψεως ἀναγκαία πρῶτον ἐκ τοῦ διαπορῆσαι περὶ αὐτών. οὐ γὰρ ἐστι δῆλον πότερον ἕτερον ἢ τὸ αὐτὸ αἴτιον πᾶσι τοῖς ζῴοις καὶ φυτοῖς τοῦ τὰ μὲν εἶναι μακρόβια τὰ δὲ βραχύβια.

Our task is now to consider the reasons why some living creatures are long-lived and others short-lived, and generally to inquire into length and shortness of life. The necessary starting-point of our inquiry is the difficulties that arise on the subject. For it is not clear whether the reason why some animals and plants are long-lived, and others short-lived, is the same in all cases or different.

Here too Aristotle emphasises that we must start from some specific difficulties that we encounter at the very outset of our inquiry. The necessity of this procedure is justified by the observation that the cause of different life spans in animals and plants might be either the same in all cases or different in different cases. Such a passage seems to be compatible with an idea that was only sketched in the *De Caelo* passage and which—as we shall see—is also maintained in Beta. The difficulty which our thought encounters in dealing with a given matter reflects a difficulty that is found in the matter itself.

But the most telling passage with regard to Aristotle’s method of investigation is no doubt his discussion of incontinence in *Nicomachean Ethics* 7.

*NE*, 1145b2-7  
(trans. Rackham 1962, slightly modified)

δεῖ δ’, ὡσπερ ἐπὶ τῶν ἄλλων, τιθέντας τὰ φαινόμενα καὶ πρῶτον διαπορήσαντας οὗτος δεικνύοναι μάλιστα μὲν πάντα τὰ ἔνδοξα περὶ ταῦτα τὰ πάθη, εἰ δὲ μή, τὰ πλείστα καὶ κυριώτατα· ἐὰν γὰρ λύηται ταῦτα δύσχερα καὶ καταλείπηται τὰ ἔνδοξα, δεδειγμένον ἂν εἴη ἱκανῶς.

Our proper course with this subject as with others will be to present the various views about it, and then, after first reviewing the difficulties they involve, finally to explain if possible all or, if not all, the greater part and the most important of the opinions generally held with respect to these states of mind; since if the discrepancies can be solved, and a residuum of current opinion left standing, the true view will have been sufficiently established.
This passage has famously been at the centre of debates with respect to the role of dialectic in Aristotle’s philosophy.\textsuperscript{140} Here too a discussion of previous opinions on the subject-matter is to be followed by an analysis of the difficulties which they raise. What is particularly relevant for our purposes is the explanation that Aristotle provides as to how this survey of previous opinions contributes to his investigation—here as well as in other contexts: it is necessary because it will lead us to a satisfactory demonstration. Specifically, the opinions concerning a given object need to be winnowed so that only those which are trustworthy may be preserved. On this interpretation, I am reading τὰ φαινόμενα and τὰ ἔνδοξα as both referring to common views expressed on a given topic but characterising them in a different fashion. Although these two words can in principle be synonymous, Aristotle here is clearly restricting the domain of his inquiry from the broad group of all the views (or most of them) to those opinions upon which we can rely. This procedure seems to go in the same direction as the passage of the \textit{Eudemian Ethics} which was taken into account in 2.1.1 and might give us some hints as to the general aim of \textit{Metaphysics} Beta too.

However, the most important passage which parallels the beginning of the book of \textit{aporiai} is a quotation not listed above:

\begin{center}
\begin{tabular}{ll}
\hline
Ἐπισκοποῦντας δὲ περὶ ψυχῆς ἀναγκαῖον ἄμα, διαποροῦντας περὶ ὧν εὐπορεῖν δεῖ προελθόντας, τὰς τῶν προτέρων δόξας συμπαραλαμβάνειν ὅσοι τι περὶ αὐτῆς ἀπεφήναντο, ὅπως τὰ μὲν καλῶς εἰρημένα λάβωμεν, εἰ δὲ τι μὴ καλῶς, τοῦτ’ εὐλαβηθῶμεν.
\hline
\end{tabular}
\end{center}

For our study of soul it is necessary, while formulating the problems of which in our further advance we are to find the solutions, to call into council the views of those of our predecessors who have declared any opinion on this subject, in order that we may profit by whatever is sound in their suggestions and avoid their errors.

As in the previous passages, we find here too a clear statement of what the beginning of the inquiry ought to be. Furthermore, the vocabulary used is very close to that of B.1: here too

\textsuperscript{140} Here I limit myself to mentioning Owen 1961 and Nussbaum 1982.
it is necessary (ἀναγκαῖον) to call in for advice the views of our predecessors in order to make further headway in the investigation of the soul. What this passage also mentions is the reason this survey of opinions turns out to be useful: comparison with previous views will provide both some negative and some positive help. More importantly, in this passage the two approaches are combined: Aristotle states that he should analyse his predecessors’ views and at the same time formulate some difficulties related to the study of the soul. While bearing these parallel passages in mind it is now time to re-visit the opening lines of Beta.

2.1.3. **Aporiai from A to B**

What Aristotle is doing at the beginning of *Metaphysics* Beta is taking into consideration the difficulties that need to be addressed at the very outset of his inquiry, which include both previous views on the subject matter and theoretical difficulties that need to be borne in mind.

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**Met., 995a24-30** (trans. Ross 1963)

| Ἀνάγκη πρὸς τὴν ἐπιζητουμένην | We must, with a view to the science which we are seeking, first recount the subjects that should be first discussed. These include both the other opinions that some have held on the first principles, and any point besides these that happens to have been overlooked. |
| ἐπιστήμην ἐπελθεῖν ἡμᾶς πρῶτον περὶ | For those who wish to get clear of difficulties it is advantageous to discuss the difficulties well; for the subsequent free play of thought implies the solution of the previous difficulties, and it is not possible to untie a knot of which one does not know. |
| ὃν ἀπορήσας δεῖ πρῶτον ταῦτα δ’ ἐστίν | Ón ἀπορήσας δεῖ πρῶτον ταῦτα δ’ ἐστίν |
| ἀπειλήφασί τινες, κἂν εἴ τι χωρὶς τούτων τυγχάνει | Óπειρωμένον, ἔστι δὲ τοῖς εὐπορήσαι βουλομένοις προύργου τὸ διαπορῆσαι καλῶς ἢ γὰρ ὄστερον εὐπορία λύσις τῶν πρότερον ἀπορουμένων ἔστι, λύειν δ’ οὐκ ἔστιν ἀγαυοῦντας τὸν δεσμόν. |

The tight connection between this passage and the final lines of book Alpha Meizon has not escaped scholarly attention. However, no common agreement has been reached as to how precisely the two treatises are supposed to interact.¹⁴¹ Hence, I shall conclude the first

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half of this chapter by showing that Metaphysics Beta carries out the programme which is announced at the end of Metaphysics Alpha Meizon.

The connection between these two treatises is explicitly stated at the end of the analysis of the opinions of Aristotle's predecessors on the causes and principles of being:

<table>
<thead>
<tr>
<th>Met., 993a24-7</th>
<th>(trans. Ross 1924)</th>
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</thead>
<tbody>
<tr>
<td>περὶ μὲν οὖν σον τούτων δεδήλωται καὶ</td>
<td>On these questions our views have also been</td>
</tr>
<tr>
<td>πρότερον δὲ περὶ τῶν αὐτῶν τούτων</td>
<td>expressed before; as for those that one might raise on</td>
</tr>
<tr>
<td>ἀπορήσεις ἄν τις, ἐπανέλθωμεν πάλιν·</td>
<td>these very questions, let us return to them again: for</td>
</tr>
<tr>
<td>τάχα γὰρ ἄν εξ αὐτῶν εὐπορήσαιμεν τι</td>
<td>from them we would probably get some help</td>
</tr>
<tr>
<td>πρὸς τὰς ὑστερον ἀπορίας.</td>
<td>towards our later difficulties.</td>
</tr>
</tbody>
</table>

As Laks notes, the vocabulary of these lines is undoubtedly echoed at the beginning of Beta: besides the terms of the ἀπορία family, we also find the verb ἐπέρχομαι, which indicates what Aristotle is going to do next. It should be noted, though, that the form that we find in Alpha is ἐπανέρχομαι, which entails the idea of a repetition: 'to go back to'. On this basis we can infer that Aristotle has concluded a first group of puzzles concerning the investigation of first principles and causes and intends to return to them. However, it is far from clear what this group of puzzles is supposed to be. Moreover, the final lines of the chapter exacerbate the overall lack of clarity of the passage, insofar as they mention a further list of difficulties which is hard to identify.\textsuperscript{142} In order to shed some light on these lines, we ought to read them in their context.

A.10 concludes the first book of Aristotle's Metaphysics by summing up the conclusions of his first confrontation with previous philosophers, which he had undertaken in A.3 with these words: 'For those who go over their views (ἐπελθοῦσιν), then, it will be of profit to the present inquiry, for we shall either find another kind of cause, or be more convinced of the correctness of those which we now maintain (ἐπελθοῦσιν οὖν ἔσται τι προὔργου τῇ μεθόδῳ τῇ

\textsuperscript{142} That the final lines of A refer to B and not to α has been a matter of disagreement. Alexander thinks that they anticipate α, which in turn will be useful to answer the later difficulties of B (Alex., In Met., 136.12–7; 137.5–9). Ross, instead, thinks that they anticipate B, which will be useful to answer the later difficulties in the rest of the work (Ross 1924, I, 211–3). Laks 2009, 28–34 convincingly shows that the passage should be read in connection with the beginning of B 1. See also Cooper 2012, 351–4.
νῦν· ἢ γὰρ ἕτερον τι γένος εὑρήσομεν αἰτίας ἢ ταῖς νῦν λεγομέναις μᾶλλον πιστεύσομεν, 983b4-6).

Here Aristotle declares that surveying—note the use of ἐπέρχομαι—the views that other thinkers have expressed on the subject of first principles and causes can contribute to his investigation, by proving the exhaustivity of his list of the four causes. The mention of other thinkers' principles takes up chapters 3-6; thereafter, Aristotle pauses to look back at his brief survey: 'In a concise and summary way we have gone over the views (ἐπεληλύθαμεν) of those who have spoken about first principles and truth and the way in which they have spoken (συντόμως μὲν οὖν καὶ κεφαλαιωδῶς ἐπεληλύθαμεν τίνες τε καὶ πῶς τυγχάνουσιν εἰρηκότες περὶ τε τῶν ἄρχων καὶ τῆς ἀληθείας, Met. A.7, 988a18-20)—note again the use of ἐπέρχομαι. Finally, Aristotle introduces his next step in Alpha Meizon, namely evaluating their views:

\[Met., 988b16-21\] (trans. Ross 1963)

—ὅτι μὲν οὖν ὀρθῶς διώρισται περὶ τῶν αἰτίων καὶ πόσα καὶ ποῖα, μαρτυρεῖν ἐοίκασιν ἡμῖν καὶ οὗτοι πάντες, οὐ δυνάμενοι διεξάγειν ἄλλης αἰτίας, πρὸς δὲ τούτοις ὅτι ἠτεινηθεί αἱ ἀρχαὶ ή ὁπωσοδοχείσιν ἢ τινὰ τρόπον τοιούτον, δηλοῦν, δῆλον· πῶς δὲ τούτων ἕκαστος εἴη ἐνδεχομένῳ τοιούτῳ; τὰς ἐνδεχομένας ἀπορίας μετα τούτῳ ἠγιάζωμεν περὶ αὐτῶν.

All these thinkers, then, as they cannot pitch on another cause, seem to testify that we have determined rightly both how many and of what sort the causes are. Besides this it is plain that when the causes are being looked for, either all four must be sought thus or they must be sought in one of these four ways. Let us next discuss the possible difficulties with regard to the way in which each of these thinkers has spoken, and with regard to this situation relative to the first principles.

Sure enough, A.8-9 are devoted to a dialectical engagement with the views that Aristotle had just presented to his readers. Now, when we reach A.10, Aristotle rounds off the analysis carried out in his treatise by recalling both of the two steps of which it consisted.

The chapter is made up of three relatively distinct segments. Aristotle begins by stating the conclusion which had been enunciated in A.3 and then complains about the obscurity of his predecessors:
It is evident, then, even from what we have said before that all men seem to seek the causes named in the *Physics*, and that we cannot name any beyond these; but they seek these vaguely; and though in a sense they have all been described before, in a sense they have not been described at all. For the earliest philosophy is, on all subjects, like one who lisps, since it is young and in its beginnings.

What follows in the text is a special mention for Empedocles’ confused conception of the bone (τὸ ὀστοῦν), after which Aristotle reprises the beginning of the chapter with μὲν οὖν, which I now quote in Greek:

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περὶ μὲν οὖν τούτων δεδήλωται καὶ πρότερον· ὅσα δὲ περὶ τῶν αὐτῶν τούτων ἀπορήσειν ἂν τις, ἐπανέλθωμεν πάλιν· τάχα γὰρ ἂν ἐξ αὐτῶν εὐπορήσαιμέν τι πρὸς τὰς ὕστερον ἀπορίας.
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After this rapid overview we are better armed to get to grips with these final lines of A.10. As can be concluded from the beginning of the chapter, the τούτων at 993a24 must refer to the causes, like its parallel at 993a12. This τούτων is then picked up by the emphatic τῶν αὐτῶν τούτων at 993a25; in fact, the ὅσα-clause refers to any doubts which might arise on the opinions expressed on the four causes and very plausibly refers to chapters A.8-9. It is to these *aporiai* that Aristotle suggests going back again (ἐπανέλθωμεν πάλιν). Now, up to this point, all interpreters agree that Aristotle has mentioned a group of *aporiai*—let us call them A-*aporiai*—and is going to produce another one—let us call them B-*aporiai*. What causes the confusion is that the referent of the *aporiai* mentioned at 993a27 is unclear.

Upon closer inspection, the ambiguity of these lines rests on what we take ‘ἐξ αὐτῶν’ at a26 to stand for. This expression is usually thought to refer to the B-*aporiai*, namely the difficulties that Aristotle is about to list. As a result, he would be saying that, once these new

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143 For this transitional use of μὲν οὖν in combination with ἐξ (a25), see Denniston 1966/1934, 472.


145 The two pronouns can hardly have distinct referents, pace Laks 2009, 30, n. 16.
aporiai have been discussed, we shall be in a better position to discuss a further group of aporiai. There are, however, two major problems with this reading: first, it is hard to identify this third group of difficulties in any of the later treatises that make up our Metaphysics; second, if the aporiai in question were to be taken as, quite generally, questions that might arise throughout the work, as Ross proposes, then it would be hard to explain why Aristotle uses the definite article. My suggestion is that we should refocus the reference of ἐξ αὐτῶν to what seems to be—grammatically—its antecedent: namely the A-aporiai. The only aporiai that Aristotle mentions (as it were) ‘in words’ before a26-7 are those regarding previous opinions on the causes (ὅσα… ἀπορήσειε ἄν τις). Although he does say that he will go back to them, he does not mention this second round of aporiai, which is only implied as the result of Aristotle’s going back to the A-aporiai. This means that there is no word yet in the text which stands for the B-aporiai. Consequently, although ἐξ αὐτῶν at a26 does pick up ὅσα at a25—as Ross thinks—the ὅσα refers to the aporiai already listed in A.8-9, not to the aporiai yet to be formulated. Therefore, in the final lines of A.10 Aristotle is stating that ‘perhaps from the difficulties we have already raised we may get some help towards our later difficulties’. Finally, if my reading is correct, τὰς ὕστερον ἀπορίας (a27) refers to the B-aporiai, which have full rights to a determinate article, given that they were announced to the reader previously. This is why I think that A.10, consistent with B.1, mentions two and only two groups of aporiai. As we shall see, in accordance with the closing lines of Alpha Meizon, at the beginning of Beta (995a27) Aristotle states that discussing aporiai properly (διαπορήσαι καλῶς) will enable us to succeed in solving them (εὐπορήσαι). It is in this sense that Beta thoroughly carries out a programme begun in Alpha. Before turning to the eleventh aporia, it should be noted that the Eleatics do not appear in the aporetic part of Alpha; however, we shall see in 2.2.4-5 that they will play a pivotal role in Beta’s discussion of being and the one.

2.2. The eleventh aporia

In the first part of this chapter I attempted to provide a general description of the method followed in Metaphysics Beta. After listing reputable views on the first principles and causes of being, Aristotle deems it necessary to discuss whatever difficulties might be raised for
these very views.\textsuperscript{146} I observed that Aristotle's aporiai follow a specific pattern: they are developed in a dilemmatic form and are intentionally left unsolved. In this part of the chapter, I set out to analyse what is described by Aristotle himself as the hardest difficulty of those listed in Beta, as well as the most necessary for knowing the truth: whether unity and being are the substance of all things or whether they are rather attributes of something else (aporia 11, 996a5-9). This is the only aporia in whose formulation Aristotle explicitly associates both conflicting views with the names of some previous philosophers: Plato and the Pythagoreans on the one hand and Empedocles and the physicists on the other. Consequently, it has been suggested that, in discussing this aporia, Aristotle gives clear indications in favour of the anti-Platonic horn of the dilemma, thus failing to conform to the neutral pattern of the remaining aporiai.\textsuperscript{147} In this section I shall argue for the opposite view: I shall claim that aporia 11 epitomises Aristotle's dialectical confrontation with previous views on principles and first causes. In so doing, I shall try to define the background of an Academic debate about unity and being. While the connection between aporia 11 and Plato's dialogues has not gone unnoticed,\textsuperscript{148} the specific terms of this connection deserve to be explored in greater detail. In fact, once we lay out the specific way in which Aristotle engages in a dialogue with (in particular) Plato, we will be in a better position to appreciate the novelty and philosophical significance of Aristotle's own investigation. As will emerge, not only the arguments, but also the very method which Aristotle follows in discussing aporia 11 depends on Plato's Sophist. This will bring me to conclude that, if we want to understand Aristotle's account of unity and being, the first text we should read is Plato's Sophist. This confirms the importance of that dialogue for Aristotle's presentation of questions of unity and being, something that has already emerged in my discussion of Metaphysics A and Physics 1.

I shall begin by suggesting an explanation of the unique nature of this aporia, which is both particularly difficult and openly polemical towards Aristotle's predecessors. I shall then move on to analyse its discussion in B.4 by focusing first on the background of the contradictory pair of views with which it deals and then on the arguments against each of

\textsuperscript{146} See Laks 2009, 34–5.
\textsuperscript{147} Berti 2003, 109.
\textsuperscript{148} Madigan 1999, 109; Castelli 2010, 40–4.
the alternatives. The result of this analysis will shed light on the aim of Aristotle’s reference to his predecessors when developing the *aporia*. I shall show that the kind of argument Aristotle puts forward is one that attacks other philosophers within their own positions. At the same time, I shall emphasise that, within this interpretation of the overall argument of *aporia* 11, Plato is Aristotle’s main interlocutor. Finally, this reading will enable me to make clear once again the crucial role played by the Eleatics—who had been side-lined in the doxography of Book Alpha Meizon—within Aristotle’s discussion of the relationship between unity and being. (It is no accident that Zeno is also invoked in this *aporia*, at 1001b7ff.) I shall conclude that Aristotle’s strategy, in discussing the theories of his predecessors, is specifically aimed at testing the foundations of previous metaphysical positions with a view to providing a new and solid basis for his own theory.

2.2.1. The formulation of the eleventh *aporia*

In *Metaphysics* B.1, Aristotle introduces the following difficulty:

\[\text{Met., 996a4-9 (trans. Ross 1963)}\]

\[
\text{ἔτι δὲ τὸ πάντων χαλεπώτατον καὶ πλείστην ἀπορίαν ἔχον, (A) πότερον τὸ ἓν καὶ τὸ ὄν, καθάπερ οἱ Πυθαγόρειοι καὶ Πλάτων ἔλεγεν, οὐχ ἕτερόν τί ἐστιν ἀ•'}\]

\[
\text{οὐσία τῶν ὄντων; (B) ἢ ὄ, ἀλλ' ἔτερόν τι ὑποκείμενον, ὃς \text{Empedocles} \text{fησὶ φιλίαν ἄλλος δὲ τις πύρ ὥς ὁ δὲ ὕδωρ ἢ ἄέρα.}\]

Furthermore, <we should ask> the hardest of all questions and the one containing the greatest difficulty: (A) whether unity and being—as the Pythagoreans and Plato used to say—are nothing else but the substance of beings or (B) whether they are not, but there is something else that underlies them—as Empedocles says it is friendship, somebody else that it is fire, others water or air.

As is clear from the formulation of the *aporia*, alternative responses are offered; there are two possible views on unity and being and their relationship to the substance or ‘being’ (*ousia*) of things: A and its opposite B, which implies the contradictory of A—an opposition which is in line with the general structure of these *aporiai* that we outlined in the first part of

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this chapter. On the one hand, unity and being can be regarded as the substance of things; on the other, they are not substances, but rather the attributes of something else which underlies them. Two aspects of this choice are worth noting: first, Aristotle emphasises that we are facing the hardest of all difficulties; second, this is the only *aporia* in which both of the contradictory theses at stake are explicitly labelled with the names of some other philosophers. In what follows I shall reflect on these two elements and on their possible connection.

In his reprise of the difficulties in B.4, Aristotle describes both the eighth and the eleventh *aporia* as the most difficult to face (1001a4-5). In neither case does he clarify why they seem to have a special place within the list of *aporiai*, nor their relationship to one another. However, it is only *aporia* 11 which had been announced as the hardest in its first formulation in B.1.

The eighth *aporia* addresses the question of whether there is some other cause besides matter, whether it is separate or not, as well as whether it is one or more in number. When commenting on this problem, Alexander underlines that it is extremely hard to solve with a view to the knowledge of principles and in general to the whole work (πραγματεία) itself. As for the perplexity it entails, Alexander seems to suggest that it stems from the two previous difficulties that Aristotle had taken into consideration, which also had to do with the status of universals and particulars. As we shall see, *aporia* 11 also deals with similar questions, although it adopts a different angle. This might provide us with a first explanation of the high level of difficulty which both *aporiai* bear.

Commentators—ancient much more than modern—have dwelled at greater length on the difficulty of *aporia* 11. In particular, Alexander and Aquinas come up with two different—but not incompatible—explanations of its specific difficulty. According to the Greek commentator, what is very hard is the judgment (διάκρισις) about the topic of this *aporia*,

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150 Among modern commentators, Bonitz 1848–1849, 162 thinks that this *aporia* is the hardest difficulty because unity and being are the most universal of all notions as well as the furthest away from perception; Cavini 2009, 175–6 seems to link both the difficulty and the necessity of *aporia* 11 to the fact that it marks a breaking point in Greek metaphysics, reduced to the exhaustive alternative between the opposite positions of the physicists and the Pythagoreans.
because ‘knowledge of intelligibles and of the primary causes and beings is most difficult’. Similarly, Averroes seems to suggest that this *aporia* (ḥāḍīhi al-masʿālu) is puzzling and very ambiguous (*muʿḍilun mubhamatun ḣiddan*) because the doubt (*al-šakku*) it amounts to has to do with the prime mover (*fi l-muḥarrīki l-awwāli*). Finally, Aquinas’ suggestion is rather that the arguments against and in favour of the thesis at stake are both compelling (*propter efficaciam rationum ad utramque partem*). These explanations bring to the fore two important aspects of Aristotle’s discussion, namely the difficulty of the object of inquiry on the one hand and the force of the reasons *pro et contra* the thesis on the other. We shall have occasion to reflect on both of these characteristics throughout the analysis of Aristotle’s discussion in B.4.

Unlike *aporia* 8, *aporia* 11 is also described as the most necessary for knowing the truth (*πρὸς τὸ γνῶναι τἀληθές*). This point, too, is commented upon by both Alexander (followed by Asclepius) and Aquinas. The former provides four different reasons in support of the necessity of this inquiry (*ζήτησις*): (1) because thinkers have expressed themselves in both ways, some holding one of the alternatives at stake, some holding the other; (2) because of the *aporia* that will follow—supposedly, in Aristotle’s list; (3) because the inquiry into being is of the highest importance in the investigation of truth; (4) because the possibility of positing numbers as the principles and elements of all beings depends on the resolution of this issue. Aquinas, in somewhat more general terms, subscribes to (3) and (4), as he claims that this *aporia* is the most necessary, because our judgement concerning the substance of all things is going to depend on it.

Although, in this case too, the reasons adduced are not mutually exclusive, the first of those mentioned by Alexander seems particularly appealing. As we have already noted, in *aporia* 11 Aristotle explicitly connects the two branches of the contradiction to other philosophers. This is not to say that he does not deal with other thinkers throughout his

151 Alex., *In Met.*, 223.20.
152 Averr., *Tafsīr* 1, 182.10–12.
153 Thom., *In Met.*, §488, 266
154 Thom., *In Met.*, §488, 266 ‘Quia ex hoc dependet iudicium de substantiis rerum’. In this statement, Aquinas might be influenced by Averroes, see above.
discussion of other *aporiai*. But in no other case does Aristotle explicitly assign both the thesis and its antithesis to some named predecessors. As a result, *aporia* 11 is not only the hardest and the most necessary of all *aporiai*, but also—as it were—the most doxographic. Accordingly, Alexander’s point (1) looks appealing insofar as it picks up on a characteristic which is unique to *aporia* 11.  

Aristotle devotes the second half of B.4 to discussing *aporia* 11. He begins by restating what the difficulty amounts to—with some interesting variations.

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Met., 1001a4-9

| Πάντων δὲ καὶ θεωρῆσαι χαλεπώτατον καὶ πρὸς τὸ γνῶναι τάλμηθες ἀναγκαῖοτατον πότε τὸ ὑπὸ καὶ τὸ ὄν οὐσία τῶν δυτων εἰσι, καὶ ἐκάτερον κυττὼν οὐχ ἔτερν τι ὑπὸ καὶ τὸ μὲν ὑπὸ τὸ δὲ ὑπὸ ἔστι, ἢ δει ζητεῖν τί ποτ' ὑπὸ καὶ τὸ ὓν ὡς ὑποκείμενης ἄλλης φύσεως. οἱ μὲν γὰρ ἐκεῖνος οἱ δ' οὕτως οἴονται τὴν φύσιν ἔχειν. | The inquiry that is both the hardest of all and the most necessary for knowledge of the truth is whether being and unity are the *substances* of things, and each of them, without being anything else, is unity and being, or whether we must inquire what being and unity are, as if there were some other underlying nature. For some people think they are of the former, others think they are of the latter character. |

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If we compare this formulation with that which we had encountered in B.1, it should surprise us that here Aristotle uses the plural form of *ousía*, as if implying that being and unity should be posited as two distinct substances of all things. To be sure, the difference between positing unity and being as two distinct substances and regarding them as one and the same substance would be of no little relevance. Part of Aristotle’s refutation of this branch of the contradiction will depend precisely on the absurdity of considering being as signifying exclusively being, when we also want to define it as one. However, upon closer inspection, this reading does not force us to take being and unity as two *distinct* substances. As is clear from 996a5-7, on Aristotle’s interpretation, Plato and the Pythagoreans claimed

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155 Aristotle mentions Protagoras at 998a3-4, Empedocles at 998a30 and at 1000a25, Hesiod at 1000a9.

156 On this reading, the γάρ at 1001a8 would be explanatory. Bonitz 1848–1849, 162 also attributes the importance of this *aporia*—though not specifically its difficulty—to the fact that it divides Greek metaphysics into two opposite positions; for the same reason, Cavini 2009, 176 underlines the ‘historical’ importance of the *aporia*.
that the substance of all things is a being which is also one (collective sense), not that being and unity are the two substances of all things (distributive sense). What they did not understand is precisely that their assumptions result in contradiction: it is impossible that the one-being is both exclusively one and exclusively being, because each attribution rules out any other attribution whatsoever. In other words, starting from their assumptions on being and unity, they confused the collective and the distributive senses in which their thesis could be formulated. Since they failed to notice the problem built into their starting assumption, they tacitly endorsed the second formulation of *aporia* 11, although consciously subscribing to its first formulation. Aristotle's use of the plural at 1001a6 might therefore reflect the Platonic-Pythagorean confusion in using the predicates 'one' and 'being'.

Concerning the overall argument of *aporia* 11, it should be noted that as yet no interpretation has offered a unified reading of the two horns of the dilemma, that is, a reading which reconciles the alternative sketched by the *aporia* with the general pattern promised in B.1. I shall try to show how such a reading is not only possible but indeed fundamental for our understanding of Aristotle's position with respect to unity and being. In particular, my reading will attribute a crucial role to the way in which the dilemma which constitutes the *aporia* turns out to be specifically aimed at tackling Plato's account of τὸ ἕν and τὸ ὄν.

2.2.2. Plato and the Pythagoreans vs. the Physicists

After spelling out what the thesis and the antithesis in question are, Aristotle relates who held the former and who supported the latter view about unity and being:

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157 This reading suggests a solution to Madigan's perplexity about Aristotle's oscillation between singular and plural expressions to designate respectively one or two substances with the predicates 'one' and 'being', see Madigan 1999, 108–9.

158 In particular, Madigan 1999 divides the whole discussion into eight distinct issues and analyses them separately; Berti 2003 exclusively focuses on the polemic against Plato and the Pythagoreans, connecting *aporia* 11 with the rejection of being and the one as genera within the discussion of *aporia* 6; Cavini 2009 analyses the two branches of the *aporia* separately but does not dwell on how they interact with one another; Castelli 2010 provides a detailed study of the problems explicitly and implicitly at stake, but mainly focuses on the arguments against the Platonic-Pythagorean option.
Plato and the Pythagoreans thought being and unity were nothing else, but this was their nature, their essence being unity and being. But the natural philosophers take a different line; e.g. Empedocles— as though reducing it to something more familiar— says what unity is; for he would seem to say it is love: at least, this is for all things the cause of their being one. Others say this unity and being, of which things consist and have been made, is fire, and others say it is air. A similar view is expressed by those who make the elements more than one; for these also must say that unity and being are precisely all the things which they say are principles.

The text at 1001a11-12 has created a number of problems for editors of the *Metaphysics* and is probably corrupt. The manuscripts offer two different readings which share what seems to be a grammatical blunder in the phrase introduced by ὡς. In all of them but A B, the scribes transmit ὡς οὔσης τῆς οὐσίας ταὐτὸ τὸ ἐν εἶναι καὶ ὑπὼ τί (lit. ‘as if the [i.e. its] substance were the same being one thing and a being’); in A B we find instead ὡς οὔσης τῆς οὐσίας αὐτὸ τὸ ἐν εἶναι καὶ ὑπὸ τί (lit. ‘as if the substance of it were being one thing and a being’). These readings seem to display a defective genitive absolute, because we would expect the elements following οὐσίας to be in the genitive too. That said, commentators are of only little help.

When Alexander quotes this lemma in his commentary, he writes ὡς οὔσης τῆς οὐσίας αὐτὸ τὸ ἐν εἶναι καὶ ὑπὸ τί (‘as if their essence were being the one itself and a being’).\(^{159}\) For his part, Asclepius provides two different readings of the same phrase: he first quotes it as ὡς οὔσης τῆς οὐσίας ταὐτὸ ἐν εἶναι καὶ ὑπὸ τί (‘as if their essence were the same thing as being one

\(^{159}\) Curiously enough, none of the ancient commentators seems to notice anything weird in the text they would read, let alone Alexander—who is always meticulous in commenting on Aristotle’s language. I think it is possible to understand the subject of the genitive absolute as consisting in εἶναι (taken as a subject) and (π)αὐτό τὸ ἐν... καὶ ὑπὸ τί as the nominal elements which complete it (in other words, ‘being the one itself and some being’). On the infinitive used without article (here, in the genitive), see Kühner & Gerth 1898, II, 3, §472.
and, later on, as 'ὡς οὔσης τῆς οὐσίας τοῦτο αὐτό ἐνι εἶναι καὶ ὄντι ('as if their essence were this very being one and a being'). Finally, the Arabic translation seems to support the proposed emendation; whereas the Latin translation probably read by Aquinas seems to support the reading of the manuscripts.

Despite the textual problem, the thesis in question is fairly clear: on Aristotle's view, the Pythagoreans and Plato posited one principle which is at once being itself and unity itself. Walter Cavini has recently argued against this view on the grounds that saying that the essence of unity is to be one and that the essence of being is to be are two tautologies. In contrast, he suggests we should follow Aquinas' interpretation, whereby the οὐσία Aristotle is referring to is the substance of all things, as opposed to the essence of unity and being. Upon closer inspection, though, what Aristotle contrasts here are two different ways of defining unity and being, rather than the substance of all things. Of course, the two matters are complementary, because the two divergent definitions of the substance of all things depend on two divergent assumptions. However, in line with the traditional interpretation of these lines, I think that Aristotle is focusing precisely on these assumptions, rather than on their consequence. More importantly, the view attributed to the Pythagoreans and to Plato is contrasted with that of Empedocles and the physicists, who ascribe unity to something else that is more familiar (γνωριμώτερον). The second term of this opposition suggests that the alternative view is indeed tautological, in that it does not reduce unity and being to anything else, but instead declares that their essence is precisely their being one and being. Finally, the determinate article in our phrase ('τῆς οὐσίας' as opposed to 'οὐσίας' alone) forces the reader to take the essence (or substance) to refer to something which has just been mentioned and not to substance (or essence) more generally. For these reasons, I think that Aristotle's


161 Ascl., In Met., 204.6. In this case, τοῦτο αὐτό can be understood as an emphatic version of αὐτό τοῦτο, which is indeclinable.

162 The Arabic translator (Usṭāṯ) writes: 'ka-anna ḥawharahumā an yakūnā wa-huwiyyan ('as if their substance is to be one and being'; Averr., Tafsīr 1, 261.3–4); the Latin translator (William of Moerbeke): 'quasi existente substantia ipsum unum esse et ens aliquid ('as if substance were being the one itself and some being'; Thom., In Met., 488: §267.13–4).

163 Cavini 2009, 177.
formulation aims to capture the specific view which separates Plato and the Pythagoreans from the rest of Aristotle's predecessors.

As we saw at the beginning of this chapter, *Metaphysics* Alpha Meizon is not the only place in the *Corpus Aristotelicum* to devote a great deal of attention to previous philosophers. However, what Alpha Meizon tries to do is to offer an exhaustive overview of previous theories, so as to ascertain that the causes of being are four and no more than four. In this section, I should like to show how *aporia* 11 too encompasses all previous theories of being—which will have important implications for its characterisation as the hardest and the most necessary of all *aporiai*. Specifically, I shall argue that the question of the substantiality of unity and being divides philosophy before Aristotle into two distinct groups. The way I am going to show this is by placing side-by-side some general Aristotelian remarks on previous theories of being. With respect to my overall argument, this will be the first step towards Aristotle's demonstration that all previous accounts of unity and being fall short of their *explicandum*.

In *Physics* 1.2, Aristotle outlines a survey of previous theories concerning principles. This brief summary distinguishes monists from pluralists, and sharply divides two further categories within these groups. In particular, the Eleatics are distinguished from the physicists in view of their extreme form of monism. On the other hand, under the umbrella of pluralists, those positing a finite number of principles are set apart from those positing an infinite plurality. Now, when Aristotle discusses infinity in *Physics* 3, he divides his predecessors into two further groups, suggesting a division which matches that of *aporia* 11:

\[
\text{Phys., 203a4-10, a16-18 (trans. Hardie & Gaye 1984)}
\]

\[
οἱ μὲν, ὡσπερ οἱ Πυθαγόρειοι καὶ Πλάτων, καθ' αὑτῷ, οὐχ ὡς συμβεβηκὼς τὸν ἄπειρον. πλὴν οἱ μὲν Πυθαγόρειοι ἐν τοῖς αἰσθητοῖς (οὐ γὰρ χωριστὸν ποιοῦσιν τὸν ἀριθμόν), καὶ εἶναι τὸ ἔξω
\]

Some, such as the Pythagoreans and Plato, make the infinite a principle in the sense of a self-subsistent substance, and not as a mere attribute of some other thing. Only the Pythagoreans place the infinite among the objects of sense (they do not regard number as separable from these) and assert that what is outside the

164 This reading follows the line of interpretation initiated by Alexander and adopted by Bonitz and, more recently, by Cavini.
heaven is infinite. Plato, on the other hand, holds that there is no body outside (the Forms are not outside, because they are nowhere), yet that the infinite is present not only in the objects of sense but in the Forms also. (…)

The physicists, on the other hand, all of them, always regard the infinite as an attribute of a substance which is different from it and belongs to the class of the so-called elements—water or air or what is intermediate between them.

Aristotle groups together the Pythagoreans and Plato and contrasts them with the φυσικοί, insofar as the former regard the infinite as a substance, while the latter consider it an attribute of substance. Since both the criterion of the division and the groups of thinkers in which it consists are the same, Aristotle seems to draw a line which demarcates the two trends of philosophy before him. However, this division does not coincide with that which we had encountered at the very beginning of Physics 1, where the main criterion was the number of principles posited in order to account for the physical world. In this case, he seems to take a further step forward: he spots the two radically different basic conceptions of predication which underlie different philosophical stances on the subject of causal principles. This move stands out from the following passage of the Metaphysics, where Aristotle marks off the territory of Pythagorean philosophy on the grounds that they are the first thinkers to work out a pluralist theory:

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<tbody>
<tr>
<td>μέχρι μὲν οὖν τῶν Ἰταλικῶν καὶ χωρὶς</td>
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<tr>
<td>ἔκεινων μοναχώτερον εἰρήκασι οἱ ἄνδροι</td>
</tr>
<tr>
<td>περὶ αὐτῶν, πλὴν ὠστερ εἰπόμεν δυοῖν τε</td>
</tr>
<tr>
<td>αἰτίαις τυγχάνουσι κεχρημένοι, καὶ τούτων</td>
</tr>
<tr>
<td>τὴν ἑτέραν οἱ μὲν μίαν οἱ δὲ δύο ποιοῦσι, τὴν</td>
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<tr>
<td>οί δὲ περὶ φύσεως πάντες [άει]</td>
</tr>
<tr>
<td>ύποτιθέασιν ἑτέραν τινὰ φύσιν τῷ</td>
</tr>
<tr>
<td>ἀπειρῷ τῶν λεγομένων στοιχείων, σὸν</td>
</tr>
<tr>
<td>ὕδωρ ἢ ἀέρα ἢ τὸ μεταξὺ τούτων.</td>
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</tbody>
</table>

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165 On this word, see section 1.5.
said in the same way that there are two principles, but added this much, which is peculiar to them, that they thought that finitude and infinity were not attributes of certain other things, e.g. of fire or earth or anything else of this kind, but that infinity itself and unity itself were the substance of the things of which they are predicated. This is why number was the substance of all things.

As in the *Physics*, here too Aristotle affirms not only that their principles are unity and infinity, but also that they are treated as substances and not as attributes of anything else. More importantly, considering unity as a substance is the very doctrinal point which the Pythagoreans have in common with Plato's philosophy, as is witnessed by A.6:

<table>
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<th>Met., 987a29-31, b29-988a1</th>
<th>(trans. Ross 1963)</th>
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<tr>
<td>Μετὰ δὲ τὰς εἰρημένας φιλοσοφίας ἢ Πλάτωνος ἐπεγένετο πραγματεία, τὰ μὲν πολλὰ τούτοις ἀκολουθοῦσα, τὰ δὲ καὶ ἱδιὰ παρὰ τὴν τῶν Ἰταλικῶν ἔχουσα φιλοσοφίαν. (...) τὸ μέντοι γε ἓν οὐσίαν εἶναι, καὶ μὴ ἐτερόν γέ τι δὲν λέγεσθαι ἓν, παραπλησίως τοῖς Πυθαγορείοις ἔλεγε, καὶ τὸ τοὺς ἄριθμοὺς αἰτίους εἶναι τοῖς ἀλλοίως τῆς ὀσίας ὀσιάτως ἐκείνως τὸ δὲ ἄντι τοῦ ἀπείρου ὡς ἕνας δυάδα ποίησαι, τὸ δ' ἀπειρόν ἐκ μεγάλου καὶ μικροῦ, τοῦτ' ἰδιὰν καὶ ἱδίον μὲν τοὺς ἄριθμοὺς παρὰ τὰ αἰσθήματα, οἱ δ' ἄριθμοὺς εἶναι φασιν αὐτά τὰ πράγματα, καὶ τὰ μαθηματικά μεταξύ τούτων οὐ τίθεασιν.</td>
<td>After the systems we have named came the philosophy of Plato, which in most respects followed these thinkers, but had peculiarities that distinguished it from the philosophy of the Italians. (…) But he agreed with the Pythagoreans in saying that the one is substance and not a predicate of something else; and in saying that the numbers are the causes of the reality of other things he agreed with them; but positing a dyad and constructing the infinite out of great and small, instead of treating the infinite as one, is peculiar to him; and so is his view that the numbers exist apart from sensible things, while <em>they</em> say that the things themselves are numbers, and do not place the objects of mathematics between Forms and sensible things.</td>
</tr>
</tbody>
</table>
In this passage Aristotle focuses on both the affinities and the divergences between Plato’s and the Pythagoreans’ respective theories. On the one hand, it completes Aristotle’s reconstruction of what will become one line of thought in *aporia* 11: the Pythagoreans (first) and Plato (later) held that unity and being are not attributes of something else, but substances themselves. On the other hand, Plato also detached himself from the Pythagoreans in that he considered numbers to be separate from things and insofar as he also posited the dyad as a principle alongside the one. The two elements which represent Plato’s innovations with respect to the Pythagoreans will prove to be crucial in Aristotle’s discussion of *aporia* 11, because he will tackle both points. For the sake of clarity, I shall hence distinguish between unity as a principle of being in general and, more specifically, unity as the principle of number. Before embarking upon this theoretical line, however, Aristotle will criticise the opposite view. It is in the next paragraph that we shall witness an interesting twist in Aristotle’s argument, for, while criticising the physicists, Aristotle in fact has his master Plato in mind.

2.2.3. **Against the physicists (contra the antithesis)**

As we saw in our last section, Aristotle divides previous philosophical approaches to this matter into two distinct groups: monists and pluralists. On the other hand, he also divides his predecessors according to whether they view unity as a substance or as an attribute of something else which is itself a substance (whatever this might be in their individual theories). In the first part of his discussion of *aporia* 11, he focuses on one of the pluralists, i.e. Empedocles.

Before the formulation of our *aporia*, Empedocles is mentioned 9 times (in Book Alpha Meizon). When Aristotle introduces his philosophy, he lists him among the φυσικοί, not without emphasising how he differs from most of them. Talking about the idea of a single principle’s priority over others, he writes:

*Met.*, 984a8-11  
(trans. Ross 1963)

| Ἐμπεδοκλῆς δὲ τὰ τέτταρα, πρὸς τοὺς εἰρημένοις γῆν προστιθεὶς τέταρτον (ταῦ- Empedocles says it of the four elements (adding a fourth—earth—to those which have been named); |
In this first description of Empedocles' philosophy, Aristotle hence emphasises that Empedocles shared the basic assumption that some principles are prior to others. In so doing, the physicists were taking these simple bodies to be the subjects of these changes, because Empedocles' four bodies—precisely like water, air or fire for previous thinkers—undergo change from one state to another, while not staying the same. Accordingly, in the passage quoted, Empedocles seems to account for unity as an aggregation of the four elements—thus exemplifying a conception of unity as an attribute of some substrate. But, if Empedocles propounded a theory very similar to that of the other physicists, why does Aristotle mention him in particular as the main supporter of the antithesis of *aporia* in B.1?

I shall suggest two complementary explanations, which can account for Empedocles' role in Aristotle's version of the history of philosophy and for his role in the development of the *aporia* we are analysing.

Aristotle's attitude towards Empedocles appears to be twofold: on the one hand, he blames Empedocles for the lack of clarity in the way in which he expresses himself; on the other, he regards Empedocles as the first philosopher to have had some important insights which he will embrace, too.
—Ἐμπεδοκλῆς μὲν οὖν παρὰ τοὺς πρό-
τερους πρώτος τὸ τὴν αἰτίαν διαλέαν εἰσήγηκεν,
οὐ μίαν ποιῆσα τὴν τῆς κινήσεως ἀρχὴν ἄλλην ἀλλ’
ἔτερα τε καὶ ἑναντίας, ἔτι δὲ τὰ ὡς ἐν ὕλης
eἴδει λεγόμενα στοιχεῖα τέτταρα πρῶτος εἶπεν
(οὐ μὴν χρῆταί γε τέτταρα, ὡς δυσὶοι οὐσί
μόνοις, πυρὶ μὲν καθ’ αὑτὸ τοῖς ἀντικειμένοις
ὡς μιᾷ φύσει, γῆ τε καὶ ἀέρι καὶ ὕδατι καὶ
ἄλλοι λάβοι β’ ἐν τις αὐτῷ θεωρῶν ἐκ τῶν ἑπτῶν).

Empedocles, then, in contrast with his
predecessors, was the first to introduce the
dividing of this cause, not positing one source of
movement, but different and contrary sources.
Again, he was the first to speak of four material
elements; yet he does not use four but treats
them as two only; he treats fire by itself, and its
opposites—earth, air, and water—as one kind of
ting. We may learn this by study of his verses.

In the first half of this passage, Aristotle laments Empedocles’ sloppy use of both what
Aristotle will call the efficient and the material cause; however, the Sicilian thinker has the
merit of working with two contrary sources of movement, as well as four distinct material
elements. Finally, despite his critical remarks on the distribution of roles to φιλία and
νεῖκος, Aristotle not only considers Empedocles’ theory to be one that takes into account
different principles which act on something else; he also acknowledges that—although in a
confused way—Empedocles tried to specify a cause of unity through the action of love. If we
also think that Aristotle will embrace the Empedoclean alternative of the aporia, there are
good reasons to believe that Empedocles has a primary role in Aristotle’s history of first
philosophy. This could explain why Aristotle labels the antithesis of aporia οι as
Empedoclean.

166 Aristotle credits Empedocles with the discovery of the four elements at A.4, 985a31-3.
167 The relation of earth, air, water and fire with Friendship and Strife emerges in particular from DK 31 B 17.1-35.

However, the interpretation of this fragment is highly controversial, as well as the distribution of roles of the
two principles. Scholars disagree on whether the twofold cosmic cycle Empedocles mentions is to be
understood as describing two distinct cosmogonies—respectively under the dominant influence of Love and of
Strife (O’Brien 1969; Wright 1981)—or whether it is rather intended as a single cosmogony—displaying
fluctuations of Love and Strife within the progress from the domination by Strife to that by Love (Bollack 1965–
1969; Solmsen 1965; Long 1974). The recent discovery of the Strasbourg Papyrus (Martin & Primavesi 1999) does
not seem to provide decisive evidence in favour of either view; Primavesi himself, Inwood 2003 and Trépanier
2003 support the former interpretation, which is questioned by Curd 2001, Laks 2001 and Balaudé 2010.
My second suggestion for why Empedocles is the name Aristotle picks out at 1001a12 requires a somewhat longer route. As was said above, the complementary aspect of Aristotle's engagement with Empedocles in Alpha Meizon is represented by his reservations about the latter's use of ἀρχαί. The confusion regarding the task that each principle is supposed to carry out is all-pervasive, as is also clear from the criticisms Aristotle addresses to Empedocles in A.8. The fundamental objections which Aristotle expresses against the monists are the following: (1) they do not explain incorporeal entities (988b24–26); (2) they abolish the cause of movement (988b26–28); (3) they fail to assign a causal function to substance (988b28–29); (4) they neglect the incompatibility of the two opposite hierarchies of simple bodies which can be deduced from elementary change, i.e. according to the minimal or to the maximal degree of combination (988b29–989a18). Of these objections some apply to all the physicists and to Empedocles too, while some are raised only against him.

The specific criticisms Aristotle levels at Empedocles refer to his account of the four simple roots, and in particular the causes of their changing and moving. On Aristotle's interpretation, Empedocles (1) fails to clarify how each of the elements works as a substratum when it changes into another element (989a22–24), (2) implausibly posits two moving causes instead of one (989a25–26) and (3) eliminates the possibility of change from a quality to its opposite (989a27–30).

As far as the material cause is concerned, Empedocles provides an unsound account of the role of the four elements. As for the efficient cause, Aristotle reproaches him for having posited two distinct principles which work in a confusing way. Against this background, in the discussion of aporia 11 we would expect to find a criticism of Empedocles' account of unity along the same lines. What we are faced with instead is a rather different series of objections:

\[
\begin{array}{ll}
(B) & \text{συμβαίνει δὲ, εἴ μὲν τίς μὴ δῆσεται} \\
(B) & \text{εἶναι τινα οὐσίαν τὸ ἑν καὶ τὸ δύο, μηδὲ τῶν} \\
\end{array}
\]

168 On these points see Menn 2012, 210–4.

169 As Primavesi 2012b, 230 reports: (1) and (3) according to Bonitz's 1848, Ross' 1924 and Reale's 1968 editions, with whom he agrees; (3) and (4) according to Aquinas, In Met., ad loc.

170 Primavesi 2012b, 229.
In this first section of the discussion, Aristotle provides three arguments against the thesis that unity and being are not substances. The first is shown *a fortiori*: (B) if the most general of all things are not substances, then no other universal is a substance. On top of that (B.b), if unity is not a substance, then number—which stems from unity—cannot be some nature distinct from other entities, for number in this sense is ‘units’ and each of these is just a unit, a one. Although Aristotle does not explicitly consider case (B.a), i.e. ‘if being is not a substance’, it seems to be implied in the argument against Plato’s position. Accordingly, the passage above could be summarised as follows:

\[
\begin{align*}
(B) \text{ being and unity are not substances} & \quad \text{/} \quad \{(B.a) \text{ being is not a substance}\} \\
\text{aporia} \quad 11 & \quad \text{/} \quad (B.b) \text{ unity is not a substance} \\
\text{(A) being and unity are substances} & \quad \text{\textbackslash}
\end{align*}
\]

171 I agree with Cavini 2009, 182–3 in taking the third argument in the series to belong to this branch of Aristotle’s refutation. I also think that it introduces the branch of the dilemma which is going to be discussed next in B.4.
What is striking about these first two arguments is that they do not seem to go in the same direction as the objections to Empedocles mentioned above, even if this branch of the aporia is supposed to argue against his position. More importantly, although argument (B) might still constitute a genuine problem for Aristotle at this stage of his investigation, this is surely not true for (B.b), because Aristotle has clearly expressed his aversion to separate numbers in Alpha Meizon. Finally, (B.b) would also be unproblematic for the Pythagoreans, according to Aristotle's reconstruction of their thought. The only thinker for whom both objections hit the mark is Plato. Since Aristotle would not endorse any of the premises which led Plato to these absurdities, Berti has suggested that, in this aporia, Aristotle takes a clear stance against his master, thus contravening the general pattern of book Beta. Analogously, on Cherniss' reading of the argument, Aristotle's explicit reference to the Sophist testifies the mala fide intention of his ad hominem attack.

An alternative explanation can be given: one which emphasises that this series of arguments is meant to be dialectical and which retains as its focus the observation that the problems Aristotle identifies here are problems for Platonism. We should keep in mind that the focus of aporia 11 is the affirmation or negation of the substantiality of unity and being. But, if that is the case, then the arguments pro et contra are supposed to address the Pythagorean-Platonic tenet that being and unity are substances: arguing contra this tenet will result in a list of reasons pro its antithesis, while arguing contra its antithesis will amount to arguing pro the Platonic tenet. In other words, although Aristotle labels the antithesis with Empedocles' name, he takes his philosophy merely as exemplifying the negation of Plato's position. This becomes clear if we compare this branch of Aristotle's aporia 11 with Plato's engagement with Empedoclean philosophy in the Sophist. This comparison will show that Aristotle inherits from Plato his basic objection to the very substantiality of unity and being, but in aporia 11 Aristotle takes this Platonic inheritance and turns it against Platonism itself. More importantly, I suggest that Aristotle inherits from Plato's Sophist the very method for engaging with previous accounts. The crucial relation of aporia 11 to Plato's rejection of previous theories of being in the Sophist has received only little attention in the

173 Cherniss 1944, 324–5.
scholarship. Besides having important consequences for Aristotle's confrontation with his predecessors, the comparison also explains the sequence of the two horns of the dilemma: Aristotle first argues with Plato that Empedocles' views are not acceptable but then reveals that there are equally strong reasons to reject the Platonic view that was elaborated in contrast to this Empedoclean account. In what follows I shall defend this reconstruction of Aristotle's dilemma.

At Sophist 242e, the Stranger from Elea mentions Empedocles in his narrative of previous theories concerning being. Crucially, after mentioning various ancient cosmogonies, he sets out a clear division between the Eleatics—who held that all things are one—and Ionian and Sicilian thinkers—who instead combined the one and the many into a unified account:

<table>
<thead>
<tr>
<th>Soph., 242c8-243a2</th>
<th>(trans. Fowler 1977)</th>
</tr>
</thead>
</table>
| ΞΕ. Μὴθὸν τινα ἐκάστος φαίνεται μοι διηγεῖσθαι πας ὡς οὐσιν ἢμῖν, ὥς μὲν ὡς τρία τὰ ἄντα, πολεμεῖ δὲ ἀλλήλοις ἐνίοτε αὐτῶν ἀττά πη, τοτὲ δὲ καὶ φίλα γιγνόμενα γάμους τε καὶ τόκους καὶ τροφὰς τῶν ἐκχόνων παρέχεται δῦο δὲ ἔτεροι εἴπων, ὑγρὸν καὶ ἥραν ἢ θερμὸν καὶ ψυχρὸν, συνοικίζεται τε αὐτά καὶ ἐκδίδωσι· τὸ δὲ παρ’ ἡμῖν Ἐλεατικὸν ἔθνος, ἀπὸ Ξενοφάνους τε καὶ ἔτι πρόσθεν ἀρξάμενον, ὡς ἑνὸς ὄντος τῶν πάντων καλομένων οὕτω διεξέρχεται τοῖς μόδοις. Ίδαθε δὲ καὶ Σικελαὶ τινες ὦστερον Μοῦσαι συνενόησαν ὅτι συμπλή- κειν ἀμφότερον ἀμφότερα καὶ λέγειν ὡς τὸ δὲ πολλὰ τε καὶ ἐν ἑστίν, ἤχορφ δὲ καὶ φύλα συνέχεται. διαφερόμενον γὰρ ἀεὶ Πολλὰ πολλὰ ὄντα πολλὰ ἐν ὑμῖν, ὡς χρόνοι καὶ καθιστάται πάντα· ἔσοδα δὲ καὶ Ἡράκλεις ἃ καὶ Σικελαὶ τινες ὑμῖν ἐπερεῖς καὶ συνενόησαν ὅτι συμπλήκειν ἀμφότερον ἀμφότερα καὶ λέγειν ὡς τὸ δὲ πολλὰ τε καὶ ἐν ἑστίν, ἤχορφ δὲ καὶ φύλα συνέχεται. διαφερόμενον γὰρ ἀεὶ Πολλὰ πολλὰ ὄντα πολλὰ ἐν ὑμῖν, ὡς χρόνοι καὶ καθιστάται πάντα· ἔσοδα δὲ καὶ Ἡράκλεις

174 A step in this direction is made by Castelli 2010, 40–4, who emphasises how aporia 11 seems to be connected to an ongoing debate within Plato's Academy, as witnessed by—among other dialogues—the Sophist, the Parmenides, the Theaetetus and the Euthydemus. I shall devote the final section of this chapter to spelling out the terms of this relation.
the gentler ones relaxed the strictness of the doctrine of perpetual strife; they say that the all is sometimes one and friendly, under the influence of Aphrodite, and sometimes many and at variance with itself by reason of some sort of strife.

In this narrative, an important position is reserved for ‘the more strenuous’ of the Muses but also for ‘gentler ones’, who thought that being was sometimes held together and sometimes divided by the combined action of strife and love (or Aphrodite). If, as it seems, the Elatic Stranger is referring to Empedocles in the latter case, then the Sicilian thinker had a prominent role also in the Elatic Stranger’s brief history of philosophy, as the advocate of a form of pluralism which reconciles the one and the many. This would already represent a good reason to believe that Aristotle singles out Empedocles because he was—as Plato already acknowledged—the foremost advocate of a specific way of treating unity, namely regarding love as a cause of unity. But, in emphasising Empedocles’ role in his attack on Plato’s view on unity and being, Aristotle seems to have taken a further step forward. As will become clear from the following passage, the Elatic Stranger’s approach is reflected in Aristotle’s aporetic tactics not only in its division of previous philosophy into two strands, but also in the Stranger’s arguments against these earlier forms of pluralism.

Soph., 243d8-244a3 (trans. Fowler 1977)
they would pretty certainly be one and not two.

Theaet. True.

Str. Well, then, do you wish (β.β) to call both of them together being?

Theaet. Perhaps.

Str. But, friends, we will say, even in that way you would very clearly be saying that the two are one.

Theaet. You are perfectly right.

As is clear from this passage, the Stranger forces his imaginary interlocutors into a dilemma whose horns are equally unacceptable. His argument engages with a pluralism which posits two opposite elements as principles of all things. (α) If such pluralists attribute being to these two principles, they would need to include being too as a principle alongside the two which they explicitly posit. However, to do so would transform their dualism into a ‘triadism’. (β) To avoid this embarrassment, we could imagine that they would not posit being as an additional principle on a par with the hot and the cold. This alternative offers two possibilities. (β.α) They might decide to attribute being to one of their principles only; yet, in this case, only that one principle would be a being—whether it is the hot or the cold—while the other would be something other than being, and therefore not be at all. (β.β) As an alternative, these pluralists might want to attribute being to the combination of both; however, this would reduce their two principles to one thing, namely being, and not two. The way the argument runs is summarised in the following outline:

```
α) being is a third principle

hot and cold are

β) being is not a third principle

β.α) either hot or cold is being

β.α') hot is being

β.α'') cold is being

β.β) hot and cold are (one) being
```
As it appears, this argument is designed to force pluralists either to accept being as an additional item in their ontologies or to give up their theories because the alternative is to collapse into a monism that—as we saw in section 1.3—the Stranger will also show to be unacceptable. Here, positing being as an item in one's ontology amounts to considering it to be a separate principle. In fact, on the one hand, alternative α is an option that pluralists may accept at the cost of regarding ‘being’ as a genuine, distinct principle. They would still be pluralists but would need to include an additional principle, i.e. being, in their doctrines. If they instead prefer to regard being as a principle different from the hot and the cold, then the Stranger shows how the one principle they would have to regard as separate is indeed being (not the hot, the cold or both taken together). Accordingly, what the Eleatic Stranger reproaches pluralists for is their refusal to posit being as a substance.

Given that the alternative which will be considered in the dialogue is, as we discussed earlier in chapter 1.3, a certain form of monism—whereby being coincides with the one—it seems fair to assume that the Eleatic Stranger would push pluralists to posit a being-itself and a unity-itself. This argument sounds very close to Aristotle's first objection to the Empedoclean thesis: if being is not a substance, what will be?

From the *Sophist*, therefore, we can see a certain powerful dialectical argument that can be levelled against these earlier ontologies, Empedocles' philosophy included. The lesson the Stranger wants to draw is that any ontology whatsoever must somehow include being as a fundamental item. We should remember this when we look back at Aristotle because once again we see his use of a stretch of argument from the *Sophist* to generate difficulties for an Empedoclean view of unity and being. But this time, as we shall see, he will also use it to embarrass the Platonists because, having shown the problems with Empedocles, he will then use the same tactics to show that the alternative possibility of aporia 11 also generates unacceptable consequences.

2.2.4. Against the Pythagoras-Plato line (*contra* the thesis)

In the previous section of this chapter, I suggested that Aristotle's rejection of the first branch of aporia 11 is inspired by Plato's dialectical argument against earlier pluralist natural philosophies in the *Sophist*. In this section I aim to show that this inspiration is also true of
the alternative branch of the *aporia*, which is aimed at the Pythagoreans and Plato himself. So here Aristotle is turning Plato's clever argument against its inventor. When Aristotle, in Alpha Meizon, summarises the theories of the Pythagoreans, he devotes particular attention to their account of unity. Since the universe, in their doctrines, is composed of numbers, and since unity is the principle which produces them, their description of unity amounts to a definition of it as a principle of number.


 Ephαίνονται δὲ καὶ οὗτοι τὸν ἀριθμὸν νομίζοντες ἀρχὴν εἶναι καὶ ως ὑλὴν τοῖς οὖσι καὶ ως πάθη τε καὶ ἔξεις, τοῦ δὲ ἀρίθμου στοιχεῖα τὸ τε ἄρτιον καὶ τὸ περιττόν, τούτων δὲ τὸ μὲν πεπερασμένον τὸ δὲ ἀπειρόν, τὸ δ’ ἐν ἔξει ἄμφοτέρους εἶναι τούτων (καὶ γὰρ ἄρτιον εἶναι καὶ περιττόν), τὸν δ’ ἀριθμὸν ἐκ τοῦ ἕνου, ἀριθμοὺς δὲ, καθὰ πέρε ἐφηται, τὸν ἄλον οὐρανόν.

Evidently, then, these thinkers also consider that number is the principle both as matter for things and as forming both their modifications and their permanent states, and hold that the elements of number are the even and the odd, and that of these the latter is limited, and the former unlimited; and that the one proceeds from both of these (for it is both even and odd), and number from the one; and that the whole heaven, as has been said, is numbers.

Another point on which Aristotle focuses is the Pythagoreans' way of dealing with *ὕσια*. At 987a19-27 he observes that the kind of predication the Pythagoreans had in mind when dealing with substances is fairly naïve. As we shall see in chapter 3, predication will play a key role in determining how we should deal with unity and being according to Aristotle. That said, the absurdities mentioned in *aporia* 11 do not seem to follow that line, but rather consist in problems internal to the Pythagorean-Platonic perspective. What I mean is that *aporia* 11 derives absurd consequences from premises which are not Aristotle's own, but those adopted by the supporters of the thesis that unity and being are the substance of all things. In this respect, of course, it continues the familiar tactic of dialectical engagement and refutation we have seen elsewhere in Aristotle's preliminary discussions and have traced back to the *Sophist*. Aristotle's argument against the Platonic stance on unity and being runs as follows:
But (A) if there is to be a being-itself and a unity-itself, there is much difficulty in seeing how there will be anything else besides these—I mean, how things will be more than one in number. (A.a) For what is different from being does not exist, so that it necessarily follows, according to the argument of Parmenides, that all things that are are one and this is being.

The absurdity which stems from the Pythagorean-Platonic position is the negation of plurality. Crucially, Aristotle claims that this thesis would commit its supporters to embracing Parmenides' argument. This implies that, on Aristotle's view, Plato commits the very same error which in the Sophist the Eleatic Stranger accuses Parmenides of making. There is a pleasing irony, in that case, in Aristotle's use of arguments from Plato's own pen—arguments which we have seen Aristotle also use against the Eleatics—against Plato's own position. In fact, on the one hand, if being is that which is exclusively one, plurality cannot come about. On the other hand, since being must exclusively signify being and nothing else, unity cannot be included among the things that are. Thus, the Pythagorean-Platonic branch of aporia ultimately collapses into unacceptable Eleatic monism, indeed into a monism which the supporters of this position themselves are on record as finding unacceptable. And we have also noted that the supporters of this branch cannot take refuge in the alternative position in the aporia since that has also been shown to have consequences, particularly for the possibility of universals and a certain account of numbers, which they will find unacceptable. This is confirmed by Aristotle's summary of his refutation, where the two sides of the impasse come to the fore.

There are objections to both views. For whether unity is not a substance or there is a unity-itself, number cannot be a substance. We have already said why this result follows if unity is not a substance (=
ἡ αὐτὴ ἀπορία καὶ περὶ τοῦ ὄντος (= A.a).

(A.a) ἐκ τίνος γὰρ παρὰ τὸ ἓν ἐσται αὐτὸ ἀλλο ἐν; ἀνάγκη γὰρ μὴ ἓν εἶναι· ἀπαντά δὲ τὰ ὄντα ἢ ἓν ἢ πολλὰ δὲν ἐν ἕκαστον.

B.b) and if it is, the same difficulty arises as arose with regard to being (= A.a). (A.b) For whence is there to be another one besides unity-itself? It must be not-one; but all things are either one or many, and of the many each is one.

(B) being and unity are not substances
\[(B.a)\) being is not a substance
\[(B.b)\) unity is not a substance
\[
\]
\[
\]
\[
\]
\[(A)\) being and unity are substances
\[(A.a)\) being is a substance
\[(A.b)\) unity is a substance

The way in which this passage confirms the idea that we are facing a replica of Plato's argument against Parmenidean monism is that it replays the dilemma into which Plato leads Parmenides' λόγος in the *Sophist*. In the first chapter of this thesis I argued that Aristotle's rejection of Parmenides in the *Physics* is reminiscent of Plato's counterpart in the *Sophist*. What has become clear in this chapter is that, in the *Metaphysics*, Aristotle not only borrows Plato's arguments against pluralism too; he also turns Plato's arguments against their own inventor. Whether or not we regard unity as a substance, we cannot pursue the Pythagorean-Platonic way of dealing with numbers, for they cannot be substances. It might strike us that Aristotle simply makes Parmenides turn on Plato, but I suggest that here Aristotle deftly applies his tactic of internal dialectic—a tactic he inherits from Plato—to the Platonic position. As such, Aristotle builds on the work of his master and incorporates Plato's doctrine into his critical examination of previous theories of being and the one. The missing premise in this reconstruction is that Aristotle believed that Plato shared the basic assumption of Parmenides' philosophy, namely that being is one. This is asserted quite explicitly in *Metaphysics* N.2, where he blames his master for formulating problems in an old-fashioned manner.
There are many causes which led them off into these explanations, and especially the fact that they framed the difficulty in an obsolete form. For they thought that all things that are would be one (viz. Being itself), if one did not join issue with and refute the saying of Parmenides: ‘For never will this be proved, that things that are not are.’ They thought it necessary to prove that that which is not is; for only thus—of that which is and something else—could the things that are be composed, if they are many.

This passage is important for two reasons. First, it shows that, in Aristotle's mind, Plato and his followers tried to overcome the absurd consequences of Parmenides' monism by explaining away not being, or rather showing that not being is. What they should have realised is that not being, as well as being, is said in many ways; what they do, on the contrary, is to hold that position in order to avoid Parmenides' monism. As a result, it is particularly embarrassing for Plato to be caught either having to embrace Empedocles' view—when he himself is on record as arguing that it either does away with being or collapses into monism—or allying with the Pythagoreans—whose position is equally likely to collapse under his own attacks. In the economy of my overall argument, this shows how Aristotle finds the Platonic solution unsatisfactory: despite his attempts, Plato does not manage to go beyond Parmenides and is even vulnerable to the very same objections he himself had set out against Parmenides. Second, since Aristotle in N.2 quotes the fragment also commented upon in Plato's *Sophist*, these lines also testify that the *Sophist* plays a key role when it comes to deciding on the relationship between unity and being. This passage will also cast light on the final steps of Aristotle's discussion of *aporia* 11.
After repeating that there are objections to both the alternative views introduced in the aporia, Aristotle argues against the tenet that unity itself is indivisible. At this point he makes use of an argument borrowed from Zeno of Elea.

Further, if unity-itself is indivisible, according to Zeno's postulate it will be nothing. For that which neither when added makes a thing larger nor when subtracted makes it smaller, he asserts to have no being, evidently assuming that whatever has being is a spatial magnitude. And if it is a magnitude, it is corporeal; for the corporeal has being in every dimension, while the other objects, e.g. a plane or a line, added in one way will increase what they are added to, but in another way will not do so, and a point or a unity does so in no way. But, since his theory is of a low order, an indivisible thing can also exist in such a way as to have a defence even against him (for the indivisible when added will make the number, though not the size, greater)—yet how can a magnitude proceed from one such indivisible or from many? It is like saying that the line is made out of points.

This refutation also seems to be addressed to the Pythagorean-Platonic thesis. However, nowhere before this passage had Aristotle attributed the view that unity itself is indivisible to either the Pythagoreans or Plato. If we, on the contrary, accept the premise that by this point Aristotle is treating Plato as if he were an Eleatic thinker or, at least, as if his position had been shown as liable to collapse into an Eleatic position, it should not surprise us that he depicts him as a supporter of a Parmenidean tenet. In what follows I shall take my reading of aporia 11 a step further: I shall try to show how Aristotle's mention of Zeno serves the
purpose of strengthening his destructive dilemma. I shall suggest that Zeno is mentioned not only as a prominent exponent of destructive dialectic, but also—and especially—as one of Parmenides’ foremost defenders.\footnote{Although this interpretation of Zeno’s relation to Parmenides is the dominant trend in both ancient and modern scholarship, two alternative interpretations have been suggested. According to the pseudo-Plutarchan \textit{Miscellanies} and, in our times, to Barnes 1979 and Palmer 2009, Zeno was rather a critic free of all ideological commitments. Finally, Seneca and, among modern scholars, Cordero 1988 present Zeno as a propounder of nihilism. See Sedley 2017, 4.} The use of Zeno as a source for a further difficulty is another twist of the knife and a further embarrassment to this position. To this end I shall focus on two related questions: (1) Is Aristotle endorsing a Zenonian principle for the sake of his refutation? (2) Did Aristotle view Zeno as a faithful defender of Parmenides’ doctrine? (3) Why use—and label it by name—a Zenonian argument here?

The first question arises from Aristotle’s use of a Zenonian principle within his rejection of the indivisibility of unity itself.\footnote{Sedley 2017, 23 observes that ἀξίωμα here should be translated as ‘principle’ rather than ‘axiom’, in that, unlike the latter, the former might or might not indicate a non-derivative starting-point.} Aristotle assumes this principle as the starting point of his objection only after restricting its validity. Therefore, it seems that he does not endorse Zeno’s postulate as such, but that he does accept a corrected version of it. In order to clarify this matter and to evaluate its relevance for my overall argument, I shall now try to distinguish Zeno’s principle from its Aristotelian version.

In our passage, Zeno’s formulation seems to be the following: (Z1) ‘That which neither when added makes a thing larger nor when subtracted makes it smaller, has no being.’\footnote{For a fuller account of Zeno’s argument within the smaller/larger paradox, see Rapp 2006, 178–9, McKirahan 1994, 183–5 and Sedley 2017, 11.} Aristotle attributes to Zeno a premise which he probably derives from the postulate itself: Zeno assumed that whatever has being is a spatial magnitude.\footnote{Aristotle probably intended the pair of opposites μείζον/ἔλαττον as designating a difference merely in size (rather than, say, in number). Whether Zeno subscribed to a similar thesis is controversial but does not affect my point, because, as we shall see, in Aristotle’s view, Zeno regarded being as being spoken of in only one way.} Now, Aristotle remarks that, because of this assumption, Zeno ends up restricting the validity of his principle to the case of three-dimensional bodies. But there are beings, such as points, that have no magnitude; when such things are added to something, they can indeed increase it in number (or make it...}
'more' in a different respect). In other words, a point is not nothing, even if, when added to something, it does not make that something any larger. In advancing these observations, Aristotle seems to imply that he would endorse a qualified version of the Zenonian postulate: (A1) 'That which neither when added makes a thing larger nor when subtracted makes it smaller, has no spatial magnitude'. At the same time, he would also endorse the following more general principle: (A2) 'That which neither when added makes a thing greater in any respect nor when subtracted makes it less in any respect, has no being (or: is nothing). But is Aristotle’s correction sufficient to suppose that he is endorsing the Zenonian principle? I think that some evidence that this is indeed the case comes from a passage of the *Metaphysics* which plays a crucial role in Aristotle’s treatment of unity and being. In Γ.2 he provides some arguments in favour of the thesis usually referred to as the convertibility of unity and being.\(^{180}\)

For ‘one man’ and ‘man’ are the same thing, and so are ‘man that is’ and ‘man’, and the doubling of the words in ‘one man and one man that is’ does not express anything different (it is clear that the two things are not separated either in coming to be or in ceasing to be); and similarly ‘one man that is’ adds nothing to ‘man that is’, so that it is obvious that the addition in these cases means the same thing, and unity is nothing apart from being (...). (*Met.*, 1003b26-32; trans. Ross 1963)

In this passage Aristotle states that ‘one’ and ‘being’ are predicates that do not add anything to that of which they are predicated. Hence, the following expressions mean one and the same thing:

(i) ἄνθρωπος
(ii) εἷς ἄνθρωπος
(iii) ὢν ἄνθρωπος

\(^{179}\) I have modified Ross’ translation of lines 1003b13-14, relying on Alexander’s understanding of the clause. I think that we do not need to understand ἐπειδὴ here as having the rare meaning of ‘although’, but I place more emphasis on the following καί, which, if taken, does not introduce a parallel causal clause but rather modifies ἐνδέχεται, with the implication that the ἐπειδὴ-clause justifies the idea that we may still use Zeno’s argument.

\(^{180}\) Convertibility is studied by, among others, Loux 1973, Halper 1985, Morrison 1993 and Pakaluk 1993. I postpone a detailed discussion of this passage to chapter 3.
Aristotle's claim is thus that unity and being are neutral additions to 'man' (we might call this principle 'principle of neutrality'). In order to show this, he distinguishes two cases: he compares (ii) and (iii) first with (i) and then with (iv). The former pair of examples is the direct application of respectively 'one' and 'being' to 'man':

1. 'One man' is the same as 'man';
2. 'Man that is' is the same as 'man'.

The second pair of examples represents the case where, even by doubling the predicates, we do not modify the reference of our initial item:

3. 'One man' is the same as 'one man that is';
4. 'Man that is' is the same as 'one man that is'.

This means that, even if we predicate both unity and being of a human being, we do not describe him or her any better. Hence Aristotle's conclusion: 'one' and 'being' are neutral additions. From this claim, at 1003b30-31 Aristotle draws the further conclusion that unity is—at least somehow—the same as being: 'it is therefore clear that, in these cases, the addition designates the same thing, and that unity is nothing else than being (ὡςτε φανερὰν ὅτι ἡ πρόσθεσις ἐν τούτοις ταὐτὸ δηλοῖ, καὶ οὐδὲν ἕτερον τὸ ἐν παρὰ τὸ ὅν)'.

As Castelli shows, this principle of neutrality is an application of a topos on identity which Aristotle enunciates in Topics 7.1.\(^{181}\) 'One' and 'being' are one and the same thing because, according to the topos 'from addition and subtraction', if you add them to (or subtract them from) \(x\), you get the same result \(y\):

Furthermore, you must note the result of an addition and see whether each added to the same thing fails to produce the same whole; or whether the subtraction of the same thing from each leaves the remainder different. Suppose, for example, someone has stated that a 'double of a half' and a 'multiple of a half' are the same thing; then, if 'of a half' has been subtracted from each, the remainders ought to signify the same thing, which they do not; for 'double' and 'multiple' do not signify the same thing. (Top., 156b10-17; trans. Tredennick & Forster 1963)

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\(^{181}\) Castelli 2010, 54.
This rule is meant to be useful in cases where we need to verify whether two given items are the same or are different. Now, when he applies this *topos* to ‘one’ and ‘being’ in Γ.2, Aristotle not only shows that they are the same because they have the same effect when added or subtracted, but he also makes the further claim that their addition and subtraction are a nil-addition and a nil-subtraction: if you add ‘one’ or ‘being’ to x, the y that you get coincides with x. This is compatible with two possible explanations: either unity and being are nothing or each and every thing is already one and being. In the former case, the reason behind neutrality is their complete lack of referents; in the latter, redundancy. Accordingly, Aristotle's test seems to show one of the following: (A2') ‘That word which neither when added to another word makes its referent greater in any respect nor when subtracted makes it smaller in any respect, has no referent’ or (A2'') ‘That word which neither when added to another word makes its referent greater in any respect nor when subtracted makes it smaller in any respect, has no definite referent’. Either way, Aristotle makes use of a test based on addition and subtraction which, despite some differences, is at least inspired by that devised by Zeno.

But if Aristotle endorsed at least a qualified version of the Zenonian principle from addition, why does he mention Zeno by name only in B.4 and not in Γ.2 (or 1.2)? I am less interested in why he does not mention him in Gamma than in why he *does* mention him in Beta. In fact, neither place would seem to require an explicit mention by name: in Gamma, Aristotle is solving a part of the *aporiai* of Beta, thus suggesting his own solutions; in Beta, he is indeed dealing with the views of other philosophers, but he can exploit the Zenonian principle only after adding some qualification. So why bother?

If my reconstruction of Aristotle's general argument in B.4 is correct, it should have become clear that Aristotle's strategy, in dealing with that difficulty, is to refute Plato from within Plato's own position. Now, the other *aporiai* of *Metaphysics* Beta are not marked by the naming of participants in the discussion; this suggests that their mention in *aporia* μ must matter to the force of the argument. Moreover, concerning this Zenonian principle, we can note that something like it does appear in the *Topics* without Aristotle feeling the need to label its Zenonian ancestry. As I showed above, Aristotle thinks that Plato embraced the Parmenidean thesis that there is only one being. Once we accept this, Aristotle's turning
Zeno against Plato proves to be a strategic move quite in line with his general tactics in this argument. This is true, if Aristotle also regarded Zeno as a supporter of Parmenidean monism.\textsuperscript{182}

As Sedley remarks, the fact that Aristotle viewed Zeno as a defender of Parmenides’ doctrine emerges clearly from two passages of the \textit{Sophistical Refutations}. In chapter 10, Aristotle points out that an argument is used against the thought (and not the word) when it is applied to the reference which the interlocutor had in mind when he or she made a concession to his or her questioner. This means that if on the contrary the questioner fails to pick the same reference of a given word as the one his or her interlocutor was thinking about, his or her argument will instead be directed against the word:

\begin{center}
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\textit{SE, 170b19-26} & (trans. Forster 1955) \\
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\end{center}

\begin{verbatim}
ei δὴ τινες πλείω σημαίνοντο τοῦ ὄνοματος οἴοιν ἐν σημαίνειν—καὶ ὁ ἐρωτών καὶ ὁ ἐρωτώμενος (οἴον ἰσως τὸ ὄν ἢ τὸ ἐν πολλὰ σημαίνει, ἀλλὰ καὶ ὁ ἀποκρινόμενος καὶ ὁ ἐρωτών [Ζήνων] ἐν οἴομενοι εἶναι εἰρήκαι, καὶ ἔστιν ὁ λόγος ὅτι ἓν πάντα), <ἆρ’> οὗτος πρὸς τοῦνομα ἔσται ἢ πρὸς τὴν διάνοιαν διειλεγμένος; εἰ δὲ γέ τις πολλὰ οἴεται σημαίνειν, δήλον ὅτι οὐ πρὸς τὴν διάνοιαν.
\end{verbatim}

If, then, when the word has more than one meaning, both the questioner and the man questioned were to think that it had only one meaning—as, for example, ‘unity’ and ‘being’ have several meanings but both the answerer answers and the questioner, Zeno, puts his question on the supposition that there is only one meaning and that the argument is that all things are one—the argument will have been directed against the word and not rather against the thought of the man questioned.

Although the mention of Zeno is usually considered to be a later gloss, this passage seems very much in line with the evidence provided by what Aristotle affirms later on.\textsuperscript{183} In chapter 33, he makes the point that some fallacies are harder to spot than others, even when dealing with one and the same ambiguity. The case of fallacies due to homonymy exemplifies this statement. At times, the equivocation is obvious and can give rise to humorous dialogues, for

\textsuperscript{182} This has been questioned, in particular, by Palmer 2009; however, Plato explains Zeno’s aims at the beginning of the \textit{Parmenides} precisely in these terms.

\textsuperscript{183} See Sedley 2017, 10, who accepts ‘Ζήνων’ in the text on these grounds.
example: ‘Which of the two cows will calve before (ἔμπροσθεν)?’ ‘Neither, but both from behind (ὄπισθεν).’ Sometimes, though, it escapes even the notice of the most expert eye:

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<th>SE, 182b22-7</th>
<th>(trans. Forster 1955)</th>
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<td>σημεῖον δὲ τούτου ὅτι μάχονται πολλάκις περὶ τῶν ὄνομάτων, οἷον πότερον ταύτο σημαίνει κατὰ πάντων τὸ ἕν καὶ τὸ ἔν, ἢ ἕτερον τοῖς μὲν γὰρ δοκεῖ ταύτο σημαίνειν τὸ ἕν καὶ τὸ ἔν, οἱ δὲ τὸν Ζήνωνος λόγον καὶ Παρμενίδου λύουσι διὰ τὸ πολλάκις φάναι τὸ ἕν λέγεσθαι καὶ τὸ ἔν.</td>
<td>A proof of this is that people often dispute about the terms used, for example, whether ‘being’ and ‘unity’ always mean the same thing or some different thing; for some people hold that ‘being’ and ‘unity’ are identical in meaning, while others solve the argument of Zeno and Parmenides by saying that ‘unity’ and ‘being’ are used in several senses.</td>
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In this passage, Aristotle clearly considers Zeno to be a supporter of the same thesis propounded by Parmenides and thinks that the same moves will work in diagnosing their shared error. Moreover, at the end of Physics 1.3 Aristotle states that some thinkers gave in to two arguments in support of Pamenidean monism, one of which is ‘that from dichotomy’ (τῷ ἐκ τῆς διχοτομίας)—which sounds like a label for a famous Zenonian paradox. As a result, I suggest that Aristotle mentions Zeno precisely because he was Parmenides’ most prominent defender. Since Aristotle has shown that Plato’s view on unity and being collapses into Parmenidean monism, turning Zeno against Plato means pointing to the internal incoherence of Plato’s own position. So the explicit reference to Zeno heaps further embarrassment on Plato: now that Plato’s position has collapsed into the kind of monism which Plato himself rejected, it is shown that this position is itself subject to difficulties raised by someone whom Plato recognised as one of its own defenders.

Aporia 11 ends with an appendix which tackles an exclusively Platonic theory, i.e. the derivation of numbers from the one and the dyad.

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<td>ἀλλὰ μὴν καὶ εἴ τις οὕτως ὑπολαμβάνει ὦς τε γενέσθαι, καθάπερ λέγουσι τινες,</td>
<td>But even if one supposes the case to be such that, as some say, number proceeds from unity-itself and</td>
</tr>
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184 Charlton 1970, 63; Phys. 8.8.
ἐκ τοῦ ἑνὸς αὐτοῦ καὶ ἄλλου μὴ ἑνὸς τινος τὸν ἀριθμὸν, οὐδὲν ἢττον ζητητέον διὰ τι καὶ πῶς ὁτὲ μὲν ἀριθμός ὁτὲ δὲ μέγεθος ἐσται τὸ γενόμενον, εἴπερ τὸ μὴ ἓν ἢ ἀνισότης καὶ ἡ αὐτὴ φύσις ἦν. οὔτε γὰρ ὅπως ἐξ ἑνὸς καὶ ταύτης οὔτε ὅπως ἐξ ἀριθμοῦ τινὸς καὶ ταύτης γένοιτ' ἂν τὰ μεγέθη, δῆλον.

something else which is not one, none the less we must inquire why and how the product will be sometimes a number and sometimes a magnitude, if the not-one was inequality and was the same principle in either case. For it is not evident how magnitudes could proceed either from the one and this principle, or from some number and this principle.

In this case, Aristotle's perplexity is due to Plato's lack of clarity with respect to the production of number. The hypothesis consists in saying that it is a derivation from unity itself and something else; what is unclear, though, is how these two elements produce something other than themselves, namely sometimes a number and sometimes a magnitude.

2.3. Interim conclusions

In this chapter, I have attempted to provide an analysis of the eleventh aporia of Metaphysics Beta. Aristotle defines this aporia as the hardest to investigate as well as the most necessary for knowing the truth. He then goes on to pin down the thesis which is at stake and its antithesis; the former corresponds to Plato and the Pythagoreans' view on unity and being, the latter reflects Empedocles' opinion. In the light of this, I claimed that aporia 11 has a prominent doxographic character and promised to clarify how this specificity ought to be understood.

At the end of our analysis, the following points should have been made clear: Aristotle engages in a critical engagement with a Platonic thesis which has its roots in the Parmenidean assumption of unity and being as substances of all things. He does so by means of a dilemmatic refutation, in which the arguments against both the thesis and its antithesis lead us to a condition of deep puzzlement. Aristotle focuses his discussion on the causal role of unity, which is tackled both—more generally—as a principle of being and—more specifically—as the principle of number. This leads him to lay more stress on Plato's position
than on that of the Pythagoreans. However, this *ad hominem* attack serves the purpose of showing the contradictions which lurk behind Plato's assumptions.

Accordingly, the kind of argument Aristotle puts forward is dialectical in a very specific sense, in that it mentions by name the defenders of the thesis in question and reduces their positions *ad absurdum*, by means of arguments that tackle their internal coherence. This might give us the impression that Aristotle is unfairly exploiting this opportunity to criticise Plato's theory and replace it with his own, as Berti and Cherniss (on different grounds) have argued. However, I have shown that, in view of the precise difficulty he is facing and in view of the way he himself introduces the *aporiai* in Beta, Aristotle should tackle Plato exactly in the way he does. At this point of the *Metaphysics*, Aristotle is still dealing with the theories other thinkers worked out before him. In his confrontation with his predecessors, the difficulty singled out by *aporia* 1 is the one that involves the highest level of perplexity because it divides them into two opposite factions each of which faces important difficulties. Moreover, since the problem has to do with the two most general objects of knowledge, this *aporia* brings out a difficulty which is in things (cf. δῆλοι τοῦτο περὶ τοῦ πράγματος, 995a31) and is thus the most necessary to solve before moving on. All thinkers predating Aristotle stumbled over the predication of unity and being—at least on his view. With *aporia* 1 Aristotle is clearing the way for his own metaphysics.

Once the general structure of Aristotle's confrontation with his predecessors on unity and being has been laid out, we should ask ourselves what its relevance is in the economy of Aristotle's *Metaphysics*. As we saw in the first chapter of this dissertation, Aristotle attacks the Parmenidean thesis that there is only one being in *Physics* 1.2-3. In chapter 1, I reflected on the tight connection between Plato's attack on the Eleatic thinker in his *Sophist* and Aristotle's internal critique of Parmenidean monism (1.3)—which are summarised in the following two diagrams:
Both in Plato's *Sophist* and in Aristotle's *Physics*, the Parmenidean thesis discussed is that ‘being is one’. If we compare the two refutations, we can see that the core of Aristotle’s rejection corresponds squarely to Plato’s second argument against Parmenides, which regards his one being as a thing. If we understand ‘one’ or ‘whole’ as a property of being (as in b.1.1 and 1.1), then we should posit more than one single being—either (following Plato) because it has many parts or (following Aristotle) because a property is distinct from the thing in which it inheres. If we instead understand ‘one’ or ‘whole’ as unity (or wholeness) as
such (as in b.1.2 (= b.2.1) or 1.2 (= 2.1)), then our being would be *either* being as such *or* unity as such, but could not be *both* (as in b.2.2 or 2.2). Overall, Aristotle inherits not only the basic argument against extreme monism but also the very method of dilemmatic refutation. At the end of chapter 1, we could appreciate how Aristotle’s refutation provides us, *via negativa*, with a convincing reason for the view that being must, at least in some sense, be manifold and not one. Accordingly, the positive contribution of that first confrontation with extreme monism consisted in establishing a *necessary condition* for any theory of principles: we ought never to posit too tight a relationship between unity and being. This is the sense in which Aristotle’s discussion of Eleatic monism clears the way for his own physics. In fact, in the first book of the *Metaphysics*, Aristotle seems to confirm this reconstruction, when he sidelines those who posited one and only one principle of being. Given the marginal role of the Eleatics in the doxography of Alpha Meizon, we might expect the resonance of Plato’s rejection of Parmenides to be limited to the *Physics*. However, this chapter has shown that those arguments of Platonic origin are crucial to understanding Aristotle’s discussion of the eleventh aпорia. Thus, we are finally in a position to summarise the structural similarities between Plato’s and Aristotle’s treatments of previous theories of being and the one. First, both *Physics* 1.2-3 and *Metaphysics* B.1 and B.4 borrow the general shape of the Sophist’s discussion of monism and pluralism: one which starts from the interlocutor’s own premises and forces his or her position into a dilemma. Second, Aristotle’s specific arguments against the two branches of the eleventh aпорia are clearly reminiscent of the objections which the Stranger from Elea levels at the monists and at the pluralists. Lastly, Aristotle inherits and refines the Sophist’s application of internal dialectic to the history of metaphysics, including Plato himself among his targets.

The different treatments of the Eleatics in *Metaphysics* Alpha Meizon and in Beta is a crucial indication of a different approach to previous theories, which calls for an explanation. In fact, at the end of my analysis, it is worth considering the three fundamental characteristics of the book of *aporiai* in order to clarify in what sense Beta is (I) dialectical, (II) aporetic and (III) preliminary to the rest of the *Metaphysics*. 
In the Introduction to his translation and commentary of Beta, Arthur Madigan compares the dialectic of Beta to that of the Topics. He singles out five main features of the dialectic of the latter: (1) dialectical arguments start from endoxic premises; (2) the problems addressed are formulated in terms of the four predicables; (3) the theses at stake are tested by an extended question-and-answer duel; (4) questioner and respondent avail themselves of certain standard moves, such as collecting a stock of premises, discerning the multiple meanings of a given term, attending to resemblances and differences; (5) they carry on the argument with the help of more specialised topoi, which are listed in Topics 2-7. Of these features, Madigan argues that Beta shares (1), does not share (2), (3) and (5), and only partially shares (4). In fact, (1) Beta too presents dialectical arguments, although a number of their premises are views that Aristotle himself, elsewhere, endorses. However, in Beta, (2) the problems raised are not usually framed in terms of the four predicables, (3) the discussion is a list of usually refutative arguments rather than a question-and-answer duel, and (5) the commonplaces of the Topics are not much in evidence. Finally, (4) although Beta relies on a stock of premises in the fashion that seems to be suggested by the Topics, it does not attempt to disambiguate terms with multiple meanings or apply other ‘standard moves’.

In the light of my analysis, this picture of Beta can be qualified, at least as far as the eleventh aporia is concerned. In general, it does not seem to me that, in order for Beta to match the dialectic of the Topics, it needs to resort to all the stratagems devised there. Rather than viewing Aristotle’s dialectic as a monolithic discipline, we should allow for a more elastic definition that can be accommodated on a case-by-case basis. This implies that, although Madigan is right in pointing out the divergences between Beta and the Topics as far as features (2)-(5) are concerned, the one feature held in common is overall more important than those which are not in common with the Topics. As for the question of whether or not Aristotle accepts some of the premises of Beta’s arguments, it should be noted that, on my reading of Beta, Aristotle is not interested in depicting any of the rival theses as more appealing than its alternative. In other words, although Aristotle will have to solve the aporiai—and thus eventually accept one of the contradictory theses in each case—this step falls outside the scope of Metaphysics Beta. At the same time, the method that Aristotle

186 Madigan 1999, xvi–xix.
adopts for his discussion does not commit him to expressing his own take on the issues in question, but rather prevents him from doing so. Regardless of whether he would or would not agree with the premises of Beta’s arguments, Aristotle deals with some specific theses insofar as they have been held by his predecessors. Furthermore, in general, it is this sort of neutral attitude that can help us opt for one of the two branches of each dilemma as the more acceptable. However, in the specific case of Beta, it seems that Aristotle cannot solve yet the difficulties that he raises. This introduces me to the next point to be discussed.

(II) Beta is devoted to working through and exposing problems in a particular—systematic and aporetic—fashion. In line with Crubellier & Laks 2009, in Beta each question gives rise to two mutually exclusive theses, which are tested by means of arguments against each option; moreover, Aristotle does not express his preference regarding any of the options at his disposal. Two important consequences result from this characterisation. First, Beta’s discussion follows from Alpha Meizon insofar as it is grounded in the exposition of previous theories of first principles and causes. The ‘history-based’ approach of Alpha Meizon on the one hand and the ‘problem-focused’ discussion of Beta ought to be seen as two complementary steps of one and the same strategy—which Aristotle seems to inherit, at least in part, from Plato. Secondly, and more importantly, although the dialectic of Beta can be defined as ‘examinative’ (ἐξεταστική), it does not exhaust the ἐξέτασις of the views which it takes into consideration: Beta’s discussion does not provide any solution, but only prepares the ground for it. At the end of chapter 1, I referred to Barney’s useful description of the dialectic of Alpha Meizon as ‘clarification-dialectic’. In Beta, Aristotle seems to deploy a different kind of dialectic, complementary to that adopted in Alpha. There, Aristotle was interested in winnowing the theories of other thinkers to see whether any of his predecessors came up with a cause which does not fit into his four-cause framework. In contrast, Beta develops a critical analysis of the problems raised by his predecessors in order to identify and lay out the internal contradictions which lurk at the heart of their positions. The combination of these two approaches—which we may call ‘immanent dialectic’—

187 It should be noted that the last chapters of Alpha Meizon (A.8-9) can also be regarded as aporetic; my suggestion, however, is that that discussion is still carried out with a focus on history. It is not until Beta that Aristotle formulates more general problems that emerge from his engagement with each of his predecessors.

188 Cf. Top., 101b3.
enables Aristotle not only to test the internal coherence of other accounts of unity and being, but also, and most importantly, to provide us with a philosophical grounding for the necessity of undertaking an inquiry into principles starting from different premises. Thus, what Aristotle seeks to achieve is a solid grounding for his metaphysical inquiries.

As Aristotle states in the *Topics*, dialectic is useful for distinguishing what is true from what is not true.\(^{189}\) Therefore, the sense in which surveying the opinions of one's predecessors and discussing problems that arise from them can help us make headway in our investigation could be specified as follows. Although dialectic cannot check whether a given opinion is true or false, it can surely check whether it is internally consistent or not. This can be expressed in terms of the relationship between consistency and truth: consistency is a necessary but not sufficient condition for truth. As a result, on the one hand, the discussion of an *aporia* (whether each of its theses entails absurdities or not) should reasonably be kept distinct from its solution (whether it relies on a true opinion or not); on the other hand, if a position is internally inconsistent, then it is not true. Against this background, *Metaphysics* Beta is aimed at testing whether and how previous views on principles and causes can contribute to our investigation. This procedure typically involves having to make a fresh start before embracing one of the alternatives of a given *aporia*.\(^{190}\) This leads me to consider the final feature of book Beta that calls for some elucidation.

(III) There is a specific sense in which the book of *aporiai* is preliminary to the books that follow in the *Metaphysics*. As Madigan correctly observes, three issues have been treated in the secondary literature on Beta: (i) whether we should adopt a developmental or a unitarian approach to the *Metaphysics* more generally and to its third book more specifically; (ii) whether Beta was composed as a programme for the *Metaphysics* or for some other purpose; (iii) whether the problems of Beta were difficulties for Aristotle himself or whether he already knew how to solve them when he formulated them.\(^{191}\) Although a full answer to these questions would require a much longer analysis, the reading I have suggested offers some elements towards the following responses. (i) Beta's engagement with Platonic doctrines can be explained by its diaporetic nature and therefore does not tell in favour of (or against) an

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189 *Top.*, 101a34–36.

190 On the connection between the resolution of an *aporia* and dialectic see Rossi 2017.

earlier origin of the book, closer to a more Platonising phase of Aristotle’s thought. This disallows some objections to a unitarian reading of the *Metaphysics*.\(^{192}\) (ii) Since Beta follows from Alpha Meizon’s doxography in the sense discussed above, the search for a solution of its *aporiai* seems to be a primary step in Aristotle's metaphysical investigation. This suggests that Beta could be regarded as a programme for the rest of the *Metaphysics*\(^{193}\) rather than either a list of general perplexities\(^{194}\) or a battery of arguments in support of Aristotle's theory of the four causes.\(^{195}\) (iii) Finally, given the dialectical nature of Beta, Aristotle undoubtedly regards the *aporiai* as real difficulties for his predecessors and, by so doing, defines the *status questionis* of metaphysics up to his own time. Accordingly, in the economy of the *Metaphysics*, readers too ought to regard these difficulties as real.\(^{196}\) This does not exclude the possibility that Aristotle already had their solutions in mind at the time of composition; however, even in this case, Aristotle still needs to show why he became interested—and why we should be interested—in these difficulties and not others. Furthermore, not in all cases will Aristotle's solution to a given *aporia* amount to picking one of the two options at stake without qualification. At least in the case of *aporia* 11, we shall see in the next chapter that things are more complicated.

In fact, once we accept the analysis that I have suggested in this chapter, we can read *aporia* 11 in a new light. Aristotle reduces all previous accounts of unity and being to a divergence between two different conceptions of the relationship of unity to being. He then shows not only that Plato’s account is unsatisfactory, but also that the alternative position is likewise not a viable option from a Platonic perspective. This implies that the ‘best theory on the market’ regarding unity and being—that is, Plato’s position—can be rejected using not only Plato’s own arguments but also his very method of dealing with the views of other thinkers. It is because of this move that Aristotle shows the necessity of exploring the relationship between unity and being on a new basis.


\(^{193}\) Menn in progress, Iβ1.

\(^{194}\) Düring 1966, 273–3.


\(^{196}\) Menn in progress, Iβ1.
Against this background, the conclusions we can draw from his treatment of the arguments *pro et contra* the substantiality of unity and being can be summarised as follows. Not only does Aristotle find no previous account of unity and being satisfactory, but he also gives positive indications in the direction of a correct account of this relationship. In particular, from my analysis of *aporia* 11 a list of four *desiderata* emerges which will play a role in Aristotle’s own account of the one and being: (1) the one and being need be distinct, no matter what exactly they turn out to be and no matter how tight their mutual relation turns out to be; (2) ‘one’ and ‘being’ are not univocal, but said in more than one way; in particular, (3) we must allow for a sense in which unity and being are attributes of some other underlying thing; (4) unity is primarily a principle of number and should be analysed as such. It is on this new grounding that Aristotle will build his account of unity and being.
3. Aristotle's Last Word on *Aporia* 11

*Introduction*

In the second chapter I analysed the dilemma which is, in Aristotle's own words, the hardest as well as the most necessary to discover the truth. In line with Beta's overall dialectical strategy, Aristotle discusses the options at stake without expressing any preference. In this third and last chapter, I shall reconstruct how *Metaphysics* Iota 2 resolves the difficulties raised by the *aporia*. Overall, Aristotle does not return to the *aporia* until he has developed some fundamental tenets—particularly in parts of Zeta and in the first chapter of Iota—which enable him to opt for the alternative of the physicists against the view of Plato and the Pythagoreans. Throughout my analysis, I shall distinguish between two conjuncts which the text does not explicitly keep apart but which can help us define the ontological status of the one: the one is not a *substance*; it is not the *substance of* anything. I shall begin by outlining where and how Aristotle resumes the discussion he had set out in Beta (section 3.1). I shall then reconstruct Aristotle's rejection of the thesis that the one is a substance in I.2 (sections 3.2) by considering the two claims of which his refutation consists: universals are not substances (section 3.2.1) and the one is not a genus (section 3.2.2). After a brief recapitulation (section 3.3), the second half of this chapter will focus on Aristotle's positive answer to the dilemma (sections 3.4-5), which will settle all the points raised by the *aporia*. My analysis will enable me to suggest, on the one hand, a close relationship between I.2 and Aristotle's refutation of universals as candidates for substances in Z.13-16 and, on the other, a tight continuity between Aristotle's preliminary discussion of the dilemma in B.4 and his definition of the one in I.1. Finally, in these concluding steps of *aporia* 11 too, the Eleatics will again play an important role.
3.1. **Resuming aporia ii**

As we saw, the eleventh *aporia* is formulated first at 996a5-9 and in more detail shortly after:

\[ Met., 1001a4-19 \]

(trans. Ross 1963, slightly modified)

| Πλάτων μὲν γάρ καὶ οἱ Πυθαγόρειοι (A) οὐχ ἔτερὸν τι τὸ δὲ σοῦδὲ τὸ ἐν ἀλλὰ τοῦτο αὐτῶν τὴν φύσιν εἶναι, ὡς οὕσης τῆς οὐσίας αὐτοῦ τὸ ἐνι εἶναι καὶ δύντι οί δὲ περὶ φύσεως, οἶνον Ἐμπεδοκλῆς (B) ὡς εἰς γνωριμώτερον ἀνάγων λέγει δι τὸ ἐν ἐστὶν δοξεῖ γάρ ἄν λέγειν τοῦτο τὴν φύσιν εἶναι (αἰτία γοῦν ἐστὶν αὐτή τοῦ ἐν εἶναι πάσιν), ἔτεροι δὲ πῦρ, οἱ δ' ἀέρα φασίν εἶναι τὸ ἐν τούτῳ καὶ τὸ δὲ ό ποῦ τά δύνατα εἶναι τε καὶ γεγονέναι. ὡς δ' αὐτοὺς καὶ οἱ πλείως τὰ στοιχεῖα τιθέμενοι ἀνάγον γάρ καὶ τοῦτος τοσάτα λέγειν τὸ ἐν καὶ τὸ δὲ δόσας περ ἀρχάς εἶναι φασιν.

The inquiry that is both the hardest of all and the most necessary for knowledge of the truth is (A) whether being and unity are the substances of things, and each of them, without being anything else, is unity and being, or (B) whether we must inquire what being and unity are, as if there were some other underlying nature. For some people think they are of the former, others think they are of the latter character. Plato and the Pythagoreans thought (A) being and unity were nothing else, but this was their nature, their essence being unity and being. But the natural philosophers take a different line; e.g. Empedocles—(B) as though reducing it to something more familiar—says what unity is; for he would seem to say it is love: at least, this is for all things the cause of their being one. Others say this unity and being, of which things consist and have been made, is fire, and others say it is air. A similar view is expressed by those who make the elements more than one; for these also must say that unity and being are precisely all the things which they say are principles.

Following a pattern which he also observes in the rest of Beta, Aristotle presents two mutually exclusive theses and then argues against both. We could either share Plato and the Pythagoreans’ view (A) that being and the one are the substances of all things or instead agree with Empedocles and the physicists (B) that being and the one are attributes of something else which underlies them. Note that, consistently with what we saw in 2.2.3, here too Empedocles stands out as the only thinker who (for Aristotle) was specifically concerned with the *cause* of unity. As the second half of the passage points out, if we opt for thesis (A),
then our search for substance has reached its end: the substance of being and the one is going to be nothing other than being and the one. Instead, if we pick option (B), the question requires further scrutiny—which is expressed in terms of a reduction to something more familiar (γνωριμώτερον). This emphasis on how to proceed once we accept (B) is also found in the two passages of the *Metaphysics* where Aristotle seems to return to *aporia* ιι: respectively in Z.16 and I.2.

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**Met., 1040b16** (tr. Ross 1963, modified)

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<td>ἐπεὶ δὲ τὸ ἕν λέγεται ὅσπερ καὶ τὸ ὄν, καὶ ἡ οὐσία ἡ τοῦ ἑνὸς μία, καὶ ὃν μία ἀριθμῷ ἓν ἀριθμῷ,</td>
<td>Since the term 'unity' is used like the term 'being', and the substance of that which is one is one, and things whose substance is numerically one are numerically one,</td>
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<tr>
<td>ἐπεὶ δὲ τὸ ἕν λέγεται ὅσπερ καὶ τὸ ὄν, καὶ ἡ οὐσία ἡ τοῦ ἑνὸς μία, καὶ ὃν μία ἀριθμῷ ἓν ἀριθμῷ,</td>
<td>evidently (A) neither unity nor being can be the substance of things, just as being an element or a principle cannot be the substance, but we ask what, then, the principle is, (B) so that we may reduce the thing to something more familiar.</td>
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**Met., 1053b9-16** (tr. Castelli 2018a, slightly modified)

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<td>ἐπεὶ δὲ τὸ ἕν λέγεται ὅσπερ καὶ τὸ ὄν, καὶ ἡ οὐσία ἡ τοῦ ἑνὸς μία, καὶ ὃν μία ἀριθμῷ ἓν ἀριθμῷ,</td>
<td>And we must investigate how it is with respect to substance and nature, as we did in presenting the difficulties, when we approached the issue of what the one is and how we ought to think of it:</td>
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<td>ἐπεὶ δὲ τὸ ἕν λέγεται ὅσπερ καὶ τὸ ὄν, καὶ ἡ οὐσία ἡ τοῦ ἑνὸς μία, καὶ ὃν μία ἀριθμῷ ἓν ἀριθμῷ,</td>
<td>(A) whether we should think of it assuming that some sort of substance is the one itself, as first the Pythagoreans and then Plato maintained; or (B) whether it is rather the case that some nature of some sort underlies it and it would still need to be spoken of in a more familiar way and rather as the philosophers of nature did— for one of them says that the one is love, another says that it is air and another that it is the infinite.</td>
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The point is particularly prominent in the Iota passage, where I read προσδεῖ at line 1053b14 with codex Parisinus graecus 1853 (belonging to the α-text) and the Arabic translator. This emphasis plays an important role in the solution of Aristotle's dilemma, which will follow the Empedoclean path. In fact, it implies that, in order to settle the question formulated in the aporia, Aristotle will not only have to rebut the Platonic alternative, but also to reduce being and the one to something more comprehensible. This has an important consequence regarding the relationship between Z.16 and I.2 as well as the argument itself.

The very fact that Aristotle goes back to the eleventh aporia in two distinct places raises the question of how these two loci are related to each other. As will become clear in the second part of this chapter, Z.16 and I.2 not only address the same aporia, but also rely on the same basic claims: that nothing that is common is substance and that being and one are the most universal predicates of all. Hence, they yield, at least prima facie, the very same answer. Why this repetition?

Despite these similarities, the Iota passage differs from its cousin in Zeta in three important ways. First, unlike Z.16, I.2 does not deal with both being and the one but is exclusively focused on τὸ ἕν. Second, the beginning of I.2 explicitly refers back to Beta, labelled as the book of διαπορήματα, but there is no corresponding explicit back-reference in Zeta. Finally, in the lines which follow our passage, Iota explicitly borrows the premise of its argument in favour of (B) from Zeta—while Zeta does not return the favour. As a result, I take it that Aristotle assumes that the reader of Iota will be familiar both with Beta and with at least part of Zeta. Moreover, if, as we said, choosing (B) over (A) amounts to investigating further what being and the one are, then Z.16 and I.2 carry out the same overall job, but specialise in two different tasks. Although they both reject (A), their division of labour consists in reducing εἰς γνωριμώτερον respectively being on the one hand and the one on the other. In what follows, I shall dwell on how I.2 drives home its rejection of the Platonic-Pythagorean branch of aporia 11, while postponing Aristotle's positive account of unity to section 3.5.

197 Primavesi 2012a.
198 Averr., Tafsîr 3, 1266.4 wa-yanbagi ma‘a hāḍā (...) ‘and it is necessary, on top of this, (...)’. 134
Having set out once again the dilemma of *aporia* in terms that repeat the choice presented in the discussion in Beta, including the allocation of each horn of the dilemma to a particular set of thinkers, Aristotle proceeds first by rejecting the first alternative—the one maintained by the Pythagoreans and Plato. This first argument in the chapter can be divided into two subordinate claims: the one is (1) neither a substance (1053b16-21) (2) nor a genus (b21-24). As will become clear, (1) and (2) amount to showing that the one is neither a separate substance nor the substance of anything. Overall, Aristotle revisits the first branch of our known dilemma with new artillery, namely his rejection of universals as candidates for substances in *Metaphysics* Zeta.

The Greek of this passage is fairly controversial. Here, for now, is Laura Castelli’s translation; once we have set out the general shape of the passage and noted the syntactical difficulties, I shall suggest a minor alteration at one point of the Greek text and then explain how this alters our construal of the argument.

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**Met., 1053b16-24**

(I) εἰ δὴ μηδὲν τῶν καθόλου δυνατὸν οὐσίαν εἶναι, καθάπερ ἐν τοῖς περὶ οὐσίας καὶ περὶ τοῦ ὄντος ἔρχεται λόγοις, οὐδ’ αὐτὸ τοῦτο οὐσίαν ὡς ἐν τι παρὰ τὰ πολλὰ δυνατὸν εἶναι (κοινὸν γάρ) ἀλλ’ ἡ κατηγόρησις μόνον, δήλον ὡς οὐδὲ τὸ ἕν τὸ γάρ ὑπὲρ (καὶ τὸ ἕν καθόλου κατηγορεῖται μᾶλλον πάντων. (II) ὡστε οὔτε τὰ γένη φύσεως τινὲς καὶ οὐσίαι χωρισταὶ τῶν ἄλλων εἰσίν, οὔτε τὸ ἕν γένος ἐνδέχεται εἶναι διὰ τὰς αὐτὰς αἰτίας δι’ ἄσπερ οὐδὲ τὸ ἕν οὐδὲ τὴν οὐσίαν.

(I) If in truth it is not possible that any of the universals be substance, just as we said in the discourses about substance and being, nor is it possible that this very thing be substance as something one over and above the many, for it is common—unless it is only something predicated—it is clear that the one cannot be substance either: for one and being are predicated most universally of all things. (II) So that neither are genera determinate natures and substances separate from other things nor can the one be a genus for precisely the same reasons that neither being nor substance can.

The reconstruction of Aristotle’s argument depends on what we take to be the antecedent of αὐτὸ τοῦτο at b18. As Castelli points out, ‘this very thing’ can be either any of the universals...
(b16) or being (b17). In the former case, the argument mainly rests on the premise that (i) no universal can be a substance (b16-17); in the latter, it also relies on the following two additional assumptions: (2) that being is something universal (b18-20) and (3) that one and being are the most universal predicates (b20-21).199 The former option is grammatically more plausible and is confirmed by the Arabic; however, as Castelli correctly highlights, the difficulty with this reading is that, if ‘this very thing’ does not refer to ‘being’, then it is not clear what the remark at b20-21 (‘for one and being are predicated most universally of all things’) is supposed to explain.200 In order to provide a solution to this difficulty, in the rest of this section (3.2) I shall show how I think we should reconstruct Aristotle’s argument.

On my reading, the basic structure of the argument consists of two premises and a straightforward consequence: if ‘it is not possible that any of the universals be substance’ (b16-17) and if unity, like being, is a universal (b20-21), then ‘the one cannot be substance either’ (b20). In this form, part (I) of the I.2 passage should sound familiar to a reader of the *Metaphysics* up to this point. This is how, in his discussion of *aporia* 11 in B.4, Aristotle had argued against Empedocles and the physicists:

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<td>(B) συμβαίνει δὲ, εἰ μὲν τις μὴ θῆσεται ἐναὶ τινα οὐσίαν τὸ ἕν καί τὸ ὄν, μηθὲ τῶν ἄλλων ἐναι τῶν καθόλου μηθέν (ταῦτα γάρ ἐστι καθόλου μάλιστα πάντων, εἰ δὲ μὴ ἔστι τί ἐν αὐτῷ μηθ᾽ αὐτῷ ὄν, σχολὴ τῶν γε ἄλλων τί ἐν εἴη παρὰ τὸ λεγόμενα καθ’ ἑκαστα).</td>
<td>(B) If we do not suppose unity and being to be substances, it follows that none of the other universals is a substance; for these are most universal of all, and if there is no unity-itself or being-itself, there will scarcely be in any other case anything apart from what are called the individuals.</td>
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After reminding us of the Empedoclean branch of the *aporia*, at a20, Aristotle builds an *a fortiori* argument that runs as follows: if (i) being and the one are the most universal things (a21-22) and if (ii) the most universal things (i.e. being and the one) are not substances (a20-21), then (iii) no universal can be a substance (a21). Now, this argument seems to be the converse of that which we find in I.2, where Aristotle claims that, since (iii) no universal can be a substance, then (ii) the most universal things are even more surely not substances. More

199 Castelli 2018a, 69.
200 Castelli 2018a, 69.
precisely, in I.2 Aristotle first draws the conclusion that the one is not a substance insofar as it is a universal (1053b20) and then reminds us that this is the case because (i) being and the one are the most universal of all things (b20-21).

If we keep in mind that, unlike Beta, Iota aims to solve the eleventh aporia, it should not surprise us that Aristotle replicates part of the refutation he had set out in B.4. However, why is he attacking Plato and the Pythagoreans by reversing an argument he had used to their advantage—rather than, say, corroborating an argument he had set out against them? What has changed between B.4 and I.2 is that Aristotle, in Metaphysics Zeta, has found a criterion for establishing whether something is a substance. I shall devote the rest of this section to showing how this addition emerges from the two parts of Aristotle's argument in I.2. This will enable me to claim that lines 1053b20-21 reveal Aristotle's overall strategy in our passage. Specifically, lines b20-21 mention both being and the one because they provide the general premise which allows Aristotle to extend the conclusions at which he had arrived in the case of being in Z.13-16 to the case of the one.

3.2.1. Universals are not substances

So far, I have suggested that Aristotle's argument has two explicit premises: if (3) 'one and being are predicated most universally of all things' and if (1) 'it is not possible that any of the universals be substance', then 'the one cannot be substance either'.

The main textual difficulty of the passage as a whole has to do with the syntax of lines 1053b18-19, which are problematic in two respects. First, although it would be tempting to read the clause 'οὐδὲ αὐτὸ τοῦτο... μόνον' before δῆλον at b20 as the continuation of the hypothesis introduced by εἰ δὴ μηδέν (b16), Jaeger warns us that the negation οὐδὲ cannot be used in place of μηδέ in this syntactical context. To avoid this problem, he inserts a declarative ὅτι before οὐδὲ at b18, which would remind the reader of what has been
said (εἴρηται, b18) in Aristotle's discussions of substance and being. Second, as Castelli remarks, the ‘ἀλλ’ ᾗ (‘unless’) transmitted by the extant manuscripts hardly fits in the grammatical context of the sentence.\footnote{Castelli 2018a, 71–2.}

With respect to Jaeger’s point, it should be noted that, although ‘οὐδ’ αὐτὸ τοῦτο... μόνον’ cannot be read as a protasis in syntactical terms, it can surely introduce the premise of an argument in a declarative form. After all, the εἰ-clause at b16 itself expresses a condition that Aristotle considers himself to have exhaustively clarified in Zeta and is therefore tantamount to a causal clause. In other words, although the sentence beginning with οὐδ(έ) cannot be a protasis, it can indeed carry on the hypothesis introduced at b16: ‘nor is it possible that this very thing be substance as something one over and above the many...’

The greatest difficulty represented by the rest of the sentence is that what we read in the Greek manuscripts can be translated as ‘unless it is only a predicate’—which makes the whole sentence quite obscure. To shed some light on its overall meaning, I shall suggest that we should read ‘ἀλλ’ ᾗ instead of the conjunction ‘ἀλλ’ ᾗ; this slight change yields the translation ‘but only insofar as it is a predicate’. I shall adduce two reasons in support of this reading: first, it is suggested by the Arabic translation of I.2; second, this minor change enables us to appreciate better the main thrust of Aristotle’s rejection of Platonic substances.

In Averroes’ Long Commentary on Aristotle’s Metaphysics, two alternative readings of lines b18-19 are reported. The version of lines b16-21 (by Ustāt) upon which Averroes comments reads as follows:
However,\textsuperscript{203} if it is not possible that any of the universals be a substance, as was said in the discussions of substance and in those about being, and if this in itself is also not a substance, because it is not possible that it be something different from the many, because it is common, but rather as if it merely is a predicate, then it is clear that it is not a substance as the one is not <a substance>.

This text provides some interesting evidence in favour of the construal I am proposing. In fact, the Arabic expression which corresponds to the Greek ἀλλῷ is not ἀλλὰ, as we might expect.\textsuperscript{204} What we find, instead, is لبس (bal, ‘but (rather)’), followed by the preposition كا (ka, ‘as, like’), which also translates the ὡς at line b18.\textsuperscript{205} This implies that the ἀλλῷ of line b18 was not taken together with the following ἀττα (ἀττα, ‘unless’), but simply as the conjunction ἀλλά. Thus, we can reasonably infer that the diacritics on the ἀττα after ἀλλά should be changed to the conjunction ἀττα, ‘insofar as’. Given that bal in Arabic is mostly used to correct one’s statement after a negation—much like the German sondern—Averroes reads it as introducing an alternative understanding of οὐσία: universals are not substances as ‘something different from the many’, but they are substances only in the sense that they are predicates. Indeed, he takes Aristotle to be saying that, since universals are mere predicates, they exist only in the soul.\textsuperscript{206} The alternative Arabic translation of b18-20 (probably by Ishāq) reported by Averroes is remarkably different (both in vocabulary and in grammar) but seems to confirm the general meaning of the passage: ‘Then\textsuperscript{207} it is not possible that this be a

\textsuperscript{203}The conjunction used in the Arabic (wa-lākinna) suggests that the translator read δέ, as in A.\textsuperscript{5}

\textsuperscript{204}See e.g. Z.9, 1034b18-19: ‘ποιὸν δ᾽ἢ ποσὸν οὐκ ἀνάγκη [προὔπαρξεν, b17] ἀç᾽ἢ δυνάμει’ is rendered as: wa-ammā anna takūna kayfiyyatun aw kammiyyatun fa-laysa bi-iḍṭirārin illā bi-l-quwwati, ‘as for the fact that there [already] be a quality or a quantity, it is not necessary other than (unless) potentially.’

\textsuperscript{205}To be precise, the Arabic displays a conjunction (ka-anna) which is a compound of ‘as’ (ka) and ‘that’ (anna).

\textsuperscript{206}Averr., Tafsīr 3, 1271.4–8.

\textsuperscript{207}Possibly supporting δῆ instead of δέ.
substance insofar as it is something one different from the many, i.e. it is only <a substance> as the cause in its predication'.

Lexical divergences apart, on this reading too, Aristotle is restricting the way in which we can regard the one as a substance.

One major difficulty with this reading is that it is not clear how Aristotle could be claiming that something can be a substance ‘as something predicated’. On the one hand, we would expect substance to be the subject of which attributes are predicated—rather than being itself something predicated; on the other, accepting a sense in which universals are substances would weaken Aristotle's overall point, especially in a context where he is reminding the reader of Zeta's rejection of universals. Upon closer inspection, this problem depends less on the translation than on Averroes' interpretation. Indeed, once we change ἀλλ᾽ ἦ to ἀλλ᾽ ἦ, we face two possibilities, depending on what we take ἀλλ᾽ ἦ to correct. On one reading (as it were, following Averroes), at lines 1053b18-20, Aristotle would be opposing two different ways for a universal to be considered a substance: as a one over many on the one hand and as a mere predicate on the other.

οὐδ᾽ αὐτὸ τοῦτο οὐσίαν ως ἐν τι παρά τὰ πολλὰ δυνατὸν εἶναι (κοινὸν γάρ), ἀλλ᾽ ἦ
κατηγόρημα μόνον

... nor is it possible that this very thing [sc. a universal] be substance like something one over and above the many (for it is common), but rather insofar as it is only something predicated

On this reading, we should take ὡς and ἦ to be used with two different nuances, the former to express manner, the latter, cause. My different translations of the two particles try to emphasise a contrast between the way of looking at universals which Aristotle would be rejecting (introduced by the adverb ὡς, 'like/taken as'; expressing a comparison) and the explanation which he would accept (introduced by the conjunction ἦ, 'insomuch as/given that it is'; expressing certainty). Indeed, in places where ὡς and ἦ occur together, they seem either to work as roughly interchangeable (cf. Phys. 195a6-8) or, instead, to convey these two different nuances, as appears in the following passage from Iota 9. To clarify why a female animal is not different in species from a male animal despite ‘male’ and ‘female’ being


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contraries, Aristotle states that ‘this is a difference of animal in its own right, and male and female belong to it not like (ὡς) paleness and darkness, but insofar as (ᾗ) it is animal’. In other words, we should not conceive of the opposition male/female in the same manner as we consider paleness and blackness to be contraries. Hence, in a fashion similar to what happens in Iota 2, here too ὡς would introduce a comparison which is denied in favour of the right viewpoint, which would be introduced, in contrast, by ὅ̄. 209

On the alternative possibility, ἀλλ' ᾗ does not qualify how we understand universals to be substances, but the phrase κοινὸν γάρ. Accordingly, if we slightly modify the punctuation of the Greek, we can read:

οὐδ' αὐτὸ τὸ τοῦτο ὡς ἐν τι παρὰ τὰ πολλὰ δυνατὸν εἶναι (κοινὸν γάρ, ἀλλ' ᾗ κατηγόρημα μόνον)

... nor is it possible that this very thing [sc. a universal] be substance as something one over and above the many (for it is common, but only insofar as it is something predicated)

If we accept this correction, Aristotle is not granting a sense in which universals are substances; instead, he is clarifying that being something common does not imply being a separate substance. Thus, this reading not only improves the syntax of the Greek but also makes Aristotle’s rejection of Platonic universals more straightforward. This is why this reconstruction of the text seems philologically and philosophically preferable:

(1) If however (δέ) it is not possible that any of the universals be substance, just as we said in the discourses about substance and being, nor is it possible that this very thing be substance like something one over and above the many (for it is common, but (ἀλλ') only (μόνον) insofar as (ᾗ) it is something predicated), it is clear that the one cannot be substance either: for one and being are predicated most universally of all things.

209 Met., 1058a32-34: καίτοι καθ' αὑτὸ τοῦ ζώου αὕτη ἡ διαφορὰ καὶ οὐχ ὡς λευκότης ἢ μελανία ἀλλ' ᾗ κατηγόρημα μόνον

210 Unlike the passage in I.2, in the lines of I.9 the Arabic marks the contrast with two different translations: ‘wa-laysa ka-l-hayādi wa-l-sawādi bal al-unṭa wa-l-ḍakaru bi-annahu hayawānu’ (lit. ‘and not like (ὡς) whiteness and blackness, but rather the female and the male are insofar as (ᾗ) it is an animal’; Averr., Taṣfur 3, 1373.5).
According to this reading of the Greek, Aristotle's compressed argument at lines 1053b18-20 revolves around his different understanding of κοινόν from Plato's. That ‘being common’ is central for establishing whether or not something is a substance is indeed clear from Zeta. The following passage from Z.13 should elucidate Aristotle's move in Iota. After discussing the hypothesis that universals might be considered to be substances, Aristotle concludes that this is not true and provides a reason in support of his argument which sheds light on our Iota passage, too:

Met., 1038b34-1039a2 (trans. Ross 1963)

ἔκ τε δὴ τούτων θεωροῦσι φανερόν ὅτι οὐδὲν τῶν καθόλου ὑπαρχόντων οὐσία ἔστι, καὶ ὅτι οὐδὲν σημαίνει τῶν κοινῆ κατηγορομένων τόδε τι, ἀλλὰ συμβαίνει καὶ ὁ τρίτος ἀνθρώπος.

If, then, we view the matter from these standpoints, it is plain that no universal attribute is a substance, and this is plain also from the fact that no common predicate indicates a ‘this’, but rather a ‘such’. If not, many difficulties follow and especially the ‘third man’.

The way in which this passage clarifies our argument is that it excludes universals from substances in view of a specific criterion, namely whether or not they indicate a determinate something (τόδε τι). Now, Aristotle does agree that there are some terms which are predicated of multiple things, but he does not agree that this implies that universals too indicate a τόδε τι. In fact, he warns—albeit briefly—against the risk of incurring the absurdities of the third man argument. It is absurd to think that universals are separate entities over and above particulars. Accordingly, when I.2 points out that universals are simply predicates, it aims to prevent a Platonic move which Aristotle had already rejected in Z.13. Universals do not indicate something determinate; on the contrary, Aristotle believes that universals only indicate something of a certain sort (τοιόνδε τι); therefore, universals are attributes, not substances. Note, however, that, at this point in the argument, Aristotle's view does not yet exclude any sense whatsoever in which universals can be said to be substances. For example, the universal ‘animal’ is not a substance in the sense of being a one over many; however, it is the substance of, e.g., ‘human being’. Thus, it should be pointed out that Aristotle here has not yet completed his rejection of the Platonic view of the one. I shall follow Aristotle’s final step in the next paragraph.
3.2.2. The one is not a genus

As was remarked above, the argument in I.2 against Plato and the Pythagoreans consists of two parts. From the lines we have just analysed, Aristotle draws a further conclusion, which he formulates as follows:

\[\text{Met.}, 1053b21-24 \quad \text{(trans. Castelli 2018a)}\]

\[(\text{II}) \; \text{ὥστε οὔτε τὰ γένη φύσεις τινὲς καὶ οὐσίαι χωρισταὶ τῶν ἄλλων εἰσίν, οὔτε τὸ ἓν γένος ἐνδέχεται εἶναι διὰ τὰς αὐτὰς αἰτίας δι᾽ ἅσπερ οὐδὲ τὸ ὀν οὐδὲ τὴν οὐσίαν.}\]

\[(\text{II}) \; \text{So that neither are genera determinate natures and substances separate from other things nor can the one be a genus for precisely the same reasons that neither being nor substance can.}\]

The first question which arises regarding this passage is why Aristotle treats this point separately, if it results from the very same argument against universals. My answer to this question will involve a last look back at Zeta. In the previous section of this chapter, I argued that the first part of Aristotle’s refutation of the Platonic-Pythagorean view relies heavily on Zeta’s exclusion of universals as candidates for substances. In this section, I shall complete my argument by suggesting that its second part too restates a tenet which had been defended in Z.13-16.

Aristotle’s argument in Z.13-16 consisted of two distinct parts, as is confirmed by the concluding lines of Z.16: ‘It is clear, then, that (i) none of the things said universally is a substance, and that (ii) no substance is out of substances’ (1041a3-5). Already in Zeta, Aristotle rejects not only the more general thesis that universals are substances, but also the more specific one that parts of substances are themselves substances.\(^{211}\) Against this thesis, he defends the view that substance has no actual substances as its parts; a claim which is also composed of two subparts, depending on what counts as ‘part’ of a substance. In the lines which precede my last quotation from Z.13, Aristotle makes this point with reference to the genus ‘animal’:

\[^{211}\; \text{See Lewis 2013, 191–270; Menn in progress, IIδ.}\]
And in general it follows, if man and such things are substance, that none of the elements in their formulae is the substance of anything, nor does it exist apart from the species or in anything else; I mean, for instance, that no ‘animal’ exists apart from the particular kinds of animal, nor does any other of the elements present in formulae exist apart.

Now, despite the lack of any explicit mention in Z.13, there is quite clear evidence that Aristotle believed that Plato’s one and being were supposed to work as γένη τῶν ὄντων. The first passage in order of appearance is a brisk remark at A.9, 992b9-13, where Aristotle laments the fact that Plato fails to show that all things are one. The problem with his attempt is that Plato is wrong in applying the method of ekthesis to the one. In fact, ekthesis does not work for all universals, but only for genera. Despite its brevity, this passage counts as a hint of Plato’s use of the one as a genus. The second passage is found within Aristotle’s discussion of aporia 6 in B.3. The sixth aporia wonders whether the elements and principles are genera or rather the primary immanent entities of which each thing is constituted. In B.3, Aristotle explicitly mentions Empedocles as a defender of the latter horn of the dilemma and discusses some absurdities which stem from his stance. Immediately after, at 998b9-11, he introduces the discussion of the partisans of the opposite view, by saying that ‘some’ (τινὲς) use being, the one, the great and the small as genera (ὡς γένεσιν). Given the principles which Aristotle lists and the now familiar contrast between Empedocles on one side of the dispute and his former teacher on the other, it is fair to assume that he has in mind Plato and his followers.

If we now go back to Zeta, this opposition could shed light on why Aristotle treats separately the question of whether parts of substances are themselves substances. In fact, this is a problem which applies not only to Plato but also to philosophers who, in Aristotle’s opinion, held a radically different view of what is a substance, such as Empedocles. This brings to the fore a fundamental difference between I.2 and Z.13-16. While, as we saw, Z.13 tackles the Platonic ‘parts’ of substance, at the beginning of Z.16 Aristotle explains that parts
of animals and natural elements are substances only potentially (but not actually). Hence, Zeta seems to cover both cases. Instead, in our passage from I.2, Aristotle's task is specifically to rebut the Platonic-Pythagorean branch of *aporia* 11. Therefore, the addition of part (II) of his refutation seems to be aimed at attacking a specific Platonic tenet, namely that the one could be a substance not *qua* universal, but, more precisely, *qua* genus.

The rest of (II) confirms Aristotle's conclusions on the subject of unity as a substance, although with a different wording. Here, genera are said not to be *determinate* natures and *separate* substances. I take it that this phrasing elucidates what emerges as a crucial opposition: between being a predicate on the one hand and being a *separate* substance on the other. In turn, this distinction clarifies why Aristotle needs to make two distinct claims in his resolution of *aporia* 11. Although the one is not a separate substance as a one over many, before lines 1053b21-24, there is still room for the view that the one might be the substance of something as its genus. On the contrary, Aristotle's conclusion involves what Frank Lewis has recently formulated as the principle of Mutual Exclusivity: 'If an entity is universal to many things, then it is not the substance of any of them'. On the basis of the opposition between being a predicate and being a *separate* substance, it is possible to suggest a restricted formulation of Mutual Exclusivity, according to which if an entity is universal to many things, then it is not a *separate* substance. This is the criterion for being (or not being) a substance which, I submit, enables Aristotle to solve the eleventh *aporia*.

As for the shape of Aristotle's argument, the final lines of our passage make it clear that Aristotle's general strategy in this portion of I.2 consists in extending the consequences of his previous analysis of being and substance to the case of the one. As a result, lines 1053b20-21 (‘for one and being are predicated most universally of all things’) parallel b23-24 (‘for precisely the same reasons that neither being nor substance can’). The one is not a substance, because being and the one behave in the same way and it has already been said, in dealing with ‘being and substance’ (b16-17), that being is not a substance.

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212 Lewis 2013, 203.
In this section, I have analysed Aristotle's argument against the view that the one is a substance in *Metaphysics* I.2, which I quote again for the sake of clarity:

(I) If however (1) it is not possible that any of the universals be substance, just as we said in the discourses about substance and being, (2)‘ nor is it possible that this very thing be substance like something one over and above the many (for it is common, but only insofar as it is something predicated), it is clear that the one cannot be substance either: (3) for one and being are predicated most universally of all things. (II) So that neither are genera determinate natures and substances separate from other things nor can the one be a genus (3)‘ for precisely the same reasons that neither being nor substance can.

On the reconstruction I suggested, the argument has two premises: (1) no universal can be a substance and (3) being and the one are the most universal things of all. Before drawing his conclusion, Aristotle prevents a possible objection: (2)‘ the one-over-many argument is not an option, because universals are merely predicates, not separate natures. Consequently, (1) and (3) yield the conclusion that the one cannot be a substance. From this conclusion, Aristotle further infers that, since (3)‘ being and substance cannot be genera, the one cannot be a genus either. Hence, on the whole, Aristotle agrees with Plato that being and the one are the most universal predicates; however, contrary to Plato, he believes that, if something is common, it is only a predicate and this excludes the very possibility that it is a separate substance.

To summarise, Aristotle formulates *aporia* 11 in *Metaphysics* Beta, where he discusses it only through arguments *pro et contra*. He returns to it only when he has the tools to solve it, i.e. after Z.13. However, while in Z.16 the one, alongside being, is taken into consideration *qua* substance, in I.2 it is studied *qua* one. This indicates that it is only after Z.13-16 that Aristotle can express his last word on *aporia* 11. Starting from a different reading of lines 1053b18-20, what I have tried to show is that I.2 reproduces, albeit in a very compressed form, the very same argument of Z.13-16.
Before moving on to the second half of Aristotle's argument it is worth pointing out how my reconstruction of Aristotle's refutation can interact with current interpretations of Aristotle's agenda in *Metaphysics* Zeta 13-16. Specifically, scholars are divided between two alternatives regarding the problem of the universality of form: if Aristotle rejects universals as candidates for substances, how can he still claim that form is a substance? According to some interpretations Aristotelian substantial forms are not universals, but particulars. On the alternative interpretation, forms are indeed universals but represent an exception to Aristotle's rejection. Finally, Mary Louise Gill suggests an aporetic reading of Z.13 and argues that, while it challenges whether substantial forms are regarded as universals or as particulars, it reaches conclusions which Aristotle does not accept. Against this background, we should keep in mind that the objects of inquiry in Iota 2 are extremely universal items, namely items at a higher level of universality than species (say, human being) or even genera (animal). As a result, there Aristotle formulates an argument against the substantiality of anything that might be thought to be more general than species and genera. In other words, on the one hand, the argument in I.2 works irrespective of the view of Aristotelian substantial forms with which we side, for any argument that accepts or dismisses universals at a lower level of generality will apply *a fortiori* to the one. As we can appreciate after reading the first half of the argument, the force of this move should not be underestimated: in attacking Platonic substances, Aristotle is questioning the specific point that the one should be a substance precisely because it is the most universal thing.

Overall, Aristotle's general strategy here consists in granting Plato that there are universal predicates, but disallowing the implication that universality implies separate existence. We shall see Aristotle apply a similar dialectic in the following passages of Iota 2—perhaps the most puzzling of the whole book.

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In the previous section of this chapter I have shown how Aristotle returns to the Platonic-Pythagorean branch of *aporia* 11 with a new weapon, i.e. Zeta’s criterion for substantiality. In the present section I shall analyse the rest of Aristotle’s argument in Iota 2, which takes into consideration the one *qua* principle of number. This gives Aristotle the occasion to corroborate his rejection of the Platonic-Pythagorean branch of *aporia* 11, while at the same time making room for his own view. Specifically, Aristotle embraces the alternative option of the *aporia* but also pre-empts a possible Pythagorean objection. Accordingly, the greatest difficulty of this section of Iota 2 lies in unravelling two distinct claims to the same effect: (1) the main line of argument (1053b24-28) strengthens the conclusion—from his refutation of Plato—that the one is not itself a substance but must be reduced to something ‘more familiar’ (γνωριμώτερον), namely, the indivisible thing which counts as a unit of measurement for a given kind—as I.1 has shown; (2) the rest of the section (1053b28-1054a9) is an offshoot of Aristotle’s rejection of the wrong alternative, this time specifically aimed at the Pythagoreans. Although such a procedure might look unnecessarily convoluted at first sight, in truth it enables Aristotle to hammer home his conclusion, which can now be formulated in these terms: not only is the one not a substance, but it is not even the substance of anything. As we shall see, this part of Iota 2 too puts to use some important points which Aristotle has made clear before (in Iota 1) and that need to be presupposed throughout the argument. Specifically, he relies upon: (i) a name/thing distinction (1052b1-14); (ii) the definition of ‘one’ as ‘unit of measurement’ (1052b18-19); (iii) the view that one is not itself a number (1053a27-30) but is the principle of number (1052b23-24). Thus, Aristotle does not resolve the eleventh *aporia* until he has developed his own conceptual tools to settle the question. In the following paragraphs I shall consider points (1) and (2) of Aristotle’s argument, and in the second half of this chapter I shall return to its premises.

3.4.1. **Aristotle pro the physicists**

The conclusion of the first half of Aristotle’s argument in Iota 2 is that the one cannot be a substance but, instead, is a determinate thing for any given kind of beings. In the lines that
follow, Aristotle starts from this conclusion, thus assuming that the one is the predicate of some underlying thing. What he needs to prove now is that the one must be reduced to something ‘more familiar’ (γνωριμώτερον). For Aristotle’s argument demonstrates that, even if the one is a predicate, it does not express the substance (οὐσία) of that of which it is predicated. This will clarify why he compresses two moves into one argument: since the Pythagoreans too would agree that the one (as well as number) is not separate from things, Aristotle needs to make a case for why their view is unsatisfactory and his own is preferable.

Both the structure and the aim of Aristotle’s argument give rise to important difficulties. I shall therefore begin by elucidating its general shape, before focusing on the details. The argument in Iota 2 can be divided into three steps (α, β, γ), which depend on two general premises (I, II).  

<table>
<thead>
<tr>
<th>Met., 1053b24-28</th>
<th>(trans. Castelli 2018a, slightly modified)</th>
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<tr>
<td>ἔτι (I) δ’ ὄμοιως ἐπὶ πάντων ἀναγκαῖον ἔχειν (II) λέγεται δ’ ἰσαχῶς τὸ δὲ καὶ τὸ ἕν ὡς ἐπὶ πάντων ἀναγκαῖον ἐπὶ πάντων ἀναγκαῖον ἔχειν· λέγεται δ’ ἰσαχῶς τὸ ὂν καὶ τὸ ἕν· δ’ ἐστὶ τι τὸ ὂν καὶ τὴν φύσιν, (β) ὃ γίγνεται ἐν τοῖς ποιοῖς καὶ ἐν τοῖς ποσοῖς, (γ) δῆλον ὅτι καὶ ἀναγκαῖον τῷ τὸ δὲ καὶ τῇ τὸ ἕν, ὡς ὃς ἰσαχώς ἐστὶ τοῦτο αὐτοῦ ἡ φύσις αὐτοῦ.</td>
<td>Furthermore, (I) it is necessary that things be similar in all cases: and (II) one and being are said in the same number of ways. So that, if (α) it is true that in qualities the one is something and some nature, and (β) similarly in quantities too, (γ) it is clear that we must investigate what the one is in general, as also what being is, assuming that it is not enough to say that this very same thing is its nature.</td>
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The argument is clearly introduced as an addition to the first part of the chapter, based on the assumptions that (I) things hold similarly in all cases and that (II) the one is spoken of in as many ways as being. The way the two premises relate to each other to yield the conclusion can be explained as follows. Premise (I) is stated in a very general form, which does not make any explicit reference to the categories. This means that Aristotle’s point is supposed to hold for all kinds of things, regardless of whether they do or do not fall under one and the same category. Instead, (II) appeals to an exact match between the senses of ‘one’ and those of

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216 I adopt the division suggested in Castelli 2018a, 76, which closely follows the Greek. In Averroes’ commentary the text is split into two sections at 1053b24, possibly suggesting we should read a full stop before λέγεται at 1054b25.
‘being’ and thus focuses the scope of the argument at the level of the categories. As Castelli correctly observes, Aristotle’s argument would seem not to require categorial difference, because his point holds good not only for kinds within one single category but also—and a fortiori—for items across different categories. However, this reference to the categories appears necessary if we instead emphasise that the specific aim of the argument is to prove that the one is not the substance of anything—which is made explicit in the recapitulation of lines 1054a4-9.\footnote{This remark should answer the perplexity voiced in Castelli 2018a, 77. The argument requires categorial difference because it aims to tackle the case of substances setting out from quantities and qualities. However, it leaves open the question why Aristotle talks explicitly only about quantities and qualities and whether his reticence on the other six categories (excluding substance) should be a worry in the first place. I shall sketch an answer to these points in the second half of my chapter.}

\textit{Met.}, 1054a4-9 \hspace{1cm} (trans. Castelli 2018a, slightly modified)

\begin{center}
\begin{tabular}{l}
\texttt{ὁ δὲ αὐτὸς λόγος καὶ ἐπὶ τῶν ἄλλων} \\
\texttt{γενόντων, ὥστε ἐπέρ (i) καὶ ἐν τοῖς πάθεσι} \\
\texttt{καὶ ἐν τοῖς ποιοῖς καὶ ἐν τοῖς ποσοῖς καὶ} \\
\texttt{ἐν κινήσει ἀριθμῶν ἄντων καὶ (ii) ἕνος} \\
\texttt{τινος ἐν ἄπασιν (iii) ἀριθμός τινῶν καὶ} \\
\texttt{τὸ ἐν τὶ ἐν, ἄλλῃ οὐχὶ τοῦτο αὐτὸ ἢ} \\
\texttt{οὐσία, (γ) καὶ ἐπὶ τῶν οὐσιῶν ἀνάγραφε} \\
\texttt{ὡσαύτως ἔχειν (I) ἀριθμὸς γὰρ ἔχει ἐπὶ} \\
\texttt{πάντων.}
\end{tabular}
\end{center}

The same account applies to the other genera too, so that, given that (i) there are numbers and (ii) there is something one in affections, qualities, quantities and motion, if\footnote{Castelli’s reading is confirmed by the Arabic (fa-iḍ), which would support the reading εἴπερ (in pseudo-Alexander’s paraphrase).} it is true that (iii) in all things the number is of things of a certain kind and the one is a one of a certain kind, and yet this is not its\footnote{The Arabic rendering here is unclear (fī ḥawharin).} substance, then (γ) it is necessary that in the case of substances, too, things be in the same way: (I) for things are similar in all cases.

Comparing the opening and the close of the argument thus enables us to isolate its gist, which I provisionally summarise as follows: if the one in qualities, in quantities and in other kinds refers to a certain quality, quantity, etc., but is not the definition of that quality, quantity, etc., then, likewise, the one in substances refers to a certain substance, but is not the definition of that substance. As Aquinas correctly remarked, Aristotle’s argument

\footnote{217 This remark should answer the perplexity voiced in Castelli 2018a, 77. The argument requires categorial difference because it aims to tackle the case of substances setting out from quantities and qualities. However, it leaves open the question why Aristotle talks explicitly only about quantities and qualities and whether his reticence on the other six categories (excluding substance) should be a worry in the first place. I shall sketch an answer to these points in the second half of my chapter.}

\footnote{218 Castelli’s reading is confirmed by the Arabic (fa-iḍ), which would support the reading εἴπερ (in pseudo-Alexander’s paraphrase).}

\footnote{219 The Arabic rendering here is unclear (fī ḥawharin).}
proceeds by means of comparison (similitudine); therefore, the adverb ὁμοίως plays a pivotal role. However, the main difficulty of the argument consists precisely in establishing whether and to what extent these comparisons hold. To begin with, ὁμοίως can have a strict sense (‘in the same fashion’) as well as a looser meaning (‘in a similar fashion’). Given that Aristotle replaces it with ὡσαύτως (‘just so’) in the final lines of the argument (1054a9), we can assume that he has in mind the stricter sense, at least as far as the extension to the case of substances is concerned. However, it is far from clear how the different cases Aristotle takes into consideration are supposed to work ‘in exactly the same manner’. In what follows I shall first quote points (α) and (β) of Aristotle’s argument and then attempt to shed light on the single cases.

**Met., 1053b28-1054a4**

(trans. Castelli 2018a, slightly modified)

(α) ἀλλὰ μὴν ἐν γε χρώμασιν ἐστὶ τὸ ἐν χρώμα, οἷον τὸ λευκόν, ἐτὰ τὰ ἄλλα ἐκ τοῦτοι καὶ τοῦ μέλανος φαίνεται γεννέμενα, τὸ δὲ μέλαν στέρησις λευκοῦ ὡσπερ καὶ φωτὸς σκότος [τοῦτο δ’ ἐστὶ στέρησις φωτός]: ὡστε εἰ τὰ ὄντα ἦν χρώματα, ἣν ἂν ἁρίθμος τις τὰ ὄντα, ἄλλα τίνων; δὴ λοι ὅτι χρωμάτων, καὶ τὸ ἐν ἂν τι ἐν, οἷον τὸ λευκόν.

(β) ἐμιωὸς δὲ καὶ εἰ μέλη τὰ ὄντα ἦν, ἁρίθμος ἂν ἂν, διέσεων μέντοι, ἄλλ’ οὐκ ἁρίθμος ἢ οὔσια αὐτῶν· καὶ τὸ ἐν ἂν ἂν τι οὐ ἢ οὔσια οὐ τὸ ἐν ἄλλα δίεσις. ἐμιωὸς δὲ καὶ εἰ τῶν φθόνων στοιχείων ἂν ἦν τὰ ὄντα ἁρίθμος, καὶ τὸ ἐν στοιχείων φωνήν. καὶ εἰ σχήματα εὐθύγραμμα, σχημάτων ἂν ἂν ἁρίθμος, καὶ τὸ ἐν τὸ

(α) The one in colours, at any rate, is a colour, e.g. the white, and accordingly the others clearly come to be from this and the black, and the black is privation of white, as darkness, too, is privation of light; so that if things that are were colours, things that are would be a certain number, but of some things, hence it is clear that they would be a certain number of colours, and that the one would be a one of a certain kind, e.g. the white.

(β) Similarly, if things that are were tunes, they would be a number, but a number of semitones; but their substance would not be number; and the one would be something whose substance would not be the one, but a semitone. And similarly, in the case of articulate sounds, too, things that are would be a number of vocal elements, and the one would be a sounding vocal element. And if beings were rectilinear

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220 Thom., *In Met.*, 470, §967.

221 The text secluded by Bonitz at b31-2 seems absent also from the Arabic.

222 Reading τινῶν with Christ and Jaeger and the Arabic (li-l-āšyā’ī, lit. ‘for (the) things’).
Aristotle proceeds by applying the same argument to different cases. He first states that there is a ‘one’ in colours and then clarifies that this does not imply that colours are numbers. The formulation of the argument in hypothetical terms calls for some explanation. In fact, it is at this point of the argument that the two perspectives I outlined above intertwine. On the one hand, Aristotle explains—although in somewhat unclear terms—why the white is the one in the case of colours; this suggests that he is presenting his own views on colours. On the other hand, the thought experiment that covers the rest of the argument starts from a premise which can hardly be Aristotelian: the things that are are restricted to a certain narrow group (colours, tunes, etc.). Despite its extremely condensed form, the argument seems to run as follows:

(a) white is the one of colours and colours are a certain number,
(b) but this does not mean that the one is the substance of white or that number is the substance of colour;
(c) if we imagined that all beings were colours,
(d) then—because of (a)—we would say that beings are a certain number;
(e) however, not in the sense that number is their substance—as they would be a certain number of colours.

This reconstruction brings to the fore the fact that points (c)-(e) are specifically targeted against someone who believes not only that beings are numbers in some sense, but also that this is a sufficient reason for claiming that numbers are substances. While the former could well describe Aristotle himself (number is an attribute of beings), the latter can only describe the Pythagoreans—at least on Aristotle’s interpretation of them. Hence, the

223 Ross translates the whole period as a counterfactual in the past tense: ‘Therefore if all existent things were colours, existent things would have been a number, indeed (…)’. However, while Aristotle does not accept the starting assumption, he does accept its consequence.

224 Aristotle sees the Pythagoreans’ conception of numbers as something which clearly distinguishes them from Plato. Specifically, they think not only that numbers are substances (as at least some Platonists), but also that all beings are numbers and made out of numbers, see in particular Met. A.6, 987b22-31; M.6, 1080b16-18; N.3,
argument shows that the Pythagorean assumption is not a reason in support of their thesis. As I anticipated above, Aristotle's argument will work in the very same way in which his argument against Plato worked in the first half of Iota 2. This time, what Aristotle grants the Pythagoreans is that things (or at least some of them) are numbers; however, he will disallow the implication that this makes numbers the substance of all things.

3.4.2. Aristotle contra the Pythagoreans

In the previous paragraph of this chapter I put forward the idea that the second half of Iota 2's argument is targeted at the Pythagoreans rather than at Plato or, more generally, at any other propounder of the substantiality of the one. I shall defend this claim in three steps. I shall begin by reflecting on the vocabulary used at lines 1053b28-1054a9; I shall then track a plausible source of Aristotle's connection between Pythagoreanism and Platonic philosophy, namely the Philebus; finally, I shall suggest that Plato's dialogue can also provide us with a fundamental hint as to how to understand the premise, in Aristotle's argument, that the unit of measurement of colours is white.

The first chapter of Iota is devoted to clarifying the meaning of 'one' and establishing how to search for a unit of measurement in all kinds of things.225 Aristotle affirms that his analysis extends to cases outside the category of quantity; however, his remarks concerning such cases are too brief to grant us a clear idea of how to identify, specifically, the unit of colours—which is the only case discussed in any detail in the argument of Iota 2. Moreover, the examples introduced in Iota 1 only partially match those mentioned in the following chapter: Aristotle talks about length (μήκος), width (πλάτος), depth (βάθος), weight (βάρος), speed (τάχος) and, shortly after, lines (γραμμαί), number (ἀριθμός), motion (κίνησις), music (μουσική) and vocal sound (φωνή).226 While the semitone (δίεσις) is used as an example in both chapters, Aristotle indicates the unit of vocal sound (i.e. a vocal element) as στοιχεῖον in I.1 and, more precisely, as στοιχεῖον φωνῆεν in I.2. Finally, colours do not appear in the list of

225 I discuss this claim and the difficulties it entails in the second half of this chapter, which is not included in this extract.
226 Met., 1052b26-1053a30.
examples of I.1. We should therefore look somewhere else in the *Corpus Aristotelicum* if we want to get a better grasp of these lines of Iota 2.

Aristotle's most extensive account of colours is found in the short treatise on senses and sensible objects (*De sensu*), contained in the so-called *Parva naturalia*. After surveying some previous theories of vision, in chapter 3 Aristotle distinguishes five objects of perception which he will subsequently investigate: colour (χρῶμα), sound (ψόφος), smell (ὀσμή), flavour (χυμός) and touch (ἄφη). As in Iota 2, here too colours are discussed in connection with light and darkness. Aristotle says that 'just as in air we have light and darkness, so in bodies we have white and black.' Moreover, when he speaks of colours other than white and black, Aristotle discusses different explanations concerning how they are produced and concludes—as we would expect coming from Iota 2—that they are a mixture (μίξις) of black and white:


But if a mingling of bodies occurs, it is not merely in the way in which some people think, when very small coloured objects are placed side by side, which are not obvious to the sense, but generally everywhere and in every way, as has been said in our discussion of mixtures in general. In that case mixture is only possible in the case of those things which can be divided into the infinitely small, such as men, horses and seeds; for man is the smallest unity of men, and a horse of horses; so that by the placing of these side by side, the whole number becomes a mixture of both; but we cannot speak of one man being mixed with one horse. But with things which are not divided into their smallest units

227 *DS*, 439a6-12.

there can be no mixture in this sense, but only a complete mingling, which is the most natural sense of mixture. How this can occur has been discussed previously in our discussion of mixture. But it is clear that colours must be mixed when the substances in which they occur are mixed, and that is the real reason why there are many colours; it is not due either to overlaying or to placing side by side; for it is not that from a distance and not from nearby there appears to be one colour from the mixture, but from all distances. But there will be many colours, because it is possible for the mixed element to be combined in various ratios, some being numerical and some merely an excess of one over another. In the case of mixtures all that can be said of colours put side by side or overlaid applies; but why the possible forms of colour are limited and not unlimited, which is also true of flavours and sounds, we will discuss later on.

This passage is helpful in two ways: first, here too, Aristotle describes colours as a composition of white and black; second, the point is made that colours are mixed only when the substances of which they are colours are mixed. The former claim is in line with the concise remarks on colour which we find in Iota 2. Furthermore, the De sensu seems to cast some light on the sense in which colours can be measured at all. In fact, when comparing them with sounds in chapter 4, Aristotle observes:

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<th>DS, 442a12-17</th>
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<td>ὥσπερ δὲ τὰ χρώματα ἐκ λευκοῦ καὶ μέλανος μίξεώς ἐστιν, οὕτως οἱ χυμοὶ ἐκ γλυκέος καὶ πικροῦ, καὶ κατὰ λόγον δ’ ἢ τῷ μᾶλλον καὶ ἢττον ἐκαστοί εἰσιν, εἴτε κατ’</td>
<td>Just then as colours are a mingling of white and black, so flavours are a mixing of sweet and bitter. And each pair, in some greater or smaller ratio, is either with definite numerical values and</td>
</tr>
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In both of these passages, Aristotle seems to regard colours as composed of different combinations of white and black in ratios that either can or cannot be expressed in (natural) numbers. This introduces us to an interpretative problem to which I shall devote greater attention in the second half of this chapter. In fact, as Castelli points out, Aristotle’s remarks on how to measure colours (and the other kinds he mentions) might reflect one of the following two explanatory models, neither of which is free from difficulties.229 According to the first model, given any countable item K, one counts Ks by taking a K as a unit. On this model, the operation Aristotle has in mind would be better described as ‘counting’ (rather than measuring). What one needs to do in order to measure a kind of things is to choose the right sortal and then discover how many Ks there are. For example, in the case of colours, one ought to establish what constitutes the one in colours and then discover that, say, on this page there are only two colours (black and white). According to the second model, instead, in order to measure objects of kind K, one needs to discover a specific K’ which is the constitutive principle of all the other Ks (in a sense that has to be determined).230 For example, to measure the items that belong to the kind ‘colour’, we have to analyse colours into degrees of white and then ascribe a number to the colours other than white. Despite some important difficulties, which I shall spell out later on, the passages read so far strongly tell in favour of the latter model, not the former.

As for the claim that colours are always found in a body, again in the Parva Naturalia, Aristotle explicitly contrasts the Pythagoreans, to whom however he seems to grant the merit of a partially correct intuition:

![Image: Text from the Parva Naturalia]

229 Castelli 2018a, 79–80.
230 This line is explored by Halper 2007, discussed in Castelli 2018a, 80.
call the visible surface of a body its colour. Colour lies at the limit of the body, but is not its limit; but it is fair to suggest that the same nature which causes its colour outside, also exists within.

These passages also seem to solve a perplexity which Castelli points out in her commentary, namely that, if black is privation of white, then Aristotle defines colours as a mixture of something and its privation. The De sensu suggests that the privation of white would still be a characteristic present in a given body, thus implying that Aristotle might have in mind a surface or a body of a sort which lacks (or has lost) some or any degree of white, while still being a surface or a body. Although this perspective would not settle all matters, it would make Aristotle's account of colours less counterintuitive. In fact, colours are not a composition of white and its absence. Rather, they are varying, but not total, deprivations of white; black is the colour of a surface completely lacking white. The final point from the De sensu that is worth mentioning is the contention ‘that every sensible object is a magnitude, and that no sensible object is indivisible’, which is found at the very end of the treatise. Overall, in the light of these passages we can infer a more precise picture both of Aristotle's view on colours and of how he evaluated the Pythagorean definition of colour. Specifically, while on Aristotle's theory too colours no doubt involve numbers or ratios, according to the Pythagoreans colours would be identical to the surfaces of which they are colours—which is a view that Aristotle does not share. In other words, these passages seem to confirm points (c)-(e) above. What, however, they do not provide is a parallel to Aristotle's explicit discussion of colours in terms of the one/many opposition.

There is a crucial passage of the Metaphysics where Aristotle does instead focus on such a division; a passage which again deals with the doctrines of the Pythagoreans:

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231 As is confirmed at DS, 442a26.
232 Castelli 2018a, 84.
233 Cf. DS, 439b14-18.
234 DS, 449a20-21: ὅτι δὲ τὸ αἰσθήτον πάν ἐστί μέγεθος καὶ οὐκ ἐστίν ἀδιαίρετον αἰσθήτον, δῆλον.
Evidently, then, these thinkers also consider that number is the principle both as matter for things and as forming both their modifications and their permanent states, and hold that the elements of number are the even and the odd, and that of these the latter is limited, and the former unlimited; and that the One proceeds from both of these (for it is both even and odd), and number from the One; and that the whole heaven, as has been said, is numbers.

As emerges from this passage, Aristotle thinks that the Pythagoreans regarded numbers as constituents of natural beings; moreover, since the elements of numbers are the limited and the unlimited or the even and the odd, these will also be the principles of natural beings. Finally, among the oppositions to which all beings can be traced back, the Pythagoreans would list not only one and plurality but also light and darkness. For the purpose which I set myself at the beginning of this paragraph, this evidence from A.5\textsuperscript{235} is important because it confirms that the Pythagoreans would endorse the premise that natural things are made out of the limited and the unlimited (or the even and the odd).\textsuperscript{236} Accordingly, if we read this chapter in connection with the De sensu, it is reasonable to deduce that, on Aristotle's interpretation, the Pythagoreans would endorse the premise that colours are numbers and

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\textsuperscript{235} On which see Schofield 2012 and Primavesi 2017.

\textsuperscript{236} Aristotle offers a picture of Pythagoreanism which is particularly indebted to his understanding of Philolaus of Croton, see Burkert 1972/1962, chapters 1.2 and 3.
would indeed draw the consequence that number is the substance of colour. Before reflecting on this point in greater detail, I shall take the last step of my argument in this section: I shall show that, in Iota as in Alpha, Aristotle is relying upon a very specific source for his reading of the Pythagoreans.

Thus far, the parallels taken into consideration have confirmed either a connection between the oppositions: light/darkness and one/many (Metaphysics) or a Pythagorean account of colours (De sensu). However, on the one hand the passages from the De sensu did not express the explanation of what colour is in terms of unity; on the other, the Metaphysics’ previous presentation of the Pythagoreans did not explicitly refer to colours or to any of the other cases mentioned in Iota 2. I should like to suggest that, while writing his argument specifically against the Pythagoreans, Aristotle had in mind principally Plato’s Philebus.

Within the investigation of pleasure, the Philebus shares some fundamental questions regarding the opposition one/many, which Aristotle explores in Metaphysics Iota. We come across the first occurrence of this problem at 12e, where Socrates prompts Protarchus to compare precisely colours (χρώματα) and shapes (σχήματα) as cases in which one respectively can and cannot infer that opposite things belong to one and the same genus. While the use itself of the words χρῶμα and σχῆμα does not tell particularly in favour of a connection with Iota, the Philebus passage prepares the ground for a longer inquiry into opposition, which is framed by Socrates in very general terms:

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<th>Phil., 15d4-8</th>
<th>(trans. Fowler 1975)</th>
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<td>ΣΩ. Φαμέν που ταύτων ἐν καὶ πολλά ὑπὸ λόγων γιγνόμενα περιτρέχειν πάντη καθ’ ἐκαστόν τῶν λεγομένων αἵ, καὶ πάλαι καὶ νῦν. καὶ τούτῳ οὕτε μή παισηται ποτε οὕτε ἡρεμεῖ τό νῦν, ἀλλ’ ἐστι τὸ τοιοῦτον, ὡς ἡμεὶς φαίνεται, τῶν λόγων αὐτῶν ἀθάνατον τι καὶ ἀγήρων πάθος ἐν ἡμῖν.</td>
<td>Soc. We say that one and many are identified by reason, and always, both now and in the past, circulate everywhere in every thought that is uttered. This is no new thing and will never cease; it is, in my opinion, a quality within us which will never die or grow old, and which belongs to reason itself as such.</td>
</tr>
</tbody>
</table>

This passage presents a striking consonance with the passage in the Sophist in which the Stranger from Elea warned Theaetetus of the difficulty of their inquiry into what is and what
appears to be false. Moreover, it is even followed by an historical consideration, as happened in the Sophist too:

<table>
<thead>
<tr>
<th>Phil., 16c5-17a5</th>
<th>(trans. Fowler 1975)</th>
</tr>
</thead>
</table>
| ΣΩ. Θεῶν μὲν εἰς ἀνθρώπους δόσις, ὡς ἐγκαταφαίνεται ἐμοὶ, ποθὲν ἐκ θεῶν ἐρρίφη διά τινος Προμηθέως ἁμα φανοτάτω τιν πιρή καὶ οἱ μὲν παλαιοὶ, κρείττονες ἡμῶν καὶ ἐγγυτέρω θεῶν ὅκουντες, ταῦταν φήμην παρέδοσαν, ὡς ἐξ ἑνὸς μὲν καὶ πολλῶν ὄντων τῶν ἀεὶ λεγομένων εἶναι, πέρας δὲ καὶ ἀπειρῶν ἐν αὐτοῖς σύμφωνον ἑχόντων. δεῖν οὖν ἡμᾶς τοὔτων οὕτω διακεκοσμημένων ἀεὶ μίαν ἰδέαν περὶ παντὸς ἑκάστοτε θεμένους ζητεῖν—εὑρήσειν γὰρ ἐνοῦσαν—εἰ ποτὲ μεταλάβωμεν, μετὰ μίαν δύο, εἴ πως εἰς, σκοπεῖν, εἴ δὲ μη, τρεῖς ἢ τινα ἄλλον ἀριθμόν, καὶ τῶν ἐν ἐκείνων ἐκατόστοι πάλιν ὡσάυτως, μέχρι ὃν ἐκτείνει ὁ πρῶτον τῶν ἄπειρων ἱδέας ἐκατοντάκτως πυρί· καὶ οἱ μὲν θεοὶ, ὅπερ εἶπον, οὕτως ἡμῖν παρέδωκαν σκοπεῖν καὶ μαθαίνειν καὶ διδάσκειν ἀνθρώποις· οἱ δὲ νῦν τῶν ἀνθρώπων μεθέντα μιᾶς καὶ πολλαῖς, λάμποντος καὶ βραδύτερον ποιοῦσας τῶν ἀνθρώπων, μετὰ δὲ τὸ ἐν ἀπειρῶν ἰδέαν, τὸ δὲ μέσα αὐτοῦς ἐκφεύγει—οἷς διακεχώρισται τὸ τε

237 Soph., 236e1-5.
These opening lines of Socrates' narrative are usually read as a reference to the Pythagoreans\(^{238}\) and—in the light of *Metaphysics* A\(^{239}\)—were, I think, read as such by Aristotle.\(^{240}\) This is particularly relevant for our purposes, when we look at the following pages of the dialogue, where Socrates propounds the claim that knowing things amounts to knowing how (ὅποια) and how many (ὅποσα) they are. The example that Socrates discusses is precisely sound (φωνὴ but, later, φθόνος), which is first analysed as a combination of high and low pitch and then with reference to vowel sounds (φωνήεντα) as its units:\(^{241}\)

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\(^{238}\) In particular, Prometheus is identified with Pythagoras, mainly because of the mention of ἀπειρία and πέρας, of the link between this method and numbers and of the later references to music, see Delcomminette 2006, 93.

\(^{239}\) Cf. the language used in particular at *Met.*, 986a1-6.

\(^{240}\) On the method described in the *Philebus* see Kahn 2010; Benson 2010; Gill 2010 and Crivelli forthcoming.

\(^{241}\) On the later account of sounds at 53e-53c see Warren forthcoming.
εἰς τις θεός εἶτε καὶ θείος ἄνθρωπος—ὡς λόγος ἐν Αἰγύπτῳ Θεῦ τινὰ τὸτε γενέσθαι λέγων, ὅς πρῶτος τὰ φωνήεντα ἐν τῷ ἀπείρῳ κατενόησεν οὐχ ἓν ὄντα ἀλλὰ πλείω, καὶ πάλιν ἔτερα φωνὴς μὲν οὐ, φόνγγου δὲ μετέχοντα τῖνος, ἄριστον δὲ τινὰ καὶ τούτων εἶναι, τρίτον δὲ εἶδος γραμμάτων διεστήσατο τὰ νῦν λεγόμενα ἄφωνα ἡμῖν· τὸ μετὰ τοῦτο διῄρετα τὰ ἄφθονα καὶ ἄφωνα μέχρι ἑνὸς ἑκάστου, καὶ τὰ φωνήεντα καὶ τὰ μέσα κατὰ a grasp of any other unity of all those which exist, you have become wise in respect to that unity. But the infinite number of individuals and the infinite number in each of them makes you in every instance indefinite in thought and of no account and not to be considered among the wise, so long as you have never fixed your eye upon any definite number in anything.

As we can see, in this passage Plato establishes a tight connection between knowledge and the action of measuring. In the economy of my general argument, it confirms the idea that the Pythagoreans regarded numerical ratios as the explanatory principles of all things, which is shown in the Philebus through the example of sound, perhaps because the Pythagoreans themselves indeed used just that illustration. Interestingly, the passage also emphasises the necessity of taking into consideration the plurality of items which make up the kind we are looking at. This general point is explained in a more detailed way a few lines later, once again with specific reference to the case of sound. It is in this passage that the occurrence of τὰ φωνήεντα as units for sounds reveals its importance for the passage of Aristotle's Metaphysics from which we started:

*Phil., 18b6-d2 (trans. Fowler 1975)*

| ΣΩ. Ἐπειδὴ φωνὴν ἀπείρον κατενόησεν | Soc. When some one, whether god or godlike man—there is an Egyptian story that his name was Theuth—observed that sound was infinite, he was the first to notice that the vowel sounds in that infinity were not one, but many, and again that there were other elements which were not vowels but did have a sonant quality, and that these also had a definite number; and he distinguished a third kind of letters which we now call mutes. Then he divided the mutes until he distinguished each individual one, and he treated the vowels and |
| еἶτε τις θεός εἶτε καὶ θείος ἄνθρωπος—ὡς λόγος ἐν Αἰγύπτῳ Θεῦ τινὰ τὸτε γενέσθαι λέγων, ὅς πρῶτος τὰ φωνήεντα ἐν τῷ ἀπείρῳ κατενόησεν οὐχ ἓν ὄντα ἀλλὰ πλείω, καὶ πάλιν ἔτερα φωνής μὲν οὐ, φόνγγου δὲ μετέχοντα τῖνος, ἄριστον δὲ τινὰ καὶ τούτων εἶναι, τρίτον δὲ εἶδος γραμμάτων διεστήσατο τὰ νῦν λεγόμενα ἄφωνα ἡμῖν· τὸ μετὰ τοῦτο διῄρετα τὰ ἄφθονα καὶ ἄφωνα μέχρι ἑνὸς ἑκάστου, καὶ τὰ φωνήεντα καὶ τὰ μέσα κατὰ |
Socrates expounds a step-by-step process through which Protarchus can derive a correspondence between sounds and numbers. This process seems to involve the choice of an appropriate unit to get to know the plurality of items which forms a group of things. Within the explanation of this operation, Socrates talks about vowels (τὰ φωνήεντα) alongside letters which, despite having some sound, have no vocal sound (τὰ ἄφωνα); all of them, in his narrative, are given a specific name by Theuth. If we accept the parallel with the lines of Iota 2 which mention sound, this passage could explain why Aristotle talks specifically about στοιχεῖον φωνῆεν and not simply στοιχεῖον: Plato and the Pythagoreans would consider τὰ φωνήεντα to be the specific units of measurement of vocal sounds (στοιχεῖα).

Before summarising my reconstruction of Aristotle’s argument, I should like to call attention to a final passage from the Philebus which, I submit, suggests a way to understand the second half of the argument in Iota 2. While trying to discover an adequate definition of pleasure and knowledge, at 52e-53c Socrates formulates a criterion to analyse them in their purest form, asking: ‘What kind of thing is most closely related to truth? The pure (τὸ καθαρόν) and unadulterated (τὸ εἰλικρινές), or the violent, the widespread, the great, and the sufficient?’. He begins precisely from the case of whiteness (τὸ λευκόν):

242 The Philebus passage also mentions semi-vowels and consonants—cf. Poetics, 1456b25-30; see also Met. 1016b21-22. However, if the compact argument at Met. 1054a1-2 is supposed to work as the case of colours, then we can imagine that consonants and semi-vowels are respectively total and partial deprivations of vowels as black and intermediate colours are different degrees of privation of white.
Soc. How can we have purity in whiteness, and what purity? Is it the greatest and most widespread, or the most unmixed, that in which there is no trace of any other colour?

Pro. Clearly it is the most unadulterated.

Soc. Right. Shall we not, then, Protarchus, declare that this, and not the most numerous or the greatest, is both the truest and the most beautiful of all whitenesses?

Pro. Quite right.

Soc. Then we shall be perfectly right in saying that a little pure white is whiter and more beautiful and truer than a great deal of mixed white.

Pro. Perfectly right.

Besides having some resonance in Aristotle's own account of colours and—more generally—measures, this passage can suggest the reason Aristotle in Iota specifically mentions white and the case of colours. Among the examples that Aristotle could have come up with, the role of white as a unit for colours is not only acceptable from his own perspective (in that it constitutes the beginning of the spectrum of colours) but is also the most evident case with which Aristotle's adversaries could agree.

The mention of τὸ λευκὸν introduces me to the last step of my reconstruction of the second half of Iota 2's argument against the substantiality of the one, which will see the return of some form of Eleaticism lurking behind these Pythagorean doctrines.

3.4.3. Eleatic predication

Thus far, I have suggested that the second half of Iota 2 starts with a Pythagorean view but argues against an inference that the Pythagoreans mistakenly make: colours (sounds, shapes, etc.) are numbers but not in the sense that the definition of each colour is a number. To
appreciate this move fully, I should like to compare this passage of Iota with the argument Aristotle levels against Parmenides in *Physics* 1.3, which I analysed in section 1.4.2.2 of this dissertation.

And the same sorts of arguments apply to Parmenides too, even if certain other arguments are specific [to him]. The solution [to Parmenides' argument] is partly that it is false, and partly that it does not establish its conclusion. It is false because it assumes that being is said in a single way, when in fact it is said in many ways. And it is inconclusive because if the white things were assumed to be the only things, and if the white signifies one thing, nevertheless the white things will be many and not one. For the white will not be one by continuity, nor in account. For to be white and to be the thing that has received [it] will be different—and there will not be anything separate beyond the white; for it is not by being separate but in being that the white and that to which it belongs are different. But Parmenides did not yet see this. (*Phys.*, 186a22-31; trans. Clarke 2019)

The two refutations rely on a similar thought experiment; however, what is crucial for understanding the Iota passage is that the premise of this thought experiment is, in both cases, a monistic assumption. While this is explicitly stated in the *Physics*, it cannot be appreciated in the *Metaphysics* until we draw a fully-fledged parallel. As we saw in the first chapter of this dissertation, Aristotle's rejection of Parmenides' monism tackles his view of being, which Aristotle insists must be spoken of in many ways. However, in the lines of *Physics* 1.3 just quoted, Aristotle provisionally endorses a Parmenidean-style premise; he imagines a world in which there is only one being, namely the white. His argument there is to the effect that, even on this assumption, we would need to draw a distinction between being white and being a white thing; which implies that in truth there turn out to be not one but at least two beings, that is, as many as there are white things (in this case, one) plus the colour white. As I explained in greater detail, the distinction which Parmenides failed to appreciate is, to Aristotle's mind, that between essential and accidental predication.

In the *Metaphysics* too, although within a different context, Aristotle begins by granting the assumption which he wants to reject as absurd. This move should give us important information with respect to two points: what Aristotle's specific polemic target is and what
the underlying assumption is that gives rise to their absurd view. As in the case of Physics 1, the if-clause of Aristotle's argument contains the thesis that he wants to reject, namely, that beings are numbers and that being is one. Now, while Aristotle's Plato would endorse the tenet that being is one, it is rather the Pythagoreans who (again, on Aristotle's reconstruction) defended the view that beings are numbers. Hence, here too Aristotle is clearly applying the dialectical strategy which he had deployed in his rejection of Parmenides. However, he is also doing more than this: in Iota 2, Aristotle is replaying a version of his argument against Parmenidean monism to embarrass not only Plato but also the Pythagoreans. In other words, the Pythagoreans too are shown to relapse into some form of the fault diagnosed in the case of Parmenides in view of their naïve conception of predication. In the case of the Pythagoreans, the absurd consequence of granting that beings are numbers is not that being would therefore involve plurality (Pythagoreans were not strict monists). Rather, even on the assumption that being is a number, Aristotle tries to show that being is not a number in the sense that number is the \textit{definition} of being. However, taking this parallel to its ultimate conclusion, Pythagorean ontology too turns out to rest on the assumption that being is spoken of in only one way. On the basis of Aristotle’s discontent with Parmenides, we can say that the Pythagoreans, just like Parmenides, failed to grasp precisely the distinction between accidental and essential predication. This is made explicit in the final section of Alpha’s survey of Aristotle’s predecessors (A.5), which I shall use to summarise my reconstruction of the argument:

\textit{Met.}, 987a13-27 (trans. Ross 1963)

οἱ δὲ Πυθαγόρειοι δύο μὲν τὰς ἀρχὰς
catat tôn autôn eirîkasi tròpôn, tosû tôn
dê prospeîdhesan ò kai Íbîn èstiv autôn,
ôti to peperasmênôn kai to ápeîrôn [kai to
èn] sóx ètéraçs tinàs ñîhêçsan ënîa fúseis,
solon piûr ò gîn ò ti toisû tôn ètêron, òllî
autà to ápeîrôn kai autò to èn oûsían ènîa
tûtov òn katharoûntai, diî kai ãrîbîn
ènîa tin oûsían pàntov. peri te tûtov oûn

But the Pythagoreans have said in the same way that there are two principles, but added this much, which is peculiar to them, that they thought that finitude and infinity were not attributes of certain other things, e.g. of fire or earth or anything else of this kind, but that infinity itself and unity itself were the substance of the things of which they are predicated. This is why number was the substance of all things. On this subject, then, they expressed
themselves thus; and regarding the question of essence they began to make statements and definitions, but treated the matter too simply. For they both defined superficially and thought that the first subject of which a given definition was predicatable was the substance of the thing defined, as if one supposed that ‘double’ and ‘2’ were the same, because 2 is the first thing of which ‘double’ is predicatable. But surely to be double and to be 2 are not the same; if they are, one thing will be many—a consequence which they actually drew.

In this passage Aristotle attributes to Plato and to the Pythagoreans the same view of substance. Crucially, he phrases the latter’s tenet in a manner which brings to the fore the source of their mistake: the Pythagoreans claim that number is the substance of all things because they think that the infinite and the one are the substances of the things of which they are predicated. This suggests that, on Aristotle’s interpretation, the Pythagoreans thought that, if x is predicated of y, then x is the substance of y—which is precisely the assumption against which Aristotle argues in the passages of Iota in question. Moreover, Aristotle also emphasises that the Pythagoreans’ search for definitions was rudimentary, by pointing to an example (number two and being double) and an absurd consequence: several different things end up having one and the same essence and definition (e.g. two).

Keeping in mind the Aristotelian account of Pythagoreanism, we can finally appreciate Aristotle’s argument in Iota 2 as part of his broader discussion of aporia 11. The objection Aristotle levels against the Pythagoreans here is one that starts from Pythagorean premises and reveals their weakness. At this point of the argument, the assumption that the one is the substance of all things has been seriously undermined. The second half of the argument completes the refutation by showing that granting that assumption does not commit us to drawing the conclusion the Pythagoreans drew. If this reconstruction is correct, Aristotle is

243 As Z.11 emphasises, this is also the position of some Platonists, see Met., 1036b13-20.
244 Alexander ad loc. makes the following example: the same number was regarded as the essence of both critical time (καιρός) and of Athena. The parallel passage in Z.11 refers to number two and being double, too.
here deploying a dialectical tactic similar to that we found in the *Physics*, which aims at resolution (λύσις). In turn, this approach differs from the dialectic of Beta: while there Aristotle mainly focused on Plato's position, in Iota the Pythagoreans receive a considerable amount of attention. Finally, this section of Aristotle's argument contributes to the resolution of the *aporia* in a further sense. In fact, unlike the *Physics*, the second half of Iota 2's argument starts from a premise that Aristotle himself would endorse, namely that there is a sense in which beings—or at the very least the kinds of being he mentions in the argument—are numbers.

As I observed at the beginning of this section, the second half of Aristotle's solution relies upon the results of his own inquiry into the one in the previous chapter of Iota. Specifically, (i) a name/thing distinction (1052b1-14); (ii) the definition of 'one' as 'unit of measurement' (1052b18-19); (iii) the view that one is not itself a number (1053a27-30) but is the principle of number (1052b23-24). In the next section I shall clarify each of these points.

### 3.5. Aristotle's definition of the one

The first chapter of *Metaphysics* Iota constitutes Aristotle's lengthiest account of the one. In its opening lines, Aristotle begins by reminding the reader that the one is spoken of in many ways, as is stated 'in the works which distinguish in how many ways things are said'—in all likelihood Delta. When compared with Δ.6, I.1 narrows down its analysis to the understandings *per se* of 'being one',**245** which Aristotle recapitulates as follows:

<table>
<thead>
<tr>
<th>Met., 1052a34-1052b1</th>
<th>(trans. Castelli 2018a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>λέγεται μὲν οὖν τὸ ἑν τὸ ἐν τοσαύταχῶς, (1a)</td>
<td>The one, then, is said in these many ways: (1a) the continuous by nature and (1b) the whole, and (2a) the particular and (2b) the universal; and all these things are one because, in the former case, (1) their motion, in the latter cases, (2) their thought or their account is indivisible.</td>
</tr>
<tr>
<td>τὸ τε συνεχὲς φύσει καὶ (1b) τὸ ἔλον, καὶ (2a) τὸ καθ’ ἕκαστον καὶ (2b) τὸ καθόλου, πάντα δὲ ταύτα ἐν τῷ ἐδιαιρεῖτον εἶναι τῶν μὲν (1) τὴν κίνησιν τῶν δὲ (2) τὴν νόησιν ἢ τὸν λόγον.</td>
<td></td>
</tr>
</tbody>
</table>

245Castelli 2018a, 24–5.
The common element of this fourfold definition is indivisibility: something is one if it is indivisible either in motion or in thought and account. The idea that, generally speaking, unity equals indivisibility is endorsed in different places in the Aristotelian corpus. However, as we shall see shortly, Aristotle also refers to a more specific understanding of ‘being one’, i.e. ‘being a unit of measurement’. To prepare the ground for this further characterisation, he introduces an important distinction which will require some clarification:

Met., 1052b1-14 (trans. Castelli 2018a)

One ought to understand also that saying what sort of things are said to be one and what it is to be one and what its account is should not be taken as the same. For the one is said in these many ways, and each of those things to which one or other of these ways belongs is one; but being one sometimes will be being in one or other of these ways, but sometimes it will be being something else which is rather close to the name—while those are rather close to its [sc. the name's] power. This is the same as in the case of element and cause, if one had to speak by defining them with reference to things and by giving the definition of the name. For in a way fire is an element (and perhaps also the infinite and something else of this kind is <an element> in its own right), but in a way it is not: for being fire and being an element are not the same. Rather, fire is an element as a certain thing and nature, whereas the name signifies that this feature belongs to it, namely that something is made out of it as a primary constituent.

Aristotle draws attention to the fact that (I) saying what sort of things are Xs is different from saying (II) what X is and what the definition of X is. Specifically, it is one thing to speak

246See 1.4.1.2, where I surveyed the descriptions of τὸ ἕν in the Corpus Aristotelicum.
of X with reference to things (i.e. ἐπὶ τοῖς πράγμασι διορίζοντα), another thing is to provide the definition of the name X (i.e. τοῦ ὀνόματος ὅρον ἀποδιδόντα). At first sight, Aristotle is thus formulating a basic name/thing distinction, according to which names (or words) do not coincide with the things (or objects) that they define and are, as such, different from them. However, the details of this distinction are far from straightforward. Specifically, Aristotle bases his distinction upon the puzzling opposition between a name and its power: δύναμις. I shall deal with two problems connected with the notion of 'δύναμις of a name': first, how we should understand it in this context and, second, how this notion clarifies the point made in Iota 1.

Surely, the first meaning of δύναμις one would think of in Aristotle’s Metaphysics is that of potentiality, as opposed to actuality. However, such a meaning would raise two problems. First, it is hard to accommodate this technical use to our context. Second, as Castelli emphasises, the form with the definite article, ‘τῇ δυνάμει’, can hardly be understood as equivalent to the adverbial use of the dative ‘δυνάμει’ (‘potentially’). As such, δύναμις here should not be understood in the technical sense. Further, Aristotle is contrasting the δύναμις of a name with something ‘rather close to the name’. This suggests that we should not intend δύναμις in a sense opposed to actuality but instead in one opposed to ὄνομα. What could such a sense be?

Ross translates ἡ δύναμις in this context as ‘the power [of a name]’ and understands it as the force or application of a given word: extension as opposed to intension or denotation as opposed to connotation. As Castelli warns, this reading needs some qualifications. In fact, the first four characterisations of ‘one’ which we have encountered so far are general descriptions, not things. That said, an understanding along the lines suggested by Ross can be supported by two parallels, respectively from Plato’s Cratylus and from Aristotle’s Prior Analytics:

247 On which see Makin 2006, xxii–vii.
248 Castelli 2018a, 45. The Arabic has bi-l-quwwati, which preserves the ambiguity of the Greek, in that it means either ‘potentially’ (lit. ‘by the capacity’) or ‘[closer] to the power’.
249 Castelli 2018a, 46.
250 See Ademollo 2011, chapter 4.
ΣΩ. (...) So we must call them by the same names. But variation in syllables is possible, so that names which are really the same might seem to the uninitiated to be different from each other – as the physician's drugs, if they are prepared so as to vary in colour and smell, appear different to us even though they are the same, whereas to the physician, who considers the power of drugs, they appear the same, and he is not perplexed by the additives. In the same way, I think, the one who knows about names too considers their power and is not perplexed if some letter is added or transposed or has been subtracted, or even if the name's power is embodied in completely different letters.

We ought also to substitute terms which have the same value, word for word, and phrase for phrase, and always take a word in preference to a phrase; for thus the setting out of the terms will be easier. For example if it makes no difference whether we say that the supposable is not the genus of the opinable or that the opinable is not identical with a particular kind of supposable (for what is signified is the same), it is better to take as terms the supposable and the opinable in preference to the phrase suggested.

The Cratylus passage is particularly interesting because it explicitly mentions the δύναμις of a name. However, Socrates is explicitly drawing an analogy with the powers of drugs, so we cannot be sure that the passage witnesses a common usage of the word δύναμις with
reference to ὀνόματα. By contrast, in the Aristotelian passage, the verb δύναμαι is clearly used in the sense of ‘to signify’. Thus, these passages suggest that the distinction Aristotle has in mind in Iota 1 could be encapsulated by the opposition word/reference. As such, Aristotle is drawing attention to the fact that sometimes we talk about unity by indicating a feature which belongs to a thing, while at other times we give the definition of the word ‘one’. Before focusing on this newly introduced characterisation of τὸ ἕν, let us see how this understanding of δύναμις clarifies the passage from which we began.

By following a pattern similar to that of Z.1, I.1 commences with a list of four fundamental senses in which we predicate ‘one’ in its own right. Next, Aristotle emphasises that, although every thing to which one of these four senses applies is going to be ‘one’, there is a sense of ‘being one’ which is closest to the definition of the word ἕν and which signifies the four understandings seen above. In other words, on my reconstruction of the passage, Aristotle distinguishes two ways in which we can speak of ‘one’: (I) if we focus on what the word ‘one’ signifies—that is, on its δύναμις—then we will define as ‘one’ every πρᾶγμα which has the property of being indivisible; (II) if instead we focus on the definition of the ὄνομα ‘one’, what we yield is the sense of ‘unit of measurement’. Once this distinction has been clarified, the example of element and fire is a direct application of it. As is confirmed by Δ.3, the definition of the noun ‘στοιχεῖον’ is ‘being the first component’ out of which each thing is made; what the noun then signifies (σημαίνει, 1052b13) is that the thing ‘fire’ has precisely this property. Thus, we say that fire is an element because of the sense of the word ‘element’, but this does not imply that element and fire are the same thing. When we define what an element is, we also capture some features that fire happens to have, but being an element and being fire are still clearly distinct. So, Aristotle is not distinguishing between extension (fire, the infinite, etc.) and intension (‘first component’), nor is he saying that ‘element’ denotes ‘first component’ but connotes fire. Unfortunately, though, the case of ‘one’ involves a further complication, which I shall consider in the next section: what is the relationship between ‘indivisible’ and ‘unit of measurement’?
3.5.1. Being one, being indivisible, being a measure

In order to reconstruct Aristotle’s point, I shall now consider the most puzzling passage of the whole chapter, where Aristotle seems to elucidate the relationship between indivisibility and measure. Here is Castelli’s translation, which I shall slightly modify on the basis of the Arabic translation (provided below).

Met., 1052b14-20

οὕτω καὶ ἐπὶ αἰτίου καὶ ἑνὸς καὶ τῶν
τοιούτων ἀπάντων, διό καὶ τὸ ἐνὶ εἶναι τὸ
αὐτακριβῶς ἐστὶν εἶναι, ὃπερ τόθε δοτὶ καὶ
ἀχωρίστῳ ἢ τόπῳ ἢ εἴδει ἢ διανοίᾳ, ἢ
καὶ τῷ ὀλῷ καὶ διωρισμένῳ, μάλιστα δὲ
τῷ μέτρον εἶναι πρῶτον ἑκάστου γένους
καὶ κυριώτατα τοῦ ποσοῦ ἑντεῦθεν γὰρ
ἐπὶ τὰ άλλα ἐλήλυθεν.

This is the case also with reference to cause and one
and all such things. For this reason, too, being one is
being indivisible, which is precisely being a this and
being inseparable either in place or in form or in
thought, or also with respect to what it is to be a
determinate whole, and most of all by being the
primary measure of each genus and, in the strictest
sense, of quantity: for from this case it has been
extended to the other things.

Averr., Tafsīr 3, 1243.2–7

wa-ka-ḏālika l-anniyyatu aydan wa-l-
wāḥidu wa-ɡamī‘u llati fi miṭli ḥādiri wa-li-
ḏālika anniyyatu l-wāḥidi hiya bi-annahu là
yutaɡazza’ wa-huwa lammā kāna ḥāḍa l-
šay’a wa-kāna ɡayards mutfaqin bi-makānin
aw šuratin aw wahmin wa-kāna kullan wa-
maḥdūdan aydan šāra lahu bi-anna yakūna
akṭara min ḡaryirī milkyālun awwalun li-kullī
ḏinsin wa-li-l-kammiyyati l-musawwadati
ɡiddan wa-min hāḥunā šāra ilā l-ašyā‘i l-uḫari

And the same applies to essence [sic] too
and to the one and to all those things which are
like these. And for this reason the essence of
the one is insofar as it is undivided, namely
since it is this thing and [since] it is unsplit in
space or form or imagination and [since] it is
whole and determinate, also, it belongs to it
[sc. the one] insofar as there is, above all else, a
first measure in each genus and in the
predominant quantity [sic]: from here it
extended to the other things.

251 Castelli 2018a, 257.
252 In the Arabic it is not clear whether ‘also’ modifies the sentence before or after.
253 The Arabic translates κυριώτατα quite literally, but as an adjective which agrees with ‘quantity’.
Despite some oddities, the Arabic makes good sense of the text and suggests the following reading of lines 1052b14-20:

διὸ καὶ τὸ ἑνὶ εἶναι τῷ ἀδιαιρέτῳ ἐστὶν εἶναι, ὅπερ τόδε ὤντι καὶ ἀδιαιρέτῳ ἐστὶν εἶναι, ὅπερ τόδε ἄνωτερον τοῦ μέτρου εἶναι ἕκαστον γένους καὶ χωρίωται τοῦ ποσοῦ

The Arabic translation confirms Castelli’s reading of τῷ instead of τὸ at b17, of διωρισμένῳ instead of ἀδιαιρέτῳ at b17-18 and of τῷ μέτρον εἶναι πρῶτον (with all manuscripts) at b18. However, the translator (Usṭāṭ) does not regard the dative τῷ as expressing the respect with reference to which something can be inseparable, but as a further explanation of ‘being indivisible’. As such, something is indivisible insofar as it is a ‘this’ without internal divisions or insofar as it is a determinate whole. Interestingly, Usṭāṭ also reads τῷ (instead of τὸ) at b16, which suggests the following translation:

For this reason, being one too is <one> by being indivisible, which is precisely being a this and being unsplittable either in place or in form or in thought, or also being what is a whole and a determinate thing, but, most of all, by being a primary measure of each genus and, in the strictest sense, of quantity.

Finally, there is another point in which the Arabic suggests a reading of the Greek different from Castelli’s, which, however, corroborates her interpretation. At b17, instead of either ἰδίᾳ χωριστῷ or ἀχωρίστῳ, the Arabic is unmistakably a translation of ‘ἀδιαχωρίστῳ’. In fact, the word مفتاريقون muftariqun is the participle of the verb إفتراق iftaraqa, which means ‘to be or become separated or disunited’; if Usṭāṭ had read ἀχωρίστῳ, we would have expected the verbفرق faraqa, which means, quite generally, ‘to make a separation, a distinction or difference between two things’. To be sure, the meanings of the words ἀδιαχώριστος and ἀχώριστος overlap, at least partially, in many contexts; after all, they are both compounds of the same verb, χωρίζω, ‘to divide’. This is confirmed by the only occurrence of ‘ἁδιαχώριστος’ in the Aristotelian corpus:

254 This is witnessed by E, which corrects τῷ to τὸ.
255 Paralleled by Met., 1052a36, where τῷ ἀδιαιρέτων εἶναι is translated into Arabic precisely as bi-annahā lā yutaǧazza’, ‘insofar as they are undivided’ (Averr., Tafsīr 3, 1237.4).
It makes no difference if the soul is divided into parts or lacks parts, as it certainly has distinct capacities, including the ones mentioned—just as in a curve the concave and convex are **inseparable**, and the white and the straight may be, though the straight is not white, except incidentally, and not in its own nature.

In fact, here, the kind of separation Aristotle is talking about is a disjunction of the concave from the convex belonging to one and the same curve. As such, in this passage, ἀδιαχώριστον is best understood as **disjoined from something else**, rather than **split into more basic components**. However, the other occurrences of words derived from διαχωρίζω do testify a more restricted meaning;\(^{256}\) of these I shall consider only the clearest case for our purposes.

When, in the *Generation of Animals*, Aristotle wonders why some animals generate numerous offspring from one single act of coition, he observes:

*One act of coition, and one effort of segregation, ought necessarily to give rise to one secretion and no more. That it should get divided up in the uterus is impossible, for by that time the division would be made as it were from a new plant or animal, not of semen.*

Here Aristotle is clearly talking about a process of division by using first the verb χωρίζω and then a substantive that stems from διαχωρίζω. As such, the passage confirms that, while χωρίζω might carry a broader or a narrower meaning, in Aristotle’s corpus διαχωρίζω can also mean ‘to split one whole into two parts’.

Although the text preserves a great deal of obscurity, Usṭāṭ’s version sheds some light on these lines. In particular, not only does it emphasise that the most precise description of

\(^{256}\) *GA*, 744b1 (διαχωρίζεσθαι); *Met.*, 1023a23 (διαχωρισθέντα).
'one' for Aristotle is 'unit of measurement', but it also introduces the question of its relationship with the description of the one as 'being indivisible'. In this section I shall show that the one is a unit of measurement because it is indivisible, not vice versa. This reconstruction is suggested by some important details that Aristotle adds in the remainder of Iota 1. First, he points out that in all cases of measurement what we seek as a unit is something one and indivisible (ἕν τι καὶ ἀδιαίρετον, 1052b32, b34), which is identified with what is simple either in quality or in quantity (τὸ ἁπλοῦν ἢ τῷ ποιῷ ἢ τῷ ποσῷ, b35). Specifically, in all cases we take as a unit of measurement that to which it seems impossible to add anything and from which it seems impossible to subtract anything (δοκεῖ μὴ εἶναι ἁφελεῖν ἢ προσθεῖναι). Accordingly, it is because unit (ἡ μονάδα) is taken to be indivisible in all respects (τιθέασι πάντῃ ἀδιαίρετον) that it is the most precise measure. This description clarifies that measuring always involves some degree of arbitrariness; however, a measure is most precise when our unit has the highest degree of indivisibility, at least with respect to perception (κατὰ τὴν αἴσθησιν, 1053a5). Second—and more interestingly—Aristotle points out that measure is not always one in number. For example, semitones are one with respect to hearing but are two in their ratios. Accordingly, a semitone is one insofar as it is the smallest unit of sound which we are able to perceive, despite it being further divisible into two (smaller semitones). In other words, genuine indivisibility is a sufficient but not necessary condition for being a unit of measurement. While all that is genuinely indivisible is a unit of measurement of the kind to which it belongs, not all units of measurement are indivisible in all respects. This means that some units of measurement are not indivisible without qualification, but only insofar as they are taken as units of measurement. On this reconstruction, this is precisely the sense of the concluding lines of Iota 1, which read as follows:

Met., 1053b3–8 (trans. Castelli 2018a)

δὲ τὸ μὲν ὁμὸν τὸ ἑνὶ εἶναι μᾶλλον
ἐστὶ κατὰ τὸ ὄνομα ἀφορίζουσι μέτρον τί, καὶ χωρίωτα τοῦ ποιοῦ,
ἐπὶ τοῦ ποιοῦ, φαινόν ἔσται δὲ τοιοῦτον τὸ μὲν ἢ ἁδιαίρετον

It is evident then that, for those who define in accordance with the name, to be one is most of all a certain measure and, in the strictest sense, of quantity, and then of quality; and, in one case, that which is indivisible in quantity, in the other case that which is indivisible in
κατὰ τὸ ποσὸν, τὸ δὲ ἐν κατὰ τὸ ποσὸν· διὸπερ ἀδιαίρετον τὸ ἐν ἡ ἀπλῶς ἡ ἕν.

quality will be of this sort. And it is precisely for this reason that the one is indivisible either without qualification or as one.

It is now clear that the nominal definition of one is ‘unit of measurement’ and that, as such, τὸ ἕν always indicates an indivisible thing, whether or not that corresponds to something which is genuinely indivisible. This passage also sheds some light on how the example of fire is helpful in understanding the distinction between the two senses of ‘one’ which were outlined at 1052b15-19. On the one hand, fire is indeed an element in the sense that it is a thing (πρᾶγμα) of which we predicate ‘first component’. However, on the other, being fire is not being an element, because the name (ὄνομα) ‘element’ means something other than the name ‘fire’. In short, being fire is sufficient but not necessary for being an element. Likewise, on the one hand, each indivisible thing is one in the sense that we say that it is ‘indivisible in quantity or in quality’; however, on the other hand, the name ‘one’ means something other than the name ‘indivisible’, for it means ‘unit of measurement’. In other words, while, qua thing, the one is always something indivisible, the name ‘one’ signifies that that indivisible thing is a unit of measurement.257

There is a final notion that we should bear in mind before returning to the very last step of the resolution of aporia 11: what it means to measure.258 At 1053a18-21, Aristotle draws the following conclusion from his discussion of μέτρον. The reason that the one is the measure of all things is that we know what the substance of something is made up of (ἐξ ὧν ἐστὶν ἡ οὐσία) precisely by dividing on the basis of quantity (κατὰ τὸ ποσὸν) or on the basis of form (κατὰ τὸ εἶδος). Crucially, he then explains that, therefore, the one is indivisible because what is primary in each case (τὸ πρῶτον ἐκάστου) is indivisible. Thus, Aristotle works with a notion of measurement which consists in discovering the compositionally basic element of each kind of things and, consequently, expressing all the other items of that kind as somehow standing in a ratio with that unit. Since we arrive at what is primary as a result of progressive divisions, the unit of a kind K is always going to be the most indivisible element belonging to

257 Accordingly, unlike Morrison 1993, 151–2, I do not think that ‘measure’ is the original, but metaphysically inadequate concept of unity.

258 On which see Sattler 2017.
K. It is in this sense that the one is a unit of measurement insofar as it is indivisible and not vice versa. What is crucial, then, is that every μέτρον is a μέτρον by being the most indivisible item of a kind K. This is precisely what grounded Aristotle’s rejection of the Pythagorean one: everything is one by being one thing.

3.5.2. **The convertibility of being and the one**

As we have seen throughout this chapter, in Iota 2 Aristotle expresses his last word on the hardest *aporia* of those formulated in Beta 1. He will not return to his argument in the rest of the book but will instead proceed to examine the one/many opposition; nor will he mention this discussion in the remaining books of the *Metaphysics*. That Aristotle thinks he has settled the question of being and the one is also confirmed by the lines which end Iota 2’s argument:

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<table>
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<tr>
<th>Met., 1054a9-19</th>
<th>(trans. Castelli 2018a)</th>
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<td>ὅτι μὲν οὖν τὸ ἓν ἐν ἅπαντι γένει ἐστὶ τις φύσις, καὶ οὐδένος τούτο γ’ αὐτῷ ἡ φύσις τὸ ἓν, φανερῶν, ἀλλ’ ὁσπερ ἐν χρώμασι χρώμα ἐν θητήτεον αὐτῷ τὸ ἓν, ὄντω καὶ ἐν οὐσίᾳ οὐσίαν μίαν αὐτῷ τὸ ἓν, ὀτί β’ ταῦτα σημαίνει πως τὸ ἓν καὶ τὸ δ’ β’ δῆλον (ι.1) τῷ τε παρακολουθεῖν ἵστασις τὰς κατηγορίας καὶ μὴ εἶναι ἐν μισμένη (οἶν οὔτ’ ἐν τῇ τί ἐστιν οὔτ’ ἐν τῇ ποισιν, ἀλλ’ ὁμοίως ἔχει ὁσπερ τὸ δ’ β’ ἡ’ καὶ (ι.2) τῷ μὴ προσκατηγορεῖσθαι ἐπετέρον τῇ τλ εἰς ἀνθρωπος τοῦ ἀνθρωπος (ὁσπερ οὐθε τὸ εἶναι παρὰ τὸ τί ἡ ποισιν ἡ πόσον) καὶ (ι.3) &lt;τῷ εἶναι&gt; τὸ ἓν εἶναι τὸ ἐκάστῳ εἶναι.</td>
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It is therefore evident, on the one hand, that the one in each genus is a certain nature and that this very same thing, i.e. the one, is not the nature of anything, but as in colours the one itself must be investigated as one colour, so in substance, too, the one itself has to be investigated as one substance. On the other hand, that the one in some sense signifies the same as being, is clear (ι.1) in virtue of the fact that it follows the categories in the same number of ways and that it is in none of them (e.g. it is neither in the category of the what-it-is nor in the category of of-what-quality, but it behaves in the same way as being), and (ι.2) in virtue of the fact that ‘one human being’ does not add anything else in predication to ‘human being’ (as being, too, is nothing over and above being a certain something or of a certain quality or of a certain quantity), and (ι.3) in virtue of the fact that being one is being for each thing.
While these lines belong together syntactically, how they relate to the argument of Iota 2 is not wholly transparent. Specifically, while lines 1054a9-13 clearly hammer home the general conclusion of Aristotle's discussion, the remainder of the passage seems to elaborate on a point which had been touched upon only briefly at 1053b25. As a result, it is not clear whether Aristotle is simply rehashing the two premises of the second half of his resolution of *aporia* 11 or whether he is instead framing Iota 2's argument in a broader metaphysical picture. As Castelli points out, these alternatives need not be regarded as mutually exclusive.\(^\text{259}\) Aristotle is most probably returning to the fundamental results of his argument precisely to elaborate on how they should be understood. However, what needs further analysis is how we should read this ending in the economy of Aristotle's metaphysical investigation. In what follows I shall emphasise how lines 1054a13-19 explicitly reconnect *Metaphysics* Iota to the research programme that Aristotle had outlined in Gamma.

One striking feature of Iota that has emerged in this chapter is the specific way in which it draws on the results of previous books of the *Metaphysics*. Iota explicitly mentions Beta, Delta and Zeta and is connected, although less explicitly, with Alpha Meizon. In this section I shall reflect on an argument which we find not only in Iota, but also in Gamma. As we shall see, in this case too Iota reiterates the familiar pattern according to which previous tenets are compressed and adapted to serve the purpose of an inquiry into the nature of the one.

Below is how Gamma 2 had introduced the idea that 'one' and 'being' are somehow one and the same thing. It is difficult to make sense of the Greek, which, also in this case, differs from the readings which we find in Averroes' *Long Commentary*. For the time being, I limit myself to a general comparison between the Gamma passage and its cousin in Iota; but I shall discuss the relevant differences in more detail when I analyse the single properties mentioned in the two texts.

\[^\text{259}\text{Castelli 2018a, 88–9, 93–4.}\]

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<td>εἴ δὴ τὸ ὄν καὶ τὸ ἕν ταύτῳ καὶ μία φύσις (γ.1) τῷ ἀκολουθεῖν ἄλληλοις ὥσ· περ ἀρχὴ καὶ αἴτιον, ἄλλ· οὐχ ὡς ἑνὶ λόγῳ δηλούμενα (διαφέρει δὲ οὐθὲν οὐδ' ἂν</td>
<td>If, now, being and unity are the same and are one nature (γ.1) because they follow one another as principle and cause do, not as if they were explained by the same definition (though it makes no difference</td>
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</table>
At this point of Gamma, Aristotle is resolving a doubt which he had voiced in the book of *aporiai*: whether a metaphysical investigation ought to study being only or whether instead it should also deal with unity and other related notions. This means that, unlike in Iota, here Aristotle is not talking about the one in its own right, but seeks to demarcate the domain of his inquiry into being *qua* being. In response to that *aporia*, Aristotle lists a series of arguments to the effect that metaphysics should indeed include not only being but also all such notions as unity, sameness, equality, etc. In a nutshell, he claims that, given that ‘one’ and ‘being’ are convertible predicates, the metaphysician will have to say something about both. As we saw, Gamma backs up the premise of this reasoning by appealing to four properties of τὸ ἕν and τὸ ὄν: (γ.1) ‘being’ and ‘one’ follow each other, even though they do not have the same definition (co-implication); (γ.2) when ‘being’ and ‘one’ are predicated of something, they do not add any information to that of which they are predicated (neutrality); (γ.3) all that comes to be or ceases to be does so as something one and as something that is (inseparability); (γ.4) the substance of each thing is necessarily both one and something that is (co-incidentality).

260 This *aporia* is first formulated at B.1, 995b18-36 and reprised at B.2, 997a25-34.
If we compare this list with the properties mentioned in Iota, we can remark some slight differences, which are worth exploring. As we saw at the beginning of this section, Iota provides the following reasons in support of the convertibility of ‘one’ and ‘being’: (ι.1) the one follows from the categories in the same number of ways as being and, as being, is in none of them (transcategoriality); (ι.2) when ‘one’ is predicated of something, it does not add any information to that something (neutrality); (ι.3) being one is the same as being each thing (co-incidentality).

Two general remarks emerge from this comparison. On the one hand, Iota reproduces only three of the four properties that were presented in the Gamma passage. On the other, it places remarkably greater focus on the one than on being; this can be seen in three clear instances: (i) the whole argument explicitly starts from the one and draws a comparison with being (cf. 1054a16: ὁμοίως ἔχει ὥσπερ τὸ ὄν and 1054a17: ὥσπερ οὐδὲ τὸ εἶναι); (ii) it provides only one example in support of neutrality (‘one human being’ vs. ‘human being’); (iii) it mentions co-incidentality only in the case of ‘being one’. We can summarise this brief comparison in the following table:

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<th></th>
<th>γ.1</th>
<th>l.1</th>
<th>γ.2 = l.2</th>
<th>γ.3</th>
<th>γ.4 = l.3</th>
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<tr>
<td>co-implication</td>
<td>✔</td>
<td>✘</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>transcategoriality</td>
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<tr>
<td>neutrality</td>
<td>✔</td>
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<tr>
<td>inseparability</td>
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<td>✘</td>
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<td>co-incidentality</td>
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<td></td>
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<td>✔</td>
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As this scheme makes clear, there is a significant overlap between the two lists of properties. However, while Gamma does not mention transcategoriality, Iota does not discuss co-implication nor inseparability. Upon closer inspection, though, this slight divergence is justified by the different contexts to which the convertibility argument is applied. In fact, as I shall shortly show, transcategoriality is merely a more explicit formulation of co-implication. As for the absence of inseparability in Iota, it should be noted that in Gamma this property bolsters convertibility only indirectly, namely as a reason in

261 (ι.1) is clearly a different formulation of (γ.1); we shall see shortly what their relationship is.
support of neutrality. As a result, this time it is Gamma that provides more detail on a property—neutrality—which, to be sure, appears in both places.

3.5.2.1. Co-implication and transcategoriality

The first property that Aristotle mentions both in Gamma and in Iota in support of convertibility corresponds to the general idea that ‘one’ and ‘being’ follow each other: ἀκολουθεῖν (1003b23), παρακολουθεῖν (1054a14). The way in which it is formulated, however, is slightly different in the two passages. While Gamma 2 expresses it in quite generic terms, Iota 2 specifically refers to the categories. In other words, Iota makes the point that ‘one’ and ‘being’ are somehow contained in the list of categories, so that each and every category is (as it were) by default ‘one’ and ‘being’. Thus, the important contribution of Iota in this respect is that it justifies somewhat more extensively what this property amounts to: the reason that ‘one’ follows ‘being’ is that not only does it apply to all the figures of predication of ‘being’, but, exactly like ‘being’, it is also not contained in any of them. These conjuncts need some explanation, especially the second; for, if there are different units in different kinds of things, how can we say that the one is not in any category? This general obscurity is exacerbated by the obscurity of the Greek, which is also reflected in the Arabic translation:

262 Scholarly opinion diverges on whether these verbs should be understood in a strictly logical sense (‘to follow from’, hence ‘to be implied by’) — as Kirwan and Ross respectively translate — or in a looser sense (‘to follow’, hence ‘to occur together with’) — as Halper prefers. Here, I shall stick to the latter option to leave all possibilities open.
In reading this convoluted translation, Averroes refers points (b)-(c) to the categories rather than to being and the one,\(^{265}\) thus introducing two additional properties: categories do not have one and the same definition and are not one in number. However, if my reconstruction of the Greek behind the Arabic is correct, we should rule out this interpretation, as there is at least one important difficulty with the syntax of the text. Given that the list of examples after οἷον at 1054a15 ought to exemplify what precedes, it is hard to see how the fact that there is no ‘one’ in the category of substance could illustrate the idea that no category is itself one—whatever this obscure claim might mean. However, the Arabic can still be a useful witness for a different manuscript reading—at the very least insofar as it is based on a lectio difficilior of the Greek. In particular, we could correct the reading ἓν μηδὲ μίαν to ἐν μηδεμιᾷ μίαν (which is what we find in manuscript J), yielding the following translation:

\[
τῷ τε παρακολουθεῖν ἰσαχῶς ταῖς κατηγορίαις καὶ μὴ εἶναι ἐν μηδεμιᾷ μίαν (οἶον κοινότητα τὴν τί ἐστιν οὐκ ἐν τῇ ποικιλίᾳ, ἀλλ’ ὁμοίως ἔχει ἤσπερ τὸ ὅν)
\]

\(^{263}\) There is an agreement problem in the Arabic: while ‘any’ is in the masculine form, ‘one’ is in the feminine.

\(^{264}\) This reading seems to bear some relation to the α-family: E has ἕν μηδὲ μιᾷ, J has ἔν μηδεμιᾷ μίαν (with μίαν expunged).

\(^{265}\) Averr., Tafsīr 3, 1280.12-1281.3.
... in virtue of the fact that it closely follows the categories in the same number of ways and that it [sc. the one] is not one [sc. category] in any of them (e.g. it is neither in the category of the what-it-is nor in the category of of-what-quality, but it behaves in the same way as being)

This minor change might improve the overall meaning of the passage—although it comes at the cost of complicating the syntax. On the usual reading of this phrase, Aristotle seems to contradict himself when he says that the one is not in any category; for, as we saw in section 3.4.2, the one does indeed span the whole range of categories. To save Aristotle from this imprecision, we need to qualify the negation and assume that what he really means is that the one is not exhausted by any of the categories. In other words, the remark at 1054a14-15 would be an elliptical reminder of the idea that the one is not limited to (or exclusively in) any category. Instead, on the alternative—admittedly speculative—reading, Aristotle would be saying that, while the one follows from each and every category, it is not itself any of the categories. We saw an example of the idea that ‘one’ applies to all categories at lines 1053b28-1054a4, where Aristotle had embraced the Empedoclean branch of the eleventh aporia. In all categories, ‘one’ refers to a specific item of that category or kind; however, the point of Aristotle’s critique of Plato and the Pythagoreans was precisely that the essence of ‘one’ should not be identified with any of these items. In this sense, the one is not an item of any category. For example, when referring to a quality, the one follows that quality (the one in colours is one colour, namely white), but its essence is not ‘being that quality’. In other words, the fact that white is the one of colours does not entail that the definition of ‘one’ is ‘being white’, let alone ‘being a colour’: the definition of ‘one’ is ‘unit of measurement’, although this comes to indicate different things in different categories. Once it has been established that the definition of ‘one’ is ‘unit of measurement’ and that quantity only exemplifies the case where the definition is met in the most precise sense, it is clear that ‘one’ is not in any category in the sense that it is not any of them. I take it that an advantage of this speculation is that it makes this point more explicit.

3.5.2.2. Neutrality

The second property mentioned in both Gamma and Iota is that when we predicate ‘one’ and/or ‘being’ of some X, we do not add anything to X. Gamma provides considerably more
detail on neutrality than Iota. However, also in this case, the manuscript transmission shows important divergences, to which the Arabic translation adds a testimony. I shall first produce the full text and then compare the different readings in a table.

Averr., *Tafsīr* 1, 310.5–11

(…) li-anna qawla l-qā’īli insānun wāḥidun aw insānun huwa aw insānun hāḍā yadullu ‘alā šay’in wāḥidin wa-lā yadullu ‘alā ašyā’a muḥtalifatī idā karrarahā fa-inna l-kalimata⁶⁶ llatī taqūlu insānun huwa aw insānun wāḥidun là tadullu ‘alā ašyā’a muḥtalifatī id là fariqa bayna qawli l-qā’īli insānun huwa aw insānun là fi l-kawni wa-lā fi l-fasādī wa-ka-ḍalika l-qawlu fi l-wāḥidī aydan fa-ma’lūmun anna l-ziyādata fi hāḍīhi tadullu ‘alā šay’in wāḥidin wa-lā yadullu l-wāḥidū ‘alā šay’in aḥārin gāyri l-huwiyyati

<table>
<thead>
<tr>
<th>Ross</th>
<th>Jaeger</th>
<th>Arabic trans. (?)</th>
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<tbody>
<tr>
<td>εἷς ἄνθρωπος καὶ ἄνθρωπος, καὶ ὁ ἄνθρωπος</td>
<td>εἷς ἄνθρωπος καὶ ἄνθρωπος, καὶ ἄνθρωπος</td>
<td>τὸ εἷς ἄνθρωπος καὶ εἷς ἄνθρωπος</td>
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<td>ἄνθρωπος, καὶ ὁ ἄνθρωπος</td>
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<td>1003b25-27</td>
<td>1003b27-28</td>
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As this quick comparison shows, it is hard to imagine what the most plausible reading of these lines is. However, the general idea, clearly enough, is that ‘one’ and ‘being’ are neutral additions to ‘man’, because they do not change what we mean by the following expressions: ‘one man’, ‘man that is’, ‘man that is one’, ‘man that is and that is one’. As in the case of

⁶⁶Correcting the textus with the lemma reported at Averr., *Tafsīr* 1, 312.13.
transcategoriality, the property does not depend on any specific understanding of being, as 'being' and 'one' are precisely those elements which do not change the references of the expressions to which they are added. Notice that, as I remarked in section 2.2.5 of this dissertation, this thesis is compatible with either of the following options: (1) 'one' and 'being' do not signify anything; (2) 'one' and 'being' are redundant, i.e. they do not add any new property to the referents of which they are predicated. Accordingly, neutrality does not entail the idea that 'one' and 'being' bear no meaning whatsoever.

3.5.2.3. **Co-incidentality**

The last property that is mentioned by Gamma and Iota is that each and every thing is by default one and something that is. What Iota 2 has shown is that this, by itself, does not tell us anything about what that given thing is. Rather, being and the one must be reduced to something more familiar.

Overall, this, as well as the remaining two properties, relies heavily on Aristotle's definition of τὸ ἕν in the previous chapter of Iota. Thus, it is not surprising that different construals of the relationship between indivisibility and 'being a unit of measurement' have resulted in different views of the convertibility of 'one' and 'being'. In fact, there seems to be a tension between the claim that one and being are in none of the categories and the definition of 'one' as being above all the unit of measurement of quantities. It is this contrast which has given rise to the traditional distinction between 'one' as a principle of number (*principium numeri*) and the one which is convertible with being (*unum quod convertitur cum ente*). In fact, reacting against Avicenna's interpretation of the relationship between unity and being, first Averroes and then Aquinas make a sharp distinction between what 'one' means in quantities and what it means in all the other categories.

When Avicenna discusses the convertibility of 'one' and 'being', he states that 'being' and 'one' are convertible insofar as they are common accidents of every thing: that is, they never indicate the nature of something, but always indicate something else which is added to its nature. However, Averroes and Aquinas think that he fails to appreciate that sometimes 'one' does indicate a certain nature—namely, when it refers to discrete quantities. Accordingly, taken as principle of number, the 'one' does not span all the categories, but is limited to a specific kind of beings. According to Averroes, Avicenna believes that convertibility also
works for the one as principle of number, because he confuses the expression ‘one’ (ismu l-wāḥidi) qua principle of number (mabdāʾu l-ʿadadi) and the sense of ‘one’ which is ‘synonymous with “being” (al-murādifu li-ismi l-mawǧūdi)’. Taking this criticism a step further, Aquinas charges Avicenna with a more specific mistake. What Avicenna is not aware of is the distinction between common things (communia) and accidents (accidentia). In fact, even though neither is a this (hoc aliquid), common predicates signify the same nature as their subjects (ipsam naturam suppositorum)—e.g. ‘animal’ with reference to ‘human being’; by contrast, accidents indicate some other nature which is added to that of which they are predicated (aliquam naturam additam)—e.g. ‘laughing’ with reference to ‘man’. Both Aquinas and Averroës regard the one qua principle of number as indicating a discrete quantity. On the contrary, the one which is convertible with being simply indicates that that of which it is predicated is indivisible.

Regardless of whether Averroës’ and Aquinas’ criticisms of Avicenna are fair or contentious, this medieval debate still informs contemporary scholarship. In particular, Aquinas’ position is explicitly endorsed by Stephen Makin, who in turn imputes to Aristotle a lack of clarity in the use of three distinct notions of unity: (1) the unity convertible with being; (2) the unity which is the principle of number; (3) the unity explicable in terms of identity. According to (1), ‘A is one’ means that it is a unified whole, as opposed to a divided collection of components; according to (2), ‘A is one F’ means that it is countable as one F as opposed to two or more Fs; (3) ‘A and B are one’ means that A and B are the same F as opposed to different Fs. Given that, in discussing convertibility, Aristotle is only considering one-place predicates, (3) is not of consequence for the present purposes. However, Makin thinks that Aristotle’s convertibility of ‘one’ and ‘being’ conflates two distinct meanings of unity. Indeed, when in Iota 2 he says that in the case of colours τὸ ἕν is a colour, Aristotle ‘must be using a notion of ἕν different from that which explicates ὄν/ἕν convertibility’. For any colour will be one in sense (1), but only white can serve as a unit for measuring colours (sense (2)). More recently, Castelli too has claimed that these two senses ought to be kept distinct and that convertibility functions only for sense (1), whereas Menn

267 Makin 1988, 86.
268 Makin 1988, 96.
269 For a similar view, see also Crager 2018.
thinks that convertibility works for both (1) and (2). At the end of this chapter, I should like to situate myself within this complex debate, since Iota 2’s special focus on the categories can be of great help.

Let us begin from Makin’s explanation of the confusion underlying Aristotle’s example of colours. On the interpretation I defended earlier in this chapter, Aristotle provides two definitions of ἕν in appearance only. In fact, indivisibility is a sufficient but not necessary condition for a thing to be a unit of measurement. However, the most accurate definition of ‘one’ is ‘being a μέτρον’. In turn, the most precise unit for a kind of objects K is that item K which is maximally indivisible. Accordingly, it is not true that any colour can be the one of colours. Any colour is (or can be taken to be) indivisible, but not every colour is compositionally the most basic colour. If this is correct, then Aristotle here is not using two distinct senses of unity, but very much the one sense that he had picked out as its definition.

The greatest difficulty raised by Aristotle’s discussion of convertibility is that it is hard to imagine how exactly one can talk about measuring in categories other than quantities. However, Aristotle explicitly works on the assumption that we can know something if and only if we know its compositionally basic unit. While this notion is best exemplified by what happens in the case of quantities, this does not imply that unity is itself a quantity. In fact, if that were the case, then Aristotle would fall prey to the very same mistake of which he accuses the Pythagoreans, and would even do so immediately after accusing them himself. Instead, at the end of Aristotle’s long critique of previous metaphysical accounts of τὸ ἕν, the following points seem non-negotiable: first, it is true that ‘one’ and ‘being’ are universal predicates, but this does not imply that they designate some separate entity; second, ‘one’ and ‘being’ always indicate something determinate but are themselves nothing other than that something.

Returning to the medieval roots of the debate, it is thus possible to score a point for Avicenna. Pace Averroes and Aquinas, it is not true that there is a specific case, i.e. in quantities, where the one is the substance of something. The one is neither a substance nor the substance of anything. Therefore, Avicenna would be right to believe that Aristotle makes no sharp division between ‘being indivisible’ and ‘being a unit of measurement’. For
Aristotle, the word 'one' means 'unit of measurement', but always signifies something indivisible, whether arbitrarily or truly so.

3.6. Aristotle beyond Eleatic monism

The final chapter of this dissertation has addressed Aristotle's solution of the eleventh aporia. Against Plato and the Pythagoreans, Aristotle shows that the one is not a substance. This claim was divided into two sub-claims to the effect that not only is it not a substance, but it is not the substance of anything either. Specifically, on the one hand, Iota relies on Zeta's rejection of universals as substances to disallow the implication that the universality of the one entails its substantiality; on the other, Iota's definition of the one in terms of indivisibility makes room for a sense in which the universality of the one is compatible with its being merely an attribute. As a result, every thing is necessarily one; however, this does not tell us anything about what that thing is.\footnote{This is why Aristotle's inquiry into being cannot coincide with the inquiry into the one, contra Couloubaritsis 1983, Couloubaritsis 1990, Couloubaritsis 1992, Morrison 1993 and Gloy 1985.}

For, much like being, unity always refers to a single item in one of the categories—and, ultimately, to substance—without being itself any of them. It is in this sense that Aristotle can follow Empedocles and the physicists in reducing being and the one to something more familiar (γνωριμώτερον), without however giving up any sense whatsoever in which universals exist. As such, Aristotle overcomes the metaphysical dilemma into which Parmenides had forced previous philosophers, thus succeeding, with Plato's help, where—in Aristotle's view—Plato himself had failed.
4. Conclusions

In the introduction to this dissertation I borrowed Myles Burnyeat’s metaphor to define *Metaphysics* Iota as the K2 of ancient philosophy. While the greatest area of this mountain has been left unexplored, this thesis has beaten a path to one of its peaks. Thus, it is now worth taking a moment to recall the stages of this journey and to reflect on how it affords us a different look on Aristotle’s *magnum opus*.

The first chapter examined how the one makes its first appearance in the *Metaphysics*, namely as a principle of being in the theories of monist thinkers. It also identified *Physics* 1.2-3 as Aristotle’s reference point for his rejection of the extreme form of monism propounded by the Eleatics, elucidating his debt to Plato’s parricide of Parmenides in the *Sophist*. The second chapter showed how the eleventh *aporia* epitomises Beta’s use of Alpha Meizon’s doxography to spot and bring to the fore the most urgent problems with which his metaphysical investigation needs to deal. Crucially, it suggested that Aristotle draws heavily upon the *Sophist* for his rejection of both alternatives of the dilemma. Accordingly, *Sophist* 242b-e turns out to be the *locus princeps* for discussing monism in ancient philosophy.

This chapter concluded what can be regarded as the *pars destruens* of Aristotle’s main line of argument. The third, by contrast, elicited its *pars construens*, making the point that, when Aristotle revisits the eleventh *aporia* in *Metaphysics* Iota, he does not limit himself to rehashing his previous rejection of Plato, but also clarifies how his own account of the one is immune to what—in his eyes—is the hardest of all metaphysical dilemmas.

This overall picture has some important consequences for our understanding of at least three broader issues concerning Aristotle’s thought, namely (4.1) his dialectical method of inquiry, (4.2) his engagement with his predecessors and (4.3) the place of Iota in the economy of the *Metaphysics*. 

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4.1. Aristotle’s dialectical method

As was pointed out in the interim conclusions of chapter 2, in the *Metaphysics* Aristotle uses at least two different kinds of dialectic, namely one aimed at clarification, the other at preparing the ground for his own inquiry. These two kinds of dialectic were grouped together under the label ‘immanent dialectic’ and contrasted with the confutative dialectic epitomised by Aristotle’s rejection of Parmenidean monism in *Physics* 1.3. It is now worth developing a fully-fledged comparison between these three kinds of dialectic.

Overall, this dissertation has shown that, while all uses of Aristotle’s dialectic are rooted in the *Topics*, dialectic should not be regarded as monolithic, but rather as a plastic tool that can be moulded to serve diverse purposes. Hence, my suggestion is not that we ought to suppose a development in Aristotle’s dialectic across different works, but rather that the dialectic of the *Topics* should be regarded as nothing more than a blueprint for successful argumentation. This, however, makes dialectic all the more interesting, because, while respecting its instrumental nature, it also emphasises its potential to be sharpened to suit any specific target. In this sense, the *discrimen* between different uses of dialectic does not lie in the preference of given (groups of) *topoi* over others, but in its aim within a specific context. Broadly speaking, this dissertation has explored both the destructive and the constructive uses of dialectic in Aristotle’s inquiry into being.

What is distinctive of the *Physics* passages is that they carry out a knockdown argument.\(^{271}\) Aristotle needs to attack the Eleatic position—even though that discussion falls outside the scope of a physical investigation—because it undermines the very possibility of investigating change. This justifies Aristotle’s care in bringing to the fore the absurdities upon which their views rest. However, while *Physics* 1.2 is written for an audience that would accept Aristotelian distinctions, the arguments of 1.3 start from Eleatic premises. Thus, the two chapters display respectively an external and an internal dialectic. However, these two perspectives cooperate to produce a robust rejection of the Eleatics: not only are Melissus’

\(^{271}\) As Quarantotto 2019 emphasises, Aristotle carries out first a refutation and then a resolution (λύσις) of the Eleatic theses.
and Parmenides' assumptions false but, even if we were to grant their monistic assumptions, their arguments would not hold.\textsuperscript{272}

The picture in the \textit{Metaphysics} is quite different. In Alpha Meizon Aristotle expounds a history of previous theories of the principles of being, trying to describe them in terms of his own four causes. In so doing, he deploys a kind of dialectic which Rachel Barney has defined as clarification-dialectic.\textsuperscript{273} However, Aristotle does not limit himself to reporting the doctrines of his predecessors, but rather carries out two operations: he organises them according to how many principles they posit and analyses them in continuity with one another. The result is a sort of imagined dialogue with and between different metaphysical positions. Specifically, Alpha Meizon collects reputable opinions on the principles of being and organises them in a continuous narrative in which every thinker contributes something to the progress of metaphysics.\textsuperscript{274} In A.7 Aristotle, thinks that, as a whole, his predecessors discovered or had an inkling of all of the four causes singled out in his \textit{Physics} and of no others; hence, that is the number of causes to be investigated in the \textit{Metaphysics}. A.8-9, instead, marks a change of tone, from a history-based to a problem-oriented approach. In fact, Aristotle moves from his doxography to a critical evaluation of the doctrines of its protagonists. This is where a first list of \textit{aporiai} appears—which I called A-\textit{aporiai}—different from those listed in B. While A.8-9—much like \textit{Physics} 1.2—displays external criticisms, what we find in Beta is a much more systematic dialectical examination, consisting of internal criticisms directed to two rival views. Specifically, a crucial common trait of Beta with the \textit{Physics} is its dilemmatic procedure; however, while in \textit{Physics} 1.3 Aristotle's target is Eleatic monism, B.4 also attacks the alternative metaphysical position, identified with pluralism. This broader application of internal dialectic reflects Aristotle's different aim at the beginning of the \textit{Metaphysics}, therefore putting book Beta itself in a different perspective. In fact, Aristotle here utilises dialectic to take part in an ongoing metaphysical debate on the principles of being—for it is not by chance that on this point we can draw a close parallel

\textsuperscript{272} This suggestion places emphasis on a dialectical strategy familiar from other Aristotelian \textit{loci}, most notably \textit{Politics} 2.2-5, and is compatible with Crubellier 2009's explanation that a true conclusion can be drawn from false premises.

\textsuperscript{273} Barney 2012, 99-104.

\textsuperscript{274} Cf. Met. a.1, 993a30-b16.
with Plato’s *Sophist*. As such, there are two ways in which the discussion of the eleventh *aporia* acquires an historical resonance. Not only does Aristotle allocate the two opposite views at stake in *aporia* 11 to philosophers whom he had introduced in Alpha Meizon but, more generally, he also endeavours to resume the investigation of being from the point at which they had left off. In other words, Aristotle inherits—through the mediation of Plato—a problem which previous metaphysics had left unresolved; hence, the *Metaphysics* takes up the challenge launched by the *Sophist* and suggests an escape route out of the greatest *aporia*.275

The label ‘immanent dialectic’ is supposed to capture precisely this use of dialectical strategies for the benefit of metaphysical progress. It is *immanent* insofar as it starts from views that have been expressed historically and makes them interact with one another. In fact, much like the Eleatic Stranger's imagined dialogue with early thinkers, immanent dialectic is articulated in two moments. Its starting-point is an outline of how many principles were historically posited by earlier philosophers, which involves an attempt to clarify their metaphysical doctrines (clarification-dialectic). Once this preliminary discussion has been concluded, Aristotle engages in a critical examination of these views (diaporetic phase), either by expressing his disagreement with their premises (external dialectic) or through a *reductio ad absurdum* of their assumptions (internal dialectic). Unlike *Physics* 1.3, in Beta the *aporiai* are often abstracted from specific thinkers. However, in this respect the eleventh *aporia* is uniquely well connected to its historical background. This is why its solution marks one of Aristotle’s major contributions to the history of Greek metaphysics and shows that Aristotle himself wants to present it as such.

There is furthermore a final way in which this dissertation has explored Aristotle’s use of dialectic, namely by showing how it also provides a positive contribution to his metaphysical investigation. In fact, B.4’s discussion does not confine itself to indicating by way of exclusion which paths cannot be pursued. On the contrary, Aristotle takes great pains to spot what philosophical conviction has given rise to the mistake of his predecessors. This awards him the key to forestalling an *impasse*, when he offers his own metaphysical theory about being

275 As I mentioned in chapter 2, the *aporia* language is prominent in the central passages of Plato’s *Sophist*. In particular, a difficulty about being and the one/many problem is flagged as the greatest and first of *aporiai* (τῶν ἀποριῶν ἡ μεγίστη καὶ πρώτη) at 238α2.
and the one in Zeta and Iota. Aristotle believes that the capital mistake shared by
Parmenides, Plato and the Pythagoreans has to do with predication, for being and the one
are not univocal, but said in many ways. This is what grounds Aristotle's solution to the
eleventh aporia: insofar as they are the most universal predicates, being and the one are
neither substances themselves nor the substances of anything, but necessary accidents of
any determinate substance.

4.2. Aristotle's engagement with his predecessors

Once we allow ourselves a close inspection of Aristotle's dialectical strategies, his
relationship with previous thinkers appears in a different light than is usually believed.
Specifically, my analysis of aporia 11 constitutes a counterexample to Harold Cherniss' view
of Aristotle's relation to his predecessors for three reasons.

First, I have shown that Aristotle's arguments against his predecessors follow a specific
dialectic, combining an historical perspective with external and internal criticisms.
Accordingly, Aristotle does not 'wilfully misrepresent previous theories for the particular
purpose of his argument'; on the contrary, precisely because of his philosophical method,
Aristotle needs to start from premises which his interlocutor would be willing to grant. This
attitude is particularly clear when we look at the internal dialectic deployed in Physics 1.3,
which depends on a close reading of Parmenidean passages.

Second, in the case of B.4, Cherniss emphasises that Aristotle accuses Plato of a fallacy
that Plato himself had already demonstrated in the Sophist—an accusation which he regards
as a clear sign of Aristotle's neglect or bad faith. Contrary to this perception, chapter 2 has
shown that this step of Aristotle's argument is in reality a strategic move to refute Plato
starting from Plato's own premises. As such, it represents an additional case where the very
kind of argument put forward by Aristotle depends on a tight engagement with the text.

276 Cherniss 1935, 352.
277 As has been recently shown by Clarke 2019, 189–92, too.
278 Cherniss 1944, 93.
Finally, contrary to Cherniss' reconstruction, the importance of the Eleatic school is far from neglected in Aristotle's investigation of being. Besides the great deal of attention which they receive in the *Physics*, the Eleatics acquire a central role in the discussion of the eleventh *aporia* as well. Moreover, in that connection, chapter 2 even identified the influence of Zeno of Elea on an Aristotelian argument. Thus, overall, my reading shows that Aristotle regards Parmenides' doctrine as a landmark in the history of philosophy, to the extent that his own metaphysics is, at least in part, a response to a Parmenidean problem.

4.3. *The place of Iota in Aristotle's Metaphysics*

As was pointed out in the introduction, the role of Iota within the *Metaphysics* has recently attracted scholarly attention. Although this topic would deserve a far lengthier account than that which I can accord it here, I should like to conclude by indicating how this thesis can contribute to the debate about Iota's relation to the rest of the *Metaphysics*. I shall begin by proposing in the following table an overview of how Iota is connected to six other books:

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<tr>
<th>Kind of connection</th>
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<td>direct and explicit</td>
<td>B</td>
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<td>but implicit</td>
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<tr>
<td>indirect</td>
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<td>A</td>
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The books which are not included in the table show no connection with Iota and can be divided into two categories. In the cases of α, E, H and Θ, there is no obvious reason to expect a connection with Iota. On the contrary, K, M and N deal with subjects that appear to be connected with the argument of Iota, yet we do not get any clear indications that a connection was ever intended. In the following paragraphs I shall briefly review the evidence I have gathered on the relationship between I.1-2 and the other books of the *Metaphysics* and

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279 Cherniss 1935, 384.
280 Centrone 2005; Castelli 2018a.
set up a few questions about how this evidence can provide a starting point for some reassessment of the place of Iota as a whole within the *Metaphysics*.

4.3.1. The opening books of the *Metaphysics*

A) Iota's connection with Alpha Meizon is indirect. Their relation is mediated by Beta, which, I suggested in section 2.1.3, follows on from Alpha Meizon and even shows some linguistic continuity with its final lines. Moreover, the eleventh aporia presupposes a book like Alpha Meizon, given that it ascribes the two alternatives of the dilemma to some of the protagonists of Aristotle's doxography.

B) Iota's connection with Beta is direct and explicit (ἐν τοῖς διαπορήμασιν, I.2, 1053b10). Although this thesis has only considered the eleventh aporia, Iota is tightly linked to another aporia, which is formulated at 995b18-37 (B.1): whether Aristotle's investigation should study only substances or also its *per se* accidents. While Gamma provides an answer, it is Iota that carries out the metaphysical inquiry into unity, sameness, equality, similarity and contrariety.281 Thus, if Beta sets the agenda for Aristotle's *Metaphysics* in the sense that was defended in chapter 2, then Iota complies with it in two fundamental respects: it solves the eleventh aporia and it investigates the notions around which revolves the aporia formulated at 995b18-37.

Γ) Iota's connection with Gamma is direct but implicit. As was pointed out in chapter 3, Iota adapts Gamma's arguments for the sameness of 'one' and 'being' to the context of its inquiry into the one.282 By itself, such proximity of Gamma to Iota is compatible with two possibilities: either Gamma and Iota share a common source (weaker claim) or one depends on the other (stronger claim). However, two reasons can be adduced in support of the stronger claim. First, in the final chapter of this dissertation the point was made that Iota's specific relation to previous books of the *Metaphysics* consists in recasting their arguments to serve its specific purposes. Accordingly, the fact that Iota and Gamma share a stretch of

281 On this point see in particular Burnyeat 2001, 137 and Castelli 2011.

282 Moreover, both books refer to the same Aristotelian work, now lost, dealing with the contraries (cf. ἐν τῇ ἐκλογῇ τῶν ἐναντίων, Γ.2, 1004a1 and ἐν τῇ διαιρέσει τῶν ἐναντίων I.3, 1054a30); on this work see Berti 1973, Rossitto 1977 and Guariglia 1978.
argument suggests that Gamma should be regarded as an additional reference alongside Beta, Delta and Zeta. Second, as was recalled above, in studying the notions listed in the fifth aporia, Iota carries out the programme prepared for by Gamma. These observations suggest that Iota is specifically reminding the reader of Gamma, rather than more generally relying on the same logical background.\textsuperscript{283} One might also remark that, while Beta, Delta and Zeta can be easily identified by shorthand descriptions such as ‘book of aporiai’, ‘book of definitions’ and ‘book of substance’, Gamma has perhaps no analogous characterisation.

4.3.2. The book of definitions

Δ) Iota’s connection with Delta is direct and explicit (cf. ἐν τοῖς περὶ τοῦ ποσαχῶς διῃρημένοις, I.1, 1052a15-16).\textsuperscript{284} Because both books discuss the one and some related notions, they have been regarded as good candidates for the solution of the fifth aporia. In summarising the rival parties in the debate, Castelli observes that a reason in favour of Iota is that it shows a more systematic approach to the notions which are also presented in Delta.\textsuperscript{285} This dissertation provides two additional reasons that tend in this direction. To begin with, Iota does not limit itself to providing a definition of τὸ ἕν. On the contrary, its crucial contribution to the study of the one consists in providing a metaphysical grounding for the definition of the one as ‘unit of measurement’: the one is a μέτρον because it is always something indivisible. Furthermore, on this reconstruction, Delta displays the same relation to Iota as to Epsilon, Zeta and Theta, all of which contain an uncontroversial reference to that book.\textsuperscript{286} Therefore, it seems plausible that, as EZHΘ revisits Delta’s description of τὸ ὄν, Iota revisits Delta’s definition of τὸ ἕν. Note that, if we accept Iota, and not Delta, as the place where Aristotle discusses the notions mentioned in the fifth aporia, Delta is left with a rather

\textsuperscript{283} This implies that, in the economy of the Metaphysics Iota comes after Gamma and not vice versa. Note that this suggestion is compatible with the idea that Iota comes logically before Gamma; my focus here is on the Metaphysics as a work; hence, what matters is the order in which Gamma and Iota should be presented to the reader.

\textsuperscript{284} Centrone 2005, 38 mentions another two references to Delta at 1055b6-7 and 1056b34-5. He also reports a further reference at 1055a2, on which, however, there is no consensus.

\textsuperscript{285} Castelli 2018a, xix–xx.

\textsuperscript{286} E.2, 1026a33-b2; Z.1, 1028a10-b1; Θ.1, 1046a4-b6; Θ.10, 1051a34-b2.
different role in the economy of the *Metaphysics*, namely to provide a preliminary—but not definitive—description of terms which are central to a metaphysical inquiry. In fact, although Delta does offer some attempts at a unified description of some notions, it does not offer arguments, but is limited to a list of more-or-less precise characterisations. Thus, whenever Aristotle returns to notions described in Delta, he neither corrects nor simply rehashes that discussion; instead, he deepens his analysis providing a metaphysical account of them. As such, Delta is a sort of stepping stone for Aristotle's later inquiry. From this perspective, the case of τὸ ἕν in Iota exemplifies precisely this relation: while Aristotle there does not add a new definition, he grounds Delta's nominal definition (‘unit of measurement’) in a necessary characteristic of things (indivisibility).

4.3.3. The central books

Z) Iota's connection with Zeta is direct and explicit (cf. ἐν τοῖς περὶ οὐσίας καὶ περὶ τοῦ ὄντος εἴρηται λόγοις, I.2, 1053b17-8). In fact, chapter 3 has already clarified how Iota borrows Zeta's conclusions to return to the eleventh *aporia* with new weapons against Plato's conception of being and the one. However, there are at least two additional ways in which Zeta and Iota are connected. Not only are the opening lines of the two books strikingly similar, but I.1 seems to follow a development analogous to Aristotle's discussion of substance. Both I.1 and Z.1 start from a group of objects which are generally acknowledged to be respectively 'one' and 'substance' and then focuses on the characteristics in virtue of which these objects are thought to be such. In the light of this parallel, since Iota deals not with substances, but with its *per se* attributes and given that it resolves the eleventh *aporia* relying on Zeta, Iota can be regarded as the counterpart of Zeta.

287 For example, Δ.1 on ‘ἀρχή’, Δ.3 on ‘στοιχεῖον’, Δ.6 on ‘ἕν’.
288 On the overall function of Delta within the *Metaphysics*, see Menn in progress, Iγ1b.
289 Compare Z.1, 1028a10-1 (‘Τὸ ἵν λέγεται πολλαχῶς, καθάπερ διειλόμεθα πρότερον ἐν τοῖς περὶ τοῦ ποσαχῶς’) with I.1, 1052a15-6 (‘Τὸ ἵν δὲ τὸν λέγεται πολλαχῶς, ἐν τοῖς περὶ τοῦ ποσαχῶς διηρημένοις εἴρηται πρότερον’).
290 Castelli 2018a, 52–3.
4.3.4. The case of Kappa

K) Although Iota has no clear connection with Kappa, we would perhaps expect the contrary. In fact, in summarising the previous books of the *Metaphysics*, Kappa quotes the eleventh *aporia*; however, it does so in a way which significantly detaches itself from Iota. First, Kappa’s presentation of the eleventh *aporia* is cursory and, though mindful of Zeta, seems to ignore Iota. More precisely, at 1060a36-b6, K.2 presents the *aporia* as concerning being and the one *qua* unmoved principles. If they are not something determinate and a substance, being and the one are not going to be separate, which contradicts their being eternal and primary in relation to anything else (K.2, 1060a37-b2). If they are instead something determinate and a substance, given that they are maximally universal, everything is going to be a substance (1060b2-6). Such a summary shows that Kappa ignores the fact that Iota has resolved the eleventh *aporia*. In fact, I.1-2 makes room for an escape route from the second branch of Kappa’s dilemma: the one (and, analogously, being) is universal precisely by being necessarily predicated of everything that is a τόδε τι. In this sense, its universality does not imply that it is the substance of all things, but only that it is a necessary attribute.²⁹¹ As a result, Kappa and Iota would seem to exclude each other.²⁹² One could hypothesise that Kappa has at least one point of contact with Iota, namely convertibility (K.3, 1061a10-8); however, that reference surely depends on Gamma, whose arguments are summarised in K.3-6.²⁹³

4.3.5. The theological book

Λ) Iota’s connection with Lambda is indirect. I.1-2’s general argument not only suggests that there is a ‘one’ also in the case of substances, but allows for a metaphysically acceptable sense in which there can be such a one, namely as the compositionally basic substance—to be contrasted with a Platonising one itself. Specifically, just before introducing the prime

²⁹¹ This also suggests that, although Kappa borrows Zeta’s criterion for substantiality in the first branch of the dilemma, it understands this criterion in a superficial sense, at least *prima facie*.

²⁹² For reasons in favour and against the authenticity of Kappa, see respectively Décarie 1983 and Aubenque 1983.

²⁹³ A similar consideration would apply to Kappa’s reference to a study of the contraries (1061a15), which is mentioned not only at I.3, 1054a30 but also at Γ.2, 1054a1.
mover, A.7 contains a parenthetical remark which bears a strong resemblance to I.1's name/thing distinction. At 1072a32-4, Aristotle observes that the one and the simple (τὸ ἁπλοῦν) are not the same thing, because while 'one' means 'measure', the simple signifies a characteristic of a thing (πῶς ἔχον αὐτό).

4.3.6. The final books

M) Iota has no clear connection with Mu; however, both Iota and MN are interested in the nature of mathematical objects and criticise previous theories of Platonic and Pythagorean inspiration. One striking feature of Mu is that its chapters 4 and 5 reproduce sections of A.6 almost verbatim. What can be safely affirmed regarding the relationship between A and M is, first, that they—at the very least—depend on some common source; second, that they can hardly have been written as parts of one and the same work. Scholarly consensus has it that Aristotle first sketched his criticism of forms in Alpha Meizon and then returned to it at the end of the *Metaphysics* in order to strengthen his attacks. However, if we assume that Aristotle himself copied stretches of his own text, it is more economical to imagine him selecting the relevant sections of an existing longer discussion to adapt them to a different context. Indeed, it is hard to see how Mu’s discussion can fit into Aristotle’s overall metaphysical inquiry, unless we read it within the historical framework offered by Alpha Meizon. Moreover, on the reading of the *Metaphysics* which was suggested in chapters 1 and 2, Aristotle’s harsh critique of Platonism is manifestly carried out from the perspective of an insider. This might provide an explanation of Aristotle’s use of the first-person plural—and not the third—in Alpha Meizon.

Berti 1979 emphasises the connection between this passage and Aristotle’s rejection of the Platonic one. One could also notice that I.10 discusses the difference perishable/imperishable, perhaps preparing the ground for Aristotle’s discussion of imperishable substances which will lead up to the unmoved mover.

By this, I do not intend to deny that Mu represents a fundamental piece of Aristotelian metaphysics; rather, I limit myself to raising some doubts on whether Mu and Alpha can be regarded as part of one and the same piece of writing.

In particular, contra Primavesi 2012a, 413 this interpretative perspective can reopen the possibility that Aristotle himself would have replaced the 3rd person with the 1st in order to present his own inquiry as a continuation (and improvement) of the metaphysical enterprise undertaken in the Academy.

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1086b15-6, M.10 also refers to Beta, which would imply that Mu comes after the series AB. However, on the one hand, the dilemma reported by Mu is slightly different from its corresponding *aporia* in B.4, for it seems to merge two *aporai* which Aristotle there discusses separately.\(^{297}\) Hence, the logical anteriority of Beta's *aporai* is compatible with the hypothesis that Beta itself, as a book, may represent a stage of redaction later than both Mu and an embryonic list of difficulties.\(^{298}\) On the other hand, since Mu and Alpha Meizon exclude each other, and since Beta is well-connected with Alpha Meizon, we are faced with a choice between M and AB. If we do accept the idea that Mu is older, then it could be regarded as a sort of draft which Alpha Meizon distilled and reframed within a more specific discussion. On this account, the relationship between M and AB would be partially analogous to that between Gamma and Iota, both of which deal with convertibility, but at different lengths and within different discussions.

N) Iota has no clear connection with Nu; however, chapters 2 and 3 have shown more than one affinity between the two books, both of which study the causal role of Academic principles and numbers. There is one more specific parallel which deserves some attention; it consists in N.1’s discussion of μέτρον. At 1087b33-4, Aristotle affirms that it is clear (φανερόν) that ‘one’ means ‘unit of measurement’. Then, after listing some examples, he adds that, since a unit of measurement is always indivisible (whether in form or according to perception), the one is not a substance. As such, this passage too looks like a compact repetition of I.1-2; notice, however, that, in this form, the passage is also reminiscent of Δ.6, 1016b17-24. In fact, as a reference to Iota, Nu says too little, insofar as the argument at 1087b26-33 would require more detail to be appreciated fully. In contrast, as a reference to Delta, it says too much, insofar as it draws a conclusion which is only at home in a polemical context. Note also that I.1 starts from Delta’s *per se* understandings of τὸ ἕν and ends with the nominal definition of the one; instead, N.1 seems to follow the reverse path, from the definition of the one to its being indivisible in any kind of things whatsoever. In this respect N.1 is rather similar to Aristotle’s argument against the Pythagoreans in I.2, where, as we saw, Aristotle grants them that there is a ‘one’ in all kinds of things but rejects the implication that the substance of all

\(^{297}\) These seem to be *aporai* 6 (995b27-29), 12 (996a12-15) and, to a lesser extent, 14 (996a9-11), cf. Annas 1976, 188–9 and especially Menn in progress, 173.

\(^{298}\) Cf. Annas 1976, 84.
things is ‘one’. Accordingly, there are some good reasons to read N.1-2 not as referring back to Iota but rather as doing at least in part Iota's own job. This may suggest that Nu and Iota exclude each other as part of a unitary work. An advantage of this suggestion is that it would confirm Iota's tendency to draw upon earlier material and adapt its content to its own investigation. The crucial difference with other cases would then be that, here, Iota would not mention a book within the *Metaphysics*, but reorganise into a new form the content of an earlier piece of metaphysical investigation.

4.3.7. **Overview**

As a result of this survey, the study of the eleventh *aporia* not only connects I.1-2 with Aristotle's main line of investigation; it also provides us with a possible thread to read the *Metaphysics* as a unitary work. The connections that I suggested above are schematised in the following graph, where each arrow connects a book to a subsequent book in the work.

![Graph](image)

Although they are not included in the graph, K, M and N also contribute to reading the *Metaphysics* as one work, but via *negativa*. As a result of my tentative considerations in 4.3.4 and 4.3.6, if we consider Iota as part of the *Metaphysics*, we should exclude both Kappa and Nu, which—in different ways—ignore I.1-2's study of the one. Furthermore, the overlap of M.4-5 and A.6 suggests that A and M are not intended as parts of one and the same work. Thus, considering that A rules out α as an introduction to the *Metaphysics* and that the central books are commonly regarded as a unit, this dissertation provides some grounds for considering Aristotle's *Metaphysics* as consisting of the series ABIΔEZΗΙΑ.
To conclude, as the second-highest peak of Aristotle's *Metaphysics* after Zeta, Iota is perhaps the best viewpoint from which to appreciate Zeta's height as well as Aristotle's new beginning in the study of being and the one. As such, the eleventh *aporia* is a privileged panoramic point on ancient metaphysics.
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