

# FIRST PHILOSOPHY IN *METAPHYSICS A*

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‘Begin at the beginning,’ the King said, gravely, ‘and go on till  
you come to the end: then stop.’

(LEWIS CARROLL)

## 1. Archaeology

IN seeking to understand Aristotle’s conception—or conceptions—of first philosophy,<sup>1</sup> we are in something like the position of archaeologists excavating a complex ancient site with few independent parallels. What is the significance of this piece of structure? What sort of a structure was it and why was it built in the way that it was? How is it related to these other pieces of structure? Is it part of the same building as that piece nearby, or a part of something which was built over that piece later—or something in between, such as a repair? We have various pieces: a somewhat sketchy programme in *A*, a list of problems in *B*, some reasonably substantial, if sometimes opaque, programmatic remarks in *Γ* and *E*, some tantalizing programmatic remarks in *Z*;<sup>2</sup> and of course we have what Aristotle *does*

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<sup>1</sup> For the term ‘first philosophy’ see sect. 2.

<sup>2</sup> *Z* 11, 1037<sup>a</sup>13–17; cf. *Z* 17, 1041<sup>a</sup>6–9. See n. 44 below. Frede (M. Frede, ‘The Unity of General and Special Metaphysics: Aristotle’s Conception of Metaphysics’, in Frede, *Essays in Ancient Philosophy* (Oxford, 1987), 81–95) and Burnyeat (M. F. Burnyeat, *A Map of Metaphysics Zeta* [Map] (Pittsburgh, 2001), 16–18 and 128) controversially take *Z* 3, 1029<sup>a</sup>33–<sup>b</sup>12, to be making a similar programmatic point. The methodological significance of *Z* 2’s question, ‘are there substances separate from sensible ones?’, is also controversial: see e.g. Burnyeat, *Map*, 13–14; S. Menn, ‘On Myles Burnyeat’s *Map of Metaphysics Zeta*’ [‘On Burnyeat’s *Map*’], *Ancient Philosophy*, 31 (2011), 161–202, sect. 1, and id., *The Aim and the Argument of Aristotle’s Metaphysics* [*The Aim*] (Oxford, forthcoming), available in draft form at <<https://www.philosophie.hu-berlin.de/de/lehrbereiche/antike/mitarbeiter/menn/contents>> [accessed 21 Sept. 2015], 11a2.

in the various books of the *Metaphysics*,<sup>3</sup> including a plan he wrote for a large-scale project in first philosophy, namely book *A*. Finally, we have the fact that he (or, perhaps less probably, someone else) thought that these various books should all be put together in one place<sup>4</sup>—though in my view this last fact is of almost no use to us (we know, or rather believe, the ‘that’, but are not in a position to know what it means). So the question ‘does Aristotle have a unified conception of first philosophy?’ is a large and complex one. In this paper I shall address a much less complex but still very difficult question: does Aristotle have a unified project in one particular book of the *Metaphysics*, book *A*, and if so, what is it? As we shall see, this may throw some light on the wider question as well.

## 2. The status and structure of *A*

I begin with a claim about *A* that is less exciting, or less provocative, than it might seem—Myles Burnyeat described a stronger version of it in 2001 as ‘now uncontroversial’<sup>5</sup>—though for all that it is a claim which has more recently been described by Stephen Menn as ‘untenable’.<sup>6</sup> The claim is that *Metaphysics A* is a unified and well-organized treatise or piece of work on first philosophy, which, as a piece of writing, is independent of its current location in the *Metaphysics* as we have it. The claim that it is a piece of first philosophy—even though Aristotle does not say that it is—may well seem uncontroversial, but it calls for some clarification. As I am using it, ‘first philosophy’ is something of a term of art, since, as I have indicated, we cannot prejudge the question whether Aristotle has the same

<sup>3</sup> And perhaps in one or two other places too, such as the discussion of the Eleatics in *Phys.* 1. 2–3.

<sup>4</sup> For discussion of the genesis of the *Metaphysics* see (inter alia) W. D. Ross, *Aristotle's Metaphysics: A Revised Text with Introduction and Commentary* [Aristotle's *Metaphysics*], 2 vols. (Oxford, 1924), i, pp. xiii–xxxi; M. Woods, ‘Particular Forms Revisited’ (a critical notice of M. Frede and G. Patzig, *Aristoteles: Metaphysik Z. Text, Übersetzung, Kommentar*), *Phronesis*, 36 (1991), 75–87; S. Menn, ‘The Editors of the *Metaphysics*’ [Editors], *Phronesis*, 40 (1995), 202–8, and *The Aim*, 1a5; J. Barnes, ‘Roman Aristotle’, in J. Barnes and M. Griffin (eds.), *Philosophia Togata*, ii. *Plato and Aristotle at Rome* (Oxford, 1997), 1–69; L. Judson, ‘Formlessness and the Priority of Form: *Metaphysics Z* 7–9 and *A* 3’ [*Z* 7–9 and *A* 3], in M. Frede and D. Charles (eds.), *Aristotle's Metaphysics Lambda: Symposium Aristotelicum* [Metaphysics *Lambda*] (Oxford, 2000), 111–35; Burnyeat, *Map*, esp. chs. 3 and 6.

<sup>5</sup> Burnyeat, *Map*, 132 (cf. Ross, *Aristotle's Metaphysics*, i, p. xxix); see n. 20 below.

<sup>6</sup> For references see n. 123 below; I discuss Menn's argument in Appendix I.

conception of his project in different parts of our *Metaphysics*, and since he uses several labels for the project(s) he is engaged in and/or their results.<sup>7</sup> *Metaph. A 2* floats the idea that the goal of the project being introduced there is ‘wisdom’ (σοφία), understood as the knowledge of the principles of all things; in *Γ* and *E* the enquiry into principles is linked in some way with ‘enquiring into being as being’,<sup>8</sup> and the terms ‘first philosophy’ and ‘theology’ are brought into play, in such a way as to make it clear that Aristotle takes the referents of these three terms to be closely related or even the same.<sup>9</sup> Of course, it is highly controversial exactly what the projects thus labelled are and how they are related, and I shall say more about these questions later, but at this stage my use of ‘first philosophy’ is not meant to prejudge any of these. I am using it as a generic term to refer to whatever project(s) Aristotle takes himself to be characterizing or engaging in in these various texts,<sup>10</sup> and to any closely related project. On this usage, if these are quite different projects, one would say that they reflect different conceptions of first philosophy; if they are the same, or parts of a single project, then (as far as these texts go) Aristotle has a (more or less) unified conception. As regards *A*, it is presented as an enquiry into the principles and causes of substances and hence of all things;<sup>11</sup> this is clearly connected in some way with the concerns of *A*, and it is what *Γ 2*, 1003<sup>b</sup>17–19, describes as the business of the philosopher—by which we should probably understand the *first* philosopher.<sup>12</sup> If anything else merits

<sup>7</sup> Michael Wedin gives a nice summary in ‘The Science and Axioms of Being’ [‘The Science of Being’], in G. Anagnostopoulos (ed.), *A Companion to Aristotle* (Oxford, 2009), 125–43 at 125.

<sup>8</sup> See especially *Γ 1*, discussed in sect. 4.

<sup>9</sup> The term is used at *Phys.* 1. 9, 192<sup>a</sup>34–6; 2. 2, 194<sup>b</sup>14–15; *De caelo* 1. 8, 277<sup>b</sup>9–12; *MA* 7, 700<sup>b</sup>9; *Metaph. E* 1, 1026<sup>a</sup>15–16, 24, and 30 (the last of these is discussed in sect. 4); *K* 4, 1061<sup>b</sup>18–19; cf. ‘first philosopher’ at *DA* 1. 1, 403<sup>b</sup>9–16. Note that *Metaph. Z* 11, 1037<sup>a</sup>14–16, describes physics as ‘second philosophy’ (cf. *Γ 3*, 1005<sup>b</sup>1–2: ‘physics is a form of wisdom, but not the first’). *Γ 2*, 1004<sup>a</sup>1–4, may refer to the same idea, but its meaning is disputed: see n. 72 below. Unlike ‘wisdom’, ‘theology’ and ‘first philosophy’ are process/achievement ambiguous. I shall for the most part use them in the process sense.

<sup>10</sup> That is, *A*, *Γ*, and *E*—and *ZHΘ*. I think that book *I* forms part of the project envisaged in *Γ*: see *Γ 2*, 1004<sup>a</sup>9–25, and L. M. Castelli, *Aristotle, Metaphysics Book I: Translated with Introduction and Commentary* (Oxford, 2018), Introduction, sect. I. I shall discount *K*, and say nothing in this paper about *Δ*, or *M* and *N*; for *a* see Appendix II.

<sup>11</sup> I discuss this below.

<sup>12</sup> The claim that it is the business of the philosopher must be meant to be qualified in some way, since for Aristotle ‘philosophy’ includes many enquiries for which this knowledge is not required, and the only suitable qualification in the offing is ‘first’ (see the references in *Γ* and *E* cited in n. 9).

the term first philosophy (whether as another part or aspect, or even as something quite different), this, as we shall see, will be theology; and, of course, *A* contains theology as well. It will seem plausible that *A* is not a piece of first philosophy only on somewhat implausible views of what it is about and/or of what first philosophy might consist in.<sup>13</sup> If the account of the nature of *A*'s project which I give in Section 5 is correct, then it will be independently plausible that Aristotle would be willing to call it first philosophy.

I shall say rather more about the other parts of my claim: that *A* is a unified and well-organized treatise or piece of work independent of its current location in the *Metaphysics*. First, the independence claim. Like Aristotle discussing the voluntary, I shall proceed negatively. (i) I do not mean that the positive views that *A* contains are necessarily inconsistent with, or at odds with, what Aristotle says in other discussions: there is no reason to suppose this, ahead of investigation, any more than there is any reason to suppose that there must be perfect harmony. (ii) Nor do I mean that it is *methodologically* inconsistent with Aristotle's other metaphysical writings:<sup>14</sup> I do not think that *A*'s independence entails or even makes it probable that it embodies a distinctive conception of first philosophy—indeed, I shall argue that it does not. (iii) Nor—to continue my list of disclaimers—do I mean that there are no connections between *A* and metaphysical material elsewhere: there clearly are many such connections.<sup>15</sup> What the *explanations* of these connections are (for instance, '*A* 3 summarizes material in *Z* 7–8 and *H* 1', '*A* outlines

<sup>13</sup> e.g. that its principal business is the study of substances (see n. 14 and the discussion of Helen Lang's view in sect. 3 (Lang's work is cited in n. 56)), and that such a study of substances is not part of first philosophy.

<sup>14</sup> It used to be fashionable to suppose that various distinct conceptions of first philosophy could be discerned in various parts of the *Metaphysics* simply on the basis of what each contained and lacked—so that if one such part lacked any discussion of non-contradiction, for example, the conception of first philosophy which that part reflected did not include the idea that it was for first philosophy to discuss non-contradiction (see e.g. C. Kahn, 'On the Intended Interpretation of Aristotle's *Metaphysics*' ['The Intended Interpretation'], in J. Wiesner (ed.), *Aristoteles: Werk und Wirkung*, i. *Aristoteles und seine Schule* (Berlin and New York, 1985), 311–38). This approach is flawed, for obvious reasons—not least that the absence of a given item may only mean that Aristotle regards it as already taken care of elsewhere or as a subject for a later stage of the discussion.

<sup>15</sup> There are close connections to material in *B* (well discussed in S. Menn, 'Aporiai 13–14' ['Aporiai'], in M. Crubellier and A. Laks (eds.), *Aristotle: Metaphysics Beta. Symposium Aristotelicum* (Oxford, 2009), 211–65 at 253–9, and *The Aim*, IIIβ1, *Z* 1 and 7–8, *H* 1 and 3, *Θ* 8, and *MN*, as well as to *Phys.* 1 and 8 and *DA*.

ideas subsequently amplified in *Z* and *H*’, ‘*A* and the central books both draw on material originally drafted in writings which are now lost’—indeed, the very idea that it is sensible to expect there to be, even in principle, explanations in such terms—is quite another matter, and one on which I shall remain silent.<sup>16</sup>

My positive claim is that, despite its present position as the twelfth book of our *Metaphysics*, it is not the continuation of *A-K*, or of *A-I*, or of *A-Θ*. For my purposes, nothing hinges on what we think about the placement of *K* or *I*.<sup>17</sup> What matters is *A*’s relation, as a piece of writing, to books *ZHΘ*: either it was not written as part of a wider stretch of the *Metaphysics* at all, or, if it was, that wider stretch did not include *ZHΘ* as we have them. Although *A* clearly has close connections with some of the material in these books—and despite the fact that it offers an outline account of immaterial substances, a subject to which *Z* at various points explicitly looks forward—it should not be seen as a continuation of them, or as a plan for such a continuation.<sup>18</sup> *A* starts in something

<sup>16</sup> We have very little good evidence even for the relative chronology of Aristotle’s surviving writings (on the non-temporal character of many of Aristotle’s cross-references see Burnyeat, *Map*, 111–24, and ‘Aristotelian Revisions: The Case of *de Sensu*’, *Apeiron*, 37 (2004), 177–80); and the possibility that any given section of the *Metaphysics* may have been a ‘working draft’ subject to revision at any time encourages a degree of scepticism about the determinacy of claims such as ‘section *X* was written before section *Y*’ (see Burnyeat, *Map*, 112–13, and J. Barnes, ‘Life and Work’, in Barnes (ed.), *The Cambridge Companion to Aristotle* (Cambridge, 1995), 1–26 at 21; I am, however, doubtful about the status which earlier in that chapter (p. 11) Barnes awards to the ‘edition’ by Andronicus: see Menn, ‘Editors’, and *The Aim*, Ia5; Barnes, ‘Roman Aristotle’). When we find clear cases of similarity or overlap of material, there is an ever-present danger of subjectivity. How, on the basis of content alone, can we tell whether, for example, *A* 6’s remarks about priority ‘build on *Θ* 8’ (Menn’s view (*The Aim*, IIIβ1, 22)), or are presupposed by it? (For discussion of one such issue see Judson, ‘*Z* 7–9 and *A* 3’, and Burnyeat, *Map*, 29–38; for *Θ* 8 and *A* 6 see Appendix I.) For these reasons I shall as far as possible investigate the nature of the project in *A* without relying on judgements of relative chronology; I discuss the question of the relation of *A* 8 to the rest of *A* in L. Judson, *Aristotle: Metaphysics A. A Translation and Commentary* [Metaphysics *A*] (Oxford, forthcoming [2018]), Prologue to ch. 8.

<sup>17</sup> For my view of the status of book *I* see n. 10 above.

<sup>18</sup> These references in *Z* are listed in n. 2. See also n. 20 below. It is compatible with my claim to suppose that Aristotle or a later editor placed *A* where it is (despite its lack of continuity with the central books) because it contained a sketch of a discussion of immaterial substances which was otherwise lacking. This suggestion is made in various forms by P. Donini (*La Metafisica di Aristotele: introduzione alla lettura* (Rome, 1995), 22) and Frede (‘The Unity of General and Special Metaphysics’, 82, and ‘Introduction’, in Frede and Charles (eds.), *Metaphysics Lambda*, 1–52 at 3), as well as by an anonymous referee.

like the same way as *Z*,<sup>19</sup> with claims about the priority of substance and a list of items taken to be substances by others. It identifies matter and form—but also privation—and comments on their substantial status. *A* seems to set out from the same starting point, broadly speaking, as *Z*, but then follows a different track.<sup>20</sup> We can see this difference in its emphasis on principles (which are in the background in *Z*<sup>21</sup> but not in the foreground), in its insistence on privation and efficient cause as principles co-ordinate with matter and form,<sup>22</sup> and in its focus, in chapters 4–5, on a question not pursued in the central books: the question of the principles of *all things*.<sup>23</sup> Nor can we regard the first two and a half chapters of *A* as a resumptive summing up of *Z* (still less of *ZHΘ*), with the rest of the book constituting a continuation of the central books, for at least two reasons. First, the ‘overlap’ of material between *ZH* and *A*, while it includes *Z* 7–8<sup>24</sup> and a part of *H* 3, does not otherwise extend beyond *Z* 2. This opening section of *A* does not mention parts, definitions, the question of the (non-)identity of things with their essence, or problems about unity, and cannot be regarded as any sort of summary of *Z* as a whole.<sup>25</sup> Second, the way in which *A* proceeds after these ‘overlapping’ chapters fails to build on any

<sup>19</sup> I set aside here some difficult and controversial issues about the strategy of *Z*.

<sup>20</sup> Burnyeat argues in a similar way: ‘*A* is not merely, like *ZHΘ*, an independently written contribution to an overall plan. It springs from a rival plan’ (*Map*, 132). Frede holds a yet stronger view: ‘*A* does not pick up the threads of argument offered in the central books . . . It rather seems to be an alternative account of substance which sets in more or less at the point in the argument where *Metaphysics Z* sets in, and runs parallel to the account envisaged by the central books’ (‘Introduction’, 2–3; cf. Frede, ‘The Unity of General and Special *Metaphysics*’, 82). (Frede also thinks that *A*’s discussion of immaterial substances is not what we would expect to follow *ZHΘ* (‘Introduction’, 1–2); but that is a quite separate point, and one with which I do not agree (see sects. 4 and 5 below).) Both Burnyeat and Frede speak of *A* as an ‘independent’ work *simpliciter*. As I shall argue later, on some readings of *Γ*, *A* has to be seen as independent of it too; there is, however, another reading (which I favour, but on which I shall not rely in this paper), on which *A* could have been planned as the continuation of *Γ* and *E*: see sect. 4.

<sup>21</sup> See 10, 1035<sup>a</sup>22–31; 17, 1041<sup>a</sup>9–10 and 1042<sup>a</sup>4–6.

<sup>22</sup> Privation is barely mentioned in *Z*; the efficient cause makes some sort of appearance in *Z* 7–9, *Z* 17, and parts of *H*.

<sup>23</sup> There is some material tangentially related to this issue in the discussion of definition in *Z* 4: but this is handled in such a different way—appealing only to the senses of being and not to sameness by analogy—that it is again very hard to imagine that *A* 4–5 are what the author of *Z* (or *ZHΘ*) planned to say next.

<sup>24</sup> But not, in my view, *Z* 9: for discussion of the connection between *Z* 7–9 and *A* 3 see Judson, ‘*Z* 7–9 and *A* 3’, and Burnyeat, *Map*, 34–6.

<sup>25</sup> It is instructive to compare the summary of *Z* found in *H* 1 (1042<sup>a</sup>3–22), which touches on most chapters of *Z*—all except for chs. 7–9, and (perhaps) 6 and (perhaps)

of the complex and subtle discussions developed in *Z* 4–6 and 10–17, and instead, as I have said, builds on material either not emphasized or not found at all in *Z*. (As I have indicated, Menn thinks that this view cannot be right, because of a cross-reference in *A* 6 (1072<sup>a</sup>3–4). I find his argument unconvincing: for discussion see Appendix I.)

The other part of my claim is that *A* is consciously presented as a unity. By this I do not mean that it is a *complete* working out of first philosophy, or of whatever part of first philosophy it is that it is concerned with. It is manifestly only a sketch or plan for a much more extended work. Most of it—with the exceptions of some of the material on the principles of all things in chapters 4–5 and on the number of immaterial substances in chapters 7–8—is highly compressed, and it traverses a great deal of philosophically difficult ground with breathtaking speed. I mean, rather, that Aristotle presents *A* as a single enterprise, which, however sketchily done, forms a coherent and unified whole. As we shall see, Aristotle announces *A*'s subject-matter at the outset, and divides it into obvious parts; the ensuing discussion self-consciously follows that division, and the book ends with a coda looking back over the whole discussion. It thus has an (apparently<sup>26</sup>) unified subject-matter, clearly set out at the beginning, a clear structure, and a clear end.<sup>27</sup>

*A*'s beginning (1069<sup>a</sup>18–19) is, admittedly, abrupt, and calls for discussion:

περὶ τῆς οὐσίας ἢ θεωρίας τῶν γὰρ οὐσιῶν αἱ ἀρχαὶ καὶ τὰ αἴτια ζητοῦνται.

The investigation concerns substance; for it is of substances that we are seeking the principles and causes.<sup>28</sup>

Aristotle supports this with a number of claims about the primacy of substances.<sup>29</sup> The meaning of this opening is disputed, but as we shall see, it signals a methodological argument which reveals *A*'s

12. For discussion see D. Bostock, *Aristotle: Metaphysics Books Z and H* [Metaphysics Books Z and H] (Oxford, 1994), 248–50; Burnyeat, *Map*, 62–8.

<sup>26</sup> See, however, sect. 3 below.

<sup>27</sup> It is commonplace to regard *A* 8 as a late and unhappy insertion into the rest of the book (for this view see W. Jaeger, *Aristotle: Fundamentals of the History of his Development* [Aristotle], trans. R. Robinson, 2nd edn. (Oxford, 1948), 219–27 and ch. 14 (originally published as *Aristoteles: Grundleitung einer Geschichte seiner Entwicklung* (Berlin, 1923)); Ross, *Aristotle's Metaphysics*, i. 384). Neither part of this claim survives scrutiny, however: see Judson, *Metaphysics A*, Prologue to ch. 8.

<sup>28</sup> All translations are my own.

<sup>29</sup> *A* 1, 1069<sup>a</sup>19–30.

beginning as indeed well thought out. One point of controversy is how to understand *hē theōria*; another is how to do justice to the fact that Aristotle offers what is said in the second sentence as the reason for what is said in the first. There are two main interpretations of *hē theōria*. The first (reflected in my translation) takes it to mean ‘our investigation’, or ‘the investigation we are engaged in’.<sup>30</sup> The second takes *theōria* to have a technical sense of ‘theoretical enquiry’ and *hē theōria* to mean ‘theoretical enquiry [sc. in general]’.<sup>31</sup> This second interpretation is very hard to accept. (i) Elsewhere Aristotle’s usage of *θεωρία* is very flexible and apparently non-technical. He uses it in the same breath as ‘investigation’ (*μεθόδος*) and ‘enquiry’ (*σκέψις*)<sup>32</sup> and to denote a wide range of types of investigation, from the systematic study of plants to the observation of the structure of veins in strangled animals,<sup>33</sup> and he is happy to speak of physical, ethical, and mathematical *theōria*.<sup>34</sup> (ii) The claim that Aristotelian theoretical enquiry *in general* concerns substances and their principles and causes seems unsustainable, since for Aristotle mathematics is theoretical<sup>35</sup> and is about numbers and magnitudes, not substances.<sup>36</sup> One of the other two references to *theōria* in *A*<sup>37</sup>

<sup>30</sup> See e.g. M. Frede, ‘*Metaphysics A 1*’ [*A 1*] in Frede and Charles (eds.), *Metaphysics Lambda*, 53–80 at 54–61.

<sup>31</sup> See E. Berti, ‘Il libro Lambda della Metafisica di Aristotele: tra fisica e metafisica’ [*Il libro Lambda*], in G. Damschen, R. Enskat, and A. G. Vigo (eds.), *Platon und Aristoteles: sub ratione veritatis. Festschrift für Wolfgang Wieland zum 70. Geburtstag* (Göttingen, 2003), 177–93 at 187–8, and ‘The Program of *Metaphysics A* (Chapter 1)’ [*The Program*], in C. Horn (ed.), *Aristotle’s Metaphysics Lambda: New Essays* [*Metaphysics Lambda*] (Boston and Berlin, 2016), 67–86 at 68–9; S. Fazzo, ‘L’esordio del libro *Lambda* della *Metafisica*’ [*L’esordio*], *Rivista di filosofia neo-scolastica*, 2–3 (2008), 159–81 at 167–9.

<sup>32</sup> *PA* 1. 1, 639<sup>a</sup>1; 2. 7, 653<sup>b</sup>13–15.

<sup>33</sup> *HA* 5. 1, 539<sup>a</sup>19–21; 3. 3, 513<sup>a</sup>10–15; *GA* 3. 6, 757<sup>a</sup>8–12, uses the cognate verb of the study of hyenas’ reproductive mechanisms.

<sup>34</sup> *Post. An.* 1. 33, 89<sup>b</sup>7–9; *Phys.* 3. 7, 207<sup>b</sup>27–8 (the mathematics in question is geometry and, by implication, arithmetic). The inclusion of ethics in the *Post. An.* passage makes it hard to suppose that *theōria* can mean ‘theoretical enquiry’ in contrast to practical or productive enquiry, as Berti claims (*Il libro Lambda*, 187). Fazzo thinks that *theōria* has ‘un senso globale’ (*L’esordio*, 167), which includes ethics, construed as a theoretical discipline (personal communication). I find this impossible to square with Aristotle’s characterization of ethics, as he pursues it, as aimed at the human good and as part of politics (*NE* 1. 2).

<sup>35</sup> See e.g. *E* 1, 1026<sup>a</sup>7–8.

<sup>36</sup> The same difficulty would be raised by the case of ethics if it were included in *theōria* (see n. 34).

<sup>37</sup> The other (at 7, 1072<sup>b</sup>22–4) refers to the immaterial substances’ activity of thinking (a usage close to that in *NE* 10).



might seem to help with this problem, because in it Aristotle seems to associate it with the study of substances:<sup>38</sup>

τὸ δὲ πλῆθος ἥδη τῶν φορῶν ἐκ τῆς οἰκειοτάτης φιλοσοφίας τῶν μαθηματικῶν ἐπιστημῶν δεῖ σκοπεῖν, ἐκ τῆς ἀστρολογίας· αὕτη γὰρ περὶ οὐσίας αἰσθητῆς μὲν αἰδίου δὲ ποιεῖται τὴν θεωρίαν, αἱ δ' ἄλλαι περὶ οὐδεμιᾶς οὐσίας, οἷον ἢ τε περὶ τοὺς ἀριθμοὺς καὶ τὴν γεωμετρίαν. (1073<sup>b</sup>3–8)

But as for the number of the motions, this is already something which must be considered on the basis of the mathematical science which is most akin to philosophy, astronomy. For this makes its *theōria* about substance which is perceptible but eternal, while the others—e.g. the one concerned with numbers, and geometry—about no substances.

This passage actually cuts the other way, since in describing astronomy as ‘akin’ to philosophy (which in this context must be or include the sort of investigation in which *A* is engaged) Aristotle makes it clear that it is (part of) a science distinct from *A*’s enquiry; but at the same time he also characterizes it (and implicitly the other branches of mathematics too, for that matter) as ‘making a *theōria*’.

If Aristotle means ‘our investigation concerns substance’, why is the reason for this that we are seeking the principles and causes of substances? Clearly it will not do to say that the enquiry in question simply is an enquiry into substances, and that (as Aristotle often says) understanding *X* involves grasping its principles and causes: that would require Aristotle to have said ‘and so we are seeking . . .’, not ‘for we are seeking . . .’.<sup>39</sup> The best explanation is Michael Frede’s.<sup>40</sup> He suggests that we should understand the argument as follows. ‘Our investigation concerns substances because (as Aristotle is presupposing his reader to understand) it concerns the principles and causes of substances; it is concerned with these because we are investigating the principles and causes of *all* things, and the way to investigate these is to investigate the principles and causes of the primary entities, and substances are the primary entities.’ This interpretation gives the second part of the sentence due weight, and makes the discussion of the principles of non-substantial items in chapters 4–5 an integral part of the investigation in a very straightforward way. Moreover, investigating the causes and principles of all things is an Aristotelian project with which we are familiar from other parts of the *Metaphysics*: *A* 2 floats

<sup>38</sup> Cf. Berti, ‘Il libro Lambda’, 187–8.

<sup>39</sup> I shall return to this point in sect. 5.

<sup>40</sup> Frede, ‘*A* 1’, 54–61.

the idea that first philosophy studies the principles of all things, and an argument at least superficially similar to the one I have just sketched is deployed at *Γ* 2, 1003<sup>b</sup>15–19, to justify its focus on substance. So the opening of *Λ* announces, and argues (albeit elliptically) for a certain way of approaching what is, for Aristotle, a well-conceived project. As I have hinted, this project may have connections with (for instance) *Λ* and *Γ*; indeed, my claim is quite compatible with the fact that, on certain ways of understanding the argument in *Metaphysics Γ*, at least, *Λ* can be viewed as a project which, philosophically speaking, carries on where *Γ* and *Ε* (and, I would say, *Ι*) leave off.<sup>41</sup>

The project thus announced, Aristotle sets up what is on the face of it a simple, clear, and unified structure for proceeding. He distinguishes three kinds of substances, and divides them into two classes—natural and unchangeable ones. He examines the principles of substances in the first class (chapters 2–5), and then turns to substances comprising the second class (chapters 6–10). At the start of *Λ* 6 he explicitly refers back to this programme:

ἐπεὶ δ' ἦσαν τρεῖς οὐσίαι, δύο μὲν αἱ φυσικαὶ μία δ' ἡ ἀκίνητος, περὶ ταύτης λεκτέον . . . (1071<sup>b</sup>3–4)

since there were three kinds of substance, two natural and one unchanging, concerning this last kind [i.e. unchanging substances] it must be said . . .<sup>42</sup>

<sup>41</sup> See sect. 4 below. Berti ('The Program', 67–9) offers another interpretation of the argument at 1069<sup>a</sup>18–19, along these lines: 'theoretical enquiry concerns substances because (as Aristotle is presupposing his reader to understand) it is the enquiry into principles and causes, and the way to investigate these is to investigate the principles and causes of the primary entities, and substances are the primary entities'. Berti argues that 'Aristotle characterizes *theōria* as a research of principles and causes without justification, therefore presupposing a definition of *theōria* which coincides with that of *Alfa elatton*' ('The Program', 68); this is part of a wider argument that *Λ* is an early work which pre-dates *Γ* and the central books, and embodies a quite distinct project (68–9 and 78–85). The present passage seems to offer no independent support for Berti's thesis, however, since on Frede's interpretation we have a more satisfactory account of the prior understanding of what the enquiry is, on which Aristotle relies. It is more satisfactory because it ties up directly with other material in *Λ* (the investigation of the principles of non-substantial items in chs. 4–5, and of the Prime Mover's role as a principle in chs. 6–10) while remaining both neutral on chronological questions and broadly compatible with most if not all of the first-philosophical projects we find in the *Metaphysics* (see sect. 5 below). I discuss Berti's wider thesis in Appendix II.

<sup>42</sup> Aristotle does not think that substances are three in number (in the way in which, for instance, Descartes thinks that extended substance is one in number), so it seems better to understand him here as saying that there are three kinds of substance.

The initial programme and the way in which  $\Lambda$  as a whole follows it make it plain that Aristotle sees himself as outlining a single, unified project. It is also clear from Aristotle's presentation of the structure of  $\Lambda$  that chapters 1–5 are as integral to the project as chapters 6–10: he introduces the study of changeable substances as a part of the enterprise *co-ordinate* with the study of unchanging ones. The first five chapters are not 'merely preliminary' to chapters 6–10 (the view of Jaeger and Ross), nor are they merely preparatory for those later chapters (Burnyeat's view, and by implication, the view of Patzig and Frede), nor are they negative ground-clearing (Menn's view), but are a fully fledged, positive part of the enterprise.<sup>43</sup> For reasons I shall give later, it is no surprise that a number of these scholars take some or all of  $ZH\theta$  to be also merely preparatory or negative in upshot, and of the whole metaphysical corpus they restrict first philosophy's fully positive phase to  $\Lambda$  6–10.<sup>44</sup>

The final part of  $\Lambda$  10 (1075<sup>a</sup>25–1076<sup>a</sup>4) looks back at the rest of the book, and explains how (by his lights) Aristotle's account avoids the problems which beset his predecessors' theories: although it is stylistically disjointed, and has all the appearance of a series of rapidly jotted-down notes, it is plainly meant as the outline of a resounding conclusion, and finishes in grand style with a memorable quotation from the *Iliad*—'a multitude of rulers is not good: one

<sup>43</sup> Jaeger, *Aristotle*, 220–2, and Ross, *Aristotle's Metaphysics*, ii. 346 and Introduction, p. xxviii (for a variant of their view see D. T. Devereux, 'Theophrastus' *Metaphysics* and Aristotle's *Metaphysics Lambda* ['Theophrastus' *Metaphysics*], in W. W. Fortenbaugh and R. W. Sharples (eds.), *Theophrastean Studies: On Natural Science, Physics, Metaphysics, Ethics, Religion, and Rhetoric* (New Brunswick and Oxford, 1988), 167–88 at 175–6 and 180–1; G. Patzig, 'Theology and Ontology in Aristotle's Metaphysics' ['Theology and Ontology'], in J. Barnes, M. Schofield, and R. Sorabji (eds.), *Articles on Aristotle*, iii. *Metaphysics* (London, 1979), 33–49 (originally published as 'Theologie und Ontologie in der "Metaphysik" des Aristoteles', *Kant-Studien*, 52 (1960–1), 185–205); Frede, 'The Unity of General and Special Metaphysics'; Burnyeat, *Map*, 132; Menn, *The Aim*, Ia1, 2 and Ia5, 7). I discuss these views in sect. 5 and Appendix II.

<sup>44</sup> Burnyeat, *Map*, 59–68 and 127–30 (' $Z_1$ –16 is preliminary to  $Z_{17}$ — $H$ . . .  $ZH$  make a unified treatise which expects  $\theta$  as its sequel . . . Even  $\theta$  does no more than prepare us for Aristotle's own positive account of non-sensible substantial being' (127–30)); by implication Frede (see sect. 4 below); Menn, *The Aim*, IIa1. Burnyeat relies on a very strong reading of Aristotle's remark(s) that what is being done in  $Z$  is 'for the sake of [the enquiry into] immaterial substances' ( $Z$  11, 1037<sup>a</sup>13–17): Burnyeat glosses this remark thus: 'The reason why we are studying sensible substantial beings is of course to equip ourselves to answer  $Z_2$ 's question about non-sensible being(s)' (41). To say that we do  $X$  for the sake of  $Y$  does not mean that  $X$  is only of instrumental value, however. For the views of Patzig and Frede see sect. 4.

ruler let there be' (*οὐκ ἀγαθὸν πολυκοιρανίῃ· εἰς κοίρανος*).<sup>45</sup> *Λ* thus has a beginning, a middle, and an end which are integral parts of one enquiry.

### 3. A philosophical centaur? The problem of the unity of Aristotle's project in *Λ*

There is, however, a problem with the unity of Aristotle's project in *Λ*. As we have seen, each half of the book focuses on a subset of Aristotelian substances. The ways in which these subsets are investigated, however, are quite different: Frede rightly speaks of what might 'seem like a strange anomaly, or lack of parallelism, between the two main parts of *Λ*'.<sup>46</sup> Chapters 2–5 seem to be an enquiry of the most general kind into *principles*—the principles of natural substances, and indeed of all natural things.<sup>47</sup> Aristotle does not investigate the *particular character* of any of these substances, but rather focuses in a general-metaphysical way on the features, elements, and causes which they all share.<sup>48</sup> Chapters 6–10, on the other hand, are what I shall call a departmental study—by which I mean one which not only focuses on some subset of substances or of beings, but which aims to give a full account of what they are like. These chapters are concerned to demonstrate the existence and to explore the specific nature of unchanging and separate substances: this half of the book displays little or no explicit interest in investigating the principles of such substances—if there are such principles—but a great deal of interest in their total number and particular character. It is true that these chapters contain some material relevant to the general study of the principles of unchanging and separable substances, and deploy some arguments as to their nature which rely on considerations of what it is simply to

<sup>45</sup> *Λ* 10, 1076<sup>a</sup>4: the quotation is from *Il.* 2. 203–5.

<sup>46</sup> 'Introduction', 6; cf. Patzig, 'Theology and Ontology', 43–4, C. Shields, 'Being *qua* Being' ['Being'], in Shields (ed.), *The Oxford Handbook of Aristotle* (Oxford, 2012), 343–71 at 362.

<sup>47</sup> Throughout this paper I use 'principles' as shorthand for 'principles and causes', as Aristotle uses this expression in *Λ*.

<sup>48</sup> I take it to be relatively straightforwardly true that the heavenly bodies' topical matter, introduced at *Λ* 2, 1069<sup>b</sup>24–6, is a form of matter (for discussion see D. Charles, 'Metaphysics *Λ* 2: Matter and Change', in Frede and Charles (eds.), *Metaphysics Lambda*, 81–110 at 89–106; Frede, 'Introduction', 14–17; Judson, *Metaphysics Λ*, Prologue to ch. 2).

be such a substance—an example might be the compressed argument at 6, 1071<sup>b</sup>20–2, from ‘substance *S* is unchangeable’ to ‘*S* has no matter.’<sup>49</sup> It might even be conceded that in the nature of the case, most features of these substances are ones which they must have in virtue of being substances of this kind. But not every argument in these chapters proceeds in this way. For example, the extended argument at 8, 1073<sup>a</sup>23–1074<sup>a</sup>38, for the precise number of unchanging substances (56 or 48, or . . .) does not; nor does the ‘infinite *dunamis*’ argument for the Prime Mover’s partlessness at 7, 1073<sup>a</sup>5–11.<sup>50</sup> The enquiry in chapters 6–10 as a whole simply does not approach its subject in the same way that chapters 2–5 approach their subject.<sup>51</sup> To gain a sense of the contrast, imagine a piece of ‘general theology’<sup>52</sup>—let us call it *Metaphysics λ*—in which Aristotle applied to the metaphysics of unchanging substance the sort of approach he uses, the sort of difficulties which worry him, in connection with the metaphysics of natural substances in *A* 2–5 (not to mention *Z* and *H*). *Metaphysics λ* might, like chapters 6–10, begin with an argument to establish the existence of immaterial substances, but would then concern itself with questions such as the following. In what terms do these unchanging substances have to be understood? Are they essences, or do they rather have essences? Are they forms (or do they have forms), or—despite Aristotle’s close association of essence and form<sup>53</sup>—is the term ‘form’ inappropriate in their case, and if so why? How are these unchanging substances individuated if they lack matter? Are the terms in which these substances are to be understood elements or causes of these substances,

<sup>49</sup> He says ‘these substances must be without matter; for they must be eternal, at any rate if anything else is eternal’ (ἐπεὶ τοίνυν ταύτας δεῖ τὰς οὐσίας εἶναι ἀνευ ὕλης· αἰδιόους γὰρ δεῖ, εἴπερ γε καὶ ἄλλο τι αἰδιόν); since the heavenly bodies are also eternal and have matter, this is probably meant to be fleshed out with ‘and must be unmoving if anything else is to move’ (for discussion of other possibilities see Judson, *Metaphysics A*, ad loc.).

<sup>50</sup> The latter does not rely solely (or even chiefly) on considerations of what it is to be an unchanging substance, but rather on considerations of the Prime Mover’s role as mover of the heavens; if to have the role of unmoved mover is part of what it is to be an unchanging substance, Aristotle does not make, let alone stress, the point.

<sup>51</sup> Aren’t both halves of *A* departmental in a sense, since each focuses on a subset of substances/beings? (An anonymous referee rightly pressed me on this point.) I do not deny that they do this; my point is about the difference in the type of enquiry which they bring to bear. Few would call the enquiry in *ZH* ‘departmental’, in the way in which physics or theology is departmental, on the grounds that it focuses on natural substances. I shall return to this issue in sect. 4.

<sup>52</sup> The terminology is Frede’s (‘The Unity of General and Special Metaphysics’, 94).

<sup>53</sup> See n. 101.

and are these items themselves substances? Are there things which these substances all are, or have, and if so are these things the same only by analogy or in some stronger way? Are there any relations of priority and posteriority among these items, and/or among these unchanging substances? How, if at all, is the role of being an unmoved mover of a heavenly body related to what it is to be an immaterial substance? Now compare  $\lambda$  with the second half of our  $\Lambda$ .<sup>54</sup>

So much, I think, would be obvious even to someone who read  $\Lambda$  without having read any other part of the *Metaphysics*; but this disjuncture seems to run even deeper in the light of what we find in  $\Gamma$ – $H$ . As I have said, chapters 2–5 are fairly characterized as a general investigation of the features and causes which natural substances have as being substances of that kind. In this respect (however different it may be in others) the enquiry here resembles the general enquiries into being which we find characterized and undertaken in  $\Gamma$  and  $ZH$ . In contrast to what I shall call the ‘general-metaphysical’ mode of enquiry in chapters 2–5, chapters 6–10 look like a sketch of the sort of theology envisaged and contrasted with physics in  $E$  1.<sup>55</sup> I shall return to this point in Section 4.

Is Aristotle, therefore, as far as  $\Lambda$  goes, like Jaeger’s Empedocles—a philosophical centaur, half beast, half human, engaged in a prodigious union of two distinct enterprises? Here are three responses to the problem, each of which is initially tempting but, I think, quite unsatisfactory. The first is to suppose that  $\Lambda$  is simply a treatise on (the various kinds of) substance. This is Helen Lang’s view of the nature of  $\Lambda$ :

Aristotle announces the subject of the *logos* immediately and unambiguously: an investigation of substance. He then divides it into two parts, sensible substance and unmoved substance, and examines them in order.<sup>56</sup>

This view clearly captures an important aspect of the structure of  $\Lambda$ . As a response to our difficulty, however, it seems just to push the problem back a step. If the two halves are simply two parts of a single treatment of substance, why do they take such different lines of approach to their subject-matter? If what we have in  $\Lambda$  is a unified

<sup>54</sup> I do not mean to suggest that such a work ever existed, nor that it is the theological book that Aristotle ‘really’ intended, or ought to have intended, to write (something like this is Frede’s view; see sects. 4 and 5 below): quite the reverse, as we shall see.

<sup>55</sup> See 1026<sup>a</sup>13–19, quoted below.

<sup>56</sup> H. S. Lang, ‘The Structure and Subject of *Metaphysics A*’, *Phronesis*, 38 (1993), 257–80 at 258; cf. Kahn’s suggestion that  $\Lambda$  is a piece of ‘ousiology’ (n. 14 above).

metaphysical investigation of all the kinds of substances there are, we would expect the two halves to proceed in the same way: either both will be ‘departmental’ enquiries in the sense explained above, or (preferably) both will be general-metaphysical ones.<sup>57</sup> Moreover, this view of *A* seriously underplays its scope. As we saw from the way in which Aristotle explains his project at the outset, his reason for investigating substances is that it is the way in to a wider and even more fundamental issue. This is borne out by chapters 4–5, which are concerned with the principles and causes of *all* (natural) things, including non-substantial items: if *A* is simply concerned to discuss substance, much of its first part has to be taken as a digression.

The second response is to say that the whole of *A* is concerned with a single topic, namely *the principles of natural substances*. On this view, Aristotle first discusses *certain* principles of natural substances—matter, form, and so on—and then turns to *other* principles of natural substances, namely the unchanging and separate substances on which natural ones depend.<sup>58</sup> Once again, there is an important element of truth in this interpretation; but it fits badly with the overall structure of the book. *A* does not proceed by distinguishing the types of principles which natural substances have and then investigating them in turn, but, as we have seen, by distinguishing types of *substance* (including unchanging ones) and then investigating *them* in turn. This difficulty is well illustrated by the transition from the first half of the book (the summary at the end of chapter 5) to the second (the opening of chapter 6), part of which I quoted earlier:

τίνες μὲν οὖν αἱ ἀρχαὶ τῶν αἰσθητῶν καὶ πόσαι, καὶ πῶς αἱ αὐταὶ καὶ πῶς ἕτεραι, εἴρηται. ἐπεὶ δ' ἦσαν τρεῖς οὐσίαι, δύο μὲν αἱ φυσικαὶ μία δ' ἡ ἀκίνητος, περὶ ταύτης λεκτέον ὅτι ἀνάγκη εἶναι ἁδιόν τινα οὐσίαν ἀκίνητον. (1071<sup>b</sup>1–5)

We have said, then, what the principles of perceptible things are, and how many, and in what way they are the same and in what way they are different.

<sup>57</sup> It is true that Aristotle might well feel, even in the latter case, the need to argue, as he does in chs. 6–7, for the existence of immaterial substances, and for their difference from Platonic Forms; but once that was done, we would expect his principal focus to switch to the general metaphysics of such substances, which it does not.

<sup>58</sup> This view is endorsed by Frede ('Introduction'; cf. Devereux, 'Theophrastus' *Metaphysics*', 180). Frede argues that only this view can explain why, despite the programme announced at the outset of investigating the principles of substances, *A* 6–10 show little interest in the principles of unchanging substance ('Introduction', 6–7); I suggest another explanation below.

Since there were three kinds of substance, two natural and one unchanging, concerning this last kind it must be said that it is necessary that there be some eternal substance which is unchanging.

This understanding of *A*'s project is also very hard to square with Aristotle's usage of the term 'substance' in chapter 1. In his opening remark about *A*'s programme at 1069<sup>a</sup>18–19—'Our investigation concerns substance; for it is of substances that we are seeking the principles and causes'—he must, on this view, mean to refer only to *natural* substance. This restricted reading is hard enough in itself,<sup>59</sup> but Aristotle must then switch to a wider usage in the next programmatic remark, at 1069<sup>a</sup>30, that there are three kinds of substance, of which one kind is unchanging substance.<sup>60</sup>

The third response (a variation of the second) is Stephen Menn's: both halves of *A* are attempts to find the highest cause(s) of natural substances—the first half supposedly revealing a dead end, the second, 'positive' half successfully leading to these highest causes, the unmoving substances, and to the highest one of these.<sup>61</sup> Menn's view faces a similar difficulty to one I outlined earlier: Aristotle does not begin by saying 'since we seek the highest principles, let us look at certain types of causes of natural substance to see if they will lead us there, and then at some other type of cause to see if it does', but rather, 'since it is of *substances* that we are seeking the causes and principles, let us investigate the various kinds of substance in turn'. This account also misrepresents how chapters 2–5 actually proceed. Far from drawing a negative conclusion about the sought-for principle(s), *A* 2–5 go on to say what the principles of

<sup>59</sup> For a defence of this reading see Frede, 'Introduction', 6–7.

<sup>60</sup> I return to this point in sect. 5.

<sup>61</sup> '*A* 1–10 is not a survey of sensible *οὐσίαι* followed by a survey of non-sensible *οὐσίαι* but a single connected survey of the *ἀρχαί* of sensible *οὐσίαι*: it argues first that a chain of material, formal, or conspecific efficient causes does not lead up from the manifest sensible things to a numerical single eternal *ἀρχή* separate from and prior to the sensible things (but only to an eternal *type* of individually non-eternal causes, inseparable from the sensible things), and then that a chain of non-conspecific actual efficient causes, to the heavenly bodies which are responsible for the eternally inexhaustible coming-to-be of the species of corruptible things, and then to the movers which are responsible for the eternally actual motion of the heavenly bodies, leads to (some small finite number of) numerically single eternal *οὐσίαι* which are essentially *ἐνέργεια*, and the first of which is the good-itself and ultimate final cause of all things. *A* 1–5 thus gives negative results, *A* 6–10 positive results, for the project of wisdom' (Menn, *The Aim*, Ia5, 7; cf. IIa1 n. 7: 'even Aristotle's "positive" account of the *ἀρχαί* in *A* spends what might be considered an unseemly amount of energy on saying how not to think of the *ἀρχαί*').



natural substance *are*—form, matter, and so on—and to show that, suitably understood, these are the principles of all natural things. If Menn's negative conclusion were the aim of the discussion—i.e. that by thinking about form, matter, and so on, we would realize that we had *not* arrived at the requisite principle(s) at all—it should not conclude with two chapters explaining how form, matter, and so on *are* the principles of all things: 'we have said, then, what the principles of perceptible things are, and how many, and in what way they are the same and in what way they are different' (τίνες μὲν οὖν αἱ ἀρχαὶ τῶν αἰσθητῶν καὶ πόσαι, καὶ πῶς αἱ αὐταὶ καὶ πῶς ἕτεραι, εἴρηται).<sup>62</sup> There is indeed an argument in *A* 3 that the Platonic Forms are not needed as principles and causes—and so, perhaps, that sort of highest cause is ruled out. But this is on the grounds that Aristotelian form *will suffice*.<sup>63</sup>

In some way *A* is *both* an investigation of the different kinds of substance *and* an account of the principles of substance—and, moreover, as we have seen, it is concerned with the existence and particular nature of just one of these kinds of substance and shows little apparent interest in the principles of that kind. The challenge is to show how all this can be true of a single, coherent project.

<sup>62</sup> *A* 5, 1071<sup>b</sup>1–2, also quoted above. These are not the *highest* principle(s), as Menn understands that term, since only the Prime Mover is that; but Aristotle plainly does not use 'principle' in *A* to mean 'highest principle' in this sense. Likewise, though the principles identified here are the same for all things only by analogy, and may involve beings which are *tode ti* only in a qualified sense—these are other respects in which the Prime Mover might seem to be a higher principle—chs. 2–5 do not make this point: though guarded about matter's status as a *tode ti*, Aristotle expresses no reservations in his assertion that form is a *tode ti* (3, 1070<sup>a</sup>9–12), and, as we have seen, is positive in his claim that matter, form, etc. are the principles of all (natural) things.

<sup>63</sup> Chs. 2 and 3 do show some interest in the fact that neither matter nor form is a numerically single cause/principle (and chs. 4–5 will argue that they are the same for all natural things only by analogy)—but there is no hint that for this reason they are *not* the principles of natural substances. Likewise, while it is true that matter, form, privation, and moving cause are not *all* the principles which natural things have (since the Prime Mover, mentioned at the end of ch. 4 (1070<sup>b</sup>34–5) and possibly at 5, 1071<sup>a</sup>35–6 (see Ross, *Aristotle's Metaphysics*, ii. 367, and C. Rapp, 'The Principles of Sensible Substance in *Metaphysics A* 2–5', in Horn (ed.), *Metaphysics Lambda*, 87–117 at 110, but also n. 108 below), is '[the principle] on which depend the heavens and nature' (7, 1072<sup>b</sup>13–14)), Aristotle does not deny anywhere in *A* that matter etc. *are* principles.

4. Aristotle's conception(s) of first philosophy in  $\Gamma$  and  $E$ 

As I have already hinted, this apparent disjuncture between the two halves of  $A$  is at least analogous to the disjuncture between the conceptions of first philosophy to be found in  $\Gamma$  and  $E$ . It is a familiar and much-discussed fact that these books appear to present two very different conceptions—an extremely general science of being, and the highest departmental science, theology.<sup>64</sup>  $\Gamma$  1, 1003<sup>a</sup>21–32, distinguishes first philosophy<sup>65</sup> from the other sciences, not be-

<sup>64</sup> There is a vast literature on this: see in particular F. Brentano, *On the Several Senses of Being in Aristotle*, ed. and trans. R. George (Berkeley, Los Angeles, and London, 1975), ch. 5 (originally published as *Von der mannigfachen Bedeutung des Seienden nach Aristoteles* (Freiburg, 1862)); Jaeger, *Aristotle*; G. E. L. Owen, 'Logic and Metaphysics in Some Earlier Works of Aristotle' ['Logic and Metaphysics'], in I. Düring and G. E. L. Owen (eds.), *Aristotle and Plato in the Mid-Fourth Century: Symposium Aristotelicum* (Göteborg, 1960), 163–90, and 'The Platonism of Aristotle' ['Platonism'], *Proceedings of the British Academy*, 51 (1966), 125–50; Patzig, 'Theology and Ontology'; T. Irwin, 'Aristotle's Discovery of Metaphysics' ['Aristotle's Discovery'], *Review of Metaphysics*, 31 (1977–8), 210–29, and *Aristotle's First Principles* [*First Principles*] (Oxford, 1988), chs. 8–9; J. Owens, *The Doctrine of Being in the Aristotelian Metaphysics: A Study in the Greek Background of Mediaeval Thought*, 3rd edn. (Toronto, 1978), esp. chs. 1 and 7; M. T. Ferejohn, 'Aristotle on Focal Meaning and the Unity of Science' ['Focal Meaning'], *Phronesis*, 25 (1980), 117–28; Kahn, 'The Intended Interpretation'; Frede, 'The Unity of General and Special Metaphysics'; J. Lear, *Aristotle: The Desire to Understand* [*Aristotle*] (Cambridge, 1988); C. Kirwan, *Aristotle's Metaphysics Books  $\Gamma$ ,  $\Delta$ ,  $E$*  [Metaphysics Books  $\Gamma$ ,  $\Delta$ ,  $E$ ], 2nd edn. (Oxford, 1993); A. Code, 'Owen on the Development of Aristotle's Metaphysics' ['Owen on the Development'], in W. Wians (ed.), *Aristotle's Philosophical Development: Problems and Prospects* (Lanham, Md., and London, 1996), 303–25, and 'Aristotle's Metaphysics as a Science of Principles' ['Aristotle's Metaphysics'], *Revue internationale de philosophie*, 51 (1997), 356–78; J. G. DeFilippo, 'First Philosophy and the Kinds of Substance' ['First Philosophy'], *Journal of the History of Philosophy*, 36 (1998), 1–28; C. Shields, *Order in Multiplicity: Homonymy in the Philosophy of Aristotle* (Oxford, 1999), ch. 9, and 'Being'; E. Berti, 'Multiplicity and Unity of Being in Aristotle' ['Multiplicity and Unity'], *Proceedings of the Aristotelian Society*, 101 (2001), 185–207; K. Fraser, 'Demonstrative Science and the Science of Being *qua* Being' ['The Science of Being'], *Oxford Studies in Ancient Philosophy*, 22 (2002), 42–82; M. L. Gill, 'Aristotle's Metaphysics Reconsidered' ['Aristotle's Metaphysics'], *Journal of the History of Philosophy*, 43 (2005), 223–51, and 'First Philosophy in Aristotle' ['First Philosophy'], in M. L. Gill and P. Pellegrin (eds.), *A Companion to Ancient Philosophy* (Malden, 2006), 347–73; S. Duarte, 'Aristotle's Theology and its Relation to the Science of Being *qua* Being' ['Aristotle's Theology'], *Apeiron*, 40 (2007), 267–318; J. K. Ward, *Aristotle on Homonymy: Dialectic and Science* (Cambridge, 2008), chs. 3–4 and 6; Wedin, 'The Science of Being'; Menn, *The Aim*.

<sup>65</sup> Aristotle does not actually use the term 'first philosophy' in  $\Gamma$  1–3, except at  $\Gamma$  2, 1004<sup>a</sup>1–9 (a controversial passage: see n. 72), but prefers the term 'philosophy' (see e.g. 1004<sup>a</sup>9–10, 31, <sup>b</sup>1–4, 6–8;  $\Gamma$  3, 1005<sup>a</sup>19–21). Nonetheless, it is clear that the

cause it has a distinct field of enquiry, but because of its level of generality—it ranges over all types of thing, is the most general enquiry possible:

ἔστιν ἐπιστήμη τις ἥ θεωρεῖ τὸ ὄν ἢ ὄν καὶ τὰ τούτῳ ὑπάρχοντα καθ' αὐτό. αὕτη δ' ἐστὶν οὐδεμίᾳ τῶν ἐν μέρει λεγομένων ἢ αὐτῇ· οὐδεμία γὰρ τῶν ἄλλων ἐπισκοπεῖ καθόλου περὶ τοῦ ὄντος ἢ ὄν, ἀλλὰ μέρος αὐτοῦ τι ἀποτεμόμεναι περὶ τούτου θεωροῦσι τὸ συμβεβηκός, οἷον αἱ μαθηματικαὶ τῶν ἐπιστημῶν. ἐπεὶ δὲ τὰς ἀρχὰς καὶ τὰς ἀκροτάτας αἰτίας ζητοῦμεν, δηλὸν ὡς φύσεώς τινας αὐτὰς ἀναγκαῖον εἶναι καθ' αὐτήν. εἰ οὖν καὶ οἱ τὰ στοιχεῖα τῶν ὄντων ζητοῦντες ταύτας τὰς ἀρχὰς ἐζήτουν, ἀνάγκη καὶ τὰ στοιχεῖα τοῦ ὄντος εἶναι μὴ κατὰ συμβεβηκός ἀλλ' ἢ ὄν· διὸ καὶ ἡμῖν τοῦ ὄντος ἢ ὄν τὰς πρώτας αἰτίας ληπτέον.

There is a science which studies being as being [*or*: what is as what is<sup>66</sup>] and the things which belong to this in its own right. This is not the same as any of the so-called special sciences; for none of the others investigates universally about what is as what is, but cutting off some part of it they study its attributes—as for instance the mathematical sciences. Since we are seeking the principles and the highest causes, it is clear that they must belong to some nature in virtue of itself. If, therefore, those who sought the elements of beings were also seeking the same principles, it is necessary that the elements also must be (elements) of being not incidentally but as being. Hence it is of being as being that we too must grasp the first causes.<sup>67</sup>

Aristotle's use of 'as' in other epistemic contexts,<sup>68</sup> and the contrast with the special sciences here, make it clear that studying being as being (or what is as what is) is a particular way of studying being (or what is), not the study of a special subject-matter, 'being-as-

subject of Aristotle's discussion in *I* is the science which has primacy over all other sciences, including many that Aristotle would normally call *philosophia* (see e.g. *PA* 1. 1, 641<sup>a</sup>35–6; 2. 7, 653<sup>a</sup>9–10; *Metaph.* E 1, 1026<sup>a</sup>18–19). *Metaph.* E 1, 1026<sup>a</sup>23–32, confirms this.

<sup>66</sup> Nothing in my wider argument will hinge on whether we choose 'what is' or 'being' as the translation for *to on*—or, for that matter, whether we think there is some indeterminacy in Aristotle's meaning. (For some discussion see Shields, 'Being', 355–61.) I shall maintain the 'being'/'what is' disjunction in the present paragraph, and thereafter leave the reader to supply the latter reading for herself if she wishes.

<sup>67</sup> This passage clearly links the study of being as being with the search for principles sketched in *A* (for discussion see Menn, *The Aim*, Iβ2)—and of course an investigation of principles is *A*'s primary task (see sects. 3 and 5). In the present section I shall focus on the idea of studying being as being itself.

<sup>68</sup> Most notably the demarcation of physics and mathematics at *Phys.* 2. 2, 193<sup>b</sup>23–194<sup>a</sup>12; for discussion see J. Lear, 'Aristotle's Philosophy of Mathematics', *Philosophical Review*, 91 (1982), 161–92; M. Peramatzis, *Priority in Aristotle's Metaphysics* [*Priority*] (Oxford, 2011), 60–4.

being' or 'what-is-as-what-is'.<sup>69</sup> The subject-matter is thus entirely general:<sup>70</sup> all being(s). I shall return to the question of what it is to study being *as* being (or what is *as* what is).

In *E* 1, by contrast, Aristotle presents a division by *subject-matter*:

ἡ μὲν γὰρ φυσικὴ περὶ χωριστὰ μὲν ἀλλ' οὐκ ἀκίνητα, τῆς δὲ μαθηματικῆς ἓνια περὶ ἀκίνητα μὲν οὐ χωριστὰ δὲ ἴσως ἀλλ' ὡς ἐν ὕλῃ· ἡ δὲ πρώτη καὶ περὶ χωριστὰ καὶ ἀκίνητα . . . ὥστε τρεῖς ἂν εἶεν φιλοσοφίαι θεωρητικά, μαθηματικὴ, φυσικὴ, θεολογικὴ. (1026<sup>a</sup>13–19, with one omission)

For physics is concerned with things which are separate but not unchangeable, while certain parts of mathematics are concerned with things which are unchangeable but which are, perhaps, not separate, but as in matter; the first science is also concerned with things which are both separate and unchangeable. . . . Hence there are three theoretical philosophies: mathematics, physics, and theology.

Theology is the 'highest science', and is, accordingly, given the accolade of 'first philosophy'.<sup>71</sup> We shall need some relatively neutral labels for these two types of science: I shall call them 'general metaphysics' and 'theology' respectively.

It is well known that Aristotle *conjoins* the two conceptions—probably in *Γ*,<sup>72</sup> and explicitly in *E* 1:

<sup>69</sup> See Lear, *Aristotle*, 247–8; Kirwan, *Metaphysics Books Γ, Δ, Ε*, 77; Gill, 'First Philosophy', 348; Wedin, 'The Science of Being', 126; Shields, 'Being', 347.

<sup>70</sup> It excludes only things which are not beings of any sort.

<sup>71</sup> *Γ* 1, 1026<sup>a</sup>27–30, discussed below.

<sup>72</sup> In *Γ* 3 (1005<sup>a</sup>33–5) he writes: 'but since there is someone who is higher than the physicist (for nature is one particular kind of what is), the enquiry into [the common axioms] will also belong to the one whose investigation is universal and deals with first substance' (ἐπεὶ δ' ἔστιν ἓτι τοῦ φυσικοῦ τις ἀνωτέρω (ἐν γὰρ τι γένος τοῦ ὄντος ἡ φύσις), τοῦ καθόλου καὶ τοῦ περὶ τὴν πρώτην οὐσίαν θεωρητικοῦ καὶ ἡ περὶ τούτων ἂν εἴη σκέψις). Irwin offers a different interpretation of 'first substance' here (*First Principles*, 545 n. 49): he takes it to mean 'first type of substance', in the sense of 'substance considered in the first way [i.e. *qua* being]'. There is also a passage in *Γ* 2 (1004<sup>a</sup>2–9) which has commonly been taken to refer to the idea of first philosophy as theology: 'And there are as many parts of philosophy as there are kinds of substance; so there must necessarily be among them a first philosophy and one which follows this. For what is falls immediately into genera; and therefore the sciences too will correspond to these genera. For the philosopher is like the mathematician; for mathematics also has parts, and there is a first and second science and other successive ones within mathematics' (καὶ τοσαῦτα μέρη φιλοσοφίας ἔστιν ὅσαι περ αἱ οὐσίαι· ὥστε ἀναγκαῖον εἶναι τινα πρώτην καὶ ἐχομένην αὐτῶν. ὑπάρχει γὰρ εὐθὺς γένη ἔχον τὸ ὄν [καὶ τὸ ἐν]: διὸ καὶ αἱ ἐπιστήμαι ἀκολουθήσουσι τούτοις. ἔστι γὰρ ὁ φιλόσοφος ὥσπερ ὁ μαθηματικὸς λεγόμενος· καὶ γὰρ αὕτη ἔχει μέρη, καὶ πρώτη τις καὶ δευτέρα ἔστιν ἐπιστήμη καὶ ἄλλαι ἐφεξῆς ἐν τοῖς μαθήμασιν). It is natural to take this to refer to the distinction between changeless substances and those subject to change, and hence

ἀπορήσειε γὰρ ἂν τις πότερόν ποθ' ἡ πρώτη φιλοσοφία καθόλου ἐστὶν ἢ περὶ τι γένος καὶ φύσιν τινὰ μίαν (οὐ γὰρ ὁ αὐτὸς τρόπος οὐδ' ἐν ταῖς μαθηματικαῖς, ἀλλ' ἢ μὲν γεωμετρία καὶ ἀστρολογία περὶ τινα φύσιν εἰσὶν, ἢ δὲ καθόλου πασῶν κοινή): εἰ μὲν οὖν μὴ ἔστι τις ἑτέρα οὐσία παρὰ τὰς φύσει συνεστηκυίας, ἢ φυσικῇ ἂν εἶη πρώτη ἐπιστήμη· εἰ δ' ἔστι τις οὐσία ἀκίνητος, αὕτη προτέρα καὶ φιλοσοφία πρώτη, καὶ καθόλου οὕτως ὅτι πρώτη· καὶ περὶ τοῦ ὄντος ἢ ὄν ταύτης ἂν εἶη θεωρησαί, καὶ τί ἐστι καὶ τὰ ὑπάρχοντα ἢ ὄν. (1026<sup>a</sup>23–32)

For someone might raise a difficulty as to whether first philosophy is universal or is concerned with some kind and some one nature. For neither is this the same for all branches of mathematics: geometry and astronomy are concerned with one nature, while universal mathematics is common to all. If there is an unchanging substance, (the science of) this must be prior (to physics) and must be first philosophy, and (it is) universal in this way, because it is first. And it will belong to this to investigate being as being—both what it is and the things which belong to it as being.

Here Aristotle emphatically (if enigmatically) claims that in some way general metaphysics and theology form a single conception. Many commentators accept that this is indeed Aristotle's view, but there is no consensus as to how he envisages this unity.<sup>73</sup> One very influential view is that of Patzig and Frede, that the expression 'and universal in this way, because it is first' means that the science of unchanging substances will, somehow, *constitute* the universal science of being.<sup>74</sup> But the claim that follows, 'and it will belong to this to consider being as being—both what it is and the things which belong to it as being', more naturally suggests that the study of being as being is an enterprise to some degree *distinct* from the science of

to be contrasting theology and physics (so Ross, *Aristotle's Metaphysics*, i. 256, and Kirwan, *Metaphysics Books Γ, Δ, Ε*, 83); but it has to be said that this interpretation can be disputed, and also that the passage sits rather oddly where it is, and may be displaced from another context or even from the margin of the text (so e.g. Ross, *Aristotle's Metaphysics*, i. 256–7). At Z 11, 1037<sup>a</sup>14–16, Aristotle calls physics 'second philosophy'—compare *E* 1, 1026<sup>a</sup>27–30, quoted below. (Mathematics itself does not fit into this scheme in any straightforward way, given Aristotle's rejection of Platonism; but *E* 1 shows how Aristotle deals with this by relaxing the requirement that each part of 'philosophy' must be uniquely correlated with a specific kind of substance.)

<sup>73</sup> See in particular Patzig, 'Theology and Ontology', and Frede, 'The Unity of General and Special Metaphysics', discussed in this section; S. Broadie, 'A Science of First Principles: *Metaphysics A 2*' [*Metaphysics A 2*'], in C. Steel (ed.), *Aristotle's Metaphysics Alpha: Symposium Aristotelicum* (Oxford, 2012), 43–67 at 61; Shields, 'Being', 362–6; and Menn, *The Aim*, Ia5, 3, all discussed in n. 116.

<sup>74</sup> See Patzig, 'Theology and Ontology', and Frede, 'The Unity of General and Special Metaphysics'; cf. DeFilippo, 'First Philosophy'. I explain what this view involves below.

unchanging substances, an enterprise which it is for the practitioner of that latter science to undertake.<sup>75</sup> I shall return to this point in Section 5.

Before that I shall consider two issues in *Γ* which relate to the question of exactly how close *Γ*'s conception of general metaphysics as the study of being as being is to the sort of work Aristotle does in *Λ* 2–5, and whether *Λ* in a sense starts where (philosophically speaking) *Γ* and *Ε* leave off. These issues are highly controversial, but my discussion will have to be brief. I shall offer a defence of the view that *Γ*'s conception is very close to that of *Λ* 2–5, but nothing in my account of the unity of *Λ* itself depends on this. The first issue concerns the nature of the generality signalled by 'studying being as being'. A widespread view is that this means investigating the features of beings which they have *in virtue of being beings*;<sup>76</sup> *Γ*'s claim that in some way we are to do this by investigating substances is then naturally taken to mean either that we are to investigate the features of substances which they have in virtue of being beings, or that we are to investigate the features they have in virtue of being substances. On any reading of this kind, it seems to me, *Γ*'s project is quite different from that of *ΖΗΘ*, and from that of *Λ*: natural substances do not have matter, or moving or final causes, in virtue of being beings or even in virtue of being substantial beings, but only in virtue of being natural substances.<sup>77</sup> What they will have in virtue of being substantial beings will be (at most) what they have in common with other substances—actuality and essence (and perhaps form: see n. 101). To put this another way, if metaphysics investi-

<sup>75</sup> Aristotle uses similar terminology in *Γ* 2 and 3 (see e.g. *Γ* 2, 1004<sup>a</sup>9–10, 31, <sup>b</sup>1–4, 6–8; *Γ* 3, 1005<sup>a</sup>19–21).

<sup>76</sup> See e.g. Ross, *Aristotle's Metaphysics*, i. 251; Irwin, 'Aristotle's Discovery', 223 ('first philosophy assumes only that its objects are beings, and proves that they must have properties just because they are beings'—unlike physics, 'which considers beings as capable of change'); Lear, *Aristotle*, 245; Code, 'Aristotle's Metaphysics', 362; Duarte, 'Aristotle's Theology'; Wedin, 'The Science of Being'; Shields, 'Being', 360: 'this *epistēmē* explicates the nature of beings as beings, by charting what pertains of necessity to all beings precisely and only as beings'.

<sup>77</sup> An anonymous referee made the point that when the central books focus on form, matter, etc., this may be just because Aristotle wishes to show how *form* alone (while requiring matter etc.) is the principle and cause of being of natural substances, and suggested that this would be fully in line with the project of enquiring into principles and causes of being. My claim is that the sort of form which requires matter etc. (or simply form, if there is no other sort: see n. 101) is not something which a natural substance has *as a substance/being*, if this is understood in the manner under discussion: rather it is something which it has *as a natural substance*: see below.

gates the features that all beings, or even just all substances, have in common, then matter should not figure in it—and nor should matter-involving form, or privation, or having a mover. Like *A* 2–5, *ZHΘ* are engaged in a very general enquiry into substances, but they are not restricted to the features that all substances have in common; if we try to avoid this by saying that ‘as being’ means ‘as being what they are’, then we will let in too much, since natural substances have many features as being what they are, and it is the business of physics—zoology or botany or cosmology—to study most of these features.<sup>78</sup> I prefer to understand the enquiry which *Γ* envisages as the most general enquiry into each kind of being that there is, and principally as the most general enquiry into each kind of substance (namely the two overarching kinds distinguished in *A* 1, natural and unchanging): it focuses on the features that they have *as substances of that kind*. This sort of investigation is clearly compatible with the projects of *A* and the central books;<sup>79</sup> indeed, I think that Aristotle draws just some such distinction between the most general and more specific enquiries into natural substances in *A* 1 (see Appendix II).

The second issue concerns what *Γ*’s appeal to focality in the face of the homonymy of being is meant to achieve. This appeal can be interpreted in at least two ways.<sup>80</sup> On what we might call the weaker

<sup>78</sup> Shields (‘Being’, 358–61) tries to avoid this problem by construing the features that all substances have in common as disjunctive in form—all beings, for example, ‘are either in actuality or in potentiality’ (360). The problem then is that nothing seems to be excluded (substances are gods *or* human beings *or* elephants *or* . . .); Shields’s response is to restrict the features to ones which are *per se*<sub>2</sub> attributes of being—but then matter and (as Shields understands it) form are excluded once more. Duarte, ‘Aristotle’s Theology’, and Shields, ‘Being’, offer a further response (deriving from Aquinas) to the problem of the unity of general metaphysics and theology which is based on the idea that general metaphysics studies the features that all beings share as beings, and in particular the cause(s) or principle(s) which they all share as beings (and not merely as changeable beings: Duarte, ‘Aristotle’s Theology’, 278). Theology is universal because it studies just this most universal principle. But if the Prime Mover is just such a principle of all beings as beings (as Shields maintains), then it must be a principle of itself; Duarte holds that the immaterial unmoved movers are indeed principles of this sort, and explicitly embraces the conclusion that they are causes of themselves (311–12). There is no trace of this view in *A*, or anywhere else in Aristotle, however.

<sup>79</sup> And with the project of *I*: see n. 10 above.

<sup>80</sup> Fraser, ‘The Science of Being’, argues for a third, deflationary, view of the appeal, that the inclusion of non-substantial items in the science of being is parallel to their inclusion among the demonstrata in departmental sciences such as zoology, and so is quite unproblematic. This view faces a number of problems. (i) If the situation is so straightforward, how can Aristotle raise it even as an apparent problem

reading, Aristotle's thought is: although being is said in many ways, this does not constitute a *bar* to there being a unified science because this multivocity is not a chance ambiguity. The point of the analogy with health, on this reading, is just to illustrate the way in which a 'single' science of *X* can straddle related senses of, or ways of being/having, *X*: (some or all of) the various bodies of knowledge relating to healthy things form a unity in a way in which the pilot's knowledge of (say) banking manoeuvres, and the financier's, do not. The science of being will have a number of different parts, but it is not impossible that they form a unified science rather than many separate sciences, because the senses or ways of being are all related to each other. There is on this reading no claim that the science of substance is or constitutes the science of being. On the stronger reading,<sup>81</sup> *Γ* argues that the science of substance does constitute the science of being, in the way that medicine (supposedly) constitutes the science of all healthy things. In other words, there is one science of being because that science just is the science of one type of being, substance. It is far from clear what this claim is supposed to amount to, not least because the analogy with health, on this reading, is not illuminating.<sup>82</sup> Whatever else the idea may involve, it must at least include the claim that a grasp of the general

in *Γ* (cf. Fraser, 'The Science of Being', 47)? (ii) The parallel is unconvincing, in at least two ways. First, in zoology the relevant goal is to show which non-substantial items belong to the substance(s) in question (and why): this goal has no parallel in the case of the science of being (for discussion of a related objection see Fraser, 'The Science of Being', 69–70). Second, in a science such as zoology the substances in question and the relevant non-substantial items are investigated and their nature clarified *together*—so that the role of the non-substantial items in the science throws light on the nature of the substances in question at least as much as on those items themselves (and arguably more); in the science of being, by contrast, it seems that Aristotle does not expect the account of non-substantial items to throw light on the nature of substance, but only vice versa.

<sup>81</sup> Accepted by e.g. Owen, 'Logic and Metaphysics', and 'Platonism'; Patzig, 'Theology and Ontology'; Frede, 'The Unity of General and Special Metaphysics'.

<sup>82</sup> The essential idea underlying a structure of focally related senses of *X* is that the definitions of the secondary senses of *X* have to mention *X* as defined in the primary or central sense (*Γ* 2, 1004<sup>a</sup>25–31; *H* 6, 1045<sup>b</sup>29–31). By itself this does not obviously explain why, if the senses of *X* are focally related, the science of *X*-in-the-central-sense must constitute the science of all *X*-things: why cannot the understanding of *X* in some of its secondary senses require a co-operative venture which involves two different sciences? Thus the 'science' of healthy food preparation seems to involve not only a knowledge of health (is salmonella a threat to human health?), but also a knowledge of (bio)chemistry (what cooking processes are required to kill salmonella?). Although Aristotle asserts the focal primacy of substantial being in *Γ* 2, this does not by itself establish the further claim that the general-metaphysical account



nature and/or the principles of substances provides us in some way with all, or virtually all, the essential resources for understanding the general nature and/or the principles of the items in all the other categories: once one has understood the principles of substances, there is very little left to understand about the rest of being. Thus someone might think (whether plausibly or not) that, while it is, of course, a very difficult task to understand what substances are (or what it is to be a substance), all or almost all of what one needs to grasp about other categories is that they are modifications or properties of substances.<sup>83</sup>

On this stronger reading of *Γ*, Aristotle's view there is that the appeal to focal meaning is enough to solve the problem of the unity of the science of being. If so, *Α* has a different solution (even though it also appeals to the primacy of substance, as we have seen). It relies on the idea, not found in *Γ*, that the principles of non-substantial items are the same as those of substances *by analogy*.<sup>84</sup> The form, matter, etc. of non-substantial items bear at least an analogy to those of substances, Aristotle plainly thinks, and we must grasp these analogues by way of the case of substantial form etc., because substantial being is the primary type of being (as he argues in *Α* 1). While Aristotle says very little about their nature and justification, it is clear that, in *Α*, it is these analogies which provide the unification of the general-metaphysical account of natural beings.<sup>85</sup> *Α* does not, therefore, suppose that focality solves the unity problem by itself. If, as I think we should,<sup>86</sup> we accept the weaker reading, according

of substantial being in some way covers, or can be easily extended so as to cover, the other types of being.

<sup>83</sup> If the meaning of this constitution claim remains elusive, that, I think, is a challenge for those who accept it. On Frede's claim that theology constitutes the study of substances in general see n. 89.

<sup>84</sup> See *Α* 4–5. Aristotle's discussion is a little opaque, but he seems to think that (in a sense) the principles of different substances are, in some cases, also the same only by analogy. For discussion see Frede, 'Introduction', 17–27, Judson, *Metaphysics Α*, ad loc., and sect. 5 below.

<sup>85</sup> It is worth noting that elsewhere (*Phys.* 1. 7, 191<sup>a</sup>7–12) Aristotle assigns a role to analogical connection in our grasping the notion of substantial matter itself: 'The underlying nature is known by analogy. For as the bronze is to the statue, the wood to the bed, or the formless before it takes the form to any of the things which has some form, so is this [the underlying nature] to substance—the this something, or what is' (ἡ δὲ ὑποκειμένη φύσις ἐπιστητὴ κατ' ἀναλογίαν. ὥς γὰρ πρὸς ἀνδριάντα χαλκὸς ἢ πρὸς κλίνην ξύλον ἢ πρὸς τῶν ἄλλων τι τῶν ἐχόντων μορφὴν [ἢ ὕλη καὶ] τὸ ἄμορφον ἔχει πρὶν λαβεῖν τὴν μορφήν, οὕτως αὕτη πρὸς οὐσίαν ἔχει καὶ τὸ τὸδε τι καὶ τὸ ὄν).

<sup>86</sup> I defend this view in Judson, *Metaphysics Α*, Prologue to chs. 4–5.

to which  $\Gamma$  is meant to go only a limited way towards solving the problem, then we are in a position to see  $\Delta$  as taking up the baton, as it were, and continuing the investigation where  $\Gamma$  leaves off.<sup>87</sup>

This issue is relevant in a further way, since some commentators have thought that the stronger version of the appeal to focality is the key to the question of how general metaphysics and theology form a unity, by allowing theology to subsume general metaphysics in such a way that it is (more or less) the whole of first philosophy. According to views of this sort, Aristotle must hold that the study of God (or immaterial substances generally) provides us with all or almost all of the essential resources to understand the principles of all other substances, and that any account of the (other) principles of natural substances would, in some completed metaphysics, be a derivative and marginalized study—just as any distinct enquiry into items in the other categories is, on the stronger reading of  $\Gamma$  1–2, marginalized. This strategy was brought into prominence by Günther Patzig ('Theology and Ontology'), who argued that, just as the way in which non-substantial items depend on substances licenses a reduction of the science of being to the science of substances, so too the way in which, according to  $\Delta$  6–7, those substances depend on the Prime Mover licenses the further reduction of the science of substances to the science of the Prime Mover (i.e. theology). Patzig's view is very difficult to accept, since the dependence of other substances on the Prime Mover argued for in  $\Delta$  is causal, not metaphysical, and so the parallel does not hold.<sup>88</sup>

Frede's version of the double-focality theory (in 'The Unity of General and Special Metaphysics') seeks to remedy this by arguing that immaterial substances have a distinct 'way of being', in terms of which the way of being of natural substances—and consequently those of non-substantial items—have to be understood.<sup>89</sup> One

<sup>87</sup> Not every interpretation of  $\Gamma$  along these lines is easy to square with how Aristotle proceeds in  $\Delta$  2–5, however—e.g. those of Code ('Owen on the Development'), Ferejohn ('Focal Meaning'), and Fraser ('The Science of Being').

<sup>88</sup> This point is made by Frede, 'The Unity of General and Special Metaphysics', 88; cf. DeFilippo, 'First Philosophy', 11–12, Wedin, 'The Science of Being', 139–40. It is true that a *complete* account of what it is to be a particular perceptible substance might have to mention the Prime Mover as one of the conditions of its existence, but this degree of logical priority is too attenuated for Patzig's purpose. If it were not too attenuated, then we could reduce zoology and botany to theology in just the same way.

<sup>89</sup> Frede claims that Aristotle's God is not only a different type of being from a lion in the way that a goldfish is a different type of being from a lion, but also has a

might well have doubts about the idea that immaterial substances have a sufficiently distinctive way of being to ground this picture.<sup>90</sup> Moreover, for Frede even A 6–10 are not straightforwardly the core of the enquiry into substance: as we have seen, they investigate the nature of substances of a particular kind, not their (supposed) distinctive way of being.<sup>91</sup> To use Frede's terminology, these chapters are primarily an exercise in special theology, and only incidentally present any general theology at all. It is true, as Frede claims, that there would be some overlap between special and general theology; but, as should now be clear, Aristotle's focus is not where we would expect it to be on Frede's account.<sup>92</sup> Thus on his view, not only A 1–5 but also A 6–10 turn out to be 'preliminary' to first philosophy proper. Even allowing for the fact that A may not have the form that a completed Aristotelian metaphysics would have, it is hard to imagine Aristotle organizing and presenting it in the way he does if he had this conception of first philosophy in mind. It is also hard to see how a grasp of the Prime Mover's special, 'pure' form or actuality could give one *any* grip on the notions of matter or potentiality needed for understanding natural substances. It will not do to argue that form and actuality are *correlative* with matter

different 'way of being' from the way of being of all natural substances, including the substantial forms of composite substances. This is in an analogous sense to that in which qualities and quantities have a way of being different from that of substances (and possibly from each other's). Moreover, God's way of being is the paradigm way of being, in terms of which the way of being of the substantial forms of natural substances must be understood. This is why (in his view) the study of God constitutes the essence of the science of being. Frede's main argument for these claims is this. Only separable forms fulfil the conditions of what it is to be a substance *without qualification*: (i) all other substances (including the forms of natural substances) have ineradicable connections with potentiality and with matter, and hence (ii) are only separable in an attenuated sense and (iii) are only problematically individuals or particulars. Thus only separable substances are substances without qualification, and so provide the framework in terms of which the being of items which are merely *qualified* substances are to be understood.

<sup>90</sup> Frede writes, 'moreover, in the case of divine substances, knowledge of them, to a large extent, if not entirely, amounts to no more than a knowledge of their way of being' ('The Unity of General and Special Metaphysics', 92). This does not seem to establish the strong conclusion that the gods have a distinct way of being. As I have said, it may be that most properties of immaterial substances are ones they have because of the sort of beings they are. But it does not follow that they are properties they have *because of a unique way of being*.

<sup>91</sup> As Frede acknowledges ('Introduction', 2 and 6).

<sup>92</sup> Cf. Gill, 'Aristotle's *Metaphysics*', 246. To make this point clearer, think about 'book λ' once more, and how much it differs from the treatment of unchanging substance in the second half of A.

and potentiality—that understanding one involves understanding the other. This is because the linchpin of Frede's claim that the way of being of fully separable, unchanging forms is radically different from that of the forms of natural substances is that the former has no connection with matter or potentiality at all; likewise the lesser forms' dependence on matter has to be understood in terms of the higher form's *independence* of it, and not the other way round. Frede thus seems faced with a dilemma. Either God's way of being is sufficiently different from that of the forms of natural substances to license the claim that its intelligibility-in-itself is of a different order from that of natural forms: in that case, however, understanding this higher way of being cannot give us the resources to understand the lower ways of being, and so cannot constitute the general science of being in the relevant way. Or the notion of form even at the level of God remains one which brings an understanding of matter with it: but in that case we lose the argument for marginalizing the study of other substances, since form at their level is just as intelligible as form at the level of God.<sup>93</sup>

Despite the difference of his approach from that of Patzig and Frede, Irwin seems to face a similar difficulty. He thinks that 'the science of being' can be both a general-metaphysical science and departmental theology because 'it will have some objects of its own, *if* there are beings that have only the properties of being *qua* being (they are persisting subjects of properties) and lack any further properties to make them changeable and inseparable from matter';<sup>94</sup> the objects of theology are thus completely described by the science of being as being. This view seems to face a dilemma analogous to the one I posed for Frede's view. If it is *only* the properties which are possessed by unchangeable substances that belong to things as beings, then it would seem that the scope of the general science of being in relation to changeable substances is (at best) severely limited, since it will not discuss matter, potentiality, privation, or efficient cause (or perhaps even form).<sup>95</sup> If, on the other hand, other properties (such as having matter or potentiality) can belong to substances as beings, then it is not obvious that immaterial substances play any

<sup>93</sup> For further criticisms of Frede's interpretation see Shields, *Order in Multiplicity*, 236–40; Berti, 'Multiplicity and Unity', 200–4; Wedin, 'The Science of Being', 139–41; Menn, *The Aim*, 1a1.

<sup>94</sup> *First Principles*, 544 n. 42.

<sup>95</sup> This seems to be the view to which Irwin is committed by his interpretation of the study of being as being (see n. 76); for my criticisms of this interpretation see above. On the question of form see n. 101.

special role in the general science of being which would explain *E* 1's claim that theology is universal because first. There is another difficulty. If all the properties of unchanging substances—e.g. being unchanging or lacking matter and potentiality—are ones these substances have 'just because they are beings' (this is how Irwin understands 'properties of being *qua* being'), how can other substances, which are also beings, lack some of them? If, on the other hand, not all of these properties are properties of being as being, a gap seems to open up between the study of the properties which immaterial substances have as beings ('general theology') and the study of their other properties (for which we would need 'departmental' theology): this would clearly undercut Irwin's original explanation of how the science of being can be both general metaphysics and departmental theology.<sup>96</sup>

### 5. The unity of *A*—a unified conception of first philosophy

The problem posed by *I*'s and *E*'s two conceptions of first philosophy is strikingly similar to the problem of the unity of *A*. In both *E* and *A*, Aristotle treats a general enquiry into the principles of substances and the departmental study of theology either as, somehow, the *same* metaphysical project, or as in some way parts of the same project. If the two problems are as close as this, the natural explanation is that they are, fundamentally, the same problem with the same solution. Of course, this explanation might turn out to be unworkable; but we should, naturally, try first for an interpretation which makes it work—which solves both of these problems at once. I think that just such an interpretation is available.

As we have seen, the idea that *A* constitutes a unified project faces three separate but related difficulties—or at least it does so if, as I have argued, the three responses to the problem discussed in Section 3 are unsatisfactory. First, despite the nature of the programme for the work as a whole announced at the outset, the general-metaphysical enquiry into the principles of substance is not presented as continuing beyond chapter 5. Second, the

<sup>96</sup> There would also be, not surprisingly, an analogous problem for the unity of *A*: as we have seen, chs. 6–10 are a piece of 'departmental' theology, and do not have the character of a study of being as being; and it is chs. 2–5 that seem to do the general-metaphysical work.

enquiry in chapters 2–5 appears to concern only the principles of *natural* substances (and of their attributes etc.) rather than the principles of all substances.<sup>97</sup> Third, the enquiry into the third kind of substance—unchanging substance—seems to have what I have called a departmental character quite different from that of the enquiry into the first two kinds.

We can resolve the first problem by resolving the second. It certainly might seem as if chapters 2–5 investigate only the general principles of natural substances, and of course these chapters are explicitly characterized as concerned with the two kinds of natural substance, and with the corresponding non-substantial items; but I do not think that this is the whole truth about these chapters. The principles they discuss—form, matter, privation, moving cause, nature in the sense of essence, actuality,<sup>98</sup> potentiality—are indeed introduced by means of an enquiry into natural substances; but for all that has been said so far these may be the principles of *all* substances. Form, matter, privation, and the moving cause are the principles of natural substances in a double sense: (i) it is in terms of these that substances of this kind have to be explained and understood—e.g. that they are produced by efficient causes which are the same in form, or that they can change because they possess various privations—and (ii) the metaphysical analysis of any such substance will reveal that it is a being of at least one of these types, and/or has an appropriate relationship to one or more such beings—e.g. that it is a hylomorphic compound, or the form of such a compound. Aristotle does not (in *A* 1 or in some other key texts) distinguish what I shall call the schematic and concrete conceptions of principles. On the concrete conception, the principles of a thing are its actual form, matter, etc. The principles

<sup>97</sup> The final sentence of ch. 5 (1071<sup>b</sup>1–2) encourages this view: ‘we have said, then, what the principles of perceptible things are, and how many, and in what way they are the same and in what way they are different’ (τίνες μὲν οὖν αἱ ἀρχαὶ τῶν αἰσθητῶν καὶ πόσαι, καὶ πῶς αἱ αὐταὶ καὶ πῶς ἕτεραι, εἴρηται).

<sup>98</sup> Throughout this paper I translate *energeia* as ‘actuality’, except for the passages from *A* 6 and 7 quoted below, in which I translate it as ‘activity’; my argument does not hinge on these choices. Earlier in *A* Aristotle uses *energeia* as the correlative of potentiality (*dunamis*), which suggests ‘actuality’ as the better translation, since clearly not every actuality (i.e. something’s being actually *F*) is an activity. Aristotle’s particular concern in *A* 6 is to argue for a principle whose substance is (an actuality constituted by) an *activity*. Aristotle does not, here or in general, trade on any confusion between ‘actuality’ and ‘activity’, however (on the general point see S. Menn, ‘The Origins of Aristotle’s Concept of *ἐνέργεια*: *ἐνέργεια* and *δύναμις*’, *Ancient Philosophy*, 14 (1994), 73–114).

of a horse and of a human being will, on this understanding, be different at the fundamental level, since they will be respectively the form and matter of the horse and the form and matter of the human being (whether these forms are particulars or something general is another question). On the schematic conception, the principles of a thing are the basic terms in which a proper account of it—of its coming to be, if it comes to be, and of its being what it is—has to be given. Thus the principles of a horse and those of a human being are, at the fundamental level, exactly the same—namely *form*, *matter*, etc. On the concrete conception, principles are entities (of whatever ontological status) on which the things whose principles they are fundamentally *depend*; on the schematic conception principles are the elements of fundamental explanatory schemata. Reading A 6–9 would naturally lead us to ascribe the concrete conception to Aristotle, since he repeatedly characterizes particular substances—and especially the Prime Mover—as principles, and he links this with claims about dependence: ‘on such a principle, then, depend the heavens and nature’ (ἐκ τῆς αὐτῆς ἀρχῆς ἡρτηται ὁ οὐρανὸς καὶ ἡ φύσις).<sup>99</sup> Yet reading the discussion of principles which precedes this (and especially chapter 2’s emphatic conclusion, ‘there are, therefore, three causes and three principles’) would lead us to ascribe the schematic conception to him. The same is even more clearly true of the discussion of the number of principles in *Physics* 1, on which A 2 plainly depends. In A 4–5 Aristotle switches back and forth between ways of speaking about the principles of substances (or of all things) which are appropriate to one conception and ways which are appropriate to the other.<sup>100</sup> Aristotle shows no sign of discomfiture about this, and I think we have to take him to be rather firmly committed to both conceptions.

The principles arrived at in chapters 2–5 are plainly also the principles of unchanging substances in these two senses. I do not mean, of course, that these substances have matter, privation, or potentiality. Rather, I mean that it is in terms of these same principles that unchanging substances too have to be explained and understood, and that each of these substances will be a being which falls

<sup>99</sup> A 7, 1072<sup>b</sup>13–14; cf. A 6, 1072<sup>a</sup>18. There is also an occurrence of this way of speaking at 3, 1070<sup>a</sup>7–9: ‘art is a principle in something else, whereas nature is a principle in the thing (for human being begets human being), while the other causes [i.e. luck and chance] are privations of these’ (ἡ μὲν οὖν τέχνη ἀρχὴ ἐν ἄλλῳ, ἡ δὲ φύσις ἀρχὴ ἐν αὐτῷ (ἄνθρωπος γὰρ ἄνθρωπον γεννᾷ), αἱ δὲ λοιπαὶ αἰτίαι στέρησεις τούτων).

<sup>100</sup> See Judson, *Metaphysics A*, Prologue to chs. 4–5.

under at least two of these types, i.e. essence and actuality;<sup>101</sup> and it need hardly be said that the discussion of the nature of divine substances in chapters 6–10 appeals to matter, moving cause, potentiality and actuality, and essence in explaining what sort of entities they must be. It is not a problem for this view that immaterial substances do not have matter and potentiality, as it was, in analogous ways, for the views of Frede and Irwin, because first, I do not claim that the study of immaterial substances provides us with the metaphysical resources for understanding the general character of perceptible substances (Frede's view), but rather the reverse; second, I do not think that the study of being as being is the study of the properties which all beings, or all substances, share (Irwin's view).

Is this Aristotle's line of thought in these chapters? The opening of *A* strongly suggests that it is. (i) As I have said, the argument which most plausibly underpins this opening appeals to the idea that we are seeking the principles of *all* things. (ii) When he says 'the investigation concerns substance; for it is of substances that we are seeking the principles and causes' (περὶ τῆς οὐσίας ἡ θεωρία: τῶν γὰρ οὐσίων αἱ ἀρχαὶ καὶ τὰ αἷτια ζητοῦνται: *A* 1, 1069<sup>a</sup>18–19), the natural way to take 'substance' is as 'all substance', and not as 'natural substance', and as I noted in Section 3, this is confirmed by the threefold classification at 1069<sup>a</sup>30 of the substances with which *A* is to be concerned, which includes unchanging as well as natural substances. (iii) The reference to Speusippus' 'succession' metaphysics in the argument which comes in between these (at 1069<sup>a</sup>19–21), that substance is the primary part of the totality of things (τὸ πᾶν), con-

<sup>101</sup> Aristotle refers to the Prime Mover as 'the first essence' at *A* 8, 1074<sup>a</sup>35–6, and says that his immaterial substances' οὐσία is ἐνέργεια at 6, 1071<sup>b</sup>19–20 (see below). It is controversial whether the notion of *form* applies to these substances, and I shall remain agnostic on this. On the one hand, Aristotle accepts a very close association of form and essence in *Z* 7: 'by the form I mean the what it was to be of each thing, i.e. the primary substance' (εἶδος δὲ λέγω τὸ τί ἦν εἶναι ἐκάστου καὶ τὴν πρώτην οὐσίαν: 1032<sup>b</sup>1–2; cf. 1032<sup>b</sup>14; 10, 1035<sup>b</sup>32; *H* 4, 1044<sup>a</sup>36). On the other hand are arguments that immaterial substances cannot be or have forms (see E. E. Ryan, 'Pure Form in Aristotle', *Phronesis*, 18 (1973), 209–24; S. Brennan, 'Is Aristotle's Prime Mover Pure Form?', *Apeiron*, 15 (1981), 80–95; Burnyeat, *Map*, 130; Menn, *The Aim*, 1a2 n. 11), and in particular (i) that form is correlative with matter (but then one needs to explain why the grounds for this are stronger than those for saying that actuality is correlative with potentiality); (ii) that forms are primarily formal causes of something, and immaterial substances are not formal causes of themselves (but the premiss does not seem obviously true); (iii) an argument from silence (there is some dispute over possible references at *Phys.* 1. 9, 192<sup>a</sup>34–6, and 2. 2, 194<sup>b</sup>9–15).



firms that Aristotle has all substances in mind, and hence the whole of reality and not merely the natural world.<sup>102</sup> So it is clear that at the outset Aristotle envisages an enquiry into the principles of all substances. And as I have said, chapters 6–10 repeatedly invoke the principles introduced in chapters 2–5 in giving their account of the nature of divine substances.<sup>103</sup> It is thus quite plausible to imagine that (although, of course, he has much more to say about the Prime Mover in chapters 6–10 than he has said in chapters 2–5) Aristotle takes the first half of *A* to have investigated the principles of all substances: he can do this within the overall structure of the book because in arriving at the principles of natural substances he has arrived at the principles of all. We can in this way give due weight to the generality of the opening of *A* 1 and to the focus on the principles of natural substances in chapters 2–5.<sup>104</sup>

If this view of *A* is right, then we have resolved the first and second difficulties, and have shown how the general investigation of the principles of substances, as conducted in *A*, is an integral part of first philosophy. I suggest that what holds for *A* holds also, at a relatively general level, for *ΓΕΖΗΘ*. General metaphysics as Aristotle pursues it in all of these books is an enquiry in its own right: although perceptible substances are not the only substances, examining their principles *as* natural substances yields the resources—the framework of form/matter, essence/accident, actuality/potentiality, etc.—for a metaphysical understanding of *all* substances, including separable ones. Thus the science of natural substances forms the core of our understanding of the ‘higher’ substance(s).<sup>105</sup>

<sup>102</sup> Aristotle explains Speusippus’ view most clearly at *Z* 2, 1028<sup>b</sup>21–4: ‘Speusippus made even more kinds of substance, beginning with the one, and making principles for each kind of substance, one for numbers, one for magnitudes, and then for soul’ (Σπεύσιππος δὲ καὶ πλείους οὐσίας ἀπὸ τοῦ ἐνὸς ἀρξάμενος, καὶ ἀρχὰς ἐκάστης οὐσίας, ἄλλην μὲν ἀριθμῶν ἄλλην δὲ μεγεθῶν, ἔπειτα ψυχῆς).

<sup>103</sup> Actuality (*A* 6, 1071<sup>b</sup>20, 22; *A* 7, 1072<sup>b</sup>16 and 27; *A* 9, 1074<sup>a</sup>36); essence (1074<sup>a</sup>35–6); efficient cause (chs. 6–7 passim).

<sup>104</sup> For what it is worth, I think that this is how we should understand the remark at the start of *Z* 17 (1041<sup>a</sup>6–9): ‘Making as it were a fresh start once more, let us say what, and what kind of thing, substance must be said to be; for from these things, things will also, perhaps, be clear about that substance which is separated from the perceptible substances’ (τί δὲ χρὴ λέγειν καὶ ὁποῖόν τι τὴν οὐσίαν, πάλιν ἄλλην οἶον ἀρχὴν ποιησάμενοι λέγωμεν· ἴσως γὰρ ἐκ τούτων ἔσται δῆλον καὶ περὶ ἐκείνης τῆς οὐσίας ἥτις ἐστὶ κεχωρισμένη τῶν αἰσθητῶν οὐσιῶν). But nothing in my present argument depends on this.

<sup>105</sup> This picture is in sharp contrast to Frede’s view, discussed in sect. 4. Frede objects to this sort of picture of first philosophy, ‘on the basis of what could some-

The problem now is that this general investigation might seem to constitute (an outline of) more or less the whole of general metaphysics (together, that is, with *Γ*'s and *Ι*'s investigation of the common axioms and of oneness, sameness, and so on). Why do we need chapters 6–10 at all, and why do they have the character they do? These questions represent the third difficulty I outlined at the start of the section. What is needed is an understanding of general metaphysics and theology on which the latter makes an essential *contribution* to general metaphysics, without either of them being reduced to the other.

So far, in speaking about Aristotle's general metaphysics, I have focused on the items that figure in it—*substance, form, matter, essence*, and so on. I shall call these its *elements* (no pun intended). General metaphysics is equally concerned with how these elements are related, and in particular with their relations of priority and posteriority. These priority relations are clearly fundamental to Aristotle's metaphysics: questions about priority, and in particular about the priority of form and actuality over matter and potentiality, are central to the way in which first philosophy proceeds in *ZHΘ*, and a metaphysics in which these relations did not hold would not be a recognizably Aristotelian one. A similar concern with priority and posteriority is evident in the first half of *Δ*—though it has to be said that he does not spell out the kind(s) of priority which are in question in *Δ*. In discussing the priority of substance over other beings in *Δ* 1 (1069<sup>a</sup>19–24), he clearly deploys a general notion of metaphysical or ontological (in)dependence;<sup>106</sup> he also appeals

body else [i.e. other than the theologian] know more about the way separate substances are? This could only be the case, if there were principles prior to separate substances in terms of which separate substances have to be understood, and these principles were the subject of some further discipline. But there are no principles prior to separate substances' ('The Unity of General and Special Metaphysics', 92). But on the account which I am defending, there *are* principles which are prior to separate substances in the relevant (though quite modest) sense, namely essence, actuality, etc., and they can very well be the subject of a separate discipline, namely the general science of being. (I do not mean that there is a form or essence prior to the Prime Mover, of course, but only that, as Frede uses the term 'principles' here, the principles of substance are prior to substance.) This priority is not, I think, merely epistemic: Aristotle standardly grounds epistemic priority in ontological priority, and that would seem natural in this case too.

<sup>106</sup> Some of Aristotle's claims about the priority of substance (e.g. those in ch. 1 and at 5, 1071<sup>a</sup>1–2 and <sup>b</sup>34–5) give rise to the same issues discussed in relation to priority in being, largely apropos of texts in the *Categories* and *Metaph. Δ, Z*, and *Θ*, in C. Witt, *Ways of Being: Potentiality and Actuality in Aristotle's Metaphysics*

to the separateness of substance (1069<sup>a</sup>24; cf. 5, 1070<sup>b</sup>36–1071<sup>a</sup>1); whether he intends this as a distinct form of priority or not is an interesting question which I shall not explore. As I have argued elsewhere, the principal concern of chapter 3 is the priority (once again not defined) of form, which is identified both as the essence and as the *telos*; this is evident in the discussions of the claim that substances come to be from things which are the same in form (1070<sup>a</sup>4–9), of the question whether (and in which cases) the form is ‘over and above’ the composite (1070<sup>a</sup>13–20), of efficient and formal causes, of whether the form ever survives its composite (1070<sup>a</sup>21–6), and, finally, in the attack on Platonic Forms as explanatorily redundant (1070<sup>a</sup>26–30).<sup>107</sup> The same concern is evident in chapters 4–5: implicit in the appeal to analogy in these chapters is the idea that substantial form, matter, and so on are prior in understanding to the form, matter, and so on of things in other categories; *Λ* 4, 1070<sup>b</sup>30–5, discusses the role of form in efficient causation; *Λ* 5, 1071<sup>a</sup>1–2, makes the point that the principles of substances will be prior because other things depend on substances (*Λ* 6, cf. 1071<sup>b</sup>34–5). Thus in various ways the general metaphysics of chapters 1–5 focuses—in the highly compressed manner that is characteristic of these chapters—on the priority relations of its ‘elements’ in much the way we would expect from, say, *Z* and *H*. Chapters 2 and 5 do something else as well: they introduce a new set of terms in which principles can be understood—actuality and potentiality.<sup>108</sup> They do not expand upon the point, but it is clear from the discussion of matter and change in chapter 2 that form is to be associated with actuality and matter with potentiality—and of course we would expect

(Ithaca, NY, and London, 2003), ch. 4; S. Makin, ‘What Does Aristotle Mean by Priority in Substance?’, *Oxford Studies in Ancient Philosophy*, 23 (2003), 209–38, and *Aristotle, Metaphysics Book Θ: Translated with Introduction and Commentary* [Metaphysics Book Θ] (Oxford, 2006), 192–6; J. Beere, *Doing and Being: An Interpretation of Aristotle’s Metaphysics Theta* (Oxford, 2009), ch. 13; Peramatzis, *Priority*, chs. 8–14; P. Corkum, ‘Aristotle on Ontological Dependence’, *Phronesis*, 53 (2008), 65–92, ‘Critical Notice of Michail Peramatzis, *Priority in Aristotle’s Metaphysics*’, *Canadian Journal of Philosophy*, 43 (2013), 136–56, and ‘Substance and Independence in Aristotle’, in B. Schnieder, A. Steinberg, and M. Hoeltje (eds.), *Varieties of Dependence* (Munich, 2013), 65–96; K. Koslicki, ‘Ontological Dependence: An Opinionated Survey’, in Schnieder, Steinberg, and Hoeltje (eds.), *Varieties of Dependence*, 31–64, and ‘The Causal Priority of Form in Aristotle’, *Studia Philosophica Estonica*, 7 (2014), 113–41. On *Θ* 8’s notion of being prior ‘in a more proper way’ see below.

<sup>107</sup> See Judson, ‘*Z* 7–9 and *Λ* 3’, 125–35.

<sup>108</sup> *Λ* 2, 1069<sup>b</sup>14–34; *Λ* 5, 1071<sup>a</sup>18–19 (and, in my view 1071<sup>a</sup>35–6: some commentators take this to be a reference to the Prime Mover (see n. 63)).

the inference to be that actuality is prior to potentiality in corresponding ways.<sup>109</sup> So not only are *A* 1–5 directly concerned with various issues to do with priority, but they also present the basic materials for an account of the way or ways in which actuality is prior to potentiality—an account of the sort that we find worked out in *Θ*.

My contention is that we can solve our problem—and the problem of *E* 1—if we take one of the central concerns of the second half of *A* to be to establish a further, and fundamental, way in which actuality is prior to potentiality. It aims to establish that, and how, everything else depends on one or more beings which are simply *actualities* and thus lack any potentiality, and which everything else depends on *because of* this actuality:

ἀλλὰ μὴν εἰ ἔστι κινητικὸν ἢ ποιητικόν, μὴ ἐνεργοῦν δέ τι, οὐκ ἔσται κίνησις· ἐνδέχεται γὰρ τὸ δύναμιν ἔχον μὴ ἐνεργεῖν. οὐθὲν ἄρα ὄφελος οὐδ' ἐὰν οὐσίας ποιήσωμεν αἰδίους, ὥσπερ οἱ τὰ εἶδη, εἰ μὴ τις δυναμένη ἐνέσται ἀρχὴ μεταβάλλειν· οὐ τοῖνυν οὐδ' αὕτη ἰκανή, οὐδ' ἄλλη οὐσία παρὰ τὰ εἶδη· εἰ γὰρ μὴ ἐνεργήσῃ, οὐκ ἔσται κίνησις. ἔτι οὐδ' εἰ ἐνεργήσῃ, ἢ δ' οὐσία αὐτῆς δύναμις· οὐ γὰρ ἔσται κίνησις αἰδίου· ἐνδέχεται γὰρ τὸ δυνάμει ὄν μὴ εἶναι. δεῖ ἄρα εἶναι ἀρχὴν τοιαύτην ἧς ἡ οὐσία ἐνέργεια. ἔτι τοῖνυν ταύτας δεῖ τὰς οὐσίας εἶναι ἄνευ ὕλης· αἰδίους γὰρ δεῖ, εἴπερ γε καὶ ἄλλο τι αἰδίων. ἐνέργεια ἄρα. (*A* 6, 1071<sup>b</sup>12–22)

Yet if there is something which can cause change or act upon things, but is not active in some way, there will be no change; for that which has a potentiality can fail to be active. Nor will it help, then, even if we posit substances which are eternal—as do those who posit the Forms—unless there is some principle in them which is able to cause change. Yet not even this will be sufficient, nor will another substance besides the Forms; for unless it is active there will be no change. Again, it will not be sufficient if it is active but its substance is potentiality; for there will not be eternal change, since that which is potentially can fail to be. There must, therefore, be a principle of this sort, whose substance is activity. Moreover, these substances must be without matter; for they must be eternal, at any rate if anything else is eternal. Activity, then.<sup>110</sup>

<sup>109</sup> It should be noted that in *A* the question of the priority of actuality over potentiality is not explicitly introduced until ch. 6; but it has been implicit in the discussions of ch. 3 and chs. 4–5, and I think that this is simply a product of the highly compressed nature of *A*, rather than of a substantially more restricted view of the contents of general metaphysics than we find in *ZHΘ*.

<sup>110</sup> Of course, in a sense it is *Physics* 8 which establishes the need for a Prime Mover, and *A* 6 relies heavily on its arguments (my thanks to Laura Castelli for pressing this point); but only *A* tells us what sort of being can play this role and how it does so.

The claim is that actuality is prior because everything causally depends on one or more things whose substance is actuality (indeed, activity): this means beings whose activity is neither the exercise of, nor in any other way grounded in, a potentiality. Later in the chapter (1071<sup>b</sup>25) Aristotle claims that without such an actuality, ‘nothing will be’ (ἀλλὰ μὴν εἰ τοῦτο, οὐθὲν ἔσται τῶν ὄντων). This way in which actuality is prior is quite different from the types of priority at issue in chapters 1–5,<sup>111</sup> and cannot be reduced to any of them (nor any of them to it).<sup>112</sup> This is because none of those types of priority depends on the idea of a being whose substance is actuality. I have argued elsewhere that it is just this way of being prior which *Θ* 8 identifies as the ‘more proper way’ in which actuality is prior.<sup>113</sup> That everything else depends on one or more beings which are actualities in this very strong sense is a fundamental fact for the philosopher concerned at the most general level with actuality and potentiality and their relations of priority and posteriority—i.e. for the general metaphysician. I do not wish to suggest that it is the *only* fact of this kind with which the general metaphysician is concerned: that would be to *reduce* general metaphysics to theology in the manner of Patzig or Frede, or to *eliminate* it in favour of theology as Menn in effect does.<sup>114</sup>

Why, then, does *A* not end somewhere in the course of chapter 7—e.g. with the famous remark at 1072<sup>b</sup>13–14 quoted above, ‘on such a principle, then, depend the heavens and nature’ (ἐκ τολαύτης ἀπαρχῆς ἡρτηται ὁ οὐρανὸς καὶ ἡ φύσις)? To some extent, what follows spells out how it is possible for there to be immaterial things whose

<sup>111</sup> Except, trivially, this very priority of the Prime Mover anticipated in ch. 4 (1070<sup>b</sup>34–5).

<sup>112</sup> This is not to say, of course, that Aristotle does not suppose divine substance generally, or the Prime Mover in particular, to be prior in other ways—e.g. by being most separate.

<sup>113</sup> 1050<sup>b</sup>6–19. For discussion see Witt, *Ways of Being*, 89–94; Makin, *Metaphysics Book Θ*, 208–15; Beere, *Doing and Being*, 314–24; Peramatzis, *Priority*, 291–9; L. Judson, ‘Aristotle, *Metaphysics Θ.8* 1050<sup>b</sup>6–28’ [‘*Θ.8* 1050<sup>b</sup>6–28’], *Phronesis*, 61 (2016), 142–59. There are close links between *Θ* 8 and some of the arguments of *A* 6–7, especially between 1050<sup>b</sup>6–19 and 1071<sup>b</sup>12–21, and between 1050<sup>b</sup>20–8 and 1072<sup>b</sup>4–10: see R. M. Dancy, ‘Aristotle and the Priority of Actuality’, in S. Knuuttila (ed.), *Reforging the Great Chain of Being: Studies of the History of Modal Theories* (Dordrecht, Boston, and London, 1981), 73–115; Menn, ‘*Aporiai*’, 253–9, and *The Aim*, IIIβ1; Judson, ‘*Θ.8* 1050<sup>b</sup>6–28’. (This point is consistent with a number of views as to how *Θ* and *A* are related: see sect. 2 above.)

<sup>114</sup> See e.g. Menn, *The Aim*, Ia5, 2: ‘the knowledge of being is proposed here [i.e. in *I*] not as desirable in itself, but as a means to knowledge of the ἀρχαί’.

substance is activity; but there is still a departmental or theological 'residue'—the argument for the number of divine substances in chapter 8 and the arguments for the nature and content of divine thinking in chapters 7 and 9. These are there, in my view, because they are essential parts of departmental theology, and it is departmental theology which establishes the causal dependence of all things on substances which are actualities.

To sum up: general metaphysics is concerned, not only with identifying the principles of all things, but with their priority relations to each other and to the things of which they are the principles. The general enquiry of chapters 2–5 achieves the first task, but only a part of the second: departmental theology is required to complete it.

Can this answer to the problem of *A* also explain the claim in *E* 1 that theology is 'universal because it is first'? As we have seen, one interpretation is that Aristotle means that theology *constitutes* the universal science of being because it is first. It should be clear that this answer will not work for *A*. If it were correct, the study of the principles of sensible substances in *A* 2–5 could be at best a mere preliminary, since first philosophy, on this view, is constituted by the study of divine substances. I suggest that the claim is rather that theology is universal in the sense of contributing a *part* of the universal science. It is universal because it is first in the sense that the priority it is concerned with is the priority of the primary beings over everything else: as I have said, to establish this priority requires a departmental enquiry into the nature of unchanging substances and their relation to the rest of the world. In the case of the general study of natural substances, by contrast, no such departmental enquiry by second philosophy is needed: only a very general appeal to their being subject to change is required. We can also see that when he says in *E* 1 that it belongs to theology to consider being as being, Aristotle once again does not mean that general metaphysics is somehow subsumed under theology: rather, it is a distinguishable enquiry in its own right which it is the task of the theologian to pursue. It is for the theologian to do this, I suggest, because theology makes its own distinctive contribution to general metaphysics. As Aristotle might say, 'who else will it fall to?'<sup>115</sup> Not to the physicist

<sup>115</sup> Cf. e.g. *Γ* 2, 1004<sup>a</sup>25–b<sup>8</sup> (esp. b<sup>1</sup>–2: 'for if it does not fall to the philosopher, who will it be who will make the enquiry . . .?' (εἰ γὰρ μὴ τοῦ φιλοσόφου, τίς ἔσται ὁ ἐπισκευόμενος εἰ . . .;)).

or the mathematician, clearly, nor to a distinct enquirer, because of the need to involve theology.<sup>116</sup>

## 6. Conclusion

What sort of structure has our study of first philosophy in A revealed? It is a single and unified structure, but also one which has some internal complexity. It has two main components. One component seeks the principles of all things.<sup>117</sup> It proceeds by way of a very general study of natural substances, that is, of their principles and causes—the ones they have in virtue of being natural substances, not in virtue of being beings. These principles turn out to be, in a way, the principles of all non-substantial things too. They also turn out to be the principles of unchanging substances, in the sense that I have outlined—but of course we will not be in a position to see this until departmental theology has established the existence and nature of such substances. The second component is the departmental study of unchanging substances—theology. This study in turn has two, perhaps inseparable, aspects. First, it makes a unique contribution to the general or ‘universal’ study of the principles of all things; second, it undertakes the complete examination of the nature of these divine substances.

I shall end—as Aristotle ends the theological part of A<sup>118</sup>—with

<sup>116</sup> Sarah Broadie offers a different view of ‘universal because first’ (*Metaphysics A 2*, 61): ‘a discipline has the status of first philosophy (*sophia* unqualified) if and only if its subject is the primary cause; the primary cause is cause of everything else; hence the corresponding discipline in a way includes everything in its subject matter; hence the discipline is universal, and maximally so’. Although it is attractive in some ways, I think that this reading has Aristotle go back on the idea that theology is a departmental science: on my reading it is unquestionably departmental, but nonetheless makes a contribution to the universal science of being. Menn’s view is deflationary, and for that reason is less appealing: ‘[first philosophy] will be universal only in the sense that this object [the object of theology] is a cause of being universally’ (*The Aim*, Ia5, 3). Shields accepts the view that ‘the *epistêmê* of being *qua* being and first philosophy, or theology, are the same science’, but he also rejects the claim that ‘theology has as its extension just one being [God]’ (‘Being’, 362–6). He thinks that the science of being as being is the study of certain features that beings have as beings—and so includes the study of these features that unchangeable beings have as beings. But on this account theology is (part of) first philosophy because it is (part of) the universal science, not, as Aristotle claims in *E 1*, the other way round.

<sup>117</sup> This includes, I would suggest, investigations of the kind we find in *I* and *I* into the common axioms, oneness, sameness, and so on (though there is no reference to this in A).

<sup>118</sup> 1075<sup>a</sup>11–25. As we saw earlier, the rest of A 10 is a coda to the book as a

some brief remarks about goodness.<sup>119</sup> *A* 2 tells us, albeit in a highly preliminary way, that wisdom is ‘a science which investigates the first principles and causes [sc. of all things]’ and that ‘the good and the for the sake of which is one of these causes’ (δεῖ γὰρ ταύτην τῶν πρώτων ἀρχῶν καὶ αἰτιῶν εἶναι θεωρητικὴν· καὶ γὰρ τὰγαθὸν καὶ τὸ οὐ ἐνεκα ἐν τῶν αἰτιῶν ἐστίν).<sup>120</sup> It also says that God, too, ‘is thought by all to be among these causes and to be a sort of principle’ (ὁ τε γὰρ θεὸς δοκεῖ τῶν αἰτιῶν πᾶσιν εἶναι καὶ ἀρχή τις).<sup>121</sup> We should take these remarks seriously—though we should not, in my view, take *A* 2 as committing Aristotle to the view that the *only* object of wisdom is this highest, divine cause.<sup>122</sup> The opening section of *A* 10 (together with parts of chapters 6–7) explains the way in which the cosmos is an orderly whole depending ultimately on a single divine principle, by explaining the way in which the goodness of its parts reflects that of the Prime Mover. The explanation is compressed and cryptic, even by the standards of most of the rest of *A*. If *A* 2 is anything to go by, however, this account, too, is a part of general metaphysics—the science of the causes and principles of all things—and if *A* is anything to go by, it also relies to some extent on departmental theology. This is another instance of the way in which the complex overlapping structure of first philosophy, general metaphysics, and theology is exemplified in the structure of *Metaphysics A*.

## APPENDIX I

### *Εἴρηται* in the *Metaphysics*

Stephen Menn thinks that the view that *A* is not a continuation of the central books is ‘untenable’, because of a sentence in *A* 6 (1072<sup>a</sup>3–4): ‘thinking that potentiality is prior to activity, then, is in a way right and in a way not—we have said how’ (τὸ μὲν δὴ δύναμιν οἶεσθαι ἐνεργείας πρότερον ἔστι μὲν ὡς καλῶς ἔστι δ’ ὡς οὐ (εἴρηται δὲ πῶς)).<sup>123</sup> Menn argues that Aristotle

whole, which lists the difficulties which (supposedly) only Aristotle’s metaphysics can resolve.

<sup>119</sup> Christof Rapp rightly pressed me on the importance of this issue.

<sup>120</sup> *A* 2, 982<sup>b</sup>9–10. Two sharply contrasting accounts of the significance of *A* 1–2 for our understanding of first philosophy are given in Broadie, ‘*Metaphysics A* 2’, and Menn, *The Aim*.

<sup>121</sup> *A* 2, 983<sup>a</sup>8–9.

<sup>122</sup> For a sustained defence of the view I here reject see Menn, *The Aim*.

<sup>123</sup> Menn, ‘*Aporiai*’, 260; cf. *The Aim*, Ia1, and ‘On Burnyeat’s *Map*’, 199: ‘What



has not said, in *A*, how potentiality is prior to actuality; the best candidate for the target of the reference, he thinks, is *Θ* 8.<sup>124</sup> The unqualified form of the cross-reference—*εἴρηται δὲ πῶς* ('we have said how')—is generally thought to be one which Aristotle characteristically uses for references to the *same* work: if the reference is to another work he adds something like 'elsewhere', or 'in the work on such and such'.<sup>125</sup> So, Menn argues, *Θ* and *A* are part of the same work, and in this work *Θ* comes somewhere before *A*. This argument is unconvincing for a number of reasons. The most fundamental one is that the highly compressed and at times hasty character of the writing in *A* means that we cannot rely on the omission of a qualifier for *εἴρηται* having its usual significance. Examples of this compression are apparent at the level of style—for instance, the famous omission of any verb in the two occurrences of the expression *μετὰ ταῦτα ὅτι* in *A* 3,<sup>126</sup> the harsh syntax at *A* 3, 1070<sup>a</sup>19, and at various places in the otherwise relatively expansive chapters 4–5,<sup>127</sup> and the inelegant, shopping-list style of

can only be a reference back to *Θ* 8, with a mere *εἴρηται* (not *εἴρηται πρότερον* or *ἐν ἄλλοις*) makes it impossible that *A* could ever have been an independent survey of first philosophy.'

<sup>124</sup> Aligning our passage with that discussion is not entirely straightforward, however. Aristotle's main concern in *Θ* 8 is to argue for the quite general priority of actuality over potentiality—in substance, in account, and in time—even in the case of actualities which are the exercise of potentialities: none of this corresponds to anything in *A* 6. *Θ* 8 does, however, concede that in a different, less important way potentiality is prior in time (1049<sup>b</sup>11–1050<sup>a</sup>3), and though not put in these terms, this corresponds fairly well with the idea that (many) activities are causally dependent on pre-existing potentialities.

<sup>125</sup> Menn shares this premiss with Ross (*Aristotle's Metaphysics*, i, p. xxvii n. 1), who says 'εἴρηται simpliciter can hardly refer to anything but a preceding passage of the same or a very closely connected book', but who concludes from this that the reference must be to material earlier in *A* (i.e. to *A* 6, 1071<sup>b</sup>22–6). Menn describes Ross's conclusion as a piece of 'audacity' ('On Burnyeat's *Map*', 199 n. 48).

<sup>126</sup> 1069<sup>b</sup>35–1070<sup>a</sup>5: 'After these things (say) that neither the matter nor the form comes to be—I mean the last ones. For in every case of change, something changes, is changed by something, and changes into something: by what: the first mover; what: the matter; into what: the form. They will go to infinity, then, if not only the bronze comes to be spherical, but also the spherical or the bronze comes to be; hence there must be a stop. After these things (say) that each substance comes to be from a synonym . . .' (*μετὰ ταῦτα ὅτι οὐ γίγνεται οὔτε ἡ ὕλη οὔτε τὸ εἶδος, λέγω δὲ τὰ ἔσχατα. πᾶν γὰρ μεταβάλλει τὶ καὶ ὑπὸ τινος καὶ εἰς τι· ὅφ' οὐ μὲν, τοῦ πρώτου κινούντος· ὁ δὲ, ἡ ὕλη· εἰς ὁ δὲ, τὸ εἶδος. εἰς ἀπειρον οὖν εἰσιν, εἰ μὴ μόνον ὁ χαλκὸς γίγνεται στρογγύλος ἀλλὰ καὶ τὸ στρογγύλον ἢ ὁ χαλκός· ἀνάγκη δὴ στήναι. μετὰ ταῦτα ὅτι ἐκάστη ἐκ συνωνύμων γίγνεται οὐσία . . .*). See Ross, *Aristotle's Metaphysics*, ad loc.; Burnyeat, *Map*, 146; Judson, *Metaphysics A*, ad loc.

<sup>127</sup> *A* 3, 1070<sup>a</sup>18–19: 'This is why Plato did not speak badly when he said that there are as many Forms as there are natural things (if indeed there are Forms)—but not of such things as fire, flesh, head' (*διὸ δὴ οὐ κακῶς Πλάτων εἶπε ὅτι εἶδη ἔστιν ὅποσα φύσει, εἴπερ ἔστιν εἶδη, ἄλλ' οὐ τούτων ὅσον πῦρ σὰρξ κεφαλὴ*). *A* 4, 1070<sup>b</sup>19–21: ' . . . yet each of these is different for each genus; for example in colour, white, black, visible

the coda in chapter 10. This haste also appears occasionally at the level of content, in some of the claims that he seems to commit himself to about the metaphysical status of substantial privations,<sup>128</sup> and in one or two of his astronomical claims.<sup>129</sup> So the appearance of an unqualified *εἴρηται* may only reflect this haste.

Even if we did take the form of *εἴρηται* to be significant, however, it does not show what Menn thinks it shows. To see this we must look at how Aristotle actually uses cross-references of this sort in the *Metaphysics*. There are thirty-two occurrences in the *Metaphysics* of *εἴρηται* without a qualifier, like *εἴρηται δὲ πῶς* at 1072<sup>a</sup>3–4. These fall into two distinct classes. Fourteen, including the one in *A* 6 which concerns us, are cross-references to another discussion—a usage somewhat analogous to our ‘see above’. The other eighteen are of a quite different sort: they are summative, or recapitulating, occurrences, in which Aristotle reminds us of what he has just discussed. Setting aside the *A* 6 example, of the other thirteen cross-referential usages of *εἴρηται* without any qualifier, twelve are to a passage *within the same chapter*,<sup>130</sup> and one refers to the immediately preceding chapter. Lest this appeal to chapters seem an anachronistic way of characterizing things, we can put it in terms of lines of text. These cross-references look back anything between 4 and 104 lines; in almost all cases the span is less than 40 lines, and the average is about 30 (less than a Bekker column). The only cases in which *εἴρηται* without a qualifier refers back any further than this are ones in which the reference is a summative one rather than a cross-

surface, light, darkness, air, and from these day and night’ (ἀλλ’ ἕκαστον τούτων ἕτερον περὶ ἕκαστον γένος ἐστίν, οἷον ἐν χρώματι λευκὸν μέλαν ἐπιφάνεια, φῶς σκότος ἀήρ, ἐκ δὲ τούτων ἡμέρα καὶ νύξ). *A* 4, 1070<sup>b</sup>26–9: ‘[The principles and causes] are different in different things, and the first cause-as-a-mover is different in different things. Health, disease, body: the mover medical art. Form, lack of this form, bricks: the mover the art of building’ (ἄλλο δ’ ἐν ἅλλῳ, καὶ τὸ πρῶτον αἴτιον ὡς κινοῦν ἄλλο ἄλλῳ. ὑγίεια, νόσος, σῶμα: τὸ κινοῦν ἰατρική. εἶδος, ἀταξία τοιαυτή, πλύνθου: τὸ κινοῦν οἰκοδομική). *A* 5, 1071<sup>a</sup>8–10: ‘For the form is in actuality, if it is separate, and that which is from both, and privation (e.g. darkness or (the) ill), but the matter is potentially’ (ἐνεργεία μὲν γὰρ τὸ εἶδος, ἐὰν ᾗ χωριστόν, καὶ τὸ ἐξ ἀμφοῦν στέρησις δέ, οἷον σκότος ἢ κάμνον, δυνάμει δὲ ἡ ὕλη).

<sup>128</sup> See *A* 4, 1070<sup>b</sup>22–6 (substantial privations are among the elements (i.e. internal principles) of substances), and *A* 5, 1071<sup>a</sup>3–17 (they are actualities).

<sup>129</sup> e.g. the reduplication of the work of the outermost heavenly spheres in each of the planetary systems (*A* 8, 1073<sup>b</sup>39–1074<sup>a</sup>14), and the error in counting the spheres at 1074<sup>a</sup>13–14. For discussion see Judson, *Metaphysics A*, ad loc.

<sup>130</sup> One of the twelve is problematic: *Z* 15, 1040<sup>a</sup>27, where some commentators think no reference can be firmly identified anywhere at all. Ross (*Aristotle's Metaphysics*, ii. 217) suggests 1039<sup>b</sup>27–1040<sup>a</sup>27, in the same chapter, which would be a ‘loose’ reference of the sort discussed below. Frede and Patzig speculate that the passage referred to was lost as part of the corruption at 1040<sup>a</sup>17 (M. Frede and G. Patzig, *Aristoteles: Metaphysik Z. Text, Übersetzung, Kommentar*, 2 vols. (Munich, 1988), ii. 295)—also in the same chapter. Menn thinks that the reference is a rather general one to the same chapter (private communication).

reference of the kind we are dealing with in A 6; and of these, only two refer beyond the *book* in which they occur, and those are both in set-piece summations at the very start of a new book—H 1's summary of Z, and Θ 1's summarizing reference to ZH.<sup>131</sup> So if we take the lack of a qualifier in the A 6 passage to be significant, we have strong evidence that the reference is not to Θ 8 but to the very same chapter of A. Such a reference would be a somewhat loose one, as chapter 6 has given us the materials for an explanation of the way in which potentiality is prior, but not the explanation itself;<sup>132</sup> this sort of looseness has a parallel, however, in H 6, 1045<sup>b</sup>17–19:

ἐστι δ', ὥσπερ εἴρηται, ἡ ἐσχάτη ὕλη καὶ ἡ μορφή ταὐτὸ καὶ ἔν, (τὸ μὲν) δυνάμει, τὸ δὲ ἐνεργείᾳ.

but in fact, as has been said, the last matter and the shape are one and the same thing, one potentially, the other actually.

As Ross says, 'Aristotle has not actually said this; he is referring loosely to a23–33', where Aristotle gives us the materials for saying this without quite actually saying it.<sup>133</sup> To sum up: I am not persuaded that we should make anything of the style of cross-reference at 1072<sup>a</sup>3–4; but if we do, Aristotle's practice seems to require us to take the reference to be to the earlier lines in A 6 itself, and not to Θ.<sup>134</sup>

It is worth noting, finally, that there is another such unqualified refer-

<sup>131</sup> Compare the summaries in the first line of the *GA* (εἴρηται) and the first line of *De sensu* (436<sup>a</sup>1): 'It has been determined earlier' (διώρισται πρότερον). For what it is worth, the picture is rather similar in the case of the eight occurrences of εἴρηται πρότερον without a further qualifier, which are all cross-references rather than summative uses. Six of them refer back to the same chapter, and one to the immediately preceding one (assuming that the passage in Z 11 which makes the reference back to Z 10 has not itself been displaced from Z 10; see Bostock, *Metaphysics Books Z and H*, ad 1036<sup>b</sup>32–1037<sup>a</sup>5, 165–6). One refers to a completely different book of the *Metaphysics*, but is clearly a special case, since it occurs within the scope of an explicit cross-reference to that book: εἴρηται πρότερον ('it has been said earlier') at M 2, 1076<sup>b</sup>4, refers to book B, but B was identified as the reference four lines earlier by εἴρηται ἐν τοῖς διαπορήμασιν ('it has been said in the discussion of *aporiai*'). Burnyeat's remark that πρότερον always indicates an earlier book (*Map*, 12) should therefore be taken to refer to πρότερον in conjunction with ἐν+name/description or +ἐτέροις/ἄλλοις ('elsewhere').

<sup>132</sup> A 6, 1071<sup>b</sup>22–4. It may be that Aristotle is simply anticipating how he intended to flesh out the discussion in the earlier part of the chapter.

<sup>133</sup> Aristotle's *Metaphysics*, ii. 239. The same may also be the case with the cross-reference in Z 15 mentioned in n. 130.

<sup>134</sup> I have not surveyed other cross-referencing expressions systematically, but note that not all references of this general type without qualifiers are to the same work. *De caelo* 1. 4, 271<sup>a</sup>21 ('it was defined' (διωρίσθη)), refers if anywhere to *Phys.* 5. 5, 229<sup>b</sup>21–2; *GC* 2. 10, 336<sup>a</sup>15 ('it has been proved' (δέδεικται)) and 336<sup>a</sup>18–19 ('earlier' (τὸ πρότερον)), are references to the *Physics*; *Resp.* 14, 477<sup>b</sup>12 ('has been the subject of enquiry in each case' (καθ' αὐτὰ τὴν ἐπίσκεψιν εἰληφέν)), presumably refers to *P4*.

ence, using a different verb, which is unequivocally to another work. At *A* 7, 1073<sup>a</sup>5, δέδεικται δὲ καὶ ὅτι refers to a proof which has not been given in *A* (or anywhere else in the *Metaphysics*); it is given in *Phys.* 8. 10. One could take it, as Ross does, to refer to a proof earlier in *A* of premisses—e.g. that the Prime Mover lacks matter—from which the conclusion might follow (especially as <sup>a</sup>7–11 is obviously a summary of the *Physics* argument); but then by the same token εἴρηται δὲ πῶς could refer to the material earlier in *A* 6 from which the way in which potentiality is prior could be derived. This cross-reference might be a special case, since there is some reason to suppose that Aristotle excerpted the passage in which it occurs from an earlier work,<sup>135</sup> and it is possible that the proof which we know from the *Physics* also appeared in that earlier work. If this were the case, the δέδεικται would indeed have originally referred to an earlier passage in the same work.<sup>136</sup> But this hypothesis would just take us back to the point that when composing *A* Aristotle did not take his usual care about cross-references, since he did not add ‘elsewhere’ as he should have done when putting this material into its new context.

## APPENDIX II

### *A* 1, 1069<sup>a</sup>36–<sup>b</sup>2, and the status of *A* 2–5

As I noted at the end of Section 2, a number of scholars downgrade the role of *A* 2–5, in one way or another, in *A*’s project.<sup>137</sup> These views were discussed in Section 5, but I have deferred until now discussion of a passage in *A* 1 (1069<sup>a</sup>36–<sup>b</sup>2) on which Jaeger and Ross base their view that these chapters are a mere preliminary:

ἐκεῖναι μὲν δὴ φυσικῆς (μετὰ κινήσεως γάρ), αὕτη δὲ ἑτέρας, εἰ μὴδεμία αὐτοῖς ἀρχὴ κοινή.

the former two kinds of substance are the subject of physics (for they involve change); but the third kind belongs to another science, if there is no principle common to it and the other kinds.

This passage raises two issues.<sup>138</sup> (i) Does Aristotle mean that the enquiry

<sup>135</sup> See Judson, *Metaphysics A*, Prologue to ch. 8.

<sup>136</sup> So Burnyeat, *Map*, 142–3; for discussion see Judson, *Metaphysics A*, Prologue to ch. 8.

<sup>137</sup> For references see n. 43.

<sup>138</sup> For further discussion see Frede, ‘*A* 1’, 73–7; P. Donini, ‘Il libro Lambda della Metafisica e la nascita della filosofia prima’ [‘Il libro Lambda’], *Rivista di storia della filosofia*, 57 (2002), 181–99 (repr. in Donini, *Commentary and Tradition: Aristotelianism, Platonism, and Post-Hellenistic Philosophy*, ed. M. Bonazzi (Berlin and New York, 2011)); Judson, *Metaphysics A*, ad loc.

into the principles and causes of natural substances in chapters 2–5 really belongs to physics? Of course, the idea that matter, form, and privation are the principles of these substances comes from physics, namely from *Physics* 1, which identifies itself at 9, 192<sup>a</sup>34–<sup>b</sup>1, as a piece of physics and, for that reason, as distinct from ‘first philosophy’.<sup>139</sup> But that Aristotle thinks A 2–5 belongs to one science and 6–10 to another seems very hard to square with his presenting them as two halves of a single enquiry; and few would wish to take the enquiry in Z, which also focuses on natural substances, as meant to be a part of physics. Aristotle’s point here, I think, is not that any discussion of natural substances whatsoever belongs to physics, but rather that to go *any further* into natural substance than he will here (e.g. to discuss *φύσις*, or how form is transmitted in reproduction—not to mention investigating the characteristics of particular species) would take us into the province of physics.<sup>140</sup> (ii) What does Aristotle mean when he says that the enquiry into unchangeable substances ‘belongs to another science, if there is no principle common to it and the other kinds’? There do seem to be principles common to changing and unchanging substance (essence and actuality [and perhaps form], and the Prime Mover<sup>141</sup>), and yet Aristotle does take the latter to be the subject of another science. There is, of course, no formal contradiction here; but it is still unclear why Aristotle should put the conclusion in this conditional form if he believes the antecedent to be false. I suggest that Aristotle only has in mind principles which would be the province of physics, and so he is not thinking about the Prime Mover at all, and by ‘if there is no principle common to them all’ he means ‘if unchanging substance does not share a *specifically* identical principle with the other kinds of substance’. A specifically identical principle—as opposed to one which is the same ‘by analogy’, such as *form*—would be something like air or fire. On this interpretation, Aristotle means ‘unchanging substances will be the subject of a different science if they are not simply further natural bodies like the changing ones’.

Donini and Berti appeal to this passage in arguing for a bold developmental thesis:<sup>142</sup> they see Aristotle’s remark as reflecting a very early conception of a single science of principles, identified with physics,<sup>143</sup> which they also find in *Metaphysics a*.<sup>144</sup> I think that *a* is too brief and too cursory

<sup>139</sup> I think that 1. 2, 185<sup>a</sup>1–3 and 17–20, do the same, but this is controversial: for discussion see L. Judson, ‘Aristotle and Crossing the Boundaries between the Sciences’ [‘Crossing the Boundaries’], *Archiv für Geschichte der Philosophie*, 101 (forthcoming [2019]).

<sup>140</sup> Cf. Z 11, 1037<sup>a</sup>10–17, discussed in Judson, ‘Crossing the Boundaries’.

<sup>141</sup> See sect. 5.

<sup>142</sup> Donini, ‘Il libro Lambda’; Berti, ‘Il libro Lambda’ and ‘The Program’.

<sup>143</sup> See Berti, ‘The Program’, 83.

<sup>144</sup> On *a* see also Berti, ‘La fonction de Métaph. Alpha Elatton dans la philosophie d’Aristote’, in P. Moraux and J. Wiesner (eds.), *Zweifelhafte im Corpus Aristotelici*

to make the detection of a distinctive conception of a science of principles (distinct, for example, from the one outlined in *A*) at all secure. The identification of the putative science with physics rests on the remark at the end of the book:<sup>145</sup>

διόπερ οὐ φυσικὸς ὁ τρόπος· ἅπανα γὰρ ἴσως ἡ φύσις ἔχει ὕλην. διὸ σκεπτέον πρῶτον τί ἐστὶν ἡ φύσις· οὕτω γὰρ καὶ περὶ τίνων ἡ φυσικὴ δῆλον ἔσται. (α 3, 995<sup>a</sup>16–19)

for this reason the method [of mathematics] is not that of physics: for presumably all nature has matter. Hence we must enquire first what nature is; for in this way it will also be clear what things physics is about.

But this need only mean that we should *begin* with physics<sup>146</sup>—a view which does not commit Aristotle to the identity of his enquiry with physics. As far as *A* is concerned, I find their arguments unpersuasive. (i) *Theōria* in *A* means ‘theoretical enquiry into principles and causes’, as, it is claimed, it does in *α*.<sup>147</sup> As I have already said (see Section 2), there is no good evidence for this being Aristotle’s usage in *A*, and significant evidence against it. (ii) In speaking of how beings are related, *A* does not advert to the *pros hen* structure familiar from *Γ*; so it must pre-date it.<sup>148</sup> But it may just as easily be that *A*’s sketch presupposes this structure (as it may presuppose that the defence of the principle of non-contradiction has already been dealt with, or that the discussion of sameness, difference, opposition, etc. is or will be carried out elsewhere (see Section 1)). (iii) *Physics* 1 is an enquiry into principles and causes, and yet belongs to physics.<sup>149</sup> Indeed it does, but it also distinguishes itself from first philosophy (see above), so is not evidence for Aristotle’s acceptance of the idea of a single science of principles identifiable with physics.

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*cum*: *Studien zu einigen Dubia. Akten des 9. Symposium Aristotelicum* (Berlin and New York, 1983), 260–94.

<sup>145</sup> Berti, ‘Il libro Lambda’, 188–9; ‘The Program’, 83.

<sup>146</sup> See Ross, *Aristotle’s Metaphysics*, i, 221.

<sup>147</sup> Berti, ‘The Program’, 67–9.

<sup>148</sup> Berti, ‘Il libro Lambda’, 184–7.

<sup>149</sup> *Ibid.* 189.

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