

Offprint from  
OXFORD STUDIES  
IN ANCIENT  
PHILOSOPHY

EDITOR: BRAD INWOOD

VOLUME XLV

WINTER 2013

OXFORD  
UNIVERSITY PRESS

2013

# ESSENCE AND BEING

A Discussion of Michail Peramatzis,  
*Priority in Aristotle's Metaphysics*<sup>1</sup>

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PRIORITY, for Aristotle, is said in many ways. A thing may be prior to another in time, in definition, in being, and in a number of other ways. For example, Aristotle holds that substances are prior in definition and in being to non-substances, that actuality is prior in definition and in being to potentiality, and that forms are prior in definition to material compounds. Such claims play a central role in Aristotle's thought. Examining these claims and the various concepts of priority employed in them is vital to an understanding of his metaphysics. Moreover, such an examination is relevant to recent discussions of ontological dependence and grounding in contemporary metaphysics—discussions for which Aristotle's treatment of priority in being has been an important source of inspiration.<sup>2</sup>

Michail Peramatzis's book, then, is a very welcome addition to the Oxford Aristotle Studies. It is the first monograph devoted to its topic, presenting a challenging and original interpretation of Aristotle's view of priority. Peramatzis's focus is mostly on *Metaphysics Z*, but he also discusses a wide range of passages from *Metaphysics Δ* and *Θ* and from works such as the *Physics*, *De anima*, and *Sophistici elenchi*.

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In writing this review I have benefited from discussions with David Charles, Chris Frey, Jacob Rosen, and the participants of a workshop on hylomorphism in Aristotle and Kant held at the University of Toronto in November 2012. I am grateful to them for their helpful comments.

<sup>1</sup> Michail Peramatzis, *Priority in Aristotle's Metaphysics* (Oxford Aristotle Studies; Oxford, 2011), pp. xi+329.

<sup>2</sup> See e.g. K. Fine, 'Ontological Dependence', *Proceedings of the Aristotelian Society*, 95 (1995), 269–90; J. Schaffer, 'On What Grounds What', in D. J. Chalmers, D. Manley, and R. Wasserman (eds.), *Metametaphysics: New Essays on the Foundations of Ontology* (Oxford, 2009), 347–83; K. Koslicki, 'Varieties of Ontological Dependence', in F. Correia and B. Schnieder (eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (Cambridge, 2012), 186–213.

The book is in two parts, preceded by an introduction. The first part deals with priority in definition (pp. 23–200), the second with priority in being (pp. 201–311). I will discuss the introduction and the two parts in order.

### 1. The conceptual framework

In the introduction Peramatzis lays out a rich conceptual framework for his subsequent discussion (pp. 3–6). The framework is based on a distinction between two classes of items. The first class contains what Peramatzis calls token-objects and types of object. Examples of token-objects are particular substances, that is, particular hylomorphic compounds such as Socrates and Bucephalus. Examples of types of object are universal hylomorphic compounds consisting of a form and ‘matter taken universally’ (see *Metaph. Z* 10, 1035<sup>b</sup>27–30; *Z* 11, 1037<sup>a</sup>5–7). The species human and the species horse, for instance, are such universal compounds. While Socrates is a compound consisting of a form and some token-matter (this particular body), the species human is a compound consisting of a form and a universal type of matter (a certain type of body).

Peramatzis’s second class of items contains what he calls ‘features, attributes, ways or modes of being’ (3). Examples are accidental features such as being pale and walking, and essential features such as being human. Thus, the essence (*to ti ēn einai*) of an object is an essential feature or way of being. Since Aristotle identifies the essence of an object with its form (*eidos*),<sup>3</sup> essences and forms are features or ways of being falling into the second class of items.

Objects and types of object have essences. Both Socrates and the species human have an essence, namely, their form. This essence is typically indicated by a definition (*logos* or *horismos*). Crucially, the essence is not identical to the object or type of object whose essence it is; for the latter is a hylomorphic compound from the first class of items, whereas the essence is a way of being from the second class.<sup>4</sup> Now, Peramatzis takes it that forms and essences, too, have

<sup>3</sup> See *Metaph. Z* 7, 1032<sup>b</sup>1–2; *Z* 10, 1035<sup>b</sup>14–16, 1035<sup>b</sup>32.

<sup>4</sup> Peramatzis’s use of the phrase ‘way of being’ is somewhat unusual (3–5). It is different from the sense in which, for example, being in actuality and being in potentiality are often referred to as ‘ways of being’. Nor does his use coincide with the

an essence, on the grounds that they are definable and their *definiens* signifies their essence (5). In contrast to the case of compounds, this essence is identical to the item whose essence it is. Every form and essence is identical to its own essence.<sup>5</sup> Thus, when a form or essence is defined, the *definiendum* and the *definiens* signify the same item.

Peramatzis presents this framework as something presupposed by his study and does not undertake to explain or justify it in any detail (3–5). However, some additional explanation would have been helpful because parts of the framework are novel and couched in terminology not commonly used in Aristotelian scholarship. For example, the basic distinction between the two classes of items, as presented by Peramatzis, is not found in Aristotle or in the secondary literature. Thus, one may be left wondering how the distinction is motivated and how it relates to Aristotle's text. These questions are all the more pertinent since the distinction plays an important role in Peramatzis's discussion of priority in definition in the first part of the book.

## 2. Priority in definition

Peramatzis characterizes this kind of priority as follows: 'A is prior in definition to B just in case A is (correctly) defined without mentioning B, but B is not (correctly) defined without mentioning A' (6: see *Metaph. Z 1*, 1028<sup>a</sup>34–6). He does not give a general account of definitional priority throughout Aristotle's works. Instead, he focuses on a specific question concerning definitional priority in the context of Aristotle's hylomorphism, the question whether form is prior in definition to matter. Peramatzis argues that there is an apparent conflict in Aristotle's works between passages that suggest

use established by M. Frede, according to which humans and horses share the same way of being, namely, that of natural substances, as opposed to that of, for example, numbers; see M. Frede, *Essays in Ancient Philosophy* (Minneapolis, 1987), 85. For Peramatzis, humans and horses have different ways of being, since they have different essences.

<sup>5</sup> Peramatzis, 5, 158, and 199–200. See *Metaph. Z 6*, 1031<sup>b</sup>11–14; *Z 11*, 1037<sup>a</sup>33–b7; cf. also M. Burnyeat et al., *Notes on Book Zeta of Aristotle's Metaphysics* (Oxford, 1979), 97; M. Frede and G. Patzig (ed., trans., and comm.), *Aristoteles: Metaphysik Z [Z]*, 2 vols. (Munich, 1988), ii. 87; M. Burnyeat, *A Map of Metaphysics Zeta* (Pittsburgh, 2001), 26–7.

an affirmative answer and passages that suggest a negative answer to this question. For example, the following passage from *Metaphysics Z* 10 suggests an affirmative answer:

Those parts that are material, and into which a thing is divided as into its matter, are posterior; but those that are parts of the account [*λόγος*] and of the substance which accords with the account, are prior—some or all of them. Now, since the soul of animals (for this is the substance of the animate) is the substance which accords with the account, i.e. the form and what-it-is-to-be such a body (at least, if each part is properly defined, it cannot be defined without its function, which it cannot have without sense perception), it follows that the parts of the soul are prior—some or all of them—to the whole compound animal, and similarly in the particular cases, while the body and its parts are posterior to this substance. (*Metaph. Z* 10, 1035<sup>b</sup>11–21)

According to this passage, the soul is the form and essence of animals. At the end of the passage, Aristotle states that the soul is prior to the animal's body and material parts. It is clear from the context that he has in mind priority in definition.<sup>6</sup> Thus, Peramatzis takes the passage to imply that form is prior in definition to matter (30–2, 271). For instance, the definition of the matter of an animal makes reference to the animal's form, but not vice versa. Peramatzis writes (177–8):

Thus, for example, as essence and primary substance the human-form seems responsible for fixing the identity not only of Socrates or Callias but also of their particular bodies and concrete material parts. Similarly, the human-form determines the essence not only of the kind (or species) human but also of its 'universally taken' matter, the human type of organic body.<sup>7</sup>

Peramatzis argues that this view is in tension with some claims Aristotle makes elsewhere in *Metaphysics Z*. An example is the follow-

<sup>6</sup> See 1035<sup>b</sup>4–6 and the occurrences of *ὀρίζεσθαι* at 1035<sup>b</sup>8, 10, 17–18.

<sup>7</sup> Peramatzis presents the definitional priority of form over matter as a general thesis applicable to all hylomorphic compounds. However, he does not explain whether and how the thesis applies to artefacts such as a bronze statue of Socrates. It is reasonable to think that, in contrast to the case of animals, the matter of such a statue (that is, a particular lump of bronze) is identifiable and definable independently of the statue's form; see J. L. Ackrill, 'Aristotle's Definitions of *Psyche*', *Proceedings of the Aristotelian Society*, 73 (1972–3), 119–33 at 124–6; C. Frey, 'Organic Unity and the Matter of Man', *Oxford Studies in Ancient Philosophy*, 32 (2007), 167–204 at 167 and 200. By contrast, Frede and Patzig argue that even the matter of artefacts is not identifiable independently of the artefact's form; see Frede and Patzig, *Z*, ii. 46–9.

ing passage from *Z 11*, in which Aristotle criticizes Socrates the Younger for drawing a misleading comparison between animals and geometrical objects:

It is therefore a vain attempt to try to reduce everything in this way, and to eliminate the matter. For some things presumably are one thing in another, or certain things in a certain state. And the comparison which Socrates the Younger used to draw between an animal and a circle is not sound; for it leads away from the truth, and misleads one into supposing that there might be a man without parts, as there can be a circle without bronze. But the cases are not the same. For an animal is a sort of perceptible object, and cannot be defined without change [*ἀνευ κινήσεως οὐκ ἔστιν ὀρίσασθαι*], nor therefore without parts in a certain state. (*Metaph. Z 11*, 1036<sup>b</sup>22–30)

In this passage Aristotle criticizes certain attempted definitions on the grounds that they ‘eliminate the matter’. The definitions in question concern natural compounds such as animals. In the last sentence of the passage Aristotle states that an animal cannot be defined ‘without change’ and ‘without’ its material parts. Peramatzis takes this to be a claim about the *forms* of animals and other natural compounds. In his view, Aristotle’s point is that the definition of such a *form* should mention matter (92–9). For example, the definition of an animal’s form should mention the (kind of) matter in which the form is embodied. Since matter is mentioned in the form’s definition, Peramatzis argues, matter is in some way part of the form’s essence. Given that the form is identical to its essence, it follows that matter is part of the form itself. Thus, Peramatzis concludes that forms of natural objects have material parts (96–7).

This interpretation of 1036<sup>b</sup>22–30 is unorthodox and problematic. It is in tension with the view stated in *Z 10* that form is prior in definition to matter, according to which matter should not be mentioned in the definition of forms. Moreover, the interpretation conflicts with a number of theses that are central to Aristotle’s hylomorphism. For instance, it conflicts with Aristotle’s thesis that form is a ‘substance without matter’ (*Z 7*, 1032<sup>b</sup>11–14), that matter and material parts are not part of the form (*Z 10*, 1035<sup>a</sup>17–31), and that the definition of a form does not mention matter or material parts (*Z 11*, 1037<sup>a</sup>24–5).

In view of this, most commentators prefer other interpretations of the passage from *Z 11* just quoted (1036<sup>b</sup>22–30). Let us briefly consider two prominent alternative interpretations, one put forward

by Frede and Patzig and the other by Gill and Heinaman. Frede and Patzig agree that the passage concerns definitions of forms, but do not take it to state that matter should be *mentioned* in these definitions. When Aristotle says that the form of an animal cannot be defined without matter, they maintain, he merely means that the definition should be formulated in such a way as to imply that the form cannot exist without being embodied in a certain kind of matter; but this does not require an explicit reference to matter.<sup>8</sup> Thus, according to Frede and Patzig, the definition ought not to create the misleading impression that the form can exist without being enmattered; but it does not explicitly mention any kind of matter.

On the other hand, Gill and Heinaman argue that the passage does not concern definitions of *forms* of material compounds, but definitions of these compounds themselves.<sup>9</sup> On this view, Aristotle's point in the passage is that the definition of a material compound should mention both its matter and its form. For example, the definition of the species human should specify not only its form but also the universal kind of matter of which it is composed. But the definition of the compound's form does not mention any kind of matter. The *definiens* of this latter definition signifies the essence of the thing defined. By contrast, the *definiens* of the sort of definition that Aristotle has in mind at *Z* 11, 1036<sup>b</sup>22–30, does not signify the essence of the thing defined (that is, of the compound); for the essence of the compound is its form, whereas the *definiens* as a whole does not signify the form but a combination of matter and form. (Only a part of the *definiens* signifies the form, while another part signifies the matter.)

Now, it is also Aristotle's settled view that a definition (*δρισμός*) is an account (*λόγος*) that signifies the essence of the thing defined.<sup>10</sup> On this view, the definition of a hylomorphic compound should

<sup>8</sup> Frede and Patzig, *Z*, ii. 212; cf. M. Frede, 'The Definition of Sensible Substance in *Metaphysics Z*' ['Sensible Substance'], in D. Devereux and P. Pellegrin (eds.), *Biologie, logique et métaphysique chez Aristote* (Paris, 1990), 113–29 at 117–21. Similarly also W. Mesch, 'Die Teile der Definition (*Z* 10–11)', in C. Rapp (ed.), *Aristoteles: Metaphysik. Die Substanzbücher (Z, H, Θ)* (Berlin, 1996), 135–56 at 149–51; M. V. Wedin, *Aristotle's Theory of Substance: The Categories and Metaphysics Zeta [Theory of Substance]* (Oxford, 2000), 327–41.

<sup>9</sup> M. L. Gill, *Aristotle on Substance: The Paradox of Unity [Paradox]* (Princeton, 1989), 134–6; R. Heinaman, 'Frede and Patzig on Definition in *Metaphysics Z*. 10 and 11' ['Definition'], *Phronesis*, 42 (1997), 283–98 at 283–4 and 292–3.

<sup>10</sup> *Metaph. Z* 5, 1031<sup>a</sup>11–12; *Top.* 7. 5, 154<sup>a</sup>31–2. Cf. *Metaph. Z* 4, 1030<sup>a</sup>6–7, 1030<sup>b</sup>5–7; *H* 1, 1042<sup>a</sup>17–21.

mention only its form, but not its matter (cf. *Z* 11, 1037<sup>a</sup>26–9). However, according to Gill and Heinaman, this is not the kind of definition Aristotle has in mind in his criticism of Socrates the Younger at *Z* 11, 1036<sup>b</sup>22–30. Instead, they take this passage to be concerned with a different kind of definition of compounds, a definition that mentions both their form and their matter. It is an account that may be called a ‘definition’ only in a secondary sense. Aristotle acknowledges this kind of secondary definition in *Z* 7, when he states that the account of a compound such as a bronze circle mentions both its form and its matter:

We speak both ways when we say what a bronze circle is, saying that the matter is bronze and the form is such-and-such a shape, that being the genus under which it falls. So a bronze circle has matter in its account [ἐν τῷ λόγῳ]. (*Metaph. Z* 7, 1033<sup>a</sup>2–5)

Aristotle makes a similar point about the definition of natural objects in *Metaphysics E* 1:

The account [λόγος] of none of them [that is, of natural objects, τὰ φυσικά, 1025<sup>b</sup>34] is without change [ἀνευ κινήσεως], but always includes matter. (*Metaph. E* 1, 1026<sup>a</sup>2–3)

Much the same view is expressed in *Physics* 2. 2 (193<sup>b</sup>35–194<sup>a</sup>7). On Gill’s and Heinaman’s interpretation, Aristotle’s criticism of Socrates the Younger in *Z* 11 is closely connected to these passages from *Z* 7, *E* 1, and *Physics* 2. 2.<sup>11</sup> The passages concern a secondary kind of definition of natural compounds, but not the definition of their forms.

Peramatzis agrees that compounds have definitions that mention both their matter and their form.<sup>12</sup> But he denies that this is the kind of definition that Aristotle has in mind in the passage criticiz-

<sup>11</sup> The similarity between the passages from *Z* 11, *E* 1, and *Physics* 2. 2 is highlighted by the fact that the critical phrase ἀνευ κινήσεως (‘without change’) is used in all of them (*Metaph. Z* 11, 1036<sup>b</sup>29; *E* 1, 1026<sup>a</sup>3; *Phys.* 2. 2, 194<sup>a</sup>5).

<sup>12</sup> See pp. 11, 168–9, 178, 190, and 196–8; cf. also 32–7. Peramatzis appeals to these definitions in order to explain Aristotle’s claim in *Z* 10 that ‘some or all parts of the form’ are prior to matter and compounds (1035<sup>b</sup>4–6, 13–14, 18–19). This claim seems to imply that it is possible that some but not all parts of a form are prior to the corresponding matter and compound. Peramatzis argues that this is the case in definitions of compounds that mention both their matter and their form (195–7, 277 n. 9), on the grounds that in these definitions ‘it is not the whole defining essence but only a part of it—the hylomorphic form . . .—which is prior to matter and (universal) compound’ (196). The matter that is part of what Peramatzis calls the compound’s ‘defining essence’ is not prior to the compound. This explains why only some of

ing Socrates the Younger in *Z* 11. However, Peramatzis does not, in my view, provide convincing reasons for this denial and for rejecting Gill's and Heinaman's interpretation of the passage.<sup>13</sup> Nor does he provide decisive reasons for rejecting Frede and Patzig's interpretation (see 134–5). Given the problems with his own interpretation, each of the two alternative interpretations seems preferable to his.

In addition to the passage from *Z* 11, Peramatzis adduces further evidence to support his view that, according to Aristotle, matter is mentioned in the definition of certain forms and is in some way part of these forms. An example is the passage from *Z* 7 quoted above (1033<sup>a</sup>2–5). Peramatzis takes this passage to imply that 'just as a certain type of matter is part of the compound, similarly matter must be part of the form of this compound' (41). Again, this interpretation is problematic. The passage states that both matter and form are mentioned in the account (*logos*) of a compound such as a bronze circle.<sup>14</sup> But this does not imply that matter is part of the form or mentioned in the definition of the form. For the account in question is only a definition of the secondary kind. Hence the *definiens* as a whole does not signify the compound's form, and not every item mentioned in the *definiens* is part of the form.<sup>15</sup>

the items mentioned in the definition are prior to the compound. However, it does not explain why only some parts of the *form* are prior to it. The passage from *Z* 10 is clearly concerned with parts of the *form* (Aristotle identifies them as parts of the soul at 1035<sup>b</sup>18–19), but not with parts of a definition in which both matter and form are mentioned. Thus, Peramatzis's explanation of this passage is not satisfactory.

<sup>13</sup> When he argues against those who take the passage to concern definitions of compounds (as opposed to forms), his argument presupposes that their interpretation is based on the 'deeper assumption . . . that definition is only of the form and of the universal in that what does the defining is, strictly speaking, universal form alone' (93–4). However, Gill and Heinaman (see n. 9 above) do not accept this assumption; they hold that there are definitions, albeit of a secondary kind, in which it is not universal form alone that does the defining. Thus, Peramatzis's argument is not effective against them.

<sup>14</sup> See e.g. Gill, *Paradox*, 122; Heinaman, 'Definition', 292; D. Charles, 'Aristotle's Psychological Theory' ['Psychological Theory'], *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, 24 (2008), 1–29 at 7.

<sup>15</sup> Another piece of evidence adduced by Peramatzis is Aristotle's statement 'it belongs to the natural philosopher to study those aspects of the soul that are not without matter' (*Metaph. E* 1, 1026<sup>a</sup>5–6). The soul is a form and some aspects or parts of it 'are not without matter'. Peramatzis takes this to imply that 'a natural form . . . is unambiguously thought essentially to include material and change-related features', and thereby to confirm 'the thesis of essential enmatterment not only for compounds but also for natural forms' (101). As before, this interpretation is controversial. The

Let us consider one last piece of evidence adduced by Peramatzis in support of his view. It is from Aristotle's discussion in *De anima* 1. 1 on how to define psychological states such as anger:

It is clear that the affections of the soul are enmattered accounts [*λόγοι ἐνυλοῖ*]. Hence their definitions [*οἱ ὄροι*] will be of the following form: for instance, being angry is a particular movement of a body of such-and-such a kind, or part or capacity of such a body, as a result of this thing and for the sake of such-and-such a goal. . . . The natural philosopher and the dialectician would define each of these differently, e.g. what anger is. For the latter would define it as a desire for retaliation or something of the sort, the former as the boiling of the blood or hot stuff around the heart. Of these, the natural philosopher gives the matter, the dialectician the form and account. (*DA* 1. 1, 403<sup>a</sup>25–<sup>b</sup>2)

In this passage Aristotle treats affections of the soul such as anger as hylomorphic compounds. The form of anger is a desire for retaliation, its matter is a boiling of the blood around the heart. A dialectician might define anger by mentioning only its form. A natural philosopher might define it by mentioning only its matter. Aristotle rejects both of these definitions. In his view, an appropriate definition of the compound anger should mention both its matter and its form (403<sup>a</sup>25–7). Now, Peramatzis adopts a somewhat stronger reading of the passage. He writes:

Because definitions (*οἱ ὄροι*) are linguistic items that describe the essence of the entity defined, it follows that psychic functions or affections contain material characteristics, bodily functions or affections, as parts of their very nature. (106)

By this he seems to mean that material characteristics are part of the *form* of anger. Thus, he takes Aristotle's discussion of anger in *De anima* 1. 1 to support the conclusion that 'natural forms include material and change-related attributes as essential constituents' (106). This argument presupposes that *οἱ ὄροι* at 403<sup>a</sup>25 picks out definitions in the strict sense, definitions that mention only the form of the thing defined, but not its matter. On the other hand, Michael Frede has argued convincingly that *οἱ ὄροι* in this passage picks out definitions of the weaker sort, definitions that mention both form

passage can plausibly be taken to state that some aspects or parts of the soul must be realized in certain kinds of matter, without implying that matter is mentioned in the definition of (these parts of) the soul or is in some way an essential part of the soul (see Gill, *Paradox*, 115–16 and 131).

and matter (much as in the passages from *Z* 7, *E* 1, and *Physics* 2. 2 mentioned above).<sup>16</sup> If this is correct, it undermines Peramatzis's reading of the passage. Matter is mentioned in the definition of the compound anger, but not in the definition of its *form*.

Peramatzis's reading of *De anima* 1. 1 is in agreement with the interpretation proposed by David Charles, according to which Aristotle requires that matter be mentioned in the definition of the *form* of anger.<sup>17</sup> In a critical response to Charles, Victor Caston has pointed out a number of problems with this interpretation and has rejected it.<sup>18</sup> Many of Caston's objections also apply to Peramatzis's interpretation of *De anima* 1. 1 and other passages. Unfortunately, Peramatzis does not sufficiently address these objections (Caston's response is not listed in his bibliography).

In sum, then, Peramatzis does not succeed in establishing one of his main theses, that matter is mentioned in the definition of some forms and is in some way part of these forms. As we saw above, this thesis conflicts with some central claims of *Metaphysics Z*. In order to resolve these conflicts, Peramatzis argues that there is an ambiguity in Aristotle's use of the term 'matter' (173–9). On the one hand, he maintains, the term can be used to pick out the token-matter or the universal kind of matter that constitutes particular or universal compounds. Peramatzis takes matter of this sort to be an object or type of object, belonging to his first class of items (see 41–4 and 52). On the other hand, he argues, the term 'matter' can be used to pick out material features, such as the feature of being enmattered in a certain type of body. These features are not objects or types of object belonging to the first class of items; they are attributes or features belonging to the second class of items. When Aristotle claims that matter is mentioned in the definition of some forms, he has in mind, not matter from the first class, but material features from the second class (40–54, 136–7, 152–3). For instance, the form of humans might be defined as follows: being a rational soul em-

<sup>16</sup> See Frede, 'Sensible Substance', 115–16.

<sup>17</sup> Charles, 'Psychological Theory', 4–10.

<sup>18</sup> V. Caston, 'Commentary on Charles', *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, 24 (2008), 30–49. One problem with Charles's interpretation of *De anima* 1. 1 is that, if it were correct, one would expect Aristotle to criticize the dialectician for giving an incomplete description of the *form* of anger (since the description does not mention matter). But Aristotle does not level this charge against the dialectician (403<sup>a</sup>29–<sup>b</sup>2). Instead, he criticizes him for giving an incomplete account of the compound anger itself.

bodied in a certain type of organic body (5, 198–9). In this definition, the phrase ‘embodied in a certain type of organic body’ picks out a material feature. This material feature is part of the form’s essence and hence part of the form itself. Thus, Peramatzis holds that forms of natural objects comprise not only formal but also material features. By contrast, when Aristotle claims that form is prior to matter, he has in mind, not material features from the second class of items, but token-matter and types of matter from the first class (120–1, 168–9, 176–8). Likewise, when Aristotle characterizes form as a ‘substance without matter’ (Z 7, 1032<sup>b</sup>11–14) or when he states that matter is not mentioned in the definition of form (Z 11, 1037<sup>a</sup>24–5), this applies to matter from the first but not from the second class (see 40–1). Thus, the apparent conflict within *Metaphysics Z* is resolved.

While this solution allows Peramatzis to avoid attributing an inconsistency to Aristotle, it has some drawbacks. For one thing, the solution seems somewhat *ad hoc*. There is no direct evidence in the *Metaphysics* for the ambiguity of ‘matter’ postulated by Peramatzis. Aristotle never explicitly distinguishes between matter of Peramatzis’s first class and material features of the second class, nor is such a distinction usually drawn in the secondary literature. Moreover, a question arises as to how the universal types of matter present in universal compounds differ from the material features that are part of the compound’s form.<sup>19</sup> Peramatzis refers to these features by means of phrases such as ‘being made of clay’, ‘being composed of bulky mass’, ‘being embodied in nasal matter’, and ‘being enmattered in a certain type of organic body’.<sup>20</sup> He takes these phrases to be part of the *definiens* of forms. However, he does not explain what the terms ‘clay’, ‘bulky mass’, ‘nasal matter’, and ‘a certain type of organic body’ refer to in these phrases. It seems that they should refer, not to material features, but to matter from the first class of items; for this is the matter of which material compounds are made or composed, and in which their form is enmattered or embodied. If so, then, contrary to Peramatzis’s view, matter from the first class of items is mentioned in the definition of forms. If, on the other hand, those terms are taken to refer to

<sup>19</sup> Peramatzis does not give a determinate account of the sort of matter that belongs to the first class of items, although he presents some ‘views which gesture towards the beginnings of a more positive answer’ (191, see also 121).

<sup>20</sup> See e.g. pp. 8–10, 32, 48–9, 77, 118, 129, 137, 143, 192.

material features, this has the counterintuitive consequence that material compounds are made or composed of these features, and that forms are enmattered or embodied in them.<sup>21</sup>

There are further complications in Peramatzis's account of the material features that in his view are part of forms. For example, he argues that these material features cannot be defined without reference to the formal features that are part of the form in question, and likewise that the formal features cannot be defined without reference to the material features (127, 137, 305–8). Thus, he holds that 'formal and material parts of a natural form's essence are inextricably dependent on each other' (127), and that 'just as form itself and its formal parts, the material components of its essence, too, are both matter- and form-involving' (137). This is difficult to understand. If the formal and material parts of a form cannot be specified without reference to each other, can they be specified in a determinate and non-circular way at all? Also, if each of them is both matter- and form-involving, on what grounds can the 'formal' parts be distinguished from the 'material' ones? Peramatzis does not fully address these questions. He proposes a 'tentative answer', but does not undertake to 'fill in the gaps inherent in this proposal' (307).<sup>22</sup>

Peramatzis's account of Aristotle's hylomorphism is ambitious and complex. His arguments are sometimes difficult to follow. It is not always clear whether and, if so, how the complexities introduced by him correspond to what we find in Aristotle. Most of these complexities are ultimately motivated by the desire to vindicate the view that for Aristotle matter is mentioned in the definition of some forms and is a part of them. As we have seen, this view is questionable and Peramatzis does not provide convincing evidence for it. If the view is not correct, then most of the complexities introduced by him in the first part of the book are misleading and should be rejected.

<sup>21</sup> Peramatzis might avoid these problems by denying that those terms refer to anything at all; see n. 22 below.

<sup>22</sup> His proposal involves the idea that 'within a form's *definiens* formula, formal as well as material terms are separately incomplete and fail to refer to any real-world entity without each other' (307). For example, in the *definiens* formula 'being a rational soul embodied in a certain type of organic body', neither the formal term 'being a rational soul' nor the material term 'embodied in a certain type of organic body' refers to a real-world entity.

## 3. Priority in being

In *Metaphysics*  $\Delta$  11 Aristotle distinguishes various kinds of priority. One of them is what he calls priority in nature and substance (*kata phusin kai ousian*):

Some things are called prior and posterior in this way, while others are called so in nature and substance, those for which it is possible to be without other things, but not the latter without them. (*Metaph.*  $\Delta$  11, 1010<sup>a</sup>1–4)

In this passage Aristotle describes a kind of ontological priority according to which A is prior to B just in case A can be without B but not vice versa. Peramatzis argues that this characterization can be understood in two ways (12–14, 204). First, it may be taken to mean that A is prior to B just in case A can exist without B existing but not vice versa. Call this priority in existence (PIE). Alternatively, he maintains, it may be taken to mean that A is prior to B just in case A can be what it is independently of B being what it is, but not vice versa. Call this priority in being (PIB). Peramatzis holds that priority in being is based on the essences of the items involved. He states that A is prior to B in the manner of PIB ‘just in case A is part of B’s essence, its being what it is, but not conversely’ (205). Thus, he regards PIB as the ‘ontological counterpart’ to priority in definition (204, 254, 266). If only definitions of the primary kind are under consideration, that is, those which signify the essence of the thing defined, then PIB is equivalent to priority in definition.<sup>23</sup> Peramatzis argues that PIB, not PIE, is Aristotle’s preferred notion of ontological priority. In his view, PIB is the kind of priority with which Aristotle is concerned in a number of important passages from the *Metaphysics*, including the passage from  $\Delta$  11 just quoted.

In order to gain a better understanding of Peramatzis’s view, let us consider some examples that highlight the significance of PIB in comparison with PIE. One of them concerns the ontological status of forms. A major contention of *Metaphysics* *Z* is that forms

<sup>23</sup> Thus, Peramatzis holds that A is prior to B in the manner of PIB just in case A is prior to B in *real definition* (259, 266), where real definitions are those which signify the essence of the thing defined (see 268–9). Despite this extensional equivalence, PIB is more basic than, and grounds, priority in real definition: ‘it is *because of* being ontologically prior in the manner of PIB that an item is prior in real definition to some other item. The converse, though, is not the case’ (259).

are primary substances.<sup>24</sup> As such, they are ontologically prior to other beings—for example, to hylomorphic compounds. However, it is difficult to understand their ontological priority over compounds along the lines of PIE in terms of separability in existence. For at least the forms of perceptible objects depend for their existence on some underlying subject. They cannot exist without being enmattered, hence not without some hylomorphic compound existing.<sup>25</sup> Instead, Peramatzis argues, forms are ontologically prior to compounds in the manner of PIB (221, 228, 244–8, 308). Forms make compounds what they are but not vice versa. A form is the essence of the compound it enforms, but the compound is not part of the form's essence. This means that a form can be what it is independently of the corresponding compound being what it is, but not vice versa. Thus, PIB, unlike PIE, can account for the ontological priority of forms over compounds.

Another example is Aristotle's thesis that substances are ontologically prior to non-substances. Comparing substances with non-substances, Aristotle writes:

What is primary is said in many ways, but substance is primary in every way—in account, in knowledge, and in time. For none of the other kinds of predicate is separable but this alone [τῶν μὲν γὰρ ἄλλων κατηγορημάτων οὐθὲν χωριστόν, αὕτη δὲ μόνη]. (*Metaph. Z 1*, 1028<sup>a</sup>31–4)

According to this passage, substances are prior in every respect, hence also ontologically prior, to non-substances. In order to explain this thesis, Aristotle adds that only substances are separable (*chōriston*). By this he presumably means that substances are separable from non-substances but not vice versa (231). Again, it is difficult to understand the kind of separability under consideration as separability in existence (233–6). For, while it is true that non-substances cannot exist without substances in which they inhere (*Cat.* 5, 2<sup>b</sup>3–6), it is not true that substances can exist without any non-substances inhering in them. For instance, Socrates cannot exist without any non-substance attributes inhering in him.<sup>26</sup>

<sup>24</sup> See e.g. *Metaph. Z 7*, 1032<sup>b</sup>1–2; *Z 11*, 1037<sup>a</sup>5 and 1037<sup>a</sup>28–30.

<sup>25</sup> See *Metaph. H 1*, 1042<sup>a</sup>26–31; cf. Gill, *Paradox*, 35–7; Wedin, *Theory of Substance*, 173; Peramatzis, 221 and 228. If forms are universal, they do not depend for their existence on any specific compound, but only on the existence of some compound or other. As Peramatzis points out (228), this latter kind of dependence suffices to undermine PIE as a criterion for the primary substancehood of forms.

<sup>26</sup> See D. Bostock (trans. and comm.), *Aristotle: Metaphysics Books Z and H* [*Z&H*] (Oxford, 1994), 59.

Moreover, even if it is true that Socrates can exist without any of the non-substance attributes he actually has, it is not true that his non-substance attributes cannot exist without him. At least, it is not true for all of his non-substance attributes, as many of them may exist as attributes of, say, Callias.<sup>27</sup>

In view of this, Frede and Patzig suggest that Aristotle's thesis concerning the separability of substances (1028<sup>a</sup>33-4) should be understood along the lines of PIB instead of PIE. They take the thesis to mean that substances are what they are independently of non-substances, whereas it is not the case that non-substances are what they are independently of substances (on the grounds that every non-substance is what it is in virtue of there being some substance in which it inheres).<sup>28</sup> Similarly, Peramatzis takes the thesis to mean that 'because of some particular substance or other, its being the general type of being that it is, non-substance attributes . . . are the general kinds of being that they are (but not vice versa)' (242). Accordingly, he holds that substances are separable from and ontologically prior to non-substances in that the former make non-substances what they are but not vice versa (244). Thus, substances are prior to non-substances in the manner of PIB, but not in the manner of PIE.<sup>29</sup>

Finally, let us consider Aristotle's claim in *Metaphysics*  $\theta$  8 that actuality is prior in substance (*tēi ousiai*) to potentiality (1049<sup>b</sup>10-11). In order to justify this claim, Aristotle writes:

But actuality is prior to potentiality in substance too, first because what is posterior in coming to be is prior in form and in substance; for instance, a

<sup>27</sup> On the other hand, substances are ontologically prior in this way to *individual* non-substances such as Socrates' pallor (that is, to tropes individuated by reference to the single substance which is their bearer). Socrates can exist without his pallor, but his pallor cannot exist without him. However, since this kind of ontological priority does not generalize to *universal* non-substances, it does not provide a satisfactory account of Aristotle's general thesis that substances are ontologically prior to non-substances; see Bostock, *Z&H*, 58-9; Peramatzis, 236-8.

<sup>28</sup> Frede and Patzig, *Z*, ii. 21. This priority in being of substances also helps justify Aristotle's claim that substances are prior in account or definition to non-substances (see 1028<sup>a</sup>34-6).

<sup>29</sup> This does not mean that for every non-substance B there is some substance A such that A is prior to B in the manner of PIB. Rather, Peramatzis's view is that 'particular substance, in general, or any particular substance whatsoever makes non-substance attributes the general kinds of being that they are' (246, see also 248). Peramatzis admits that 'this notion of ontological primacy is undeniably attenuated' (246).

man to a boy or a human being to a seed, for the one already has the form and the other does not. (*Metaph.*  $\Theta$  8, 1050<sup>a</sup>4–7)

A boy is in potentiality what a man is in actuality. Aristotle states that a man is prior in substance to a boy. As before, it is not easy to understand this as ontological priority in the sense of PIE; for a man cannot exist without a boy having existed, nor can a human being exist without a seed having existed. Because of this, Jonathan Beere and Peramatzis (285–6) suggest that the kind of priority Aristotle has in mind here is PIB. As Beere puts it, ‘there is a non-reciprocal dependence among their essences (*ousiai*). What it is to be a boy depends on what it is to be a man, but not vice versa. If there were no such thing as what it is to be a man, there would be no such thing as what it is to be a boy, but not vice versa.’<sup>30</sup>

Based on this and the other examples described above, Peramatzis makes a convincing case that PIB plays an important role in Aristotle’s metaphysics. In the second part of his book, Peramatzis gives a valuable account of PIB as it appears throughout the *Metaphysics*. In some cases, however, his endorsement of PIB is more controversial than in the above examples. One such case concerns Aristotle’s claim in  $\Theta$  8 that eternal things are prior in substance to perishable things (1050<sup>b</sup>6–7). Most commentators understand ‘priority in substance’ in this context as referring to PIE: eternal things can exist without perishable things but perishable things cannot exist without eternal things (cf. 1050<sup>b</sup>19).<sup>31</sup> Thus, Beere holds that ‘priority in substance’ refers to PIB at 1050<sup>a</sup>4–7 but not at 1050<sup>b</sup>6–7.<sup>32</sup> By contrast, Peramatzis wants to defend PIB as having universal scope in Aristotle’s writings, and argues that PIB is applicable even to the latter passage (16, 291–9). Thus he proposes a uniform reading of ‘priority in substance’ throughout the whole of  $\Theta$  8. However, it is not easy to see how eternal things might be prior to perishable

<sup>30</sup> J. Beere, *Doing and Being: An Interpretation of Aristotle’s Metaphysics Theta [Doing and Being]* (Oxford, 2009), 302. Pace Makin, who argues that Aristotle has in mind a refined version of PIE at  $\Theta$  8, 1050<sup>a</sup>4–7; see S. Makin (trans. and comm.), *Aristotle: Metaphysics Book  $\Theta$  [Metaphysics  $\Theta$ ]* (Oxford, 2006), 192–6.

<sup>31</sup> W. D. Ross (ed. and comm.), *Aristotle’s Metaphysics: A Revised Text with Introduction and Commentary*, 2 vols. (Oxford, 1924), ii. 265; M. Burnyeat et al., *Notes on Eta and Theta of Aristotle’s Metaphysics* (Oxford, 1984), 144; C. Y. Panayides, ‘Aristotle on the Priority of Actuality in Substance’ [‘Priority’], *Ancient Philosophy*, 19 (1999), 327–44 at 341–3 (in combination with 327); C. Witt, *Ways of Being: Potentiality and Actuality in Aristotle’s Metaphysics* (Ithaca, NY, 2003), 89–90; Makin, *Metaphysics  $\Theta$* , 196 and 208–9; similarly Beere, *Doing and Being*, 293–5.

<sup>32</sup> Beere, *Doing and Being*, 293–5, 299–304, 314–15.

things in the manner of PIB. How might they be part of the essence of perishable things? Peramatzis outlines a solution to this problem based on the idea ‘that eternal actual being, its being eternal or imperishable, fixes the generic identity of all sublunary species as species’ (297). He gives only a sketchy presentation of this solution and does not attempt to develop it in detail (as he admits on pp. 291 and 298–9). In the absence of this, Peramatzis’s reading of 1050<sup>b</sup>6–7 remains schematic and programmatic, and the traditional reading in terms of PIE seems preferable.

As mentioned above, Peramatzis also opts for PIB as an interpretation of Aristotle’s characterization of ontological priority in *Metaphysics* Δ 11 (1019<sup>a</sup>1–4). There, Aristotle describes priority in substance as applying to those items ‘for which it is possible to be without other things, but not the latter without them’ (ὅσα ἐνδέχεται εἶναι ἄνευ ἄλλων, ἐκεῖνα δὲ ἄνευ ἐκείνων μὴ, 1019<sup>a</sup>3–4). Peramatzis observes that this formulation, considered in itself, is neutral between PIB and PIE (211). At the same time, he argues that the context of *Metaphysics* Δ suggests that the formulation should be interpreted in terms of PIB instead of PIE (219–28). However, this is in tension with Aristotle’s treatment of ontological priority elsewhere in his writings. For example, consider his claim in *Physics* 8. 7 that locomotion is prior in various respects to other kinds of motion:

There is another point of view from which it will be clearly seen that locomotion is primary. As in the case of other things, so too in the case of motion ‘primary’ may be said in several ways. A thing is said to be prior to other things when, if it is not, the others will not be, whereas it can be without the others [πρότερον οὐ τε μὴ ὄντος οὐκ ἔσται τᾶλλα, ἐκεῖνο δὲ ἄνευ τῶν ἄλλων]; and there is also priority in time and priority in substance [κατ’ οὐσίαν]. (*Phys.* 8. 7, 260<sup>b</sup>15–19)

In this passage Aristotle distinguishes three kinds of priority: (i) a nameless kind of priority characterized by the phrase ‘if it is not, the others will not be, whereas it can be without the others’; (ii) priority in time; and (iii) priority in substance. He goes on to argue that locomotion is prior to the other kinds of motion in each of these three ways.<sup>33</sup> The first, nameless kind of priority seems to coincide with what Aristotle calls priority in substance at Δ 11, 1019<sup>a</sup>1–4.<sup>34</sup>

<sup>33</sup> At 260<sup>b</sup>19–29, 260<sup>b</sup>29–261<sup>a</sup>12, and 261<sup>a</sup>13–26, respectively.

<sup>34</sup> 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, 1980), 73–115 at 88; Beere, *Doing and Being*, 298.

In the present passage from *Physics* 8. 7, however, the term ‘priority in substance’ is used to refer to a different kind of priority.<sup>35</sup> It is not immediately clear what this third kind of priority amounts to (Aristotle’s discussion of it at 261<sup>a</sup>13–26 bears similarities to his discussion at  $\Theta$  8, 1050<sup>a</sup>4–<sup>b</sup>6, of how actuality is prior in substance to potentiality). What seems to be clear, though, is that the first, nameless kind of priority does not coincide with PIB. When Aristotle argues that locomotion is prior in this way to other kinds of motion such as growth and alteration (260<sup>b</sup>19–29), his argument does not even purport to establish anything like PIB. Rather, his argument seems to be intended to establish PIE:

Locomotion must be primary. For there is no necessity for the subject of locomotion to be the subject either of growth or of alteration, nor need it become or perish; on the other hand, there cannot be any one of these processes without the continuous motion imparted by the first mover. (*Phys.* 8. 7, 260<sup>b</sup>15–19)

In this passage Aristotle does not argue that locomotion is in some way part of the essence of growth, alteration, or generation. Instead, he argues that these kinds of process cannot exist without the locomotion imparted by the first mover, whereas locomotion can exist without any of the other kinds of process (see also 260<sup>a</sup>29–<sup>b</sup>7).<sup>36</sup> Thus he argues for PIE. Given that the kind of priority established here is the same that is introduced at  $\Delta$  11, 1019<sup>a</sup>1–4, this casts doubt on Peramatzis’s claim that the latter passage should be understood in terms of PIB rather than PIE. Peramatzis does not discuss Aristotle’s treatment of priority in *Physics* 8. 7.<sup>37</sup> He might deny that the nameless kind of priority from *Physics* 8. 7 coincides with the one introduced in  $\Delta$  11, or he might argue that it can be understood as PIB after all. But at least *prima facie* neither of these two options is attractive.

Let us consider one more problem with Peramatzis’s attempt to give PIB the widest possible scope in the *Metaphysics*. The problem concerns accidental compounds such as a pale man. Aristotle holds

<sup>35</sup> As Beere points out, this ambiguity in Aristotle’s use of the term ‘might cause confusion, but it merely shows that Aristotle has a shortage of satisfactory labels’ (Beere, *Doing and Being*, 298 n. 21). As we have seen, the same ambiguity of the term ‘priority in substance’ can be observed in *Metaphysics*  $\Theta$  8 (1050<sup>a</sup>4–7 vs. 1050<sup>b</sup>6–7).

<sup>36</sup> See W. D. Ross (ed. and comm.), *Aristotle’s Physics: A Revised Text with Introduction and Commentary* (Oxford, 1936), 444; Panayides, ‘Priority’, 336.

<sup>37</sup> Although he mentions it at p. 205 n. 2.

that substances are ontologically prior to accidental compounds; for example, man is ontologically prior to pale man, and Socrates is ontologically prior to walking Socrates.<sup>38</sup> Accordingly, Peramatzis holds that particular substances are prior to accidental compounds in the manner of PIB (242, 244, 262 n. 5). In other words, particular substances are somehow part of the essence of accidental compounds but not vice versa (cf. 205). This presupposes that accidental compounds possess an essence and a definition signifying their essence.<sup>39</sup> Now, Aristotle also holds that the non-substance attribute pale is prior in account, but not ontologically prior, to the accidental compound pale man:

Not all things which are prior in account [ $\tau\hat{\omega}$  λόγῳ] are also prior in substance [ $\tau\hat{\eta}$  οὐσίᾳ]. For those things are prior in substance which when separated from others surpass them in being, but those are prior in account out of whose accounts the accounts of other things are compounded; and these two properties are not coextensive. For if attributes, such as moving or pale, do not exist apart from their substances [ $\epsilon\acute{\iota}$  γὰρ μὴ ἔστι τὰ πάθη παρὰ τὰς οὐσίας], the pale is prior to the pale man in account, but not in substance. For it cannot exist separately, but is always together with the compound [ $\text{o}\acute{\upsilon}$  γὰρ ἐνδέχεται εἶναι κεχωρισμένον ἀλλ' ἀεὶ ἅμα τῷ συνόλω ἔστίν]; and by the compound I mean the pale man. (*Metaph. M 2*, 1077<sup>b</sup>1–9)

According to this passage, pale is prior in account to pale man because the former (or its account) is mentioned in the account of the latter. The account in question might be 'a man who is pale'. Peramatzis does not regard this account as a definition signifying the essence of pale man. For when Aristotle denies that pale is prior in substance to pale man, Peramatzis takes this to mean that pale is not prior to pale man in the manner of PIB (256–60). On this view, pale must not be part of the essence of pale man and should not be mentioned in a definition signifying the essence of pale man.<sup>40</sup> Because of this, Peramatzis holds that an account such as 'a man

<sup>38</sup> See *Metaph. Z 1*, 1028<sup>a</sup>24–31; cf. also S. M. Cohen, 'Kooky Objects Revisited: Aristotle's Ontology', *Metaphilosophy*, 39 (2008), 3–19 at 16; Peramatzis, 232 and 239.

<sup>39</sup> In *Z 4* Aristotle argues that, strictly speaking, accidental compounds do not have an essence or definition (1029<sup>b</sup>22–1030<sup>a</sup>17). However, he accepts that they have an essence and definition in a derivative way (1030<sup>b</sup>12–13); see M. J. Loux, *Primary Ousia: An Essay on Aristotle's Metaphysics Z and H* (Ithaca, NY, 1991), 86–9. According to Peramatzis, particular substances are in some way part of this derivative kind of essence and are mentioned in the corresponding definition.

<sup>40</sup> More precisely, pale should not be mentioned in the definition in such a way as to imply that it is part of the essence of pale man.

who is pale' does not signify the essence of pale man, but is merely a 'nominal definition, which is not followed by ontological priority' (259). As we have seen, Peramatzis is committed to the view that pale man has an essence and a definition signifying its essence (because there is a substance that is prior to pale man in the manner of PIB). But it remains mysterious what this definition might look like, given that 'a man who is pale' and similar accounts in which pale is mentioned are not acceptable definitions. There is no indication that Aristotle would accept a definition of pale man in which pale is not mentioned. On the contrary, he seems to reject such a definition in  $\Delta$  111 when he argues that pale (or musical) is prior in account to pale man (or musical man):

The accident is prior in account [*κατὰ τὸν λόγον*] to the whole, as for instance musical to musical man; for without the part the account will not be whole, although it is not possible for the musical to be without there being someone who is musical. (*Metaph.*  $\Delta$  111, 1018<sup>b</sup><sub>34-7</sub>)

According to this passage, an account of pale man is not complete unless pale is mentioned in it. Would Aristotle affirm this if he thought that there is a more fundamental account of pale man, a definition signifying its essence, in which pale is not mentioned? Peramatzis does not address these issues. Thus, it remains doubtful whether PIB is adequate for explaining Aristotle's claim that non-substance attributes are not ontologically prior to accidental compounds (whereas substances are ontologically prior to them).

In sum, Peramatzis makes an important and timely contribution to the study of Aristotle's metaphysics by highlighting the role PIB plays in it. In some cases, however, he seems to go too far in applying PIB to Aristotle's text. What seems to be called for is a more balanced approach, distinguishing several kinds of ontological priority employed by Aristotle and acknowledging that labels such as 'priority in substance' are used by him to refer to different kinds of priority in different contexts.<sup>41</sup>

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<sup>41</sup> See Panayides, 'Priority', 343-4.

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