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# A Synchronic Justification for Aristotle's Commitment to Prime Matter

**Margaret Scharle**
*Reed College, 3203 SE Woodstock Ave, Portland, OR 97202, USA*
*scharlem@reed.edu*

**Abstract**
The current debate over Aristotle's commitment to prime matter is centered on diachronic considerations found in his theory of substantial change. I argue that an appeal to this theory is not required in order to establish his commitment to the existence of prime matter. By drawing on *Physics* II.1's conception of what it is for an element to *have* a nature – that is, to have an inner source of movement and rest – I introduce a *synchronic* justification for the existence of prime matter. By trading on the relationship between the thing that *has a source* of change and the *source it has*, I show that something that has a source in itself cannot be identical with its source, and that a type of matter that has no nature of its own (a kind of prime matter) is required to block this identification at the level of the elements.

**Keywords**
Aristotle, metaphysics, elements, nature, form, matter

There has been much debate as to whether or not Aristotle is committed to "prime matter" – an indeterminate, ultimate substratum of substances. The debate has centered on the part of Aristotle's philosophy that seems most to demand prime matter – his theory of elemental substantial change.

In this paper, I present a radically different argument, revealing that an appeal to Aristotle's theory of substantial change is not necessary to establish his commitment to the existence of prime matter. In contrast to what we might call the "diachronic justification for prime matter",[1] I introduce a "synchronic" justification drawn from Aristotle's conception of what it is for

[1] "Diachronic" because it focuses on the role prime matter must play in Aristotle's account of substantial *change*.


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an element to *have a nature* – that is, what it is for an element to have an inner principle of movement and rest. As I will show, the view of prime matter that emerges from the synchronic justification is quite different from the traditional view of prime matter that arises out of the diachronic justification.

In the first section, I present an overview of the synchronic justification and its textual basis. In the next section, I demonstrate that the premises used in the synchronic justification represent core features of Aristotle's metaphysics – features that he takes to distinguish him from his most prominent predecessors, Plato and Parmenides. Finally, in the last section, I present an overview of the current debate surrounding prime matter along with the advantages of my synchronic justification and the untraditional conception of prime matter it entails. Whereas the diachronic justification of prime matter rests on details of Aristotle's philosophy which are perhaps only of antiquarian interest, I hope to show that the synchronic justification rests on weighty philosophical grounds.

## I. The Argument

Consider the following synchronic justification for prime matter:

1. Nature is a principle and cause of being moved and of coming to rest in that to which it belongs primarily, in virtue of itself and not accidentally. [ὡς οὔσης τῆς φύσεως ἀρχῆς τινος καὶ αἰτίας τοῦ κινεῖσθαι καὶ ἠρεμεῖν ἐν ᾧ ὑπάρχει πρώτως καθ' αὑτὸ.] (*Physics* II.1 192b21-3)[2]
2. Something cannot be in itself primarily. [ὅτι μὲν οὖν ἀδύνατον ἐν ἑαυτῷ τι εἶναι πρώτως, δῆλον.] (*Physics* IV.3 210b23)
3. There must be a difference between that which has a nature and the nature it has. (1, 2)
4. If that which has a nature were simply form, or if that which has a nature were simply matter, there could be no difference between that which has a nature and the nature it has.
5. Therefore, that which has a nature cannot be simply form or simply matter. (3, 4)

[2] Translations are my own unless otherwise noted.

6. If that which has a nature is neither simply matter nor simply form, then it is a composite of matter and form.
7. That which has a nature is a composite of matter and form. (5, 6)
8. Each of the elements has a nature. (*Physics* II.1 192b8-15)
9. An element is a composite of matter and form. (7, 8)
10. An element is the lowest-level (that is, simplest) thing that has a nature.
11. The matter of an element is prime (in the sense that it has no nature of its own). (9, 10)

Let us consider the premises of the argument presented above. Premise one is the definition from *Physics* II.1: "nature is a principle and cause of being moved and of coming to rest in that to which it belongs primarily, in virtue of itself and not accidentally" (*Physics* II.1 192b21-3). Since the word "in" will play the central role in the synchronic justification for prime matter, it is worth emphasizing that it is the *internality* of their source of movement and rest that distinguishes natural from artificial things: although both artificial and natural things have principles of movement and rest, for natural things, the principle is *internal*, while for artificial things, the principle is *external*:

> Of the things that are, some are by nature, others due to other causes: by nature are animals and their parts, plants and the simple bodies, for example earth, fire, air and water (for we say these things and such things are by nature). And it is clear that all these differ from the things which have not been put together by nature. For each of these has in itself a principle of movement and rest. On the other hand, a bed and a coat and anything else of that sort, *qua* receiving these designations – i.e. in so far as they are products of art – have no innate impulse to change. (*Physics* II.1 192b8-19; trans. Hardie and Gaye in Barnes 1971, modified)

The second premise in the synchronic justification for prime matter – the premise that something cannot be in itself primarily – carries much of the weight of the argument. Aristotle's proof for premise two appears in the context of his reconstruction of Zeno's puzzle in *Physics* IV.3: if everything that is is in place, and place itself is, then place itself requires a place, and that place requires a place, and so on (209a25-6). Aristotle ultimately halts the regress by denying that everything that is is in place. However, Aristotle first affirms one crucial premise in Zeno's regress – the claim that it is impossible for something to be in itself primarily:

> Thus if we look at the matter inductively we do not find anything to be in itself (ἐν ἑαυτῷ) in any of the senses that have been distinguished; and it can be seen by argument that it is impossible. For each of two things will have to be both, e.g. the jar will have to be both vessel and wine, and the wine both wine and jar, if it is possible for a thing to be in itself; so that, however true it might be that they were in each other, the jar will receive the wine in virtue not of *its* being wine but of the wine's being wine, and the wine will be in the jar in virtue not of *its* being a jar but of the jar's being a jar. Now that they are different in respect of what they are [τὸ εἶναι] is evident; for that in which something is and that which is in it would be differently defined [ὁ λόγος]. Nor is it possible for a thing to be in itself even accidentally [κατὰ συμβεβηκὸς]; for two things would be at the same time in the same thing. The jar would be in itself – if a thing whose nature it is to receive can be in itself; and that which it receives, namely (if wine) wine, will be in it. Obviously, then, a thing cannot be in itself primarily. [ὅτι μὲν οὖν ἀδύνατον ἐν ἑαυτῷ τι εἶναι πρώτως, δῆλον.] (*Physics* IV.3 210b8-23; trans. Hardie and Gaye in Barnes 1971)

Here Aristotle agrees with Zeno that something cannot be in itself primarily since there must always be a difference between the container and the contained. Something cannot even be in itself primarily accidentally because then two things would occupy the same place, which is impossible.

It is important to note that although Aristotle uses the place sense of "in" to illustrate his argument, he explicitly claims a much wider conclusion that would cover the sense of "in" used in the definition of nature as an internal principle of movement and rest. In *Physics* IV.3, Aristotle distinguishes the eight different senses of "in,"[3] and states, "we do not see anything in itself [ἐν ἑαυτῷ] in any of those distinctions [among meanings of "in"], and by reason it is clear that it is impossible" (210b8-10). Aristotle not only shows, with respect to each of the eight senses of "in," that something is not in itself primarily, but he uses the wine and jar example to illustrate his more general argument ("by reason") for the impossibility of something's being in itself primarily. So, even though the wine and jar example makes use of the place-sense of "in" – which Aristotle singles out as the most "authoritative/principal" (κυριώτατον, 210a24) of the meanings – he uses this sense to illustrate what are quite general points about the function of "in." Thus, regardless of *which* sense describes the way in which

[3] (1) a part is in the whole, (2) the whole is in the part, (3) the species is in the genus, (4) the genus is in the species, (5) form is in the matter, (6) things are in their first mover, (7) things are in the end, and (8) a thing is in a vessel and in place.

a nature is "in" that to which it belongs,[4] it is clear that Aristotle is committed to the fact that a nature cannot be in itself primarily.

We are now in a position to draw sub-conclusion three, which states that there must be a difference between that which has a nature and the nature it has – and in fact, when we look at the text, we find that Aristotle often takes pains to emphasize precisely this distinction. In *Physics* II.1, he carefully marks off the distinction between *having* a nature, *being* a nature, and being *by* nature:

> Of the things that are, some are by nature, others due to other causes: by nature are animals and their parts, plants and the simple bodies, for example earth, fire, air and water (for we say these things and such things are by nature). And it is clear that all these differ from the things which have not been put together by nature. For each of these has in itself a principle of movement and rest. [...] So a nature is what has been said [that is, a principle and cause of being moved and of coming to rest in that to which it belongs primarily, in virtue of itself and not accidentally]. And things that have a principle of this sort have a nature. And each of these [that is, those which have a nature] is a substance. [...] These are in accordance with nature, and things that belong to these of themselves, as being carried upwards [belongs to] fire–for this neither is a nature nor has a nature, but is by nature and in accordance with nature. (*Physics* II.1 192b8-193a1)

In this passage, Aristotle carefully marks off "is a nature" from "has a nature" and "is by nature": a nature itself *is* an inner principle of movement and rest, while that which has a nature *has* an inner principle of movement and rest. Further, he introduces the locution "by nature" as a description of that which is *by* an inner principle of movement and rest.[5] As we learn in this passage, animals and their parts, plants, and the elements, are *by* nature in the sense of *having* a nature. Moreover, we can say properly that fire and the activities it undergoes *qua* fire are *by* nature. However, it is improper to say that the fire's activity *is* a nature or *has* a nature, since the fire's activity is *by* a nature fire has.

Aristotle returns to these distinctions after offering his account of form as a nature:

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[4] As I go on to suggest, the sense in which nature is in that which has a nature seems to be covered by meaning (1) above, as a part is in a whole.

[5] I exclude a discussion of "is in accordance with nature" since Aristotle seems to treat it as just another expression for "is by nature." If there is a difference to be found between these expressions, it is not one the issues at hand would differentiate.

> A nature would be, of the things which have in themselves a principle of movement, the shape and the form, which is not separate except in respect of its account. What comes from these [that is, matter and form], for example a human being, is not a nature, but by nature. (*Physics* II.1 193b3-6)

This passage applies the distinctions made in the previous passage to form and also to a human being. We now learn that while form is a nature, a human being is not. A human being is not a nature, since a nature is an inner principle of movement and rest, and a human being is *by* an inner principle of movement and rest. Moreover, a human being is by nature in the sense of *having* a nature (confirmed by II.1 192b8-15).

Now let us take a look at the following passage from *Physics* II.7 where Aristotle continues to apply the distinctions to forms *qua* natures:

> But there are two principles which cause movement naturally, of which one is not natural, for it does not have a principle of movement in itself. And such a one is whatever causes movement without being moved; such as that which is completely unchangeable, the first of all [that is, God], and the what it is and the form; for it is the end or that for the sake of which. (*Physics* II.7 198a37-198b4)[6]

Here Aristotle suggests that the form is not natural (that is, by nature) since it does not have a nature (and it is understood that it is not by nature in another sense, for instance, as a movement of something that has a nature). Rather, form is itself a nature. As Simplicius puts it, "For this [that is, form] is not a natural principle, but a principle in what is natural; if it had a principle of change within itself it would be natural."[7]

Likewise, matter serves as a nature for natural things:

> This then is one account of nature, namely that it is the primary matter underlying each of those that have a principle of movement and change in themselves. (*Physics* II.1 193a28-30)[8]

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[6] This passage mentions two principles of natural movement, only one of which is not natural. As I argue, the one that is not natural is form. The text does not explicitly name the principle that is natural, but it is clear that this principle is the composite acting as an efficient cause, for example, the father as the efficient cause of the child.

[7] Trans. Fleet 1997, 367, 10.

[8] Thus, Aristotle claims that the natural scientist should study both material nature and formal nature (*Physics* II.2 194a12-b15, *De partibus animalium* I.1 641a15-32, *De anima* I.1 403b1-19, *Metaphysics* VI.1 1025b31-1026a7, VII.11 1037a10-20, and V.4 1015a15). See also *Physics* II.1 193a9-11 and 193b7-8.

For Aristotle, matter, like form, *is* a nature in things that *have* a nature.[9]

We are now in a position to show that something that has a nature cannot be simply matter or simply form. For if that which has a nature were simply matter or simply form, then there would be nothing but itself to serve as its nature (premise four). But Aristotle has shown that it is impossible for something to serve as its own nature, because something cannot be in itself primarily. If that which has a nature cannot be simply matter or simply form, it must be something other than simply matter, or other than simply form, so that it makes sense to say that material nature is *in* it, or that formal nature is *in* it (sub-conclusion five).

To determine what this could be and to defend premise six, let us first look to how Aristotle characterizes things that have a nature. Aristotle consistently characterizes them as *composites* of matter and form. For example, the following passage suggests that which comes from *both* material nature and formal nature is something that has a nature:

> A nature would be, of the things which have in themselves a principle of movement, the shape and the form, which is not separate except in respect of its account. What comes from these [that is, matter (a clear reference to 193a30) and form], for example a human being, is not a nature, but by nature. (*Physics* II.1 193b3-8)

As the distinctions of *Physics* II.1 make clear, there are two ways in which something can be by nature – either as something that has a nature, or as that which is due to the nature of something that has a nature (for example, a movement). Clearly, that which is a composite of material nature and formal nature (for example, a human being) is by nature in the former sense. Thus, this passage maintains that composites of material nature and formal nature have a nature.

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[9] Note that, unlike form, higher level matter that *is* a nature also *has* a nature of its own. See, for example, *Physics* II.3 195a16-18, *De generatione et corruptione* II.5 332a4-6, *De generatione animalium* I.1 715a9ff. and 715a10-13, and *De partibus animalium* II.1 646a20-3 and 646b5ff., and *Meteorologica* IV.12 389b27-8. In these passages Aristotle claims that the elements serve as a material nature of the uniform parts (e.g., flesh and bone) and the uniform parts serve as a material nature of the non-uniform parts (e.g., eye, face, and hand). However, even in such cases, there remains a clear distinction between the nature and that which has the nature, because the nature (the element and the bone, for instance) is never identical to that which has the nature (the bone and the hand, respectively).

This composite view of natural things is also supported by Aristotle's discussion in *Physics* II.2. He states, "nature is in two ways, both form and matter" (II.2 194a12), and goes on to posit that the object of natural science is "that which comes from both" (194a17-8), in addition to the formal and material natures of natural things considered separately.[10]

Premise six articulates the reasoning behind his claim that things that have a nature are composites of matter and form. We have seen that things that have a nature cannot be simply matter or simply form since their natures are *in* them. This suggests that things that have a nature have a *composite* structure: given that something cannot *be* its own nature, it must *have* its nature in it as a component. So understood, the nature is in the thing that has a nature as the form is in the composite or as the matter is in the composite, or, more generally, as the part is in the whole.[11] Aristotle insists that both form and matter are natures and that that which has a nature is a composite of both.[12]

The rest of the argument proceeds straightforwardly:

7. That which has a nature is a composite of matter and form. (5, 6)
8. Each of the elements has a nature. (*Physics* II.1 192b8-15)
9. An element is a composite of matter and form. (7, 8)
10. An element is the lowest-level thing that has a nature.
11. The matter of an element is prime (in the sense that it has no nature of its own). (9, 10)

The elements are the lowest-level natural substances (premise ten) in the sense they are the simplest bodies that have a nature; there is no simpler

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[10] Just as the science of housebuilding is not only about houses, but also about the form of the house and the building materials, so too the science of nature is not only about natural things, but also about their form and matter. See also *Physics* II.1 193a9-11 and 193b7-8, *Physics* II.2 194a12-b15, *De partibus animalium* I.1 641a15-32, *De anima* I.1 403b1-19, *Metaphysics* VI.1 1025b31-1026a7, VII.11 1037a10-20, and V.4 1015a15.

[11] *Metaphysics* V.25's fourth definition of "part" shows that matter and form are each considered parts of the composite whole (1023b20-3). If matter and form are parts of the composite, the nature-sense of "in" can be seen to fall under *Physics* IV.3's first meaning of "in" – the sense in which the part is in the whole.

[12] The philosophical considerations of containment at work in the synchronic justification only strictly imply that which has a nature is a composite of two components, at least one of which is a nature; nonetheless, the text suggests Aristotle is committed to the stronger claim that both components are natures.

natural substance that composes them.[13] Thus, their matter does not *have* a nature of its own, and is, in that sense, "prime" (conclusion eleven).[14]

The conclusions we have drawn here find validation in the following passage from *De generatione et corruptione*, where Aristotle states:

> Our own doctrine is that although there is a matter of the perceptible bodies (a matter out of which the so-called elements come-to-be), it has no separate existence, but is always bound up with a contrariety. [...] We must reckon as a principle and as primary the matter which underlies, though it is inseparable from, the contrary qualities; for the hot is not matter for the cold nor the cold for the hot, but the substratum is matter for them both. (*De generatione et corruptione* II.1 329a24-32; trans. Joachim in Barnes 1971)

Here, Aristotle refers to the "so-called" elements because his considered view, with which he ends the chapter, is that the material and formal natures from which the elements are composed must, of necessity, be even more "elementary" than the elements themselves.[15]

To review the argument briefly, then, *Physics* II.1 insists that the elements have a nature – "a principle [ἀρχή] and cause of being moved and of coming to rest in that to which it belongs primarily, in virtue of itself and not accidentally" (*Physics* II.1 192b21-3) – and this passage from *De generatione et corruptione* confirms that the elements have both a material principle (ἀρχή) and a formal principle (ἀρχή), the contraries. Then, given that this material principle does not itself have a nature, it is, in that sense, "prime" or as Aristotle also calls it, "first" ("πρώτην" 329a30).[16]

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13) Aristotle believes the elements are the simplest bodies since they move with the simplest motions (*De caelo* I.2 268b26-269a8).

14) Note that I am committed to the heavenly bodies having a material nature if they indeed have a nature. *Metaphysics* XII.2 confirms that the heavenly bodies in fact have matter, but it states that their matter is not a principle of generation, but a principle of movement from place to place (1069a25-6). For more on the sense in which this topical matter is a principle, see Charles (2000), who considers whether "Aristotle aimed to treat topical matter as the primary matter of eternal sensible substances" (90).

15) On "'so-called' elements", see Crowley 2008.

16) Here again Aristotle is clear that the composite element is composed of both matter and form, and he explicitly denies one possible permutation – that the elements are a composite of two forms. *De generatione et corruptione* II.2 identifies the hot, the cold, the wet, and the dry as the principles and forms (εἴδη καὶ ἀρχὰς, 329b10) of perceptible body.

Although Aristotle never explicitly makes the argument for the synchronic justification of prime matter, it finds solid textual support and, as I will demonstrate in the following section, the spirit of the argument underlies Aristotle's critiques of his two most prominent predecessors, Parmenides and Plato.

## II. Aristotle's Critiques of Parmenides and Plato

In this section I show that Aristotle's arguments against Parmenides' metaphysical monism, Plato's theory of Forms, and Plato's conception of matter ("the receptacle") all rest on premises closely related to sub-conclusion three of the synchronic justification of prime matter – the claim that there must be a difference between that which has a nature and the nature it has. Let us first consider Aristotle's case against Parmenides.

Aristotle conceives of Parmenides as a strict metaphysical monist who is thereby unable to distinguish that which has a nature from the nature it has:

> Now to investigate whether being is one and motionless is not to investigate concerning nature. For just as the geometer has nothing more to say to one who denies the principles of his science – this being a question for a different science or for one common to all – so a man investigating principles cannot argue with one who denies their existence. For there is no longer a principle if there is one thing only, and one in this way. For a principle is of some thing or things. [οὐ γὰρ ἔτι ἀρχή ἐστιν, εἰ ἓν μόνον καὶ οὕτως ἕν ἐστιν ἡ γὰρ ἀρχὴ τινὸς ἢ τινῶν] (*Physics* I.2 184b26-185a5; trans. Hardie and Gaye in Barnes 1971, modified)

Given that all Parmenides allows into his ontology is "The One," he does not investigate concerning nature. To investigate concerning nature is to investigate principle(s). But principles must be of (genitive) some thing or things, so in investigating principle(s), one must admit that there are at least *two* things in existence: the principle and that of which it serves as a principle. By countenancing only The One in his ontology, Parmenides, in effect, denies that there are any principle(s) whatsoever: for if The One were a principle, there would be something else whose principle it would be, and if The One were something that itself had a principle, there would be something else that served as its principle. This argument relies on the assumption that something cannot be its own principle, and given that natures are principles (*Physics* II.1), Aristotle must think that something

cannot be its own nature. Thus, he is committed to something like the inference from step one to three in the synchronic justification.[17]

In distinguishing the Forms (principles) from that for which they serve as principles (the many particulars), Plato moves beyond Parmenides in a sense; however, Plato's conception of the Forms nonetheless falls prey to an error analogous to that of Parmenides. By making the Forms paradigms or ideal exemplars, he hypostatizes them as entities that themselves stand in need of principles.[18] Throughout his corpus, Aristotle argues against Plato that the Forms fail to serve as principles of explanation because they are not, in the end, real principles, but rather independent things that require explanation by yet further principles.[19] So, just as Parmenides failed to recognize that The One cannot serve as its own principle, thereby committing him to at least two things, Plato failed to recognize that a Form cannot serve as its own principle, thereby committing him to an infinite regress of Forms.[20]

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17) However, notice that the argument against Parmenides trades on the use of the genitive and not on the use of "in": instead of arguing that a principle cannot be in itself, Aristotle maintains that a principle cannot be of (genitive) itself. But a return to *Physics* IV shows Aristotle to move freely between the two sorts of expression:

> And if place is in the object [i.e., composite] (it must be, if it is either form or matter) *place will be in place* [ἔσται ὁ τόπος ἐν τόπῳ]. (For both the form and the indefinite move about and change together with the object, not always in the same [spot], but just where the object itself is.) *So there will be a place of the place* [ὥστε τοῦ τόπου ἔσται τόπος]." (*Physics* IV.2 210a6-11; trans. Hussey 1983, my emphasis)

Here Aristotle restates the claim "place will be in place" (210a7) by use of the genitive: "place will be of place" (210a11). And when he returns to the argument in IV.3, Aristotle reiterates the point using only the genitive (210b30-2).

18) As Stephen Menn pointed out to me, the third hypothesis of the *Parmenides* (157C1-2) shows the others *have* a principle/nature in addition to *being* a principle/nature.

19) Wieland 1975, 136. Aristotle argues that "no common predicate indicates a 'this,' but rather a 'such.' If not, many difficulties follow and especially the 'third man'" (*Metaphysics* VII.14 1038b35-1039a3).

20) The "Third Man Argument," can be laid out in terms of principles:

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|---|---|
| One-over-Many | If a collection of things, *a*, *b*, *c*, etc., are all *F*, there is a principle/Form by virtue of which they are all F. |
| Self-Predication | The Form F is itself F. |
| Non-Identity | Nothing is F in virtue of being its own principle. |

So, for instance, if there is a collection of things that all have the property of being just, then, by One-over-Many, there must be a principle/Form (The Just) in virtue of which they

Interestingly, just as Plato errs by attempting to reify the *formal* principles of entities into natural things as the Forms, he errs again by attempting to reify the *material* principle of entities into a natural substance. According to Plato, just as the triangle fashioned out of gold *is* gold, the element water, fashioned out of the material principle – which he calls "the receptacle" – *is* the receptacle (*De generatione et corruptione* II.1 329a9-23). If so, gold and the receptacle are *natural substances* in their own right, and the change from, for instance, a triangle to a square or the change from water to air is merely an alteration of the underlying substance. However, Aristotle argues that the material nature cannot be a "this," or substance, with which other things can be identified, but rather, should be conceived as a principle that "has no separate existence, but is always bound up with a contrariety" (*De generatione et corruptione* II.1 329a30-2; trans. Joachim in Barnes 1971).[21] When he takes up these themes in *Metaphysics* IX.7, he suggests that one should not say that the triangle is *gold*, but rather, that the triangle is *golden* (1049a18-b2) so that the material nature is cast as a non-separable *principle* of the triangle. Likewise for the receptacle. For if the material nature is made into a separable substance, one creates a reified principle that itself stands in need of an explanation by some further principle, which creates an infinite regress as it did with the Forms. The very same philosophical considerations that led Aristotle to reject Plato's conception of Form also lead him to reject Plato's conception of matter.[22]

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are all just. But The Just is itself just (according to the principle of Self-Predication), so if The Just is not just in virtue of itself (in accordance with the principle of Non-Identity), there must be some other principle/Form (The Just-2) in virtue of which it and the other things are just. This pattern will repeat again for The Just-2, and so on *ad infinitum*. If One-over-Many rests on solid ground, and if Plato insists on Self-Predication, then each Form is simply another thing in need of explanation, and Plato must either reject Non-Identity, or else face an infinite regress of Forms.

[21] *De generatione et corruptione* II.1 329a9-23 shows that Anaximander (or perhaps Democritus or the Pythagoreans, as Stephen Menn has pointed out to me) makes an error similar to that of Plato. Anaximander maintains that, in addition to the four elements, there is another principle, the Boundless, that is "corporeal and separable [σωματικὴν καὶ χωριστήν]" from the four elements. However, something that is corporeal must be light or heavy, hot or cold. That is, Anaximander makes a natural thing out of the material principle of the elements, and thereby is committed to attributing basic characteristics to it, but to have these characteristics makes it either an element itself or composed of the elements.

[22] See also *Metaphysics* XII.2 1069b21-4. Charles argues that in this passage, Aristotle "censures his predecessors precisely because they "materialized" (or reified) matter, the principle, as a specific type of matter (such as the unbounded, atoms, fire, the cosmic mixture),"

Underlying all three critiques is Aristotle's commitment to the idea that nothing can serve as its own principle, and therefore, to the idea that nothing can be a natural thing in virtue of being its own nature.[23] Aristotle appears to think that both Plato and Parmenides fail to recognize this fact: Parmenides' failure precludes him from countenancing nature, while Plato's failure leads him to a regress of Forms and of material principles.[24] In the following section I will show that contemporary commentators on both sides of the prime matter debate make analogous mistakes.

## III. Contemporary Characterizations of Prime Matter and the Advantages of the Synchronic Justification

Traditionally, Aristotle is thought to have posited the existence of prime matter as an indeterminate, ultimate substratum of substances. Over the past fifty years, commentators have called the traditional view into question.[25] Although early debates centered on the interpretation of particular passages in which Aristotle supposedly refers to prime matter, the disputants now agree that the question hangs on Aristotle's philosophical requirements.

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but that Aristotle "seeks to avoid a 'materialized' way of understanding matter" (Charles 2004, 167).

23) *Physics* II.1, taken together with *Physics* IV.3, shows Aristotle to be committed (at least in the *Physics*) to the impossibility of something's being its own nature, and thus to be committed to Non-Identity, at least as applied to the principles of nature: something is not a natural thing in virtue of being its own nature. I add the qualification "at least in the *Physics*," since some commentators, beginning with Owen (1965), think Aristotle denies Non-Identity in *Metaphysics* VII.

24) See Wieland 1975, 136; Charles 2000, 97-103; 2004. Aristotle also thinks this problem is evident in Plato's view of soul. *Phaedrus* 245C suggests that soul is not only the principle of life in other things, but is the principle of its *own* life: the principle of life is the thing that is itself living. Plato thereby collapses Aristotle's distinction between the nature/principle *itself* and that which *has* a nature/principle. At *De anima* I.4 408b1-18, Aristotle maintains that although the soul is the *cause* of certain movements such as being angry, the soul is not *itself* angry. Rather, the composite, which possesses the soul, is the proper subject of anger. See Menn 2002.

25) Those who hold that Aristotle is not committed to prime matter include King 1956, Charlton 1983 and 1992, Jones 1974, Furth 1988, Gill 1989, Scaltsas 1994, and Broadie 2004. Traditionalist proponents of his commitment include Solmsen 1958 and 1960, Lacey 1965, Robinson 1974, Dancy 1978, and Williams 1982.

The current debate is centered on Aristotle's theory of substantial change because it is this part of his philosophy that seems most to demand prime matter. The traditional, diachronic argument is as follows:

> Aristotle argues that every change has something which underlies it (e.g., 190a31-b9). What underlies a change is the matter of that change (e.g., 1042b9-11). This has traditionally been taken to mean that, in every change, there is something which is first a part of the whole which precedes the change, and then a part of the whole which succeeds it; thus what underlies a change persists through it. When a substance alters in an accidental fashion the matter of the change is the substance itself, for that persists through the change. When the change involves the forming of a new substance from an old one, then the matter of the change is that which constitutes first the one substance then the other: thus if I turn an iron statue into cannonballs the iron is what underlies this change. Aristotle believes that the elements (air, fire, earth and water) can change into one another (e.g., 305a14-35). As there is no identifiable matter more primitive than the elements (305a14-35) there is a problem about what underlies such change. The traditional interpretation of Aristotle's treatment of this problem is that he posits a *prime matter*, a bare "stuff", lacking all positive determinations, which is the matter of the elements and which makes elemental change possible. The prime matter is nothing but a potentiality which can exist only as actualized in some determinate matter – i.e., in one of the elements – and which is what persists when one contrariety is replaced by another and the identity of an element changes.[26]

Thus, those whom I will call "traditionalists" argue that Aristotle's analysis of change requires something to underlie elemental substantial change and, second, that what underlies the substantial change cannot be the element itself, or else substantial change could not be distinguished from accidental change. Thus, they conclude that Aristotle is committed to the existence of prime matter as that which underlies elemental substantial change.

Sarah Broadie persuasively argues that Aristotle's theory of substantial change does not require the existence of prime matter, thereby undermining the traditionalist's best argument for its existence. She maintains that only alteration – not substantial change – involves something remaining, noting that *De generatione et corruptione* I.4 states that substantial change is the exchange of one ὑποκείμενον for another, while alteration is an exchange of πάθη.[27] In this passage, she argues, Aristotle distinguishes alteration from substantial change without positing prime matter as it is traditionally understood.

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[26] Robinson 1974, 168.

[27] Broadie 2004, 138.

Because it does not rely on Aristotle's theory of substantial change, the synchronic justification of prime matter remains unaffected by Broadie's new reading of the passage. Indeed, the synchronic justification need not take any stand on whether, or how, prime matter persists through elemental transformations. I presume that the answer to this question is the same as the answer to the question of whether matter underlies generation and corruption in any case (organic or elemental). So, for all I have argued, Broadie may be correct in arguing that matter does not underlie substantial change. But this is only one of the advantages of the synchronic justification.

Notice that the synchronic justification yields a notion of prime matter quite different from the traditional conception. The synchronic justification does not commit Aristotle to the traditional view that prime matter is all things in potentiality – in other words, that it is the material nature of all things.[28] For it is perfectly compatible with the synchronic justification for prime matter to be the material of the simple bodies, earth, air, fire, and water, which themselves serve as the material nature of uniform parts, which themselves serve as the material nature of non-uniform parts, which themselves serve as the material nature of organisms. Some adherents to the diachronic justification are forced to claim that prime matter is the matter of all things because, on their view, prime matter underlies all substantial change. However, my view is agnostic on this point.

Further, because the synchronic justification demonstrates that *nothing that has a nature* (including the elements) can be just matter or just form, and not that *nothing whatsoever* can be just matter or just form, it avoids the error some traditionalists make of casting prime matter as that which "gives being" to form, entailing that form cannot exist without matter.[29] By limiting the application of my argument to things that have a nature, I can accommodate the fact that, for instance, Aristotle considers God to be pure form: for on Aristotle's account, God does not *have* a nature.[30]

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28) Williams 1982, 211.

29) For example, see Robinson 1974, 183, and Dancy 1978, 391.

30) Unmattered things whose essence is their substance are not things that have natures. Lang points to the following passages in support of the claim that God is not by nature (Lang 1998, 44n32): *Physics* VII.1 241b37-242a46, VIII.5, esp. 256b28-258b8, and VIII.4 254b24-33. If anything, God *is* a nature – a nature of the whole (*Metaphysics* XII.10 1075a11).

Perhaps surprisingly, my synchronic justification for prime matter turns out to be compatible not only with the unapologetic traditionalist conception of prime matter as bare and characterless (often found in the Medievals), but also with the anti-traditionalist theory put forward by Mary Louise Gill and Monty Furth.[31] On this anti-traditionalist view, the contraries (hot, cold, wet, and dry) themselves serve as the lowest-level matter, and they thereby avoid the mistake of reifying the lowest-level matter. Focusing exclusively on diachronic considerations, Gill and Furth detail their theory in terms of elemental substantial change: on their view, when water transforms into air, for example, cold serves as the matter of the transformation, while wet and dry serve as form and privation (respectively). Nonetheless, I think their theory could be adapted in light of the synchronic considerations I put forward. The proposal would be that the elements are composites of a single humid component (wet or dry) and a single temperature component (hot or cold). Neither of these components has a nature of its own, but each simply serves as a nature of the element.[32] So understood, their view would acknowledge the fact that the elements must have a composite structure in order to *have* a nature while not attempting to reify the natures of the elements into things that have natures of their own.

The fact that it is now fashionable to deny Aristotle's commitment to prime matter is, in fact, itself a symptom of the widespread failure to recognize the importance of the notions central to the synchronic justification. And it is not only the foes of prime matter who fail in this regard. Even the few traditionalists still around today who maintain that Aristotle is committed to prime matter consider the view to be something of an embarrassment; as William Charlton quips, "there will be no empirically discoverable difference between a world which contains prime matter" and a world that does not.[33] In an attempt to avert embarrassment, traditionalists have tried to dress up prime matter to make it look a little bit more like a natural substance and a little less bare and natureless. "If there is any way

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31) Furth 1988 and Gill 1989, 243-252.

32) This view would still be compatible with my reading of *De generatione et corruptione* II.1 in my section IV above. Although I find Gill's reading a bit strained, she points out that Aristotle simply states "the hot is not matter for the cold nor the cold for the hot" but this does not exclude the suggestion that the humid component serves as the matter for the temperature component.

33) Charlton 1983, 197.

to save prime matter from the charge of incoherence," Daniel Graham states, "it must be by showing how prime matter is a something."[34] So, for example, Sheldon Cohen argues that prime matter is not bare, but "essentially spatially extended and capable of motion and rest,"[35] and Richard Sorabji argues that understanding prime matter as extension is a philosophically compelling interpretation of Aristotle.[36]

However, Aristotle explicitly states, "Those thinkers are in error who postulate, beside the bodies we have mentioned [the four elements], a single matter – and that a corporeal and separable matter" (*De generatione et corruptione* II.1 329a9-11; trans. Joachim in Barnes 1971). Further, a "bare" prime matter should only be an embarrassment to the traditionalist if Aristotle thought prime matter to play the role of something that *has* a nature. Certainly something that *has* a nature must be a "something" with characteristics. But if, given the distinction between having a nature and being a nature, prime matter *is* a material nature, why should it be a "something" with characteristics? That is, why should that which *is* a material nature also *have* a nature of its own? Although it is true that *some* material natures also have a nature of their own in Aristotle's philosophy (for instance, earth has a nature and serves as a material nature of wood), Aristotle does not address the question of whether a material nature *must* have a nature of its own. He does, however, address the question with respect to formal nature, and the answer is clearly no.

As we have seen, Aristotle states that form is not natural (that is, it does not *have* a nature); rather, it *is* a nature (198a35-198b2). The fact that formal nature has no nature of its own does not undermine its claim to *being* a nature. We might say, then, more generally – according to what we might call "the logic of natures" – it is not necessary to *have* a nature in order to *be* a nature (just as, conversely, it is not necessary to *be* a nature in order to *have* a nature (recall the example of a human being at *Physics* II.1 193b5-6)). For Aristotle, formal nature is always "prime" in the sense that it does not have a nature of its own.

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34) Graham 1987, 484f.

35) Cohen 1984, 179. Cohen (1996, 62) and Sokolowski (1970, 263-88) agree that prime matter must be extended and occupy space, while Byrne argues that prime matter must have "a nature of its own" and suggests that prime matter's "essential attributes are extension, mobility, and corporeality" (Byrne 2001, 87).

36) Sorabji 1988, 3-43.

As illustrated by Aristotle's arguments against Plato and Parmenides, the failure to recognize this "primacy" of principles leads to trouble. A similar error stands behind the tendency of commentators to deny the primacy of the lowest level of matter. Traditionalists have attempted to make prime matter into a natural thing by attributing certain characteristics to it, and even, in some cases, giving it its own principle of movement and rest. On the other hand, opponents of Aristotle's commitment to prime matter argue that the elements themselves – which Aristotle takes to have a nature of their own – are the lowest-level matter on Aristotle's account. In giving the lowest-level matter (whether, on their view, prime matter or the elements) a nature of its own, commentators *on both sides* of the debate err in the exact same way Aristotle suggests Plato and Parmenides did: if one reifies the lowest-level matter into something that itself has a nature, it cannot be the lowest-level matter without *being its own nature*.[37] The synchronic justification suggests that the lowest-level matter is most properly considered to *be* a principle/nature, not something that *has* a principle/nature.

## IV. Conclusion

In putting forward a new argument for Aristotle's commitment to prime matter, I hope to have shown that commentators on both sides of the debate over prime matter have been wrong to think the solution rests solely on the interpretation of Aristotle's diachronic analysis of the cyclical transformation of the elements. For, even if Aristotle is not dependent on prime matter to tell the diachronic story of elemental transformation, he is nonetheless committed to it to give a synchronic account of the lowest-level natural things. If Aristotle's commitment to prime matter were to rest solely on the details of elemental transformation, the question of whether or not he is committed to it would perhaps be of only antiquarian interest.[38]

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[37] See also Charles 2000, 87. That is, in attempting to reify the lowest-level matter into something that itself has a nature, one is open to what we might call a "Third Matter Argument" (Charles 2004, 162).
Note that the reification I have in mind is reification into a *natural* substance. This qualification is important since Aristotle thinks God is both a substance and a principle/nature, so he countenances the reification of a formal principle (God) into a substance (albeit not a *natural* substance). Could he countenance the reification of prime matter, then, into a substance that is not a *natural* substance? Perhaps this is the deeper question.

[38] Dancy, a proponent of the diachronic justification of prime matter, insists that "[t]his is

However, the synchronic justification suggests a *metaphysical*, instead of a physical, justification for prime matter[39] and shows there to be a philosophically rich *a priori* matter at stake in Aristotle's commitment to prime matter – whether something that has a nature should be distinguished from the nature in it. As I argued, this issue divided Aristotle from his foremost predecessors, Plato and Parmenides. The drive on both sides of the contemporary debate to make the lowest-level matter something that itself has a nature – thereby making the lowest-level matter *its own nature* – betrays the widespread failure to countenance this distinction that Aristotle takes to have separated him from his predecessors.[40]

## References

Barnes, J. (1971). *The Complete Works of Aristotle* (2 vols.). Princeton: Princeton University Press.

Broadie, S. ( 2004). *De Generatione et Corruptione* I 4: Distinguishing Alteration. In F. A. J. de Haas & J. Mansfeld (Eds.), *Proceedings of the XVth Symposium Aristotelicum* (pp. 123-150). Oxford: Clarendon Press.

Byrne, C. (2001). Matter and Aristotle's Material Cause. *Canadian Journal of Philosophy*, 31 (1), 85-112.

Charles, D. (2000). *Metaphysics* L 2. In A. Graeser (Ed.), *Proceedings of the Xth Symposium Aristotelicum* (pp. 81-110). Oxford: Oxford University Press.

—— (2004). Simple Genesis and Prime Matter. In F. A. J. de Haas & J. Mansfeld (Eds.), *Proceedings of the XVth Symposium Aristotelicum* (pp. 151-170). Oxford: Oxford University Press.

Charlton, W. (1983). Prime Matter: A Rejoinder. *Phronesis*, 28, 197-211.

—— (1992). *Aristotle's* Physics. *Books 1 & 2: Translated [from the Greek] with Introduction and Notes*. Oxford: Oxford University Press.

Cohen, S. (1984). Aristotle's Doctrine of the Material Substrate. *The Philosophical Review*, 93 (2), 171-194.

—— (1996). *Aristotle on Nature and Incomplete Substance*. Cambridge: Cambridge University Press.

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not, in Aristotle, an *a priori* matter. We just, as a matter of fact rather than philosophy, have no answer to the question 'what is the continuant for these changes' [i.e., elemental transformations] that tells us anything" (Dancy 1978, 390). Dancy claims Aristotle's belief in prime matter is "no less outmoded than his belief that flesh is made of earth, air, fire, and water" (Dancy 1978, 391).

[39] Thanks to Jim Lennox for characterizing my view in these terms.

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Crowley, J. (2008). Aristotle's "So-Called Elements." *Phronesis*, 53 (3), 223-242.
Dancy, R. M. (1978). On Some of Aristotle's Second Thoughts about Substances: Matter. *The Philosophical Review*, 87, 372-413.
Fleet, B. (1997). *Simplicius on Aristotle on* Physics *2*. London: Cornell University Press.
Furth, M. (1988). *Substance, Form, and Psyche: An Aristotelian Metaphysics*. Cambridge: Cambridge University Press.
Gill, M. L. (1989). *Aristotle on Substance: The Paradox of Unity*. Princeton: Princeton University Press.
—— (1997). Material Necessity and *Meteorology* VI 12. In W. Kullmann & S. Follinger (Eds.), *Aristotelische Biologie: Intentionen, Methoden, Ergebnisse* (pp. 145-161). Stuttgart: Steiner-Verlag.
Graham, D. W. (1987). The Paradox of Prime Matter. *Journal of the History of Philosophy*, 25, 475-490.
Hussey, E. (1983). *Aristotle's* Physics *Books III and IV*. Oxford: Oxford University Press.
Jones, B. (1974). Aristotle's Introduction of Matter. *The Philosophical Review*, 83, 474-500.
King, H. R. (1956). Aristotle without *Materia Prima*. *Journal of the History of Ideas*, 17, 370-389.
Lacey, A. R. (1965). The Eleatics and Aristotle on Some Problems of Change. *Journal of the History of Ideas*, 26, 451-68.
Lang, H. (1998). *The Order of Nature in Aristotle's Physics: Place and the Elements*. Cambridge: Cambridge University Press.
Menn, S. (2002). Aristotle's Definition of Soul and the Programme of the *De Anima*. *Oxford Studies in Ancient Philosophy*, 22, 83-139.
Owen, G. E. L. (1965). The Platonism of Aristotle. *British Academy: Dawes Hicks Lecture in Philosophy*. Oxford: Oxford University Press.
Robinson, H. M. (1974). Prime Matter in Aristotle. *Phronesis*, 19, 168-88.
Scaltsas, T. (1994). *Substances and Universals in Aristotle's Metaphysics*. Ithaca: Cornell University Press.
Sokolowski, R. (1970). Matter, Elements, and Substance in Aristotle. *Journal of The History of Philosophy*, 8, 263-288.
Solmsen, F. (1958). Aristotle and Prime Matter: A Reply to Hugh R. King. *Journal of the History of Ideas*, 19, 243-252.
—— (1960). *Aristotle's System of the Physical World: A Comparison with His Predecessors*. Ithaca: Cornell University Press.
Sorabji, R. (1988). *Matter, Space, and Motion: Theories in Antiquity and Their Sequel*. London: Cornell University Press.
Wieland, W. (1975). Aristotle's Physics and the Problem of Inquiry into Principles. In Barnes, Schofield, & R. Sorabji (Eds.), *Articles on Aristotle* (vol. 1): *Science* (pp. 127-140). London: Duckworth.
Williams, C. J. F. (1982). *Aristotle's* De Generatione et Corruptione. Oxford: Oxford University Press.