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Grounding in Medieval Philosophy

Chapter 2

Ontological Priority and Grounding in Aristotle's *Categories*



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Abstract In the *Categories*, Aristotle intends to ascribe to particular substances ontological priority over all other things, but it is far from obvious what notion of priority would make this plausible. This question is the focus of my paper. I will examine what has been the standard account of his notion of ontological priority—the “modal-existential” account—and the problems it entails, as well as some scholarly alternatives to it. I will defend my own alternative account—the “explanatory-existential” account—which addresses the problems that arise for other proposed accounts, and will make plausible Aristotle’s claim that particular substances have priority over all other things. I will argue that he puts forth this notion of priority in *Categories* 12, and that it bears a similarity to the notion of grounding as discussed in contemporary metaphysics.

Keywords Aristotle · Ontological priority · Ontological dependence · Substance · Essence · Metaphysical explanation · Truthmaking · Grounding

Questions concerning ontological dependence and priority have in recent decades received considerable attention in contemporary metaphysics, and this shift in interest has been characterized as “Aristotelian” or “Neo-Aristotelian.”¹ Yet an important difference between the contemporary approach and that of Aristotle is that contemporary Aristotelians develop accounts of priority and cognate notions without

¹ See Tuomas Tahko, ed., *Contemporary Aristotelian Metaphysics* (Cambridge, 2012), pp. xi and 1; Riin Sirkel and Tuomas Tahko, eds., *Aristotelian Metaphysics: Essence and Ground*, special issue of *Studia Philosophica Estonica* 7, no. 2 (2014), 1.

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endorsing specific views on what is prior to what.² Aristotle, by contrast, appeals to the notion of priority in defending a specific priority claim. In the *Categories*, he famously defends the ontological priority of particular substances over all other things. His privileging sensible particulars is often considered to be distinctive of Aristotelian philosophy, distinguishing it from Plato's.³ But while it is clear that Aristotle intends to ascribe ontological priority to particular substances, it is far from obvious what notion of priority would make this plausible. This question will be the focus of my paper.

My treatment of this question will, hopefully, also shed some light on the notion of grounding in Aristotle's philosophy. Even though grounding has sometimes been traced back to Plato and Aristotle, there has not been much discussion of Aristotle's use of the notion. There seems to be a common agreement that Plato's discussion of the Euthyphro dilemma in the *Euthyphro* (esp. 10a–11b) appeals to the notion of grounding, but in the case of Aristotle there do not even seem to be commonly identified examples of grounding.⁴ What comes closest, in my view, is Aristotle's discussion of particular substances and their ontological priority in the *Categories*. In this connection, some metaphysicians and scholars have invoked the terminology of grounding, and I will explore the relevant connection in detail.⁵

This paper is divided into four sections. In Sect. 2.1, I will set the scene and explain how Aristotle proceeds in discussing the priority of primary substances in the *Categories*. In Sect. 2.2, I will examine what has been the standard account of Aristotle's notion of ontological priority—namely, the modal-existential account—and the problems it entails. In Sect. 2.3, I will defend an alternative account of my own that I label *explanatory-existential*. I will argue that Aristotle discusses this sort of priority in *Categories* 12, and that it makes plausible his claim in *Categories* 5 that particular substances enjoy priority over all other things. In Sect. 2.4, I will examine another alternative to the standard account of priority—namely, the essentialist account—and consider whether there is a connection between my proposed account and grounding as discussed in contemporary metaphysics.

² See Fabrice Correia, *Existential Dependence and Cognate Notions* (Munich, 2005), p. 10. Correia follows a “neutrality policy,” according to which one's view on dependence and cognate notions should be compatible with any viable metaphysical position on what depends on what.

³ See, e.g., Phil Corkum, “Aristotle on Ontological Dependence,” *Phronesis* 53 (2008), 65: “Such asymmetry [between individual substances and other kinds of beings] is widely and rightly thought to be a lynchpin of Aristotelian metaphysics.”

⁴ For further discussion of grounding and the *Euthyphro* dilemma, see esp. Fabrice Correia and Benjamin Schnieder, eds., *Metaphysical Grounding: Understanding the Structure of Reality* (Cambridge, 2012), pp. 2–4; Matthew Evans, “Lessons from *Euthyphro* 10a–11b,” *Oxford Studies in Ancient Philosophy* 42 (2012), 1–38.

⁵ See esp. Jonathan Schaffer, “On What Grounds What,” in *Metametaphysics: New Essays on the Foundations of Ontology*, ed. David J. Chalmers, David Manley, and Ryan Wasserman (Oxford, 2009), pp. 347–56. For a full list of authors, see Sect. 2.4.

2.1 The Ontological Priority of Primary Substances

There has been a long-standing controversy over the aim and scope of the *Categories*, including whether it is a logical or a metaphysical work. I will not enter into this controversy or propose a view on the *Categories* as a whole: my focus will be primarily on *Categories* 2, 5, and 12, where Aristotle's discussion is undoubtedly ontological, or at least has clear ontological implications.⁶ As the discussion in *Categories* 2 and 5 indicates, Aristotle is concerned with the question of what there is, though this is not his sole concern: he does not just catalogue or classify different kinds of existing things, but also orders them in terms of ontological priority. In *Categories* 2, Aristotle gives a list of the different kinds of things that there are (τὰ ὄντα) that proceeds in terms of two relations: being in something as a subject (ἐν ὑποκειμένῳ ἔστι) and being said of something as a subject (καθ' ὑποκειμένου λέγεται). These relations are usually understood to express some sort of ontological dependence.⁷ In *Categories* 5, Aristotle speaks of particular things like humans and horses as "primary substances," which can be seen, and commonly has been seen, as an indication that he takes them to be ontologically primary or prior. In this chapter he does not use the phrase 'priority by nature' (or 'in substance'), which is his way of referring to

⁶This assumption is shared by the majority of commentators. Even the ancient Greek commentators, who classified the *Categories* as a logical rather than a metaphysical work took Aristotle's discussion of substances to have ontological commitments. On this, see Riin Sirkel, "Philoponus on the Priority of Substances," *Journal of the History of Philosophy* 54 (2016), 353. Cf. Stephen Menn, "Metaphysics, Dialectic and the *Categories*," *Revue de métaphysique et de morale* 100 (1995), 311–37. Menn argues that the *Categories* contains "background knowledge that the dialectician armed with the *Topics* must presuppose" (p. 315, n. 6), and that it is "a manual of principles of dialectical reasoning" (p. 326), which is, by and large, neutral on metaphysical questions. For a response, see Wolfgang-Reiner Mann, *The Discovery of Things: Aristotle's Categories and Their Context* (Princeton, 2000). He points out that the contrast between dialectic and metaphysics is not so clear, and that the *Topics* is "replete with metaphysical notions" (p. 4, n. 4).

⁷That they are relations of ontological dependence emerges from Aristotle's description of the "being in" relation in *Cat.* 2, 1a24–25, and from his reasoning in *Cat.* 5, esp. at 2b3–6, which will be discussed later. This assumption is shared by practically all scholars writing on the *Categories*, whose views are discussed in this paper. See, e.g., Frank A. Lewis, *Substance and Predication in Aristotle* (Cambridge, 1991), p. 49: "Two core notions of (metaphysical) predication are at the same time relations of one-step ontological dependency"; Michael V. Wedin, *Aristotle's Theory of Substance: The Categories and Metaphysics Zeta* (Oxford, 2005), p. 81: "It is clear that both *being-in* and *being said-of* are relations of ontological dependence"; Corkum, "Aristotle on Ontological Dependence," p. 76: "Both said-of and present-in ties express ontological dependencies"; Michail Peramatzis, *Priority in Aristotle's Metaphysics* (Oxford, 2011), esp. pp. 230–38. He holds that the "being in" relation is an ontological relation, though he does not discuss the "said of" relation. For a defence of the view that 'said of' expresses an ontological relation, see J.L. Ackrill, ed. and trans., *Aristotle: Categories and De Interpretatione* (Oxford, 2002 [1963]), pp. 75–76. It is controversial, however, what sort of ontological dependence is at issue here.

the sort of priority we call “ontological.” But his explanation of why primary substances are called “primary” has clear ontological underpinnings.⁸

In explaining why primary substances are primary, Aristotle appeals to the so-called subject criterion, which is a combination of two claims. The first claim occurs right at the beginning of *Categories* 5: “A substance which is called a substance most strictly, primarily and most of all is that which is neither said of any subject nor is present in any subject, e.g. this human or this horse” (2a10–13).⁹ The second claim is that all other things are, ultimately, in or said of primary substances as subjects (2a34–b6), and Aristotle says that “it is because primary substances are subjects for all the other things [...] that they are called substances most of all” (2b15–17). The other things in question are non-substances (qualities, quantities, and attributes in other non-substantial categories), which are in primary substances as subjects, and “secondary substances” (species and genera of particular substances), which are said of them as subjects.

Together, these two claims suggest that primary substances are primary because all other things (non-substances and secondary substances) are in or are said of them as subjects, while they themselves are not in or said of anything. Assuming that the relations “being in” and “said of” are relations of ontological dependence, it follows that primary substances are primary because all other things depend on them, while they themselves do not depend upon anything; in other words, the dependence in question is asymmetric. Thus, we can say that primary substances are ontologically prior to all other things, where ontological priority may be characterized as a relation of asymmetric ontological dependence.¹⁰ This general characterization of ontological priority—*A* is prior to *B* just in case *B* depends on *A*, but *A* does not depend on *B*—can be cashed out in more than one way.¹¹ So the question becomes: What sort of ontological priority does Aristotle have in mind in the *Categories*?

⁸ Cf. Christos Y. Panayides, “Aristotle on the Priority of Actuality in Substance,” *Ancient Philosophy* 19 (1999), 327–44. Panayides argues that priority in substance differs from ontological priority; however, he takes the latter to be identical with modal-existential priority. I treat ontological priority as equivalent to priority by nature or in substance, but I will argue that modal-existential priority is *not* the only kind of ontological priority that Aristotle recognizes.

⁹ Here and in what follows I rely on Ackrill’s translation (*Aristotle: Categories and De Interpretatione*), with slight modifications.

¹⁰ This general characterization underlies several scholarly discussions of Aristotelian priority. See Corkum, “Aristotle on Ontological Dependence,” p. 59, where he speaks of “asymmetry [...] with respect to ontological dependence”; and Peramatzis, *Priority in Aristotle’s Metaphysics*, p. 3: “Aristotelian priority, in its more general outline, consists in an asymmetric independence relation between prior and posterior items.” See also Mary Louise Gill, *Aristotle on Substance: The Paradox of Unity* (Princeton, 1989), p. 3.

¹¹ Accounts of priority in Aristotelian scholarship are usually formulated using capital letters *A* and *B*, and I follow this practice here. This formulation is potentially misleading since it may suggest that we are dealing here with a rigid dependence that holds between specific entities, but it is intended to be non-committal about the *relata* involved. On generic and rigid dependence, see Sect. 2.2.

According to what has been the standard account, Aristotle's notion of ontological priority can be explicated in modal and existential terms.¹² Adopting Kit Fine's terminology,¹³ we may call it the *modal-existential* notion of priority:

Modal-Existential Priority: *A* is prior to *B* just in case *B* cannot exist without *A*, but *A* can exist without *B*. Equivalently: Necessarily, *B* exists only if *A* exists, but not conversely.

Aristotle recognizes this notion of priority in *Categories* 12, where he says that we can call prior "what does not reciprocate as to implication of existence" (14a30: μή ἀντιστρέφον κατὰ τὴν τοῦ εἶναι ἀκολούθησιν). He illustrates this with the example of one being prior to two because "if there are two it follows at once that there is one, whereas if there is one there are not necessarily two, so that the implication of the other's existence does not hold reciprocally from one" (14a30–34). This offers another way of describing modal-existential priority: *A* is prior to *B* just in case *B*'s existence implies (or entails) *A*'s existence, but not conversely.

Why should we think that Aristotle intends to ascribe to particular substances modal-existential priority? An important consideration is his argument in *Categories* 5 in support of the conclusion that primary substances are the ultimate subjects for all other things:

All the other things are either said of the primary substances as subjects or are in them as subjects. This is clear from an examination of cases. For example, animal is predicated of human and therefore also of the particular humans; for were it predicated of none of the particular humans it would not be predicated of human at all. Again, colour is in body and therefore also in a particular body; for were it not in any of the particulars it would not be in body at all. Thus all the other things are either said of the primary substances as subjects or are in them as subjects. So if the primary substances did not exist it would be impossible for any of the other things to exist (ὥστε μή οὐσῶν τῶν πρώτων οὐσιῶν ἀδύνατον τῶν ἄλλων τι εἶναι). (2a34–b6)

Aristotle claims that everything that is not itself a primary substance is, ultimately, in or said of a primary substance: there are chains of predications, but they terminate in primary substances. For example, to predicate the genus *animal* of the species *human* is, ultimately, to predicate it of particular humans for "were it predicated of none of the particular humans it would not be predicated of human at all" (2a38–b1). From this he draws the conclusion that "if the primary substances did not exist

¹² See Corkum, "Aristotle on Ontological Dependence," p. 66, where he refers to it as "the standard interpretation." See also Emily Katz, "Ontological Separation in Aristotle's *Metaphysics*," *Phronesis* 62 (2017), 31, where she characterizes it as "the traditional and still most widespread interpretation." This notion of priority is found in *Metaphysics* V.11: "Some things, then, are called prior and posterior in this sense, but others by nature and substance, such as those which can exist without other things, whereas others cannot exist without them (ὅσα ἐνδέχεται εἶναι ἄνευ ἄλλων, ἐκεῖνα δὲ ἄνευ ἐκειῶν μή)—this distinction was first used by Plato" (1019a1–4). Traditionally, this is taken to be the definition of Aristotle's notion of priority, and construed in modal-existential terms. See also n. 74 below. The modal-existential account has also been the standard account of Aristotle's notion of separation: *A* is *separate* from *B* just in case *A* can exist without *B*. See Gail Fine, "Separation," *Oxford Studies in Ancient Philosophy* 2 (1984), 31–87.

¹³ See Kit Fine, "Ontological Dependence," *Proceedings of the Aristotelian Society*, n.s. 95 (1995), 270–71.

it would be impossible for any of the other things to exist” (2b5–6). This conclusion supports the interpretation that the relations “being in” and “said of” are relations of ontological dependence. Nonetheless, it does not support just any construal of dependence, but one in terms of modality and existence: other things depend on primary substances in that they *cannot exist* without them. If this sort of dependence is supposed to be asymmetric, then we arrive at the standard account that primary substances are prior in that they *can exist* without other things.

I have been relying on the standard translation of Aristotle’s conclusion, where the Greek verb εἶναι is rendered as ‘to exist.’ This requires further comment, for it may not be obvious why this is the preferred translation. We may translate εἶναι more neutrally as ‘to be,’ so that Aristotle’s conclusion reads as follows: “If primary substances were not, it would be impossible for any of the other things to be” (2b5–6). As Michail Peramatzis notes, this translation of εἶναι is compatible with both the existential construal and the essentialist construal (“be what something is”).¹⁴ Nonetheless, I believe the standard translation of εἶναι as ‘to exist’ is more appropriate in this instance, since the essentialist construal seems not to capture Aristotle’s point. For he is not saying that if primary substances were not what they are it would be impossible for any of the other things to be what they are; rather, his claim is that if there were no primary substances, there could not be anything else—other things just could not exist.¹⁵ This is not to say that essentialist considerations do not play a role in Aristotle’s claims. A full investigation of the relation between essence and existence goes beyond the scope of this paper, but it is important to emphasize that, for Aristotle, existing things are things of a certain sort: each is something essentially (and this applies not only to substances, but to non-substances as well). Aristotle’s commitment to the view that to exist is to be something essentially—a view Gareth Matthews calls “Aristotle’s principle”—is fairly uncontroversial.¹⁶ Thus, we do not find in Aristotle any sharp contrast between essence and existence (this seems to be a later development), but existing and being something essentially go hand in hand.¹⁷

¹⁴ See Peramatzis, *Priority in Aristotle’s Metaphysics*, pp. 204–5. The essentialist construal of εἶναι is a version of the predicative construal (“being-thus-and-so”), as distinguished from the existential one. Yet, Peramatzis says that the “mere predicative use would yield philosophically uninteresting results if applied to the notion of ontological priority” (p. 205). His account of priority will be discussed in Sect. 2.4.

¹⁵ See also *Cat.* 11, 14a7–9: “In the case of contraries, it is not necessary that, if one exists, the other one does as well. For if all things are healthy, then health will exist, but sickness will not. And likewise, if all things are white, whiteness exists, but blackness will not.”

¹⁶ Gareth Matthews, “Aristotelian Categories,” in *A Companion to Aristotle*, ed. Georgios Anagnostopoulos (Malden, 2009), p. 148. For further discussion, see Michael J. Loux, *Primary Ousia: An Essay on Aristotle’s Metaphysics Z and H* (Ithaca, 1991), pp. 26–33. He shows—conclusively, in my opinion—that Aristotle is committed to this view already in the *Categories*. Different aspects of this view will be discussed also in Sects. 2.2 and 2.3.

¹⁷ See Charles H. Kahn, *Essays on Being* (Oxford, 2012), pp. 16–74. In response to the proposal that the Greek philosophers may not even have a notion of existence, Kahn emphasizes: “It is not so much that the Greeks lack our notion of existence, as they lack our sense of its distinctness from essence” (p. 36). The contrast between existence and essence emerges in Latin and Arabic discussions. See John Wippel, “Essence and Existence,” in *The Cambridge History of Medieval Philosophy*, ed. Robert Pasnau (Cambridge, 2009), pp. 622–34.

Accordingly, Aristotle's conclusion in *Categories* 5 appears to be: if primary substances did not exist (as what they are) it would be impossible for any of the other things to exist (as what they are). What are they, then? Aristotle's reasoning in support of the above conclusion suggests that primary substances exist as subjects for other things: to be a primary substance is to be an ultimate subject. Non-substances and secondary substances, on the other hand, exist as things that are in primary substances as subjects or are said of them as subjects. As Wilfrid Sellars says, the existence of other things is "essentially bound up with the fact that they are either 'predicated of' or 'present in' primary substances."¹⁸ Aristotle's conclusion may thus be understood as follows: if primary substances did not exist (as subjects for other things) it would be impossible for any of the other things to exist (as things in or said of subjects). This way of understanding his conclusion does not challenge its standard translation, but adds that the existential construal of εἶναι should not be divorced from the essential one. In what follows, when I speak of the "existence" of something, it should be understood as shorthand for "existence as what something is."

As was said before, Aristotle's conclusion offers an important consideration in support of the standard modal-existential account of priority: given that other things depend on primary substances, inasmuch as they cannot exist without them, it is natural to assume that primary substances do not depend in the same way on other things. Indeed, Julius Moravcsik emphasizes that "this conclusion is pointless unless it is implied that the dependence does not hold likewise the other way."¹⁹ But it is noteworthy that Aristotle does not make the asymmetric nature of this dependence explicit. While he is clearly committed to the view that non-substances and species and genera cannot exist without particular substances, he nowhere (as far as I can tell) says that substances *can exist* without other things. As we will see in the next section, this claim gives rise to difficult problems. Montgomery Furth thinks that Aristotle is aware of such problems, and that this is why he does not state that substances can exist without other things (specifically, the species): "The author, seeing plainly the edge of the abyss and knowing that it could not possibly be plumbed within the scope of the work in hand, deliberately, silently drew back."²⁰ However, there might be another explanation for Aristotle's silence as well. It might be that he does not discuss the problems with the standard account because he does not intend to ascribe modal-existential priority to particular substances. Perhaps he ascribes to them a different kind of priority, and when he concludes that other things cannot exist without primary substances, he brings out the consequence of this kind of priority.

¹⁸ Wilfrid Sellars, "I. Substance and Form in Aristotle," *The Journal of Philosophy* 54 (1957), 689.

¹⁹ Julius M.E. Moravcsik, "Aristotle on Predication," *The Philosophical Review* 76 (1967), 93.

²⁰ Montgomery Furth, "Transtemporal Stability in Aristotelian Substances," *Journal of Philosophy* 75 (1978), 631.

2.2 Modal-Existential Priority

It is only relatively recently that scholars have started to explore alternatives to the standard account of priority. I will put forth an alternative account of my own, but first I will discuss the problems with the standard modal-existential account in summary fashion. I will first examine the problems that the modal-existential account runs into when used to illuminate priority relations between primary substances and non-substances. The most detailed discussions of these problems are given by Phil Corkum and Michail Peramatzis.²¹ Here I will simply highlight some key issues.

It is helpful to frame the discussion in terms of what are in contemporary metaphysics called “generic dependence” and “rigid dependence.” Let us take as our starting point the above-discussed conclusion in *Categories* 5 that “if primary substances did not exist it would be impossible for any of the other things to exist” (2b5–6). How should we understand the *relata* of this dependence relation? Clearly enough, Aristotle is not saying that other things cannot exist without one specific primary substance; for example, the species *human* cannot exist without Socrates, nor the attribute *redness* without one particular tomato. His claim seems to be that other things cannot exist without any particular substances whatsoever; that is, they need *some* particular or other for their existence. This kind of dependence is called “generic”: *B* cannot exist without *some A* or other. Here *B*’s existence does not imply the existence of one particular *A*; any *A* will do. In the case of “rigid dependence,” there is no such flexibility, but the existence of *B* implies the existence of one specific *A*. Thus, rigid dependence holds between specific entities, for example, Socrates’ paleness and Socrates.²²

Let us first take up the generic version of modal-existential dependence. According to Aristotle, non-substance attributes cannot exist without inhering in any primary substances whatsoever. Is this dependence asymmetric? The answer appears to be no, for primary substances are particular things like humans and horses, and these could not exist stripped of all attributes. If a primary substance is to exist, it must be of some colour, of some weight, in some place, and so on. So just as non-substances cannot exist without any primary substances, so primary substances cannot exist without any non-substances. Generic dependence between

²¹ Corkum, “Aristotle on Ontological Dependence,” pp. 72–76; Peramatzis, *Priority in Aristotle’s Metaphysics*, pp. 233–38. These problems are also discussed, though in less detail, by Myles Burnyeat et al., *Notes on Book Zeta of Aristotle’s Metaphysics, Being the Record of a Seminar Held in London, 1975–1979* (Oxford, 1979), p. 4; Daniel Devereux, “Separation and Immanence in Plato’s Theory of Forms,” in *Plato: Metaphysics and Epistemology*, ed. Gail Fine (Oxford, 2006), p. 206; Wedin, *Aristotle’s Theory of Substance*, p. 83.

²² For further discussion about generic and rigid dependence, see Tuomas Tahko and Jonathan Lowe, “Ontological Dependence,” *Stanford Encyclopedia of Philosophy* (Winter 2016 Edition) ed. Edward N. Zalta, <https://plato.stanford.edu/archives/win2016/entries/dependence-ontological/>; Kathrin Koslicki, “Ontological Dependence: An Opinionated Survey,” in *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, ed. Benjamin Schnieder, Miguel Hoeltje, and Alex Steinberg (Munich, 2013), pp. 38–41; Correia, *Existential Dependence and Cognate Notions*, pp. 89–97.

primary substances and non-substances holds in both directions and is thus reciprocal or symmetric, rather than asymmetric.

In response, we could say that the statement that “primary substances can exist without non-substances” does not imply that they can exist stripped of all attributes, but only that they can change the attributes they happen to have. For example, although Socrates needs to be of some colour and in some place, he does not need to be pale or in the marketplace: he could move to another place, and losing paleness is as easy as getting a tan. Indeed, in *Categories* 5 Aristotle says: “It seems most distinctive of substance that, being the same and one in number, it can admit contraries [...] as a result of a change in itself” (4a10–b3). He illustrates this point with the following example: “This human, one and the same, becomes pale at one time and dark at another, and hot and cold, and bad and good” (4a18–21). This suggests that a primary substance can exist without the attribute that it can change while remaining one and the same substance.²³ Notice that here we are dealing with specific entities: a particular substance like Socrates and a specific attribute like *pale-ness*. Accordingly, we can say that Socrates is not rigidly dependent on *pale-ness*. Nonetheless, focusing on attributes that the substance can change would not give us asymmetry either, if these attributes are universal and can belong to more than one thing. For just as Socrates can exist without being pale (as long as he is of *some* colour), so also the attribute *pale-ness* can exist without Socrates (as long as there are other pale things). Hence, the attribute is no more dependent on a given substance than a substance is on a given attribute; that is, the relation involved is non-symmetric rather than asymmetric.

At this point we could narrow the focus even further, and insist that we have in mind non-substance attributes that belong only to one thing (e.g. Socrates' paleness), which cannot be found in any other subject. Aristotle distinguishes in *Categories* 2 between two types of non-substances or items in a subject: those that are said of a subject and those that are not. These are often called “universal non-substances” and “particular non-substances” respectively. There has been a long-standing dispute over the precise nature of particular non-substances, but according to a prominent interpretation, particular non-substances are non-recurrent and are found in just one subject, being similar to tropes.²⁴ Now, a primary substance is not rigidly dependent on its trope. For example, Socrates can

²³In *Topics* I.5, Aristotle calls such attributes “accidents,” namely, those that “may belong or not belong to any one and the self-same thing” (102b6–7). Thus, we could say that a primary substance is not rigidly dependent on any given accident. Corkum points out that the initial plausibility of the standard account rests on equivocation: “Substance can exist apart from any given accident; non-substance needs some substance or other” (“Aristotle on Ontological Dependence,” p. 74). If we try to ascribe to non-substances the same kind of dependence that we deny of substances, then our troubles begin.

²⁴This line of interpretation was defended and popularized by Ackrill, *Aristotle: Categories and De Interpretatione*, pp. 74–76. It has been challenged, most notably, by G.E.L. Owen, “Inherence,” *Phronesis* 10 (1965), 97–105, and Michael Frede, “Individuals in Aristotle's *Categories*,” in *Essays in Ancient Philosophy*, ed. Michael Frede (Oxford, 1987), pp. 50–63. For an overview of various interpretive options, see Matthews, “Aristotelian Categories,” pp. 149–52.

exist without his paleness. Could Socrates' paleness exist without Socrates? That would be a strange case indeed, similar to Carroll's impossible Cheshire cat, whose grin lingered long after the cat was gone. So here we find the desired asymmetry: rigid dependence between a primary substance and its trope holds only in one direction. Nonetheless, to propose this as an account of the priority of primary substances seems unsatisfactory, since it restricts non-substance attributes that are asymmetrically dependent on substances to tropes. As Daniel Devereux says, this "does not seem enough to justify the blanket statement that 'substance can exist without non-substances.'"²⁵ Corkum concurs that this proposal "requires that we weaken the Asymmetry Thesis," according to which primary substances enjoy priority over *all* non-substances.²⁶

As far as I can see, the only way to avoid this difficulty is to deny the distinction between particular and universal non-substances, and reduce the latter to the former, so that talk about paleness becomes shorthand for talking about paleness *tropes* that are asymmetrically dependent on their hosts. A version of this view is defended by Michael Wedin, who argues that "the asymmetry between the substantial and the nonsubstantial is, in effect, an asymmetry between primary substance and the nonsubstantial items as a whole," since the existence of universal non-substances is "reducible to the existence of nonsubstantial *individuals* they are said-of."²⁷ The weakness of the view is that it ascribes a central role to items that are scarcely mentioned outside of *Categories* 2, and relies on a controversial interpretation of their nature. Indeed, the proposal that particular non-substances are non-recurrent has been frequently challenged.²⁸ Wedin's most important consideration in support of this view seems to be conceptual rather than textual: it helps to preserve the modal-existential priority of primary substances, "the commitment to the nonrecurrence of nonsubstantial individuals follows from their essential role in securing the asymmetry that is distinctive to the theory."²⁹ Nevertheless, if we could account for the priority of primary substances without relying entirely on tropes, then this account would surely be preferable.

When we turn to the question of whether primary substances can exist without secondary substances, we face further difficulties, and these have received significantly less attention than the problems involving non-substances. Here we face a similar worry about the generic version of modal-existential dependence. Aristotle holds that species and genera cannot exist without primary

²⁵ Devereux, "Separation and Immanence in Plato's Theory of Forms," p. 206.

²⁶ Corkum, "Aristotle on Ontological Dependence," p. 74.

²⁷ Wedin, *Aristotle's Theory of Substance*, pp. 83 and 89.

²⁸ The alternative view maintains that Aristotle's reference to "this pale[ness]" in *Categories* 2 picks out a determinate shade, rather than a trope unique to its host. The salient feature of this view is that nothing prevents particular non-substances from being recurrent and repeatable. This view was originated by Owen, "Inherence," and a version of this view has been defended, most notably, by Frede, "Individuals in Aristotle's *Categories*." See also Loux, *Primary Ousia*, pp. 22–23.

²⁹ Wedin, *Aristotle's Theory of Substance*, p. 85, n. 27.

substances of which they are said; for example, the existence of the species *human* implies the existence of some particular human. Can primary substances exist without species and genera said of them? Again, the answer appears to be no, and this seems to be the result of taking primary substances to be things with essences.

Aristotle's commitment to the view that particulars have essences is apparent in his explanation of why secondary substances deserve to be called substances:

For only they, of things predicated, reveal (δηλοῖ) primary substance. For if one is to say of the particular human what he is (τί ἐστίν), it will be in place to give the species or the genus (though more informative is to give human than animal); but to give any of the other things would be out of place—for example, to say 'pale' or 'runs' or anything like that. (2b32–36; see also 2b7–14)

The species and genera reveal what the primary substance is, whereas non-substances presumably reveal something about it (e.g. what it is like or what it is doing), but not what it is. The expression τί ἐστίν (“what it is”) is standardly translated as ‘essence.’ Accordingly, we may say that Aristotle holds that particular substances are things with essences, and secondary substances reveal their essences. What precisely these claims amount to is controversial, and I will return to this issue near the end of the paper. Minimally, Aristotle takes the particular substance to be essentially something, where ‘something’ indicates membership in a certain species; for example, Socrates is essentially human, and belongs to or exists in (ὑπάρχειν ἐν) the species *human*. This has consequences for modal-existential priority, for if the particular is essentially of a certain kind, then it cannot exist without the kind it belongs to. For instance, if Socrates is essentially human, then his existence implies or entails the existence of the species *human*.

In the *Categories* Aristotle does not explicitly say that particular substances cannot exist without the species and genera under which they fall, but it is implied by several of his claims. He characterizes a primary substance as a “this something” (τόδε τι, 3b10–13), and his examples “this human” and “this horse” (2a13) suggest that ‘something’ indicates the species under which the particular falls.³⁰ Furthermore, in arguing that the most distinctive feature of substances is that they can receive contraries while remaining the same thing (4a10–21), he seems to have in mind primary substances that fall under species and genera. If Socrates could change his species in the same way he can change certain non-substance attributes, then it would be difficult to see how he could remain the same thing. Rather, the idea behind this argument seems to be that in order to be capable of changing non-substance attributes, Socrates needs to be essentially something (to wit, a human).

³⁰For this interpretation of the phrase τόδε τι, see esp. Loux, *Primary Ousia*, p. 29; Gill, *Aristotle on Substance*, p. 31; and Robert W. Sharples, “On being a τόδε τι in Aristotle and Alexander,” *Méthexis* 12 (1999), 78. For further discussion of formulae like ‘this human’ and ‘this horse’, see Verity Harte, “What’s a Particular and What Makes It So? Some Thoughts, Mainly about Aristotle,” in *Particulars in Greek Philosophy: The Seventh S.V. Keeling Colloquium in Ancient Philosophy*, ed. Robert W. Sharples (Leiden, 2010), pp. 108 and 110–11.

Consequently, primary substances could not exist (or continue to exist) without secondary substances.³¹

It is thus safe to conclude that the generic version of modal-existential dependence between primary and secondary substances holds in both directions. When we focus on the rigid version of this dependence, we get the result that the secondary substance is in fact prior to the primary one. This is because the existence of a particular substance implies the existence of a specific species (namely, the one under which it falls), whereas the existence of a species does not imply the existence of one specific particular—any particular of the relevant kind will do. For instance, if Socrates is essentially human, he cannot exist without the species *human*, whereas *human* can exist without Socrates (as long as there are some other humans in existence). Hence, the species enjoys priority over any given particular falling under it.³² Aristotle recognizes a case of rigid modal-existential priority in *Categories* 13, where he says that genera are prior to species because “they do not reciprocate as to the implication of existence, e.g. if there is fish there is an animal, but if there is an animal there is not necessarily fish” (16a6–8).³³ Here the idea seems to be the same: if fish are essentially animals, then the species *fish* cannot exist without the genus *animal*, whereas the genus would not face an existential crisis if one of its species were removed (as long as some species of animals remains in existence).

One might think that these claims conflict with Aristotle’s claims in *Categories* 5, where he clearly intends to ascribe priority to primary substances over secondary substances on the grounds that primary substances are the ultimate subjects for everything else (2a10–13, 2a34–b6, 2b15–17), and insists that “of secondary substances, the species is more a substance than the genus” (2b7–8, 17–22) partly because the species is a subject for the genus (2a21). Indeed, John Cleary holds that Aristotle’s position in the *Categories* is inconsistent.³⁴ Yet, this conflict or inconsistency can be avoided on the assumption that Aristotle is operating with different notions of priority: he does recognize cases of modal-existential priority, but this is not the sort of priority he wants to ascribe to substances in their role as subjects.

³¹ Aristotle makes the modal-existential dependence on species explicit in *Topics* IV.5, where he argues that “it is impossible for a thing to remain the same yet entirely change its species; the same animal, for instance, cannot be a human at one time but not another” (125b37–39, cf. VI.6, 145a3–12). For instance, Socrates could not be a human at one time and an artichoke at another: if he stops being human, he stops existing. For further discussion of this argument, see Loux, *Primary Ousia*, pp. 31–32, and Furth, “Transtemporal Stability in Aristotelian Substances,” pp. 628–31.

³² It is worth noting that Aristotle’s discussion in *Categories* 5 hides away this troublesome result since he does not use proper names, but formulae like ‘this human’ (ὁ τῆς ἀνθρωπότητος), by which he means a particular human, without referring to any one human in particular. Accordingly, the claim that the species *human* cannot exist without “this human” implies generic dependence, rather than rigid dependence on one particular human.

³³ This is not an isolated claim, but Aristotle refers to the priority of genera over species also in the *Topics* (123a14–19, 141b28–9, 144b9–10).

³⁴ See John J. Cleary, *Aristotle on the Many Senses of Priority* (Carbondale, 1988), pp. 22–23 and 32. See also Loux, *Primary Ousia*, pp. 46–48, who says that Aristotle’s commitment to the view that primary substances have essences leaves it unclear how they could be prior to species.

Now, if modal-existential priority is not what Aristotle intends to ascribe to primary substances, then what sort of priority does he have in mind? Phil Corkum proposes that the reason why most authors have been reluctant to give up the standard modal-existential account is the difficulty in finding an alternative.³⁵ In what follows, I will argue that the alternative account can be found in Aristotle's discussion of priority in *Categories* 12.

2.3 Explanatory-Existential Priority

Aristotle says about various different things that they are “said in many ways” (*λέγεται πολλαχῶς*), and in *Categories* 12 he makes this claim about priority (*πρότερον*). The question concerning the priority of primary substances is usually discussed independently of the treatment of priority in *Categories* 12.³⁶ However, given that this chapter contains the most detailed discussion of priority we find in the *Categories*, it is reasonable to consider whether any of the notions of priority listed in this chapter helps to illuminate priority relations between primary substances and other things. Aristotle discusses altogether five notions of priority, two of which are ontological and thus directly relevant to our discussion.³⁷ The first kind of ontological priority holds among things that do not “reciprocate as to the implication of existence” (14a30). We associated it earlier with modal-existential priority, and showed that it fails to capture the priority of primary substances. Nevertheless, this is not the only type of ontological priority that Aristotle discusses in this chapter, for he goes on to describe another, fifth notion of priority:

There would seem, however, to be another manner of priority besides those mentioned. For of things which reciprocate as to implication of existence, that which is in some way the cause of the other's existence might reasonably be called prior by nature. And that there are some such cases is clear. For there being a human reciprocates as to the implication of existence with the true statement about it: if there is a human, the statement whereby we say that there is a human is true, and reciprocally—since if the statement whereby we say that there is a human is true, there is a human. And whereas the true statement is in no way the

³⁵ Corkum, “Aristotle on Ontological Dependence,” p. 76.

³⁶ Even authors who make mention of *Categories* 12 (e.g. Corkum, “Aristotle on Ontological Dependence,” p. 75) do not treat it as relevant for Aristotle's discussion of substances in *Categories* 5. The neglect of this chapter might have something to do with the controversy over the authenticity of the *Categories* and especially of the second part, the so-called *Postpraedicamenta*. This controversy has been settled, to my mind conclusively, by Michael Frede, “Title, Unity, and Authenticity of *Categories*,” in *Essays in Ancient Philosophy*, ed. Michael Frede (Oxford, 1987), pp. 24–28. He argues that the *Categories* can only be the work of Aristotle himself or one of his students.

³⁷ Other types of priority listed in *Categories* 12 are priority in time (which does not refer to ontological separability but to cases where “one thing is called older or more ancient than another”), priority in order, and priority in value (14a26–b6).

cause of the actual thing's existence, the actual thing does seem in some way the cause of the statement's being true; it is because the actual thing exists or does not that the statement is true or false.³⁸

This notion of priority is intriguing, since it allows one thing to be prior to another even if they “reciprocate as to the implication of existence.” So even if one thing cannot exist without the other, it may nonetheless be prior to another just in case it is the cause of the other's existence. Aristotle illustrates this notion with the following example: if there is a human, then the statement that there is a human is true, and vice versa. But does the human exist because the statement is true, or is the statement true because the human exists? Clearly the latter: “It is because the actual thing exists or does not that the statement is true or false” (14b21–22; cf. 4b8–10). Aristotle takes this to show that there being a human is prior to there being a true statement about them.

This notion of priority invokes several questions. To begin with, is it restricted to cases which reciprocate as to the implication of existence? Aristotle's claim that “of things which reciprocate as to implication of existence, that which is in some way the cause of the other's existence might reasonably be called prior” (14b11–13) does not settle the question. It may be understood as saying that this kind of priority holds *only* among those things, or that it holds *even* among those things. I do not see any reason, either textual or philosophical, to restrict this kind of priority to cases where the modal-existential implication runs in both directions. Rather, the idea seems to be that *even in these cases* we can go beyond necessary coexistence and find a deeper relation of priority.³⁹ Furthermore, Aristotle does not think that it holds in *all* such cases. In *Categories* 13 he speaks of “simultaneous things,” which are such that they “reciprocate as to implication of existence, provided that neither is in any way the cause of the other's existence” (14b27–29). These cases suggest that when we establish that one thing can (or cannot) exist without another, we have not thereby established that the converse is not true. Hence, the modal-existential relation is non-symmetric: there is nothing in the relation itself which would determine whether or not it holds in both directions. The relation involved in the fifth notion of priority, however, is asymmetric. Here the assumption seems to be that when we

³⁸Aristotle, *Categories* 12, 14b10–22: “δόξειε δ' ἂν καὶ παρὰ τοὺς εἰρημένους ἕτερος εἶναι προτέρου τρόπος· τῶν γὰρ ἀντιστροφόντων κατὰ τὴν τοῦ εἶναι ἀκολουθήσιν τὸ αἴτιον ὁπωσοῦν θατέρω τοῦ εἶναι πρότερον εἰκότως φῦσει λέγοιτ' ἂν. ὅτι δ' ἔστι τινὰ τοιαῦτα, δῆλον· τὸ γὰρ εἶναι ἄνθρωπον ἀντιστρέφει κατὰ τὴν τοῦ εἶναι ἀκολουθήσιν πρὸς τὸν ἀληθῆ περι αὐτοῦ λόγον· εἰ γὰρ ἔστιν ἄνθρωπος, ἀληθὴς ὁ λόγος ᾧ λέγομεν ὅτι ἔστιν ἄνθρωπος· καὶ ἀντιστρέφει γε, —εἰ γὰρ ἀληθὴς ὁ λόγος ᾧ λέγομεν ὅτι ἔστιν ἄνθρωπος, ἔστιν ἄνθρωπος.—ἔστι δὲ ὁ μὲν ἀληθὴς λόγος οὐδαμῶς αἴτιος τοῦ εἶναι τὸ πρᾶγμα, τὸ μέντοι πρᾶγμα φαίνεται πως αἴτιον τοῦ εἶναι ἀληθῆ τὸν λόγον· τῷ γὰρ εἶναι τὸ πρᾶγμα ἢ μὴ ἀληθὴς ὁ λόγος ἢ ψευδὴς λέγεται.”

³⁹This interpretive option makes it possible to apply this notion of priority also to cases where modal-existential dependence is asymmetric (*A* can exist without *B* but not vice versa). There would seem to be some such cases. The unmoved mover can presumably exist without other things, and particular substances can exist without particular non-substances, construed as tropes. However, we might still want to say that the unmoved mover plays an explanatory role, and similarly with particular substances: their existence explains the existence of tropes.

establish that one thing is the cause of another's existence the converse claim could not be true.

What sort of asymmetric relation is in play here? How should we understand the phrase τὸ ἀρτίον τοῦ εἶναι? Aristotle's example suggests that we are dealing here with an explanatory relation, expressed by the 'because' locution.⁴⁰ Indeed, the explanatory relation is asymmetric, and it is clear that Aristotle wants to outline an asymmetric relation. As Tuomas Tahko and Jonathan Lowe say, "The conjunction 'because' must be *asymmetrical*, because it expresses an *explanatory* relationship and explanation is *asymmetrical*."⁴¹ Nevertheless, we are not dealing here with just any sort of explanation, but with metaphysical explanation, since it is the εἶναι of something that is to be explained. To forestall a possible source of confusion: the notion of explanation has both an epistemological and a metaphysical side. The epistemological notion is the most familiar notion of explanation: we explain something in order to (better) understand it. In the case of the metaphysical explanation, explaining is a matter of how things are in the world: something in the world explains something else. These two notions of explanation may overlap, for one could say that if explanations are to increase our understanding, they should track or express explanatory relations in the world.⁴²

My concern is with metaphysical explanations, specifically with what may be called "existential explanations," where the existence of something is explained by the existence of something else. Given that an explanation serves to answer a certain "why" question, the relevant question could be formulated thus: Why does *B* exist (as what it is)? The answer is: Because *A* exists (as what it is). Hence, *A*'s existing is prior to *B*'s existing. It is this notion of metaphysical explanation, I will propose, that helps to illuminate priority relations between primary substances and other things. Nonetheless, I do not think that metaphysical explanations are exhausted by existential explanations. Another example of a metaphysical explanation in Aristotle's logical works is where a thing's having a certain attribute is explained by its other attributes.⁴³ An essential attribute is often taken to be explanatory in that it

⁴⁰As several authors have noted, 'cause' in Aristotle is not restricted to the modern notion of (efficient) cause, but extends more widely to explanation, that is, what answers the relevant "why" question. See, e.g., Max Hocutt, "Aristotle's Four Because," *Philosophy* 49 (1974), 385–87.

⁴¹Tahko and Lowe, "Ontological Dependence." For a further discussion of the asymmetry of 'because', see Benjamin Schnieder, "The Asymmetry of 'Because'," *Grazer philosophische Studien* 91 (2015), 131–64.

⁴²A version of this view is defended by Jaegwon Kim, "Explanatory Knowledge and Metaphysical Dependence," *Philosophical Issues* 5 (1994), 51–69. Some authors want to reserve the term 'explanation' for an epistemological notion which tracks the metaphysical relation in the world. See, e.g. Gonzolo Rodríguez-Pereyra, "Why Truthmakers?," in *Truthmakers: The Contemporary Debate*, ed. Helen Beebe and Julian Dodd (Oxford, 2005), pp. 17–31. However, 'explanation' is a term of art, and we could use the same term for both the epistemological and metaphysical notion.

⁴³To accommodate such cases, εἶναι in the above passage could be translated as 'being'. Yet, Aristotle's example suggests that he has in mind existential explanations that hold between distinct things (rather than between distinct attributes of the thing). Hence, the existential construal of εἶναι seems appropriate in this case.

explains the presence of necessary but non-essential attributes, and this kind of explanatory relation is taken to play a central role in Aristotle's theory of demonstration in the *Posterior Analytics*.⁴⁴ The "why" question that this kind of explanation serves to answer may be formulated thus: Why is *a* *F*? The answer is: Because *a* is *G*. Hence, *a*'s being *G* is prior to *a*'s being *F*. For example: Why are humans grammatical? Because they are rational.⁴⁵

It may not be obvious how the proposal that the fifth type of priority relates to existential explanations fits with Aristotle's example, where the *explanandum* is the *truth* of the statement. J.L. Ackrill has a similar worry in mind when he says that "it is odd to call this a reciprocal implication of *existence*."⁴⁶ I believe that this example can be understood as illustrating existential explanation, for Aristotle need not distinguish between a statement's being true and there being a true statement, so that in explaining why the statement is true, we are explaining why there exists this true statement.⁴⁷ His example of a true statement is ἔστιν ἄνθρωπος, which is explained by ἔστιν ἄνθρωπος, where ἔστιν is most naturally construed existentially: the *explanandum* is the existence of a human being. In order for the implication of εἶναι between the *explanans* and *explanandum* to be reciprocal, it would seem that the *explanans* would also have to concern the existence of something, namely, a true statement. Aristotle might have in mind a question like 'Why are there true statements about things?' The answer he insists on is: 'Because there are things.' This answer is intuitively plausible, which helps to explain why he chose this example. He may want to give us an example where the answer to the "why" question is uncontroversial, and which thereby illustrates well the asymmetry of the explanatory relation, as required by priority.

⁴⁴Demonstration is taken to be explanatory in that it explains why a certain necessary attribute belongs to a subject on the basis of its essential attributes. See David Bronstein, *Aristotle on Knowledge and Learning: The Posterior Analytics* (Oxford, 2016), esp. pp. 43–50; Michael Ferejohn, *Formal Causes: Definition, Explanation, and Primacy in Socratic and Aristotelian Thought* (Oxford, 2013), esp. pp. 66–72; and Joan Kung, "Aristotle on Essence and Explanation," *Philosophical Studies* 31 (1977), esp. pp. 368–72. See also Petter Sandstad's contribution to this volume.

⁴⁵Here I leave aside the question of how the explanatory relation Aristotle appeals to in the above passage relates to his theory of the four causes, which is often construed as a theory of four kinds of explanations or "because." But it should be noted that insofar as the fifth notion of priority accommodates cases like something's existence explaining there being a true statement about it, it would appear to go beyond the cases covered by the four causes. See also Katz, "Ontological Separation in Aristotle's *Metaphysics*," p. 38, n. 35.

⁴⁶Akrill, *Aristotle: Categories and De Interpretatione*, pp. 111–12.

⁴⁷Alternatively, one could propose that being true is a way of being for Aristotle (*Met.* V.7, 1017a31–b1), and so explaining why the statement is true falls under explanations of εἶναι, construed neutrally as 'being'. However, here we have some further explaining to do, for one might think that if the implication of εἶναι between *A* and *B* is to be reciprocal, the εἶναι of *A* and *B* would have to be of the same kind. And we would have to modify our understanding of the first type of priority, which is most naturally understood in terms of existence. So, all things considered, I am inclined to think that in speaking of the fifth notion of priority, Aristotle has in mind primarily cases where εἶναι is construed existentially, even though this notion is not restricted to existential cases.

We can thus conclude that Aristotle's fifth type of priority includes existential explanations, and in order to distinguish the notion of priority in play from the modal-existential notion, we may call it the *explanatory-existential* notion of priority:

Explanatory-Existential Priority: *A* is prior to *B* just in case *B* exists because *A* exists.
Equivalently: *B* exists in virtue of *A*'s existing, or *A*'s existence explains *B*'s existence.

Just as in the case of modal-existential priority, so also here 'exists' should be understood as 'exists as what it is (or the sort of thing it essentially is).' It is worth noting that Aristotle calls the fifth notion of priority (not the modal-existential notion) priority "by nature" (φύσει). He seems to acknowledge that the answer to the question 'What can exist without what?' does not yet settle the question 'What is by nature prior to what?'. Currently, it looks different than the formulation of modal-existential priority (lines 100-101). It would be great if they could look the same. The formulation of explanatory-existential priority could be formatted in the same way as the formulation of modal-existential one: Explanatory-existential priority: *A* is prior to *B* just in case *B* exists because *A* exists. Equivalently: *B* exists in virtue of *A*'s existing, or *A*'s existence explains *B*'s existence.

Does the explanatory-existential notion of priority help to elucidate priority relations between primary substances and other things? I believe so. First of all, this priority holds even among things that cannot exist without each other, and this is the case with primary substances and other things. I showed earlier that the generic version of modal-existential dependence between them is reciprocal: non-substances and secondary substances cannot exist without there being primary substances for them to be in or said of; and conversely, primary substances cannot exist without there being non-substances inhering in them and secondary substances said of them. But we may nonetheless ask: Do primary substances exist because there exist secondary substances said of them, or do secondary substances exist because there exist primary substances of which they are said? Similarly, do primary substances exist because there exist non-substances inhering in them, or do non-substances exist in virtue of there being primary substances in which they inhere? The answer seems to be again: the latter. Particular substances cannot exist without secondary substances and certain non-substances, but the existence of these things does not explain the existence of particulars. It is rather the reverse: the existence of particulars explains the existence of other things. And the way primary substances explain the existence of other things is by being subjects for them. The existence of things that are in or said of something as a subject is explained by the existence of subjects, and primary substances are the ultimate subjects for other things. Thus, there are things said of particular substances as subjects because there are particular substances, and there are things inhering in particulars as subjects because there are subjects in which to inhere—these things exist because primary substances do.

Second, this notion of priority gives a plausible construal of Aristotle's way of proceeding in *Categories* 5. As I suggested in the first section, Aristotle does not

want merely to list different types of things that there are, but also to arrange them in terms of ontological priority. We can understand him as seeking to answer the question ‘Why are there the sort of things that there are?’ and this question invokes the fifth notion of priority.⁴⁸ Now, it is important to understand this question at the right level of generality. In ascribing priority to primary substances, Aristotle assumes that secondary substances exist as things that are said of primary substances as subjects, and non-substance attributes exist as things that are in them as subjects, whereas primary substances themselves exist as the ultimate subjects for those things. Here one might point out that each non-substance and secondary substance is itself a determinate kind of thing; for example, *paleness* exists as a certain kind of colour, and *human* exists as a certain kind of animal. Likewise, each primary substance exists as a thing of a certain kind—this human or this horse, for example. Aristotle would undoubtedly agree that each existing thing is of a determinate kind, but he is not concerned in the *Categories* to explain why this is so. That is, he is not concerned with explaining why *paleness* is a certain kind of colour, or why *human* is a certain kind of animal, but treats their being so as primitive facts.⁴⁹ Rather, he wants to explain why there are such things as colours and species of animals in the first place. Colours like paleness are classified among things that are in primary substances, and Aristotle argues that such things exist because there are subjects in which to inhere. Likewise, the species are among the things said of primary substances, and it is in virtue of being said of primary substances that exist as ultimate subjects that species too exist.

Third, explanatory-existential priority accommodates Aristotle’s appeal to the subject criterion in explaining why primary substances are primary (that is, why other things are in or said of primary substances as subjects, while they themselves are not in or said of anything as a subject). This can be now understood as establishing that primary substances explain why there are things in or said of them as subjects, while there is nothing that explains their existence. “Why” questions come to an end with primary substances, and this is what underwrites their ontological priority. Thus, the priority of primary substances lies in their explanatory role, rather than in their capacity to exist without other things. Sure enough, given that primary substances exist as particulars of a determinate kind, their existence implies the

⁴⁸ See Corkum, “Aristotle on Ontological Dependence,” who proposes that “Aristotle is generally less concerned with the question of what things exist than we might expect. His ontological concerns are typically with such questions as, given the things which we call beings, in virtue of what does each such thing have claim to this ontological status?” (p. 76). Although it is not clear what Corkum means by ‘ontological status’, my account is compatible with his proposal, if ‘ontological status’ is construed existentially. For further discussion of his view, see n. 58 below.

⁴⁹ See Loux, *Primary Ousia*, pp. 34–36. He argues that Aristotle is in the *Categories* committed to the “Unanalyzability Thesis,” that is, the idea that a primary substance’s belonging to a species is an unanalyzable fact. Similarly, in the *Posterior Analytics* Aristotle seems to think that we can demonstrate and explain why a subject has necessary (but non-essential) attributes from its essence, but the essential connections themselves are indemonstrable and immediate.

existence of the species said of them.⁵⁰ For example, it is necessary that if particular humans exist, the species *human* exists too. However, the species does not make the particular humans exist. Quite the opposite: particular humans make the species *human* exist by being the subjects of which the species is said. That is, the existence of particulars of a determinate kind as subjects explains the existence of the species as something said of them as subjects.

Finally, the explanatory-existential priority of primary substances is compatible with Aristotle's conclusion: "If primary substances did not exist it would be impossible for any of the other things to exist" (2b5–6). Since he seems to think that the modal-existential dependence of other things on primary substances follows from their being subjects for other things, he might be committed to the following claim: if other things exist because primary substances do, then other things cannot exist without primary substances—that is, the existence of primary substances is necessary for their existence.⁵¹

Thus, explanatory-existential priority is compatible with Aristotle's conclusion that other things cannot exist without particular substances, and yet it gives us the hierarchical picture that many authors have in mind when they describe primary substances as basic, or fundamental, or rock-bottom entities. On this picture, particulars, as the ultimate subjects, occupy the ground level, as it were. There are also things that inhere in them and things that are said of them, but these things are not primary because their existence is explained by the existence of particulars as their subjects. Indeed, I have been speaking of explanation, rather than of grounding, but "grounding" terminology might have some intuitive appeal when considering the role of primary substances as subjects, since their existence as subjects grounds the existence of other things, and there is not something else that grounds their existence. In the next and final section, I will examine some other accounts of priority outlined in recent scholarship, and will conclude by considering the connection between explanatory-existential priority and grounding, as it is discussed in contemporary metaphysics.

2.4 Essentialist Priority and Grounding

I have proposed the explanatory-existential account of priority as an alternative to the standard modal-existential account. However, it is not the only alternative that has been explored in Aristotle scholarship. Before I discuss what appears to be the

⁵⁰Here we should add that primary substance also have some of the non-substance attributes of necessity, which presumably follows from their being of a determinate sort.

⁵¹I will not try to settle here the difficult question about the precise relation between explanatory and modal dependence. This question is discussed among contemporary metaphysicians, some of whom defend the view that grounding has modal consequences. See, e.g., Louis deRosset, "Getting Priority Straight," *Philosophical Studies* 149 (2010), 73–97. I will take up the connection between explanatory priority and grounding in the next section.

main alternative to my account—namely, the essentialist account—it should be pointed out that other scholars too have ascribed to Aristotle a notion of priority similar to the explanatory-existential notion.

Most notably, Frank Lewis describes Aristotle's view in the *Categories* as follows:

Things other than individual substances exist only if, *and only because*, individual substances exist. [...] It is not Aristotle's view (merely) that man, for example, exists *only if* some individual man does, Socrates (say). The existence of individual men in addition to that of man itself is no coincidence, for the existence of individual men is what *grounds* the existence of man, and not vice versa.⁵²

The 'only because' is also important for preserving the asymmetry of Aristotle's dependency claims. [...] The existence of things other than individual substances is grounded in that of individual substances by the two core relations of (metaphysical) predication; since these relations are asymmetric, the grounding is also asymmetric, as required.⁵³

Lewis's formulation of priority is similar to the one offered by Mary Louise Gill, who sums up Aristotle's view in *Categories* as follows:

The primary substances of the *Categories*, such as particular men and horses, are subjects that ground the existence of other things; some of the nonprimary things, such as qualities and quantities, exist because they modify the primary substances, and others, such as substantial species and genera, exist because they classify the primary entities.⁵⁴

Both Gill and Lewis ascribe to primary substances the sort of ontological priority that is non-modal and proceeds in terms of existence. Both use the terminology of grounding. They do not explain what they mean by 'grounding', but it is clear enough that they treat it as equivalent to an explanatory relation, expressed by the 'because' locution. Thus, they seem to ascribe to primary substances the sort of ontological priority I have called "explanatory-existential."

The details, however, are less clear. Gill provides an illuminating summary of Aristotle's position in the *Categories*, but she does not defend or motivate it—her focus is elsewhere. Indeed, she goes on to associate ontological priority with autonomy ("separation from the external mover"⁵⁵), and it is not obvious how priority as autonomy would relate to the notion of priority at work in the *Categories*. Lewis mentions as a motivation for adding 'only because' that it helps to preserve the asymmetric dependence between primary substances and other things. Here some further discussion about the notion of priority expressed by 'only because' would be in order, especially as some of his claims seem to associate priority with reduction.⁵⁶ According to Markus Kohl, Lewis offers a "reductive account of subjecthood," holding that "the subjecthood of substance universals can be entirely reduced to that

⁵² Lewis, *Substance and Predication in Aristotle*, pp. 68–69; see also pp. 49–50.

⁵³ *Ibid.*, p. 69 n. 41.

⁵⁴ Gill, *Aristotle on Substance*, p. 3; see also pp. 37 and 83.

⁵⁵ *Ibid.*, p. 213.

⁵⁶ See Lewis, *Substance and Predication in Aristotle*, pp. 65–66, and Markus Kohl, "Substancehood and Subjecthood in Aristotle's *Categories*," *Phronesis* 53 (2008), 166–68.

of primary substances."⁵⁷ It is not entirely clear what is meant by 'reduction' in this context, but it is associated with identity, so that the statement '*Human* exists because some particular humans do' amounts to '*Human* exists = Some particular humans exist.' However, if there really is identity here, then we do not have asymmetry, since identity is a symmetric relation.

Let me now turn to another kind of priority that has been prevalent in the scholarship. It is similar to explanatory-existential priority in that it is non-modal in character, but differs in that it does not proceed in terms of existence. Instead, several scholars have appealed to the notion of essence in this connection, so we may call it the *essentialist account* of priority.⁵⁸ One version of this account proceeds in purely essentialist terms: one thing is prior to another just in case it is part of what the other thing is (i.e. its essence). Another version employs explanatory vocabulary: one thing is prior to another just in case its being what it is explains why the other thing is what it is.

Recent defenders of the essentialist account include, most notably, Lynne Spellman and Michail Peramatzis. Spellman proposes that ontological priority, which she links with separation, is not for Aristotle a capacity for independent existence but "independence in being," which is the ontological correlate to separation in definition:

To be separate in definition, so Aristotle tells us, is to be such that in a definition of *A* no reference is made of *B*—that is, in saying what *A* in itself is we do not need to say that it is (a) *B*. Likewise, what it means for *A* to be separate from *B*, if separation is the ontological correlate to separation in definition, is that *A* would be such that *B* is not at any time (part of) what *A* in itself is.⁵⁹

Peramatzis develops an account of "priority in being what something essentially is" (abbreviated as PIB), which he takes to be the ontological counterpart of priority in definition (abbreviated as PID):

[PID] *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*.⁶⁰

⁵⁷ Kohl, "Substancehood and Subjecthood in Aristotle's *Categories*," p. 166.

⁵⁸ But see also Corkum, "Aristotle on Ontological Dependence," whose formulation of "ontological independence" (his term for priority) proceeds in terms of "ontological status": *A* is ontologically independent of *B* just in case "A admits of the ontological status of a being independently of standing in some tie to any B whatsoever" (p. 78). He does not explain how we should understand the "ontological status of a being" (e.g. whether we should construe it existentially or essentially). It might be that he wants to remain neutral and offer us "the weakest formulation of ontological independence which meets our condition of adequacy for an account of ontological independence, the Asymmetry Thesis" (p. 81), where the latter refers to the idea that particular substances are independent of other things. Indeed, the explanatory-existential account and the essentialist account can be seen as two ways of fleshing out the details of Corkum's general formulation.

⁵⁹ Lynne Spellman, *Substance and Separation in Aristotle* (Cambridge, 1995), p. 86.

⁶⁰ Peramatzis, *Priority in Aristotle's Metaphysics*, p. 6; also p. 23.

[PIB] *A* is ontologically prior to *B* if and only if *A* can be what it essentially is independently of *B* being what it is, while the converse is not the case.⁶¹

To account for the modal aspect of PIB, expressed by the locutions ‘can/cannot be what something essentially is’, Peramatzis invokes explanatory terminology. He suggests that the modal aspect is not basic, but derived from the notion of “making something what it essentially is,” for “because something makes another thing what it is (but not the other way around), it follows that the first can be what it is without the second (but not conversely).”⁶² The corresponding notion of priority could be formulated thus:

A is prior to *B* just in case *A*’s being what it is makes *B* be what it is (but not conversely).

In using the word ‘making’ Peramatzis seems to have in mind some sort of an explanatory notion: the claim ‘*A*’s being what it is makes *B* what it is’ seems to be equivalent to ‘*A*’s being what it is *explains* why *B* is what it is’ and ‘*B* is what it is *because* *A* is what it is.’ Indeed, he calls the conception of essence, according to which essence makes something be what it is, the “causal-explanatory” model.⁶³

Does the essentialist account help to illuminate the priority of primary substances in the *Categories*? Admittedly, Spellman’s and Peramatzis’s accounts are tailored to the views Aristotle develops in the *Metaphysics*, where form takes on the status of a primary substance, rather than to his views in the *Categories*, where primary substances are particular things. Both Spellman and Peramatzis are more concerned with the priority of forms than with the priority of particular substances. However, Peramatzis emphasizes that there is continuity between the *Categories* and the *Metaphysics*, and the same kind of priority is operative in both works, giving rise to a “unified picture of Aristotelian ontological priority.”⁶⁴

Let us first consider the essentialist account in connection with the priority relation between particular substances and non-substances. Aristotle does not have much to say about definitions in the *Categories*, but he thinks that the question ‘What is it?’ can be asked and answered about both primary substances and non-substances, and that both admit of definition.⁶⁵ Thus, we could say that primary substances figure in the definitions of non-substance attributes, though not vice

⁶¹ Ibid., p. 13; also p. 204.

⁶² Ibid., p. 203; see also p. 14.

⁶³ See *ibid.*, esp. pp. 168–200. Peramatzis associates this conception of essence with formal causation, but points out that in some cases the function of formal causation is supplemented by material, efficient, or final causation. For critical discussion of the attempt to explicate the explanatory role of essence or form in terms of “making something be what it is,” see Riin Sirkel, “Essence and Cause: Making Something Be What It Is,” *Discipline filosofiche* 28 (2018), 89–112.

⁶⁴ Peramatzis, *Priority in Aristotle’s Metaphysics*, p. 229; see also pp. 233 and 244.

⁶⁵ Aristotle explains in *Cat.* 5 (2a19–33 and 3a10–20) that in the case of secondary substances, both their name (ὄνομα) and definition (λόγος) are predicated of a primary substance, whereas in the case of non-substances, their name is sometimes predicated but never their definition. For example, when we call Socrates pale, we cannot define him as paleness (a certain sort of colour), but in calling him human, we can go on to define him as human (a certain sort of animal). See also *Cat.* 5, 2b29–36. Aristotle’s claims in the *Categories* imply that particular substances are definable, which

versa. Spellman holds that particular substances are in this way prior to non-substances:

Secretariat may be brown, but in saying what Secretariat is, brownness is not part of what he is, nor, of course, is it part of what it is to be a horse [...] but the definition of any property will make it clear that properties are properties of substances.⁶⁶

The details here are complicated, however, since it is not obvious precisely how substances should be mentioned in these definitions.⁶⁷ The complications become even more urgent when we consider Peramatzis's causal-explanatory notion of making something what it is. It does not seem plausible that this horse's being what it is (namely, a horse) makes brownness be what it is (namely, a colour of some sort). Peramatzis is aware of this, and says that particulars substances do not make non-substances the "specific types of being that they are" (e.g. determinate types of colour). Rather, they make non-substances the "general types of being that they are" or "beings quite generally": "Because of some particular substance or other, its being the general type of being that it is, non-substance attributes and accidental compounds are the general kinds of being that they are."⁶⁸ What general types of being are they, then? According to Peramatzis, particular substances are the ultimate subjects, whereas "what it is to be a non-substance entity, then, is to be a qualifier or predicate."⁶⁹

On the face of it, this is compatible with my proposal that there are non-substances (i.e. things that inhere in a subject) because there are primary substances (i.e. ultimate subjects). Yet, there remains an important difference: Peramatzis vehemently rejects the existential construal of priority. On his view, primary substances as subjects do not explain why *there are* non-substances, but rather why non-substances are predicates: non-substances are predicates because primary substances are ultimate subjects. However, it is not obvious how this view should be understood. If to be a non-substance is to be a predicate, and particular substances explain why non-substances are what they are, then aren't we saying that particular substances explain why predicates are predicates (predicates are predicates because subjects are subjects)? Or is the idea perhaps that certain things are non-substances (i.e. predicates) because others are particular substances (i.e. ultimate subjects)? If so, then we come close to invoking the existential construal, for it seems that in this case we are not explaining why non-substances are the general types of things that they are, but rather why *there are* things of this general type (namely, predicable

is a controversial view in its own right. For further discussion, see Riin Sirkel, "Aristotle on Demonstrative Knowledge of Particulars" (manuscript).

⁶⁶ Spellman, *Substance and Separation in Aristotle*, p. 88.

⁶⁷ For a discussion of different interpretative options, see David Bostock, ed. and trans., *Aristotle's Metaphysics: Books Z and H* (Oxford, 2003), pp. 60–63. See also Peramatzis, *Priority in Aristotle's Metaphysics*, who suggests (p. 26) that only a name (not necessarily the whole definition) of a substance may be mentioned in a definition of a non-substance, and then proposes (p. 30) that substance need not be explicitly mentioned at all, but only implied.

⁶⁸ Peramatzis, *Priority in Aristotle's Metaphysics*, p. 242.

⁶⁹ *Ibid.*, p. 243.

entities). This conflicts with Peramatzis's rejection of the existential construal; moreover, it is not obvious why he insists on rejecting the existential construal. He treats the existential construal of priority as the main culprit for the inadequacy of the modal-existential account.⁷⁰ But it seems to me that the difficulty lies not in the existential construal of priority as such, but rather in coupling existence with necessity. I think therefore that we do not need to reject the existential construal, especially since Aristotle's claims in the *Categories* have existential implications, which the explanatory-existential account is better suited to accommodate.⁷¹

Things get even more complicated when we turn to the question of whether the essentialist account helps to illuminate priority relations between primary and secondary substances. Aristotle holds in *Categories* 5 (2b32–36) that secondary substances differ from non-substances in that they answer the "What is it?" question about primary substances. But if species and genera figured in the definitions of primary substances, then primary substances would not enjoy definitional priority over them. Furthermore, if species and genera played a role in making particular substances what they essentially are, then *they* would enjoy priority over particular substances. Either way, it would remain unclear why Aristotle calls species and genera "secondary" (rather than "primary") substances.

It is not obvious what Peramatzis thinks of this complication. He holds that forms or essences are prior to particular substances and certain types of matter (in making them the specific types of being that they are), and particular substances are in turn prior to non-substance attributes (in making them the general types of being that they are). But he does not explain how species and genera fit into this picture of Aristotelian priority. Relatedly, it is not clear what type of being he would take the secondary substances of the *Categories* to be. He assumes a distinction between "particular compounds" (e.g. Socrates) and "universal compounds" (e.g. the species *human*), which are distinguished from forms or essences, which are "modes or ways of being."⁷² If we go by his examples, then secondary substances should be universal compounds, whose relation to particular substances remains unexplained. At the same time, he remarks that "an attractive view" would be that the species play a causal-explanatory role in that "all particular substances are made what they are in virtue of their species."⁷³ If this were the case, then the species would be prior to

⁷⁰ See *ibid.*, p. 12: "My chief aim [...] will be to criticize the alleged existential aspect of Aristotle's view." See also Koslicki, "Ontological Dependence: An Opinionated Survey," p. 37.

⁷¹ As I proposed in the previous section, the explanatory-existential priority can be understood as underlying the modal-existential dependence of non-substances on primary substances: given that non-substances exist because primary substances do, they cannot exist without primary substances. On Peramatzis's view, non-substances appear to depend on primary substances both for their existence (for it is still the case that they cannot exist without them) and for their general status of being, and these two types of dependence remain oddly unconnected.

⁷² Peramatzis, *Priority in Aristotle's Metaphysics*, p. 4. See also Marko Malink, "Essence and Being: A Discussion of Michail Peramatzis, *Priority in Aristotle's Metaphysics*," *Oxford Studies in Ancient Philosophy* 45 (2013), 342–43.

⁷³ Peramatzis, *Priority in Aristotle's Metaphysics*, p. 247, n. 14.

particular substances, and the point of using the labels 'primary substance' and 'secondary substance' would remain mysterious.

My explanatory-existential account has the advantage of allowing us to ascribe priority to particular substances over *both* non-substances and secondary substances. However, the comparison with Peramatzis's account raises questions for my own account, and forces me to make explicit some of its implications. First, as should be evident from earlier discussion, I do not think Aristotle has a unified account of ontological priority.⁷⁴ As his discussion in *Categories* 12 suggests, he distinguishes between two kinds of priority, which I have labelled "modal-existential" and "explanatory-existential." Second, I maintain that secondary substances do *not* play any causal-explanatory role. Rather, they are the sort of things that are said of primary substances as subjects—they are, as it were, predicable entities.⁷⁵ Such entities exist because their subjects do. Here one might further ask what kind of entity these predicable entities are. We are led by this question into the heart of the problem of universals, which I am not able to treat adequately in this paper. But it should be pointed out that my account of the ontological priority of primary substances is compatible with more than one conception of universals, including species and genera. For example, it is compatible with the view that species and genera are certain groups (or classes or sets) of particulars.⁷⁶ Even though a particular cannot exist without the group of which it is a member (even if the group has just one member), its existence explains the existence of the group, and not vice versa. It is also compatible with the view found already in the works of the ancient Greek commentators, according to which things said of particular

⁷⁴A similar point is made by Katz, "Ontological Separation in Aristotle's *Metaphysics*," p. 39. By rejecting the view that Aristotle has one notion of priority, I also challenge the assumption that seems to underlie scholarly discussions of Aristotelian priority—namely, that *Metaphysics* V.11 (1019a1–4; see n. 12 above) offers a *definition* of ontological priority, and so any account of priority that one ascribes to Aristotle must somehow fit with this definition. This assumption might also motivate Peramatzis's rejection of the existential construal of priority: given that this definition proceeds in modal terms, the only way to avoid the modal-existential construal of priority is to challenge the existential construal, and to propose that this definition is also compatible with the essential construal. However, I do not see any decisive reasons for treating it as a doctrinal statement of priority, and Katz and Corkum would concur: see Katz, "Ontological Separation in Aristotle's *Metaphysics*," p. 41 n. 44, and Corkum, "Substance and Independence in Aristotle," in *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, ed. Benjamin Schnieder, Miguel Hoeltje, and Alex Steinberg (Munich, 2013), p. 86. Instead, we could see Aristotle in *Metaphysics* V.11 (1019a1–4) as proposing a modal notion of priority by nature (which he associates with Plato), and in *Categories* 12 as proposing an explanatory notion of priority by nature.

⁷⁵Peramatzis characterizes non-substances as predicable entities, but the same characterization could also be applied to secondary substances. It is not clear why he is reluctant to do so.

⁷⁶See esp. Martin Tweedale, "Aristotle's Universals," *Australasian Journal of Philosophy* 65 (1987), 412–23, and "Aristotle's Realism," *Canadian Journal of Philosophy* 18 (1988), 501–26. Tweedale develops an account of universals as classes that is compatible with realism (or "tenuous realism") about universals.

substances are concepts, or abstractions of some sort, which exist because their sources do.⁷⁷

These views would allow us to distinguish between species and genera on the one hand, and essences on the other. I am inclined to think that this distinction is implicit in Aristotle's discussion of primary substances in *Categories* 5. As I have argued above, the primary substances of the *Categories* are not bare particulars but things with essences. By being said of primary substances the species and genera reveal what primary substances are—that is, their essence—but they do not make them be what they are. Indeed, there is nothing that makes primary substances be what they are or explains why they have the essence they have. Their having the essence they have is treated in the *Categories* as a primitive fact: primary substance are what they are (not because of something else but) all by themselves. As things with essences, they are the ultimate subjects whose existence explains or grounds the existence of non-substances and secondary substances.⁷⁸

Let us now turn to the question concerning grounding. As we have seen, scholars of Aristotle have made use of the terminology of grounding, even though it is not clear how their use would relate to grounding as it appears in contemporary metaphysics.⁷⁹ My focus will be on the question of whether Aristotle's fifth notion of priority in *Categories* 12—the explanatory-existential notion—is connected to grounding and in what ways.

I have presented the explanatory-existential account of priority as an alternative to the standard modal-existential account, and both accounts can be seen as different ways of cashing out the general characterization of priority as an asymmetric dependence relation. The underlying assumption is that the notions of ontological priority and dependence are not primitive, but admit of further analysis. This assumption is common in contemporary metaphysics, and the efforts of metaphysicians have centered on formulating and evaluating different accounts of ontological dependence.⁸⁰

⁷⁷ See Sirkel, "Philoponus on the Priority of Substances," pp. 362–69.

⁷⁸ Why couldn't we say that essence makes primary substances be what they are? I take up this question in "Essence and Cause," where I argue that the attempt by some scholars to explicate the causal-explanatory role of essence in terms of essence "making the thing be what it is" is problematic, at least on the assumption that 'making' expresses an explanatory relation. However, this does not mean that essence does not play *any* causal-explanatory role. It is fairly uncontroversial that Aristotle holds (at least in his logical works) that a thing's having an essence explains why the thing has certain non-essential attributes (see n. 44 above). But the fact that the thing has the essence it has is not itself explained by anything, but treated in the *Categories* as a primitive fact. It is plausible that in later works, primarily in the *Metaphysics*, Aristotle holds that a particular substance's being what it is can be further analysed in terms of matter and form, and he ascribes to form a causal-explanatory role in explaining why matter is something (e.g. a human or a house).

⁷⁹ See the quoted passages from Lewis and Gill. See also Corkum, "Substance and Independence in Aristotle," pp. 82–87. This terminology makes a brief appearance also in Peramatzis, *Priority in Aristotle's Metaphysics*, p. 242, where the fifth notion of priority in *Categories* 12 is called "grounding."

⁸⁰ For this way of proceeding, see Correia, *Existential Dependence and Cognate Notions*; Koslicki, "Ontological Dependence: An Opinionated Survey"; and Tahko and Lowe, "Ontological Dependence."

Just as in Aristotelian scholarship, in contemporary metaphysics too the notion of ontological dependence has often, perhaps standardly, been framed in terms of modality and existence. Interest in alternative accounts of dependence has gone hand in hand with criticism of the modal-existential account, which is shown to be too coarse-grained to capture all the relevant relations of ontological dependence and priority.⁸¹ In developing alternative accounts, some philosophers have appealed to the notion of essence (where essence is not explicated in purely modal terms), while others have employed explanatory vocabulary. In this connection some authors have invoked the notion of grounding, which is understood to be (connected to) a relation of metaphysical explanation, expressed by the phrases 'because', 'in virtue of', or 'is grounded in'.⁸² As Tuomas Tahko says, "The idea that whatever does the grounding also somehow *explains* what is being grounded is a crucial part of the notion's appeal."⁸³ It should be pointed out that not all authors think of grounding as a relation, but it is a widespread view, and one that fits well with the proposal that grounding is (connected to) explanation, where the latter implies a relation between the *explanans* and the *explanandum*.⁸⁴

The connection between grounding and metaphysical explanation is, more often than not, assumed rather than defended. But one important consideration here is that grounding has the same formal features as explanation.⁸⁵ Most importantly, grounding, like explanation, is typically taken to be asymmetric, which distinguishes grounding from various relations of modal dependence (which are non-symmetric) and relations like identity (which are symmetric). Asymmetry is also an important feature of the fifth notion of priority in *Categories* 12. As we have already seen, Aristotle thinks that one thing can be the "cause of existence" of another, even if it "reciprocates as to the implication of being." Thus, even if the modal-existential connection runs in both directions, the explanatory connection runs only in one direction, which makes it particularly appropriate for expressing ontological priority.

⁸¹Among the first to challenge the modal construal of dependence is Fine, "Ontological Dependence." But see also the authors cited in the previous note.

⁸²Some authors identify grounding with metaphysical explanation, whereas others think explanation tracks (or expresses or corresponds to) grounding. See n. 42 above.

⁸³Tahko, *Introduction to Metametaphysics* (Cambridge, 2015), p. 104.

⁸⁴The dispute here is over the logical form of grounding statements—that is, over whether these statements should ultimately be formulated by means of a relational predicate (e.g., 'is grounded in'), or by means of a sentential connective or operator (e.g. 'because'). See Kelly Trogdon, "An Introduction to Grounding," in *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, ed. Benjamin Schnieder, Miguel Hoeltje, and Alex Steinberg (Munich, 2013), pp. 102–106. According to Trogdon, the difference between the relation view and the connective view boils down to this: "On the former the ultimate representation of grounding talk requires both grounding entities and grounded entities, while on the latter it requires neither" (p. 103). Accordingly, the former view invokes the question about the *relata* of grounding, whereas the latter view is ontologically neutral concerning the *relata*.

⁸⁵See Schnieder, "The Asymmetry of 'Because,'" pp. 137–40; Naomi Thompson, "Metaphysical Interdependence," in *Reality Making*, ed. Mark Jago (Oxford, 2016), pp. 43–44.

Another formal feature that is commonly ascribed to grounding, and which fits well with Aristotle's fifth notion of priority, is well-foundedness. This is roughly the idea that everything is either grounded in some fundamental entity or is itself a fundamental entity, where an entity is fundamental if it is ungrounded. Acceptance of both well-foundedness and asymmetry leads to what Naomi Thompson calls "metaphysical foundationalism":

Foundationalists hold that grounding chains terminate in one or more fundamental entities. [...] The fundamental entities collectively provide the "ultimate ground" for reality. The collection of fundamental entities can thus be thought of as comprising reality's "fundamental level."⁸⁶

One might think that this is precisely the sort of position Aristotle is aiming at in *Categories* 5 when he appeals to the subject criterion, according to which primary substances are the ultimate subjects for all other things. In making use of the fifth notion of priority, we can say that other things exist because primary substances do, and there is nothing that explains the existence of primary substances—they form the ground floor, or "fundamental level," of reality.⁸⁷

The above-mentioned characteristics give us good reasons to think that the fifth notion of priority that Aristotle introduces in *Categories* 12 plays a similar theoretical role to that of grounding: they both play the role of structuring reality. What might give us pause is the example Aristotle uses to illustrate the fifth notion—that there is a true statement 'There is a human' because this human exists. This might suggest that what is at issue here is truthmaking, which is often characterized as follows: some entity x makes it true that p , where x is a truthmaker and p a truth-bearer (typically a proposition). Nonetheless, Aristotle's example is presumably not meant to exhaust the type of priority under discussion, or be the *sole* example of it. Indeed, several authors have proposed that truthmaking should be characterized in terms of grounding—a statement is true *because* its truthmaker exists.⁸⁸ The truth is thus grounded in the truthmaker, but truth and truthmaker are not the only types of *relata* in the grounding relation.

What are the *relata* of grounding? Different authors have given different answers to this question, but for the most part grounding is taken to be a relation between facts. Jonathan Schaffer, who traces grounding back to Aristotle, holds that grounding is categorically neutral and can relate entities of any kind, including objects.⁸⁹ However, the proposal that grounds can be objects more generally—and not only

⁸⁶Thompson, "Metaphysical Interdependence," p. 40.

⁸⁷Aristotle adopts not only "metaphysical foundationalism" but also foundationalism in his account of scientific knowledge; see *Posterior Analytics* I.3. Thompson challenges both the asymmetry and well-foundedness of grounding, which yields a position she characterizes as "metaphysical interdependence," which she likens to coherentism in epistemology.

⁸⁸For further discussion of grounding in connection with truthmaking, see Tahko, *Introduction to Metametaphysics*, pp. 116–19. For critical discussion of this connection, see Fine, "Guide to Ground," in *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schnieder (Cambridge, 2012), pp. 43–46.

⁸⁹Schaffer, "On What Grounds What," pp. 374–78.

facts—would break the connection between grounding and explanation. As Kelly Trogdon says:

Suppose that grounding is categorically neutral, and in particular that objects can ground facts. Let's suppose that the fact that thus-and-so is grounded in a substance named 'Kelly'. The problem is that there is no context in which citing Kelly suffices to metaphysically explain any fact. The reason is that Kelly just doesn't have the right kind of structure to be an *explanans* of anything.⁹⁰

The explanatory-existential notion of priority, like grounding, is a relation among facts, though the facts in question are facts about existence: the fact that *B* exists is explained by the fact that *A* exists. Now, some authors have understood grounding in this way.⁹¹ But there is also a sense in which Aristotle's account does not conform to the divisions common in contemporary metaphysics, since he holds that existing and being something essentially go hand in hand. Thus, a more precise formulation of the fifth account of priority would be this: the fact that *B* exists (as what it is) is explained by the fact that *A* exists (as what it is). As far as I can tell, no contemporary metaphysician has tried to combine the existential and essentialist construals of priority in quite this way. But all things considered, we can conclude that in defending the view in the *Categories* that particular substances enjoy ontological priority over all other things, Aristotle appeals to a notion of priority that is similar to grounding as it is discussed in contemporary metaphysics.⁹²

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⁹⁰Trogdon, "An Introduction to Grounding," p. 105.

⁹¹See Correia, *Existential Dependence and Cognate Notions*, esp. pp. 53–57. See also Benjamin Schnieder, "A Certain Kind of Trinity: Dependence, Substance, Explanation," *Philosophical Studies* 129 (2006), 402–408.

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