

Understanding Mediated Predication in Aristotle's *Categories*

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Abstract

I argue there are two ways predication relations can hold according to the *Categories*: they can hold directly or they can hold mediately. The distinction between direct and mediated predication is a distinction between whether or not a given predication fact holds in virtue of another predication fact's holding. We can tell Aristotle endorses this distinction from multiple places in the text where he licenses an inference from one predication fact's holding to another predication fact's holding. The best explanation for each such inference is that he takes some predication facts to be mediated by others. Once the distinction between direct and mediated predication has been explained and argued for, I show how it can help solve a persistent problem for the traditional view of non-substantial particulars in the *Categories*—that is, the view that non-substantial particulars are particular in the sense of being non-recurrent. Along with vindicating the traditional view, the direct/mediated predication distinction gives us a distinctive way of understanding what it is for something to be recurrent (or non-recurrent) as well as a better understanding of Aristotle's broader commitments in the *Categories* as a whole.¹

1

Two category schemes are given in the *Categories*. Call them the “ten-fold division” and the “four-fold division.” The ten-fold division says everything is “either substance or quantity or qualification or a relative or where or when or being-in- a-position or having or doing or being-affected.”² (1b25-27)

The four-fold division is drawn differently, namely by the use of two predication relations. Some things are SAID OF others as subjects. Some things are IN others as subjects.³ Using these two relations of predication,

¹ Thanks to Ned Markosian, Tim Juvshik, Justin Mooney for comments on earlier drafts of this paper. Thanks especially to Vanessa de Harven for loads of invaluable advice. Thanks also to an anonymous reviewer and to the editor of this journal for their engaging comments.

² This translation is J.L. Ackrill's, from Jonathan Barnes's *Revised Oxford Translation*. Other translations are my own, unless noted.

³ I follow Perin (2007, fn. 2) in capitalizing the terms SAID OF and IN when I take them to be Aristotle's technical uses. This is to indicate that these are technical jargon denoting ontological, not merely linguistic facts. When I speak of the predication relations as “relations”, I do not mean to be hypostasizing them as entities themselves belonging to the

we can distinguish things that are (A) SAID OF a subject but IN no subject, (B) IN a subject but SAID OF no subject, (C) both SAID OF a subject and IN a subject, and (D) neither SAID OF nor IN any subject.

My goal is to increase our understanding of an important feature of the predication relations: some instances of predication seem to hold in virtue of others. I call this the “mediation” of predication facts. Since the SAID OF and IN relations appear only in Aristotle’s four-fold division, my attention will be restricted to that categorial scheme.⁴

I assume here that things that are IN no subject are substances.⁵ Conversely, I assume things that are IN a subject are not substances. Being SAID OF a subject is a sign of something’s being universal, in the sense of being multiply instantiable. This is supported by the examples Aristotle provides of both substantial and non-substantial universals. Aristotle gives a species, human, as an example of things SAID OF but not IN a subject. He makes clear later that species and genera (type A objects) are predicated of many substantial particulars (type (D) objects), and the definitions of the species and genera apply to each of those particulars. (1b10- 15; 2a19-27) His example of knowledge as something SAID OF and IN shows that type (C) objects play a similar definitional role for non-substantial particulars (type (B) objects). Knowledge, he tells us, is SAID OF a certain grammatical knowledge.

Not being SAID OF any subject is a sign of something’s being particular. What exactly particularity amounts to in the *Categories* is a matter of extensive debate, and I’ll explain later how my interpretation of Aristotle bears on that debate. Let me lay out the two basic options here, however. One understanding of particularity contrasts with the understanding of universality just given, on which universals are multiply

category of relation. We could just as well speak of “predicational ties”, and I make no commitment here about the status of the relations or ties.

⁴ My understanding of the relation between the ten-fold and four-fold divisions is that they are different ways of dividing the same class of objects, viz. all the things there are. The two divisions crosscut each other, because the ten-fold division distinguishes categorial differences that the four-fold division ignores, and vice versa. For example, one of the categories of the ten-fold division is *substance*, but some substances will be type (A) objects while others will be type (D) on the four-fold divisions categories. Conversely, the four-fold division tells us about things IN but not SAID OF a subject: the type (B) category. I think some members of every category besides substance in the ten-fold division will belong to this category in the four-fold division. On these points I take myself to be in agreement with Matthews (1991). I relegate this interpretation to a footnote, because I don’t think my main argument depends on it.

⁵ At 3a7-8, Aristotle says that “it is common concerning all substance not to be in a subject.” (Κοινὸν δὲ κατὰ πάσης οὐσίας τὸ μὴ ἐν ὑποκειμένῳ εἶναι.) He does introduce a type of non-substantial entity that is IN no subject: *differentia*. I ignore *differentia* simply because they are a needless complication in this discussion. Nothing I say below should be significantly altered were I to reinsert this complication. Perin (2007) argues persuasively that what it is to be a substance in the *Categories* is to be a subject IN which something is. This fits well with the view I develop here.

instantiable or recurrent. Particulars are unlike universals in being non-recurrent. This is the “traditional view.” The other view, what I’ll call the “dissenting view,” says that particulars are recurrent. What distinguishes particulars from universals on the dissenting view is their specificity. A maximally specific shade of pink, call it “Vink”, is particular because in virtue of its specificity it can’t be SAID OF anything else more specific than it.⁶ Pink, on the other hand, can be SAID OF many different, more specific shades of color.

I’ll show in §5 how understanding the mediation of predication facts in the *Categories* can help bolster the traditional view. Nowhere in this paper do I take myself to be providing a defense of the traditional view, however. I offer the help my interpretation can give the traditionalist as a reason for the traditionalist to accept my interpretation.

Taking the forgoing distinctions into account we get the following natural understanding of the four-fold division of the *Categories*:

	Not IN	IN
SAID OF	(A) Substantial Universals	(C) Non-substantial Universals
Not SAID OF	(D) Substantial Particulars	(B) Non-substantial Particulars

I aim to provide an understanding of one feature of the predication relations: according to Aristotle in the *Categories*, some instances of predication hold in virtue of others. For example, Aristotle says that “...color is IN body; therefore also IN a certain body; for if, of those according to each [color], none were IN a certain body, then none would be IN body generally.” (2b2-4) Likewise, Aristotle explains at 1b9-11 that “[w]henver one is predicated of another as of a subject, as many as are SAID OF the predicate, all are also SAID OF the subject,” and that “of those things SAID OF a subject, necessarily the name and account are also predicated of the subject.” (2a19-20) These are some of the claims Aristotle makes in the *Categories* that demonstrate the feature I have in mind. Sometimes, when one thing is predicated of another, this situation obtains in virtue of another situation where a predication relation is instantiated. My aim is to articulate just when this occurs.

⁶ The example belongs to Owen (1965).

In §2 I mention three places secondary commenters have suggested something like my view, even though no one seems to have developed their suggestions into a full account. In order to explain the views of previous theorists, I also elaborate on the debate in the midst of which their remarks came about: the debate between the traditional view and the dissenting view of particularity in the *Categories*.

In §3 I introduce my interpretation of Aristotle's view of predication in the *Categories*. The basic idea is that a predication fact is mediated if and only if it holds in virtue of some other predication fact(s) holding, where predication facts are facts about predication relations being instantiated. Once my basic interpretation is on the table, I outline the main textual support for this interpretation of Aristotle in §4. I argue it's very clear from the text that Aristotle endorses the distinction I take him to, and I draw out what the logic of the predication relations seems to be according to the text.

In §5 I explain how this understanding of predication can help to solve a problem for the traditional view of particularity in the *Categories*. I also show that the traditional view is not wed to any particular interpretation of 1a24-25, as some have seemingly thought. After showing how endorsing my interpretation of predication in the *Categories* can help with this problem, I end in §6 by considering a pair of objections to the overall interpretive framework I develop. In responding, I show how my interpretation of Aristotle helps make sense of his broader goals in the *Categories*, and how understanding his view of predication can help us better understand Aristotle's ontology as a whole.

2

Moravcsik (1967), Allen (1969), and Duerlinger (1970) each mention something like my interpretation of Aristotle's understanding of predication. Their papers are given in the context of the broader debate, previously mentioned, about the nature of non-substantial particulars in the *Categories*. I don't attempt to settle that debate, but I introduce it here for two reasons. First, understanding the broader debate will help us better understand the views of commenters just mentioned. Second, my theory of mediated predication will bear on the debate indirectly.

The debate in question arose between Ackrill and Owen over the correct interpretation of 1a24-25, a passage where Aristotle says what it is for some object to be IN a subject. He says, "by 'IN a subject' I mean that which is in some subject not as a part, [and is] unable to be separate from that in which it is." Ackrill (1963) interprets this as giving us the following analysis of the IN relation.

(I) x is IN y , in the appropriate sense, if and only if

- (a) x is in y ,
- (b) x is not a part of y , and
- (c) x cannot exist independently of y .

The interpretation is straightforward. Some object, x , is IN another object, y , if and only if x is in y in a non-technical sense, x is not a part of y , and x is ontologically dependent on y . (I) is an intuitively straightforward and plausible reading of the passage in question.

(I)(c) entails the non-recurrence of non-substantial particulars. It says that if x is IN y then x cannot exist independently of y . Recall that a non-substantial particular can be known to be non-substantial by virtue of its being IN a subject. This means that a given non-substantial particular cannot exist independently of the object IN which it is. Take our objects x and y above, such that x is IN y . For some other object z , distinct from y , could x be IN z , given interpretation (I)? Suppose it could. Then x is in z in some non-mereological way, and x cannot exist independently of z . But it seems that x already does exist independently of z , since x is IN y . So, x *can* have being independently of z : contradiction.⁷ (I) entails that non-substantial particulars are non-recurrent.

Owen (1965) interprets this passage differently. He gives the following analysis of the IN relation as it is described at 1a24-25.

(II) x is IN y , in the appropriate sense, if and only if

- (a) x is in y ,
- (b) x is not a part of y , and
- (c') x cannot exist independently of anything whatever of y 's category.

(II) does not entail the non-recurrence thesis for non-substantial particulars. It agrees with (I) on the basic idea that one thing is IN another when it is in it and is not a part of it, but changes condition (c) so that the ontological dependence is not on the subject of predication, but on its category as a whole. If a particular color is IN a particular body, then that particular color cannot have being independently of substantial particulars in general.

⁷ Admittedly, the soundness of such a proof comes down to how we understand independence or separability. That Ackrill's interpretation rules out recurrence is the common understanding of it, however.

Owen and other dissenters who like (II) take this way of reading 1a24-25 as support for the dissenting view of particularity in the *Categories*.⁸ The understanding of particularity given by the dissenters is that non-substantial particulars are particular in the sense of being maximally specific.⁹

While weighing in on the debate over whether non-substantial particulars are recurrent or not, Moravcsik (1967, 87) mentions that it is consistent with the view that they're non-recurrent that non-substantial universals are "indirectly inherent" in substantial particulars, although he doesn't develop the suggestion. I take his talk of indirect inherence to suggest the view of predication I develop here, on which predication relations can hold either directly or mediately.

Allen (1969, 35) entertains the idea that the 'IN' of Aristotle's claim that color is IN a particular body (at 2b2-4) "is not the technical 'in' of presence, but an 'in' derived from it." This is not my view. However, it seems like a precursor to the suggestion that there may be different ways for one and the same relation to obtain between objects, which is my view.

Last, I take Duerlinger (1970) to suggest something like a prototype of my view. On Duerlinger's view, however, Aristotle uses no fewer than four senses of "in" and more than one technical sense. This gives rise to the impression that Duerlinger takes there to be more than one kind of IN predication relation. I do not think that. I take Aristotle to be using one technical sense of "in" to refer to just one relation of predication. I posit, on the other hand, that there is one relation holding in different manners in different situations. One other important difference between Duerlinger's view and my own is that Duerlinger's thesis is restricted to Aristotle's discussion of the IN relation, while my thesis covers both the IN and SAID OF relations.

While it's been recognized before, then, that a better understanding of predication in the *Categories* would be helpful for resolving the debate over the nature of particularity in the *Categories*, no one seems to have done exactly this job. In the following section, I introduce the interpretation I take to do this.

3

⁸ This is not the only interpretation of 1a24-25 that supports the dissenting view. However, it is the original such support for the view.

⁹ The debate between Ackrill and Owen has given rise to a vast literature spread over several decades. Among the traditionalists who agree with Ackrill are Moravcsik (1967), Matthews and Cohen (1968), Allen (1969), Duerlinger (1970), Granger (1980), Heinaman (1981), Matthews (1989), and Devereux (1992). Among the dissenters are Frede (1987), Wedin (1993), Erginel (2004), and Corkum (2009).

Here I introduce my own interpretation of the *Categories*, on which some predication facts hold directly and some hold mediately. By this I don't mean to say that there are two distinct *kinds* of predication in the *Categories* (at least, not beyond the two that Aristotle himself introduces: being SAID OF and being IN). What I mean is that the very same single relation of predication can hold in two different manners.¹⁰

Let any case where one thing stands in a predication relation to another be called a "predication fact." For any objects x and y , and any predication relation R , x stands in R to y if and only if there holds the fact that x stands in R to y . Predication facts are just facts about what objects are SAID OF others and what objects are IN others.

For any fact, F1, I define direct predication as follows. Predication fact F1 holds directly =_{df}

1. F1 holds, and
2. there is no distinct predication fact F2, such that F1 holds in virtue of F2's holding.

For any fact, F1, I define mediated predication as follows.

Predication fact F1 holds mediately =_{df}

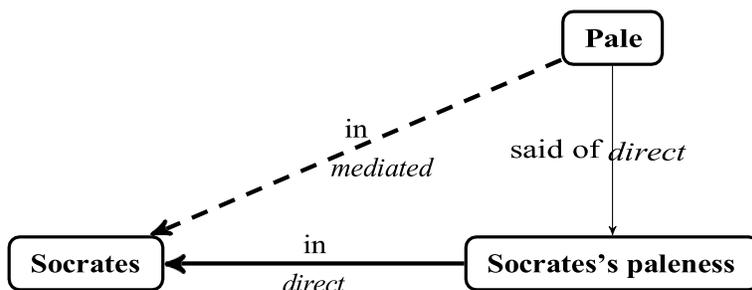
1. F1 holds, and
2. there is some distinct predication fact F2, such that F1 holds in virtue of F2's holding.

Let's apply these definitions to a particular example. Socrates's paleness is a non-substantial particular. It is IN Socrates directly: the fact that Socrates's paleness is IN Socrates holds and it doesn't hold in virtue of any other predication fact's holding. Pale is a non-substantial universal. It is SAID OF Socrates's paleness directly. Pale is also IN Socrates.¹¹ My suggestion is that the fact that pale is IN Socrates holds mediately. It

¹⁰ Someone might complain that the difference between two in-relations and two ways for one in relation to hold seems like a merely verbal difference. I would respond to such a complaint by pointing out that I lay out quite clearly below what it is for one relation to hold in two different ways. It is not that the same relation has different formal features in different contexts or something like that. It is that sometimes two objects' standing in the relation can only obtain in virtue of other predicational situations obtaining, and sometimes that's not the case. Whether the relation holds directly or mediately in this way is significant for understanding Aristotle's project in the *Categories*.

¹¹ This seems evident from 2a35-b6, where Aristotle says that "all the others are SAID OF primary substances as subjects or IN them as subjects. And this is clear from examining according to each [...] color is IN body; and therefore IN a particular body. For were it not IN a particular body it would not be IN body entirely. Thus, all the other things are

holds, but it holds in virtue of the two other direct facts just discussed, viz. that Socrates’s paleness is IN Socrates and that pale is SAID OF Socrates’s paleness. Here is a diagram to illustrate this case of mediated predication, letting solid lines stand for direct predication, broken lines for mediated predication, thick lines for the IN relation, and thin lines for the SAID OF relation:



Pale is IN Socrates, but that fact holds in virtue of the facts that pale is SAID OF Socrates’s paleness and that Socrates’s paleness is IN Socrates. Were either of those things to fail, then pale would not be IN Socrates. Of course, this may be a consistent interpretation of Aristotle, but we need textual reason to think this is an idea he actually endorses.

4

Here I seek to make a textual case that Aristotle endorses the direct/mediated distinction, even if not the terminology I employ. To make a textual case that Aristotle endorses the direct/mediated distinction, all we really need to show is that he endorses the idea of mediated predication. It would be uncharacteristic of Aristotle to posit no base or foundational level of direct predication facts. Nor does it fit Aristotle’s claims in the *Categories* that everything else is either SAID OF or IN the substantial particulars.

Aristotle clearly endorses the idea that some instances of predication are mediated. In particular, on a number of occasions he endorses inferences from one predication fact’s holding to some other predication facts’ holding. In each case, the best explanation of Aristotle’s endorsing the inference he does is that he takes the first predication fact to be mediated by the latter predication fact(s). There is thus a strong abductive

SAID OF primary substances as subjects or IN them as subjects. Were there no primary substances, then any one of the others would not be able to be.” Pale is IN body, but only in virtue of the fact that it is IN particular bodies like Socrates.

case for the conclusion that Aristotle understands there to be instances of both mediated and direct predication, even if he does not employ any specific terminology to mark the difference.

One obvious instance where Aristotle endorses a principle of inference about one predication fact holding in virtue of others' holding comes at 2b2-4: "...color is IN body; therefore also IN a certain body; for if, of those according to each [color], none were IN a certain body, then none would be IN body generally." Here, the predication fact to be explained is the fact that color is IN body. Color is a non-substantial universal. Body is a substantial universal. Aristotle says that we can infer from the fact that color is IN body that color is IN a certain (i.e. IN a particular) body. This is because, in the counterfactual scenario in which none "of those according to each color" were IN any particular bodies, then none of them would be IN body generally.

There are two options for how to read Aristotle's counterfactual claim. One way is to take "those according to each" to refer to particular instances of color, e.g. Socrates's pale, or the red of a particular apple. The other way is to take "those according to each" to refer to species of the genus color, e.g. paleness or redness. On the former reading, Aristotle is saying that if no particular colors were IN particular bodies, then none would be IN body, and thus color wouldn't be IN either particular bodies or IN body. On the latter reading, Aristotle is saying the same thing about specific colors: viz. that if none of them were IN particular bodies, then none would be IN body, and thus color wouldn't be IN particular bodies or IN body.

I find the former reading somewhat more plausible. The phrase "of those according to each" (τῶν καθ' ἕκαστα) seems more naturally to denote particular colors, each belonging to a specific color. The alternate reading leaves the meaning of "each" (ἕκαστα) unclear.¹²

¹² Beyond this, there's some evidence from the text that Aristotle allows non-substantial particulars to be IN substantial universals. Heinaman (1981, 295-6) argues for this, saying

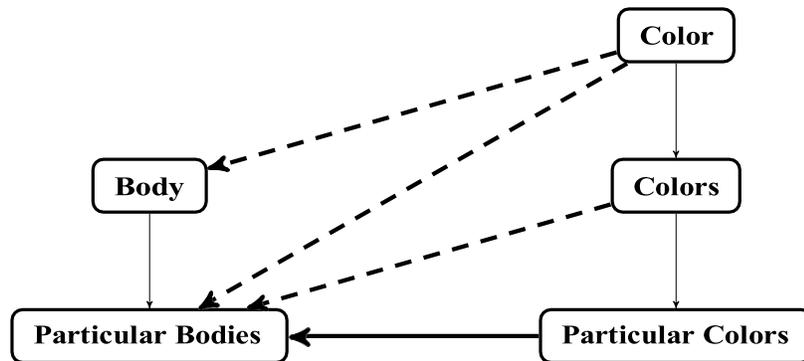
...immediately after the explanation of presence in a subject (1a24-25) Aristotle gives the following examples (1a25-28): "the individual knowledge of grammar is in a subject, the soul...and the individual white is in a subject, the body." Both 'the body' and 'the soul' here refer to universals, for in the *Categories* the expression 'τό τί F' is consistently used to refer to an individual F (e.g. 2a36-b3). (Heinaman 1981, 296)

Heinaman thinks we must posit the former interpretation of Aristotle here, then.

Erginel (2004, 197-198) also addresses the issue of whether non-substantial particulars can be IN substantial universals. Erginel points out that there doesn't seem to be any general rule in the text that whenever x is inseparable from y, y individuates x. Erginel, whose main focus is the traditional view of particularity in the *Categories*, concludes that there's nothing obviously prohibiting non-substantial particulars from being IN substantial universals. Erginel (2004, 197) claims the "key idea" is that "whenever a property is 'in' an individual substance, it is also 'in' whatever is 'said of' that individual substance. As textual support for the idea, Erginel points us as well to 3a1-6. In this passage,

While I find this line of reasoning persuasive, I'll proceed as if the alternative interpretation is true. Not everyone agrees that non-substantial particulars can be IN substantial universals, and there's no reason to take on that burden here, since either way we read the passage in question it comes out as supporting the conclusion that Aristotle endorses mediated predication. I'll set aside the question of whether non-substantial particulars can be IN substantial universals until the final section.

My claim, then, is that the best explanation of the inference licensed by Aristotle at 2b2-4 is that the fact to be explained holds mediately. The full picture Aristotle seems to be giving by his counterfactual claim is as follows. (a) The fact that specific colors are IN particular bodies is explained by (b) the fact that particular colors are IN particular bodies.¹³ (c) The fact that specific colors are IN body is explained by the sum of (a) and (b). (d) The fact that color is IN particular bodies is also explained by the sum of (a) and (b). (e) The fact that color is IN body is explained by the sum of (a)-(d). The totality of predication facts here can be represented by a graphic again. (Recall that thick lines represent the IN relation and thin lines represent the SAID OF relation, while solid lines represent direct predication and broken lines represent mediated predication.)



Aristotle first claims that “as the primary substances stand to everything else, so the species and genera of primary substances stand to all the rest: all the rest are predicated of these.” (Translation from Perin (2007).) The example Aristotle gives is that since you will call the individual man grammatical (when a particular human has a particular instance of grammatical knowledge in them) then you will call both man and animal grammatical. Erginel’s claim is that “if a [particular] white is ‘in’ Socrates, it is also ‘in’ man, animal, and body.” (Erginel 2004, 197)

¹³ Note that while I speak here of particular colors, I don’t mean to refer to any entities that exist apart from particular substances. Rather, I mean to refer in the aggregate to things like Socrates’s pale, a particular flower’s red, and so forth. Thank you to the editor for pushing me to clarify this.

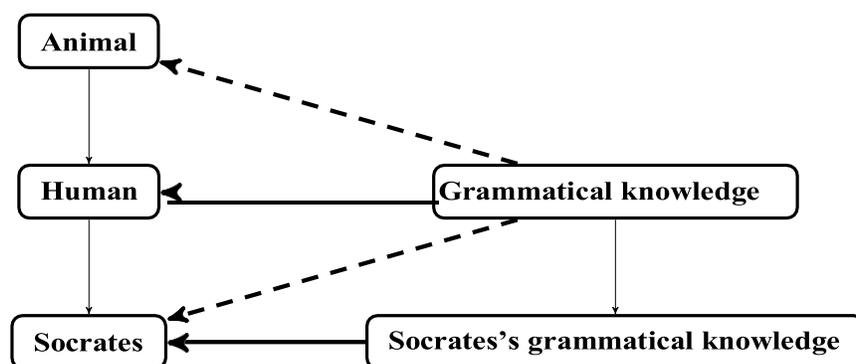
It's not clear how Aristotle could endorse the inference he does at 2b2-4 unless he has in mind that some predication facts are mediated by others. Understanding which kinds of predication facts must only hold mediately is what licenses Aristotle's inference.

At 2b37-3a6, Aristotle says,

[I]t is because the primary substances are subjects for everything else that they are called substances most strictly. But as the primary substances stand to everything else, so the species and genera of primary substances stand to all the rest: all the rest are predicated of these. For if you will call the individual human being grammatical, it follows that you will call both human being and animal grammatical; and similarly in other cases.¹⁴

Here Aristotle endorses the claim that substantial universals are subjects of predication. This is a familiar claim with respect to the SAID OF relation. We know the genus animal is SAID OF the species human, for example. But he also seems to be saying that at least some things that are IN a particular human being will also be IN the substantial universals that are SAID OF that human being. For example, Aristotle says that whenever we call the particular human being grammatical we will also call human being and animal grammatical. This echoes Aristotle's claim at 2b2-4 that specific colors are IN body in virtue of their being IN particular bodies.

We can represent the principle in this passage by depicting a specific instance of what it describes.

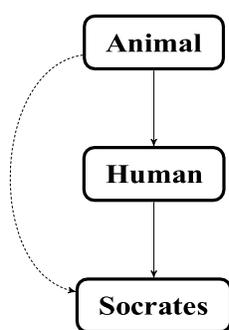


¹⁴ Translation from Perin (2007).

The logic of the IN relation seems to be as follows, then: it is an irreflexive, asymmetric, transitive relation.¹⁵ Irreflexivity and asymmetry are certainly definitive of predication relations. Nothing could be IN or SAID OF itself as subject, and neither could anything be IN or SAID OF that which is IN or SAID OF it. Transitivity, on the other hand, is trivial in the case of the IN relation. That's because the IN relation only ever holds between non-substances on the one hand and substances on the other. It's thus impossible to find two pairs of objects $\langle X, Y \rangle$ and $\langle Y, Z \rangle$ such that the IN relation relates them both.

The reason this is important to note is that it may be tempting to think the following: "When you say that predication relations can hold mediately, you just mean they're transitive, right?" No, that's not what I mean. While the IN relation is transitive, the mediation of the IN relation has nothing to do with transitivity. Transitivity holds trivially while the fact that the predication relations can hold mediately is a substantive feature of them. What I mean when I say that predication relations can hold mediately is exactly what I said in the prior section, viz. that a predication fact can hold in virtue of another predication fact's holding.

Aristotle also endorses the mediation of the SAID OF relation. At 1b9-12 he says, "Whenever one is predicated of another as of a subject, as many as are SAID OF the predicate, all are also SAID OF the subject." And again at 2a19-21, "It's clear from what has been said that of those things SAID OF a subject, necessarily the name and account are also predicated of the subject." For example, if human is SAID OF Socrates, and animal is SAID OF human, then animal must also be SAID OF Socrates. But the fact that animal is SAID OF Socrates seems to hold in virtue of those two other facts, each of which holds directly.



¹⁵ Note that I only take myself to be saying something about the formal features of the specific, technical relation of predication Aristotle is employing here in the *Categories*. The same formal features won't necessarily apply for all Aristotle's uses of the term 'ἐν'. Thanks to the editor for helping to clarify this.

There is a chain of predication facts that hold directly, from genera, to species, to particular things, but whatever genus is SAID OF the species is also SAID OF the substantial particulars.

Mediated predication is also the best way to make sense of Aristotle's claim at 2b7-19:

Of the secondary substances the species *is more a substance than the genus, since it is nearer to the primary substance*. For if one is to say of the primary substance what it is, it will be more informative and apt to give the species than the genus [...]. Further, it is because the primary substances are subjects for all the other things and all the other things are SAID OF them or are IN them that they are called substances most of all. But *as the primary substances stand to the other things, so the species stands to the genus: the species is a subject for the genus [...]*¹⁶

Here Aristotle speaks about the relative "closeness" of the species and genus to the primary substance. He also says that the species serves as a subject for the genus in just the way that a primary substance serves as a subject for the species. The distinction between direct and mediated predication gives us a way to understand these claims. The species is closer to the primary substance because it is directly SAID OF it while the genus is SAID OF it only mediately. Meanwhile, the species serves as a subject for the genus in just the way that a primary substance serves as a subject for the species: in both cases the latter is *directly* SAID OF the former.

The logic of the SAID OF relation thus seems to be as follows: it is an irreflexive, asymmetric, transitive relation. The transitivity of the SAID OF relation is part of what Aristotle is at pains to elaborate on when discussing how "whenever one is predicated of another as of a subject, as many as are SAID OF the predicate, all are also SAID OF the subject." (1b9-11) Unlike the IN relation, then, the transitivity of the SAID OF relation is substantive. Also unlike the IN relation, though, there doesn't appear to be much more to the logic of the said of relation than these three formal features and the way it interfaces with the IN relation to determine further facts about what is IN what.

¹⁶ Translation is Ackrill's, with slight modification and added emphasis.

We are ready to specify a few universal generalizations concerning the mediation of predication relations from what has been shown. For any non-substantial particular a and any substantial particular s , if a is IN s , then the following is also true:

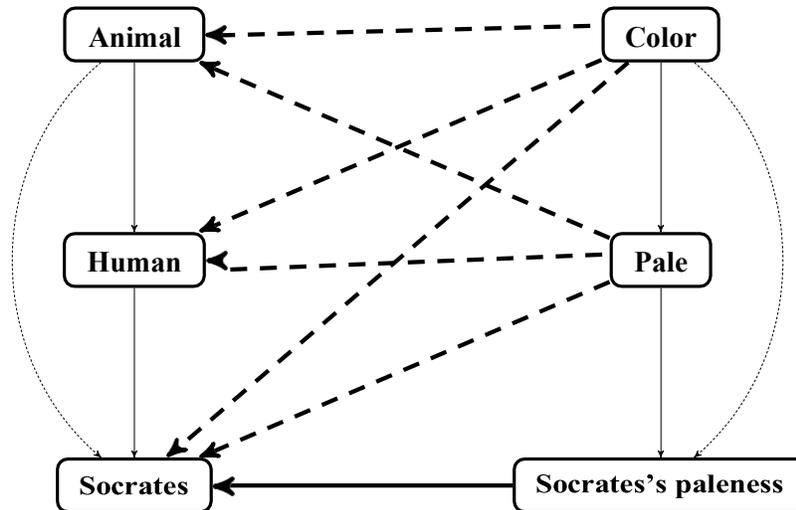
1. For any non-substantial universal A , if A is SAID OF a , then A is IN s .
2. For any objects x , y , and z , if x is SAID OF y and y is SAID OF z , then x is SAID OF z .
3. For any non-substantial universal A and any substantial universal S , if A is SAID OF a and S is SAID OF s , then A is IN S .

Aristotle's claim at 2b2-4 (that if it were the case that none of the specific colors were IN particular bodies then color wouldn't be IN a particular body and thus not IN body) puts this logic on display.

Notice that in each case of mediated predication I've discussed, all of the predication facts are ultimately determined by what is directly IN the substantial particulars and what is directly SAID OF what. This fits well with what Aristotle says in the *Categories*. At 2b3-7 he says, "But all the others are SAID OF primary substances as subjects or IN them as subjects [...]. Were there no primary substances, then any one of the others would not be able to be." The ontological priority of primary substances to all other things is a core feature of Aristotle's theory in the *Categories*. Matthews (1991, 17) calls this Aristotle's "this-worldly story." It's endorsed again at 2b15-16 and 2b36-3a1, where Aristotle claims that "the primary substances are most properly called 'substances,' since they underlie all the others and all the others are SAID OF them or IN them," and "the primary substances are properly called 'substances,' since they underlie all the others." The this-worldly story of the *Categories* is the story that everything that isn't a substantial particular is ultimately (in some way) predicated of some substantial particular. My account of predication helps make sense of this: all predication facts depend on there being substantial particulars for things to be SAID OF and IN. Sometimes these facts hold directly, and sometimes mediately. Aristotle's this-worldly story thereby provides further reason to accept my interpretation.

Let me conclude this section by illustrating an example of how everything that isn't a substantial particular is either SAID OF or IN some substantial particular. Take the simple situation IN which it is predicated of Socrates that he is pale. The fact of Socrates's paleness being IN Socrates (along with some facts about what is SAID OF Socrates and what is SAID OF his paleness) gives rise to a complex of mediated predication facts.

Everything that is SAID OF Socrates's paleness will likewise be IN Socrates and IN everything that is SAID OF Socrates. If Socrates were removed from the picture, then so would be Socrates's paleness, which is unique to him. If all substantial particulars were annihilated, then so would be all their non-substantial particulars, since there would be nothing for them to be IN. Likewise, so would all universals be annihilated, since there would be nothing for them to be SAID OF. We can represent this complex as follows:



Socrates clearly forms the ontological foundation for this complex of predication facts, which captures an obvious commitment of Aristotle's in the *Categories*, viz. for the substantial particulars to form the ontological basis of all chains of dependence and predication.

I've shown multiple places in the text of the *Categories* where Aristotle licenses inferences from some predication fact holding to some other predication fact(s) holding. In each case, the best explanation of Aristotle's inference is that he endorses the notion (if not the language) of mediated predication. Taking on the direct/mediated distinction has textual ground. Next I'll show how it also helps solve a problem that has plagued the traditional view of Aristotle's theory of non-substantial particulars in the *Categories*.

5

In this section I show how adopting my understanding of predication can help resolve a thorny issue for the traditional view of particularity in the *Categories*. It's important first to note two things I don't aim to do. First, I don't aim to defend the traditional view of particularity. Many have done this. Second, I don't aim to

settle the interpretive debate over 1a24-25 that spawned the traditionalist/dissenter divide. As I point out below, there's no burden for either the traditionalist or for my interpretation of predication to settle on a particular interpretation of 1a24-25. What I aim to do instead is to show that adopting the direct/mediated distinction between ways a predication relation can hold can help solve a problem that has plagued the traditional view. Insofar as many are inclined towards the traditional view of particularity, this should count for them as an additional reason to adopt the direct/mediated distinction.

To see how this distinction helps the traditional view, let's return to the debate I introduced in §2. According to the traditional view of particularity in the *Categories*, Aristotle takes non-substantial particulars to be non-recurrent. According to the dissenting view, he takes non-substantial particulars to be recurrent. The traditional view is entailed by Ackrill's interpretation (I) of the text we looked at earlier, 1a24-25.¹⁷

The main problem for (I) is that it seems to conflict with other parts of the text. In particular, Aristotle seems to clearly endorse the idea that not only non-substantial particulars but also non-substantial *universals* are IN things. An example we've seen come up repeatedly in this paper is Aristotle's claim that color is IN body, and therefore IN a particular body. But it's impossible that non-substantial universals like color could be IN substantial particulars in the way given by (I). This is for two reasons. First, (I) entails the inseparability of an object from whatever it is IN. Second, (I) entails the non-recurrence of whatever is IN something. But neither of these things is supposed to be true of non-substantial universals: they are separable from particular substances, and they are recurrent. Ackrill does not help matters with the way he responds to this problem. In effect, he claims that Aristotle was just being sloppy when making his claims about what is IN what.

Moreover, we know that Aristotle's project in the *Categories* is in part to give a "this-worldly" story, on which everything is SAID OF or IN the substantial particulars as subjects. Matthews (1991, 17) points out this failure of Ackrill's:

¹⁷ Recall, this is the text where Aristotle says what he means by "IN a subject." Ackrill and Owen's differing interpretations of this passage were what gave rise to the debate between the traditional and dissenting views

On [Ackrill's] interpretation, the only things present in the [substantial particulars] will be [non-substantial particulars]—things that, though in a subject, are not said of a subject.... The main reason to object is that it ruins Aristotle's boldly 'this-worldly' story. It will not be true that all other things are either said of primary substances as subjects or in them as subjects. Color, for example, will not be in them. Wisdom will not be in them [...]. So individual substances will not be subjects for literally everything else.

Taking Ackrill's "explain it away" strategy does violence to Aristotle's broader project in the *Categories*. The traditionalist should not merely explain away what Aristotle says. But then it may seem unclear how the traditional view can be maintained.

The first thing for the traditionalist to recognize is that the direct/mediated distinction allows us to make sense of how it is that non-substantial universals can be IN things. Their being IN other entities is always mediated by some non-substantial particulars being IN some substantial particulars. The direct/mediated distinction thus gives the traditionalist a way of restricting how non-substantial universals are IN subjects, without going Ackrill's route of banning them outright. Non-substantial universals are never directly IN anything, but they are IN things.

The second thing for the traditionalist to recognize is that the traditional view of particularity doesn't stand or fall with Ackrill's interpretation of 1a24-25. There is ample support for the traditional view outside of that passage. Aristotle refers to non-substantial particulars as individual and one in number.¹⁸ Moreover, if the dissenters were right and particularity just amounted to maximal specificity, this would seem to undermine the notion that Aristotle is drawing up categorial boundaries in his four-fold division. A distinction between categories cannot possibly rest on a mere difference of specificity. The difference between substantial particulars and universals, for example, does not rest on this. Socrates is distinguished from human by being individual and one in number. This is established at 3b10-18, where Aristotle says that while "all substance appears to signify a certain 'this'," but a substantial particular counts as a τόδε τι

¹⁸ See Matthews and Cohen (1968, 640-641), Allen (1969, 37), and Devereux (1992, 115, fn. 3) for discussion of this.

because only it is individual and numerically one. Thus, the traditionalist ought to recognize the support for their view that can be found throughout the text. The evidence in favor isn't merely found at 1a24-25.¹⁹

Once the traditionalist has recognized these facts, they should feel free to come to terms with 1a24-25 on their own. There are several interpretive options available to the traditionalist. I won't argue in favor of any particular option here because the direct/mediated distinction for which I'm arguing doesn't depend on any of them. However, I'll canvas a few of the options just to show how the traditional view can take 1a24-25 several different ways.

One way of taking 1a24-25 is to endorse Ackrill's interpretation with a more limited scope. For example, one might take Aristotle to be defining only what it is for something to be *directly* IN a subject. Evidence in favor of this is the fact that the definition of what it is to be "IN a subject" comes embedded in Aristotle's description of non-substantial particulars, the only entities that are directly IN a subject.²⁰ The problem with such an interpretation, of course, is that it appears as if Aristotle is defining a piece of technical vocabulary that he's employing throughout the *Categories*, and restricting the scope of the passage requires us to make 'in' (i.e. $\epsilon\nu$) mean something different in different contexts, even as it's being used consistently as a piece of technical vocabulary to denote a predication relation.

Another interpretation open to the traditionalist is actually Owen's own interpretation. Surprisingly, Owen's interpretation 1a24-25 doesn't entail the dissenting interpretation, so it's actually open to the traditionalist to agree with Owen about what Aristotle means there.

Finally, Frede (1987, 59) has offered another reading, in which the variables 'x' and 'y' refer to conceptual parts.

- (III)x is IN something in the appropriate sense, if and only if there is a
subject y such that
- (b) x is not a part of y, and
 - (c) x cannot exist indendepently of y.

¹⁹ Once again, I won't provide any sustained support for the traditional view here. For more support for the traditional view from outside 1a24-25, see Matthews and Cohen (1968), Allen (1969), Granger (1980), Heinaman (1981), and Devereux (1992).

²⁰ Thanks to the editor for suggesting I discuss this interpretation.

Frede's interpretation makes this the definition not of the predication relation, but of "the class of entities that are in something as their subject." (Frede 1987, 59) There doesn't seem to be anything about his interpretation that's inconsistent with (or that even suggests the falsity of) the traditional view, though, so it's open to the traditionalist to endorse that interpretation of 1a24-25.

A traditionalist might push back against the line of thought developed here, objecting that the help I've offered is something of a Trojan horse. For I've said I would help resolve a thorny issue on their behalf, and they've come to find me insisting they ought to jettison Ackrill's interpretation of 1a24-25. If this particular traditionalist happens to like that interpretation, however, they might ask why I see my interpretive framework (which has non-substantial universals as being IN substances) as better than their framework (which forbids non-substantial universals from being IN substances). In answer, I would reiterate a couple points I've already made. First, Ackrill's interpretation of 1a24-25 clearly clashes with Aristotle's insistence in the text that non-substantial universals are IN some substances. Second, the direct/mediated distinction has clear textual support, and (unlike Ackrill's interpretation) does not clearly clash with any portion of the text. There's good textual support for both taking on the direct/mediated distinction and abandoning Ackrill's interpretation of 1a24-25. Doing both will put the traditionalist in a stronger interpretive position than doing only one or the other.

Akrill felt compelled to deny that non-substantial universals could be IN anything, since he thought Aristotle's characterization of what it is to be IN something at 1a24-25 ruled out that possibility. My suggestion is two-fold. First, we can say something much more limited: it's not that non-substantial universals aren't IN anything, it's that they aren't *directly* IN anything. Second, the traditional view of particularity in the *Categories* is consistent with a number of interpretations of that passage. Each traditionalist should figure out which interpretation seems best to them.

6

I've argued that Aristotle endorses two different ways that predication relations can hold: they can hold directly or mediately. I've shown how attending to this can allow one to surmount a problem for the

traditional view of particularity in the *Categories*. In this final section I address two potential objections one might have to the general interpretive framework I've offered.

The first objection comes from Corkum (2009, 15-20). Corkum takes there to be two possible projects in which Aristotle may be engaged in the *Categories* having to do with particulars. (Corkum actually speaks of "individuals," but I take us to mean the same thing.) Aristotle is either engaged in a project of "individuation," in which he means to provide the means for identifying particulars of various kinds, or he is engaged in a project of "characterizing particularity", in which he means to provide an account of what it is to be a particular.²¹ Corkum thinks Aristotle is engaged in the project of characterizing particularity and not the project of individuation. However, Corkum thinks the only way the debate over the recurrence of particulars could be settled by the *Categories* is if Aristotle is engaged in the project of individuation. Thus, Corkum concludes that the debate over the recurrence of particulars cannot be settled by the *Categories*. If Corkum is right, then even if my interpretation of predication is correct, it does nothing to help the traditional view. That's because if Corkum is right the traditional view is an answer to an unsolvable riddle.

I disagree with Corkum's claim that the only way the debate over the recurrence of particulars can be settled by the *Categories* is if Aristotle is engaged in the project of individuation. Here's another project I take Aristotle to be engaged in: categorization, in which Aristotle attempts to provide an exhaustive list of categories (two exhaustive lists, actually) and the means for identifying which entities go in which category. Aristotle gives two lists of the things that are ($\tau\acute{\omega}\nu\ \delta\omicron\upsilon\tau\omega\nu$), and spends the majority of the *Categories* seemingly trying to explain which things go in which parts of the lists and how the parts are related to each other.

Plausibly, the project of categorization and the project of characterizing particularity are related. One reason to favor the traditional view, on which particulars are non-recurrent, is that it makes better sense of how the universal/particular distinction is a categorial distinction. The dissenting view says universals and particulars differ only with respect to how specific they are. Vink and pink differ because vink is more specific than pink. But a difference of specificity is not the kind of difference on which categorial lines

²¹ The project of individuation would typically "yield necessary and sufficient conditions for being [a particular], or at least a distinguishing mark of [particulars], for each kind of [particular], which would allow us to pick out the [particulars] among various kinds of entities." The project of characterizing particularity "aims to provide a general account of what it is to be [a particular]." (Corkum 2009, 15).

could be drawn, especially when a maximally specific non-substantial particular would still be the kind of thing that could be IN many things, and so properly understood as universal.

In giving the four-fold division, which is part of how Aristotle pursues the project of categorization, he draws a clear line between things that are universal and things that are particular. The line is marked by things that are SAID OF and things that are not SAID OF, with the former being universal and the latter being particular. In telling us about the entities in these different categories (of the four-fold division), Aristotle clarifies the nature of particularity. The very process of categorization requires engaging in the process of characterizing particularity, apparently.

I agree with Corkum, then, that Aristotle is engaged in characterizing particularity. Part of how Aristotle characterizes what it is to be particular though, is to contrast it with what is universal. What is universal is what is predicated of more than one thing. This is the picture given at 3b17-18, where Aristotle points out that substantial universals like human and animal are SAID OF *many* things, and this is what disqualifies them from being particular. It also seems to be the picture in another of the works of the *Organon*, viz. in *De Interpretatione* 17a38-b1:

But of things, some are universal, some are particular (I call universal that which has come to be predicated of (κατηγορεῖσθαι) more than one thing, particular that which is not, as for instance human is of the universal, but Callias is of the particular).

This indicates that the traditional picture, on which the particular/universal distinction is drawn along lines of whether an entity is recurrent, is the proper interpretation.

What it also indicates is that the project of characterizing particularity tells us something about the non-recurrence of particulars, so that the debate over the recurrence of particulars can be settled even if Aristotle is not engaged in individuation. It seems to be an essential part of Aristotle's characterization of particulars that they are not able to be predicated of many things, but that is just what it is to be recurrent, as we have understood it. The picture drawn here shows that Corkum's argument (that the debate over recurrence has no solution) fails. Its failure is overdetermined. First, the debate over the recurrence of particulars can be

settled if Aristotle is engaged in categorization (which he is). Second, the debate over the recurrence of particulars can be settled if Aristotle is engaged in characterizing particularity (which he is).

A second and final objection arises when we consider a pair of claims I've made about non-recurrence and non-substantial particulars. Up to this point I've spoken as if non-recurrence were the inability of an entity to be predicated of more than one subject. I've also claimed that non-substantial particulars are non-recurrent. However, in my discussion of mediated predication I left open the possibility that non-substantial particulars are IN both substantial particulars and the substantial universals that are SAID OF those substantial particulars. If this were the case, then that would result in non-substantial particulars being predicated of more than one subject, making them recurrent.

One way of avoiding this is to deny the claim that non-substantial particulars are IN anything besides substantial particulars. That's the assumption on which I've been proceeding. It's worth exploring an alternative understanding of non-recurrence, however, for the commenter who favors a view that allows non-substantial particulars to be IN substantial universals.²²

The obvious alternative lies in the distinction between direct and mediated predication. We can understand a non-recurrent entity as one that's unable to be *directly* predicated of more than one subject. A recurrent entity, conversely, is able to be directly predicated of more than one subject. So, while a given non-substantial particular may be IN more than one subject, it will only ever be directly IN one such subject (and never directly or mediately SAID OF any subject), and so counts as non-recurrent. Any universal (whether substantial or not) can be directly predicated of many subjects, and so counts as recurrent.

What this understanding of non-recurrence allows is a way of applying the direct/mediated distinction to the notion of separability. Socrates's paleness is inseparable from human. But this fact only holds mediately. Socrates's paleness is inseparable from human in virtue of the facts that Socrates's paleness is inseparable from Socrates and human is SAID OF Socrates. Inseparability and separability can be either direct or mediated. This allows us to make sense of the way in which a particular object might be inseparable from a universal object.

7

²² Recall that Heinaman (1981) and Erginel (2004) are two such commenters.

I've shown substantial textual support for taking Aristotle to endorse a distinction between direct and mediated predication. In a number of cases, Aristotle licenses an inference from some predication fact holding to some other predication fact holding. The best explanation is that he endorses that some predication facts hold directly while others hold mediately. Once the distinction between direct and mediated predication has been clarified and endorsed, a way forward is provided for the traditional view of Aristotle's non-substantial particulars. Specifically, the proponent of the traditional view can claim that non-substantial particulars (like Socrates's paleness) are IN substantial particulars (like Socrates) directly, while non-substantial universals (like pale) are IN particulars (like Socrates) mediately.

Understanding the distinction between direct and mediated predication gives us a better understanding of Aristotle's this-worldly story in the *Categories*. It does so by clarifying just how it is that all things depend on primary substances and by showing how it is that everything is such that it stands in a predication relation to a substantial particular.

If the arguments given by others for the traditional view are good, then understanding the distinction between direct and mediated predication also helps us understand the nature of Aristotle's non-substantial particulars. Specifically, it helps vindicate the traditional view and so helps settle what it is for non-substantial particulars to be particular. It also allows us a helpful way of drawing the distinction between recurrence and non-recurrence.

All of this leads us to a better understanding of Aristotle's broader goals and commitments in the *Categories*. With the traditional view vindicated, we can see how Aristotle makes good on the projects of categorization and of characterizing particularity. This gives us a better understanding of Aristotle's ontology, his account of how to divide up the things there are into categories and how to understand the nature and relations between those categories.

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