Substances, Accidents, and Kinds: Some Remarks on Aristotle's Theory of Predication

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I. ACCIDENTS, KINDS, AND THE ANTI-PLATONISM OF THE CATEGORIES.

It is only fair to issue first a warning about the notion of predication that is the subject of this paper. For us, what is predicated is invariably a linguistic item. For Aristotle, by contrast, more often than not what is predicated is a metaphysical entity, and not linguistic at all. For simplicity, then, when I talk about predication here, I will always mean metaphysical predication, and will occasionally say so, parenthetically, as a reminder.

I begin, then, with a greatly oversimplified sketch of the theory of (metaphysical) predication that Aristotle finds in Plato, and means to oppose with the rival theory he puts forward in the Categories. In Aristotle's view, Platonic forms are all related in just a single way to their sensible subjects. Socrates (say) participates in each of his forms -- in pallor, for example, in man, and the like. In the Platonic picture, as Aristotle sees it, there is no sense that some forms are more important than others to Socrates' continued existence. The ultimate consequence of this view is the "bare substrate" ontology of the Timaeus. Sensibles are, to borrow Sellars' phrase, "leaky bundles of abstract particulars," made up of "copies" of forms, collected together in different regions of (otherwise featureless) space. Each bundle is leaky, because Plato supplies no principle to hold it together: he makes no room for the idea that some items in the bundle are essential for its existence, while others are merely accidental to it. Plato's theory, then, is what Code and Grice have called a theory of Having, in which sensibles Have all their properties, and Having is understood to be an accidental relation between a predicable and its subject.

It is likely, however, that Plato has a different theory for how forms are related to their predicables. Forms are eternal and unchanging: they are not apt to alter their predicables. For forms, then, Plato has a theory of Being ("Izzing," in the jargon of Code and Grice), according to which forms Are what they are.

In the two halves of the theory just sketched, it is worth noting that sensibles Have all their predicables, and Are nothing at all, while forms Are what they are, and Have none of their predicables. Having is the lot of sensibles, and of them alone, while it is the sole prerogative of forms that they Are their various predicables. Plato, then, holds uniform theories of predication at the level of sensibles and at the level of forms -- but true to the "two-world" ontology Plato defends, they are two different theories of predication at the two different levels.

A dichotomy of this sort is a plausible backdrop to the Third Largeness Argument Plato offers in the Parmenides. Arguably, Plato can use a distinction between the way in which sensibles take their predicables and forms take theirs, to fashion a way out of the regress which the argument threatens. The regress itself is constructed roughly as follows. Suppose that the term 'large' applies both to every member of a plurality, \( \pi \), of sensibles that are large, and also to the form large that (by the One-over-Many assumption) is "over" all the members of \( \pi \). Suppose, next, that we can form a new plurality of things that are large, \( \pi \) with large, whose members are just the members of \( \pi \) together with the form large. Suppose, finally,
that given this new plurality, \( \mathcal{K} \) with large, we must also introduce a new form, large-1, which is "over" all the members of \( \mathcal{K} \) with large. If these further steps go through, then we are well on the way to an infinite regress of forms of large.

One means of blocking formation of the plurality \( \mathcal{K} \) with large, and the subsequent introduction of large-1, is ready to hand. Plato can maintain that there is an essential difference between \( \mathcal{K} \) with large and the original plurality, \( \mathcal{K} \). \( \mathcal{K} \) satisfies a homogeneity condition: when we say that each of the members of \( \mathcal{K} \) is large, the 'is' is being used in the same way in every case. There is no reason to suppose otherwise, for the members of \( \mathcal{K} \) are all of the same type -- they are all sensibles. The case will be quite different, however, if we admit higher-level pluralities, whose members include forms as well as sensibles. Any higher-level plurality, Plato may argue, will fail the homogeneity condition. In particular, all the sensibles that are members of \( \mathcal{K} \) with large have large(-ness), but large itself is large. Accordingly, it is illegitimate to form such higher-level pluralities in the first place. Alternatively, if such pluralities are not objectionable in themselves, still it is not plausible to invoke the One-over-Many assumption, and suppose that there exists a single form, for example, large-1, in virtue of which all the members of that plurality alike are large.

In a word, Plato can overcome the Third Largeness Argument of the Parmenides by claiming that in general, if a form and a sensible are both \( F \), they are not \( F \) in the same way. In the jargon of Code and Grice, while the sensible is \( F \) (the Ordinary Language version) because it has \( F \)(-ness), the form is \( F \) (again, the OL version) because it is \( F \).

A major feature of Aristotle's strategy against Plato in the Categories is to collapse this dichotomy which Plato's theory of (metaphysical) predication attempts to make out between forms and sensibles. In Aristotle's theory, Socrates is some of his predicables, but has others. He is what is essential to him, and he has the rest. These different relations between Socrates and his various predicables form a large part of the motivation for the further ontological distinctions Aristotle draws in the Categories. Socrates is a primary substance: he is a lowest member of the category of substance, and he takes some of his predicables from higher up in that same category. In the theory of Izzing and Having, he is (a) man, (an) animal, and the rest. These last, meanwhile, are the secondary substances: they are non-individual, and "divisible" into their lower kinds (as animal, for example, divides into the various species of animals), or into individuals (as man divides into Socrates, Callias, and the rest).

There are also the non-substances, which stand in a very different relation to Socrates. In Aristotle's terms, they are IN him rather than SAID OF him; in the jargon of Code and Grice, they are predicables which Socrates has, and not what he is, hence they are accidental to him.

The cornerstone of this new, anti-Platonic theory of predication is the way in which these two kinds of (metaphysical) predication can combine in the single person of Socrates. Aristotle responds to Plato's theory of the accidental relation between sensibles and their predicables, by arguing that Socrates, for example, is some of his predicables, which are his kinds, and that he must first be those things, before he can be a fit subject for the accidents which he has.

Aristotle's reworking of the Third Largeness Argument into the Third Man Argument is a symptom of this new interest in kinds. The problem of a thing's kinds is a distinctively Aristotelian one: for Plato, since a sensible has all its predicables accidentally, there is no distinction between Socrates' kinds, and any others of his predicables. In Plato's theory, sensibles have all their predicables. At the same time, invariably forms are what they are. For Plato, then, there is no special pleading involved in the choice of example, when he claims to block any regress argument by saying that sensibles have large(-ness), but that the form
large itself is large. But if Aristotle’s view prevails, that Socrates is some of his
predicables, for example, that he is a man, then the regress argument takes on new life. For
in Aristotle’s view, sensible men and men alike are men, so that any plurality that contains
them all satisfies the homogeneity condition mentioned above. In this way, Aristotle’s new
type of being and having fits nicely within the dialectic of the regress arguments — first
the Third Largeness Argument, then later the Third Man Argument — that both Plato and
Aristotle bring to bear on the Platonic theory of forms.

II. ACCIDENTS AND KINDS IN THE METAPHYSICS — A REVERSION TO PLATONISM?

Aristotle’s suggestion that an individual like Socrates both has certain of his
predicables, which are his accidents, and is others, which are essential to him, marks a
significant break with the earlier theory of (metaphysical) predication in Plato. At the same
time, Aristotle also holds that the universal man too both is certain of its predicables — it
is, say, an animal — but at the same time has other properties: for example, man has pale,
if some individual man is pale. Both ideas challenge the Platonic view that uniform theories of
(predical) predication prevail both at the level of sensibles and at the level of forms:
for Aristotle, particulars and universals alike in the category of substance both have some of
their predicables, and are others. His theory also changes Plato’s view of the significance of
the difference in levels. In holding that a particular is certain of its predicables,
Aristotle attributes to sensibles at least some measure of the invariance that for Plato was a
prerogative exclusively of forms. Conversely, the idea that a universal can have certain of
its predicables challenges Plato’s view that forms eternally and abidingly are what they are.
Finally, Aristotle also reverses Plato’s choice of what to count as primary substance. For
Plato, clearly, the primary realities are the forms. In Aristotle’s theory in the Categories,
however, universals even in the category of substance are counted as secondary substances, and
the primary substances are instead the individuals, Socrates, Callias, and the like.

Aristotle promotes individuals to the rank of primary substance, mainly under the
influence of his theory of (metaphysical) predication. In the Categories, Aristotle’s chief
reason for counting individuals as primary substances is their role as subjects:

Further, it is because the primary substances are subjects for everything else that
they are called substances most strictly. Categories 5, 2b37 ff.

This view gives Aristotle what we may call a monolithic view of the subject of (metaphysical)
predication. In the final analysis, according to this view, the only real subjects of
predication are primary substances. In some cases, it is obvious that the subject of a
predication is a primary substance: Socrates, for example, is a primary substance, and he is a
subject to both his kinds and his accidents. In other cases, however, an item is predicated
of something other than a primary substance — for example, animal is predicated of man, or
pale is predicated of animal. These further kinds of predication, which do not have individual
substances as their subjects, are possible, only because they are founded in other predications
whose subject is after all a primary substance. For example, pale is predicated of animal,
only because some primary substance is both an animal and pale (strictly, it is an animal,
and has pale). In general, then, every predication can be analyzed ultimately in terms of the
existence of some primary substance which is the subject for predicables.

In the Metaphysics, however, Aristotle’s theory has undergone a radical metamorphosis. The
most notable innovation, perhaps, is Aristotle’s new choice for primary substance: it is
evident that the primary substances are now (Aristotelian) forms. And the individual
substance, Socrates, Callias, and the like undergoes a corresponding demotion. Socrates is
analyzed as (in some sense) a compound of form and matter, and not Socrates himself but his
form is now primary substance.

In addition to their role as primary substances, forms also have a part to play in the new Metaphysics theory of (metaphysical) predication. The principal passages are these:

For, the rest are predicated of the substance (οὐ συναξ), but it (is predicated) of the matter. 23, 1029a23–24.

"The subject) is subject (ὑπό των ἑτέρων) in two ways, either being a this, as the animal (is subject) to its affections, or as the matter (is subject) to the actuality. 213, 1038b4–6.

For, that of which and the subject (τὸ καθ᾽ οὐ καὶ τὸ υπὸ καθ᾽ οὐ) differ in this, by being either a this or not being (a this): for example, what is subject to the affections is (a) man, both (his) body and (his) soul, and the affection is the musical or (the) pale ... In all cases of this sort, the subject (τὸ ἐξ ὄξυκτον) (is) substance; but in the cases that are not like this, but what is predicated is a certain form and a this (ἐλεύθ ἐκ τοῦ τοῦ τὸ κατ᾽ ἐξ ὄξυκτον), the subject (τὸ ἐξ ὄξυκτον) is matter and matter-like substance. 1049a27 ff.

In these passages, Aristotle clearly abandons the monolithic view of the subject of (metaphysical) predication in the Categories, where individual substances are subjects for every predicable, in favour of the idea that there are two irreducibly different kinds of subject for predication. Either an individual substance is subject to accidents, as before, or matter is subject to a form. Aristotle nowhere allows that there are more than these two kinds of subjects. Likewise, he nowhere suggests that the subjects which his theory does recognize can be subjects to other kinds of predicables than those indicated.

At the same time, Aristotle also appears to accept a uniform notion of (metaphysical) predication in each of the two kinds of case his theory allows. Exactly one relation of predication holds between an accident and an individual substance (the first is an accident of the second), and exactly one relation of predication connects a form with the matter of which it is predicated (the first supervenes on the second).

The relation of (metaphysical) predication itself is the union of the two subrelations just distinguished: the relation of predication holds between either an accident and its subject, or between a form and the matter on which it supervenes. In this sense, it is trivial that the same relation holds between the two kinds of predicable and their respective subjects. A more intriguing question concerns the two subrelations. To what extent are these two like one another? Do they have even the same logical properties, differing only in their relata in the two kinds of case?

These questions are sufficiently important that it will do no harm to press them further. The "two-stage" theory of (metaphysical) predication that appears in the Metaphysics in some ways can seem like a simple extension of the notion of cross-categorial predication in the Categories. Aristotle applies the idea that an accident is predicable of an individual substance to the analysis of the individual substance itself, which he sees as a compound of form and matter, in which in turn the form is predicated of the matter. In each case, the subject has its predicables: for example, Socrates has pallor, and these bricks and mortar have the form of a house. Evidently, having here is the union of two distinct subrelations, the accident-of relation, and the relation of supervention (more strictly, the union of the converses of these), that hold respectively between pallor and Socrates, or between the form of a house and the relevant bricks and mortar. But (again) what of the two subrelations themselves? To what extent do they have the same kinds of properties? How far should we press the parallel between these two cases of predication?
There are, I believe, a number of traps in supposing that the two cases of predication — where an accident is predicated of a compound substance, or a form is predicated of matter — are entirely parallel. The comparison involves a degree of oversimplification — on some accounts, even outright misrepresentation — that we will shortly have to correct. Flawed or not, however, the comparison between the two kinds of case is vivid enough to be worth pressing as hard as we can, with a view to finding exactly the points at which it breaks down.

(i) Aristotle himself seems to promote the comparison with his first introduction of matter and form in the Physics. Aristotle uses his account of qualified change, in which for example Socrates turns pale, as the pattern for unqualified change, in which a substance comes to be. Socrates exists before becoming pale and may even exist after the change is reversed. He also exists while the change is in effect: it is Socrates who turned pale, but the same Socrates who now is pale as a result of that change. In exactly the same way, Aristotle supposes there exists something, namely the matter, before the coming-to-be of a substance, which Has the privative form, which then comes to Have the positive form when the substance comes-to-be, and which may even continue to exist even after the positive form is lost and the substance itself no longer exists. This account straightforwardly implies the analysis of the substance which comes-to-be as (in some sense) a compound of form and matter, entirely parallel to the accidental compound of Socrates with the accident pale, Socrates + pale for short, which results when Socrates turns pale.7

(ii) A second argument for assimilating the relation between a form and the matter of which it is predicated to that between an accident and its subject substance, casts its net somewhat wider, to include the whole history of Aristotle's account of an individual and its kinds. In Plato's ontology, as we have seen, sensibles have predicates true of them only by virtue of participating in — that is, having — the relevant predicables. This view leads ultimately to the "bare substrate" ontology of the Timaeus, in which likenesses of forms are reflected in (otherwise featureless) Space. In the Categories, by contrast, Aristotle seems to suggest that predicables can work in (roughly) Plato's way in application to sensibles, only if there are other, "subject-fixing" predicables that work in a different way. These subject-fixing predicables are just a thing's kinds, and in the early, Categories account of individuals and kinds, Aristotle holds that a particular substance, Socrates (say), is first a man (he is essentially a man), but has his various accidents (he is accidentally large, pale, and so on). As his alternative to Plato's theory of accidental predication, therefore, in which likenesses of forms are Had by different regions of Space, Aristotle gives us the picture of a primary substance, "the same and one in number" in virtue of the predicables it (essentially) is, but also "receptive of contraries," which it (accidentally) Has (Categories 5, 4a10-11).

In this earliest, Categories account, the notion of belonging to a kind is not susceptible of further analysis. As in Plato's account, the fact that Socrates is (a) man involves an unanalyzed relation (even if it is not Plato's relation) between a sensible and a universal. That the relation holds is a brute fact, and not open to further philosophical explanation or analysis. (But Aristotle distances himself from the Platonic account, by insisting that the kind man, for example, is a secondary substance, and unlike Socrates and the other individuals that belong to the kind, a such and not a this.)

In the intermediate analysis, which in the Metaphysics appears side by side with the more radical, "full-strength" analysis, Aristotle retains reference to the kinds or secondary substances of the Categories, but no longer regards them as philosophically primitive. Instead, he analyzes them as "compounds of this form and this matter, taken universally" ("universal compounds," for short).8 Universal compounds, man, for example, and animal, and all those entities "that apply similarly to individuals, but universally" (τό ὁμοόπλοες τού Κόσμου, καιρός, θόρυβος, etc., 110, 1055b28), are universal to compound material substances. By contrast with the secondary substances of the Categories, they are demoted in the Metaphysics.
to the status of non-substances (Metaphysics Z10, 1035b27-30).

In the final Metaphysics analysis of individuals and kinds, however, the story is quite different. Here, Aristotle shows us how to dispense altogether with reference to kinds, and talk instead of form and matter, and of the relation of supervision. According to the full-strength Metaphysics analysis, Socrates is (a) man if and only if the form of a man supervenes on a given matter (the matter which is, in fact, Socrates’ matter).

Given the history of his debate with Plato, sketched earlier, Aristotle’s full-strength analysis of individuals and kinds in the Metaphysics may come as something of a shock. Suppose that Socrates is a man. On the new theory, this must be analyzed in terms of a certain form supervening on a certain portion of matter. That is, the matter has the form in question. On this picture, apparently, Aristotle sees little difference between the way in which an Aristotelian form stands to the matter of which it is (metaphysically) predicated, and the relation between an accident and its parent substance. In effect, we may be tempted to conclude, it seems that Aristotle has reassimilated the logic of the predicate ‘man’ back to that of the predicate ‘large.’ Each is to be understood as Plato had suggested, in terms of a subject’s having the predicables in question.

In fact, I think, the argument just given is quite inconclusive. A comparison may help to see why. In Aristotle’s earliest theory, from one point of view a single relation of (metaphysical) predication prevails between any predicables and its subject. For example, both pale and man are predicated of Socrates. But it is trivial that this is the same relation in both cases. Predication here is the union of the two subrelations of being and having (more strictly, the union of the converses of these two), and the two different subrelations each have their own quite distinctive logical properties. A similar point may also apply to Aristotle’s later theory. In the later theory, (metaphysical) predication is a matter of having alone, or so I have argued, while being drops out of the picture. A compound material substance has its various accidents, while at the same time, a portion of matter has an appropriate form. Again, it seems, a single relation, namely having, holds between any predicables and its subject. But here too, this result may be trivial. Having now is itself the union of two subrelations, and the possibility is open that these two subrelations themselves have quite different logical properties. If, then, we are to say that Aristotle has actually assimilated the logic of ‘man’ to that of ‘large,’ we must find better arguments than the mere existence of having as the union of the accident-of relation and the relation of supervision.

(iii) A final argument provides somewhat stronger support for assimilating the two cases of (metaphysical) predication. We know that an accident holds accidentally of the compound substance of which it is predicated. But (for reasons I will not try to develop here) a form is not even in a weakened sense the essence of, or the substance of, or mentioned in the definition of, the matter of which it is predicated. There is at least some initial plausibility, then, to the idea that when a form is predicated of matter, the relation in this case too holds accidentally between the predicables and its subject. It will follow that predication in the Metaphysics is in all cases an accidental relation between a predicabile and its subject.

The argument just given can be broadened within the context of a distinction between supervenient and constitutive form. Where an individual substance is a compound of a matter and a form, say that . Here, the form supervenes on m, but it is constitutive of a itself — that is, of . Plausibly, Aristotle will want to deny essentialism for matter with respect to supervenient form. Suppose that a given matter, , has a certain form (equivalently, that supervenes on ). Then plausibly, it is possible that should exist and yet not have . For example, the bronze that is in fact the matter of this statue, and hence has the form of a statue, might still exist even if the statue did not: that is, it might
exist, yet fail to have the form of a statue. The relation of having, then, between matter and form is an accidental relation. Or equivalently, the converse relation of supervenience holds accidentally between a form and the appropriate matter.

It is no objection to this account of the accidental character of the relation between matter and the form that supervenes on it, that Aristotle will also hold a different, essentialist principle for a thing with respect to its constitutive form. Thus, if a form $\Psi$ is constitutive of something $x$ — that is, for some $m, x = m + \Psi$ — then it is impossible that $x$ should exist, and yet $\Psi$ not be constitutive of $x$. For example, the form of a statue is constitutive of this statue, and the statue could no longer exist if that form were lacking. This essentialist principle holds for any form-matter compound, $m + \Psi$, whether it falls below the level of substance, that is, it is itself matter for some further application of supervenient form, or whether $m + \Psi$ is a compound material substance.

One further qualification is also worth noting here. In claiming that the relation between matter and the form that supervenes on it is an accidental one, I use the word "accidental" in the technical sense, that $\Psi$ is accidental to $m$ only if $m$ can exist without $\Psi$. I do not mean to deny that most often in nature, the connection between a matter and the form that supervenes on it is far from fortuitous. Suppose, for example, that an embryo is at the point in development where an animal capable of sensation is about to emerge. Then there already exists a collection of various uniform and non-uniform parts, which will be the matter of the sensate animal about to emerge, and merely awaits the final increment of $\Psi$. Clearly, it is not open to that matter to take on not $\Psi$ but some wildly different form, say the form of a table. There are perhaps just two choices open at this point: either the matter takes on $\Psi$, or the creature fails to develop at all, and instead dies.

In this sense, the matter in question "exhibits the urge for" its appropriate form (Physics A9, 192a18-19). The prior forms incorporated into the embryo at the earlier stages of its development are followed by still other forms which are progressively realized until the fully-developed creature emerges. It is helpful here to think of the forms progressively realized in the different objects in nature as arranged in sequences — for example, the sequence of forms realized in the development of a man, or a mollusk, or an oak-tree. These sequences are in many cases overlapping, at least at the earliest stages. Very soon, however, the sequences begin to diverge, leaving little if any room for variation in what comes later, if nature continues unimpeded. And in any given case, the parentage of a creature leaves determined from the very start the ultimate direction in which the embryo is headed, however unformed it is in its earliest stages. All of this is consistent with the idea that the form $\Psi$ which in the course of nature normally supervenes on a given matter $m$ might not in fact do so, even though $m$ itself continues to exist. The possibility of the sheer failure of the living creature to develop, but rather its withering and dying, is sufficient to show that the relation between $m$ and $\Psi$, however strongly "programmed" in nature, is still an accidental one in the sense defined.

So far, so good, then, for the view that the predication relation between an accident and an individual substance, and between a form and matter, is alike in at least this, that the relation is in both cases accidental. This idea is not without its problems: I will try to dispel one argument against it, based on the so-called "homonymy" of matter, later in the next Section. Provisionally at least, however, we have some reason for supposing that in his new theory of (metaphysical) predication in the Metaphysics, Aristotle does mean to assimilate to some degree the relation between a form and the matter on which it supervenes to the relation between an accident and its parent substance. But how far is he willing to carry this assimilation? And supposing that some degree of assimilation is present, must we conclude that the new theory of predication in the Metaphysics represents a reversion to the kind of Platonic picture that Aristotle had earlier affected to deplore? In the Categories, Aristotle insists
that Socrates must first be something, before he can have his various accidents. But if Aristotle no longer sees a need for a theory of izing, what hope can there be for a proper account of Socrates' status as a member of a kind? If having is the only relation of (metaphysical) predication Aristotle leaves room for in the Metaphysics, how does he avoid the "bare substrate" ontology for which he earlier takes Plato to task?

Proper answers to these questions require us to set the proper distance between the relation of form to matter, and that of its accidents to a compound material substance. In Section III immediately following, I discuss some points at which the two cases of predication diverge. On a more positive note, finally, in Section IV, I turn to the account of individuals, accidents, and kinds, that Aristotle's new theory provides.

III. SOME DIFFERENCES BETWEEN THE TWO HALVES OF ARISTOTLE'S SCHEME.

We can begin by noticing some of the ways in which the two halves of the system of (metaphysical) predication differ: this will help moderate the degree of assimilation between the two cases of predication argued for in the previous few pages. Despite the recourse to a notion of having in both halves, there are subtleties in the segment in which form is predicated of matter which make it look much less like the half which contains compound substances and their accidents. First, the individual substance holds a symmetrically opposite position in the two systems of predication. We can "spatialize" Aristotle's theory by supposing that the relation of predication holds downwards, from a predicatible above to its subject below (Aristotle himself encourages the spatial metaphor -- see, for example, Metaphysics e2, 994a19-22 and 14, 1007b9; the metaphor is in any case already present in the very word, 'subject,' as in the Greek word it translates). Suppose further that the part of Aristotle's theory that deals with substances and accidents is "positioned" above that dealing with matter and form. Now in the upper half, the individual substance is at the bottom, for it is the subject of accidents. But it is at the top of the lower half, for it is analyzed as the result of (metaphysically) predicating a "substantial" or "last" form of proximate matter, and the proximate matter in turn is analyzed as the result of predicating still other form of still other matter, and so on down through the different lower levels of organization in the matter of the thing, until we come to prime matter at the very bottom.

The complexity of the lower as opposed to the upper half of Aristotle's system makes a second, important difference between the two halves: we will make more of this difference later in the next Section. Yet a third difference concerns the direction of ontological priority in the two halves. In the lower half, the direction is from the top to the bottom. The compound substance itself and the "substantial" or "last" form that is constitutive of it at the very top, come second and first respectively in ontological priority. Thereafter, we proceed "down" in the scheme, through the lower levels of organization in the matter of the thing, and through correspondingly lower levels of ontological priority, until last and least we reach prime matter. In the upper system of substances and accidents, however, ontological priority goes in the reverse direction, with compound substances at the bottom prior to the accidents that are predicated of them from above. Since the direction of priority is opposite in the two systems, but the subject is lower in both, there follows the different ontological standing that attaches to the subject in the two halves. Hence the inadequacies of the subject criterion for ontological priority, once it is transplanted from the single-stage system of (metaphysical) predication in the Categories to the two-stage analysis in the Metaphysics.

The next point is a matter of some controversy. Yet another subtlety is said to help differentiate further the upper system of substances and accidents from the lower one of matter and form. In the upper system, a compound substance is fully constituted as a member of a kind independently of its particular accidents. An individual substance is a member of its given
kind — even if ultimately this is analyzed not in terms of Izzing, but of a given matter’s
Having a given form — before it can have its various accidents. In the lower stage, however,
the relation between form and the matter of which it is (metaphysically) predicated is far more
complex. The trouble begins with Aristotle’s doctrine of the homonymy of the bodily parts.
The form of a natural object does not exist unless it is appropriately enmattered, as Aristotle
frequently insists. Equally, however, in natural objects at least (artefacts may be an
exception), a given specimen of matter is what it is ὑπὸνυπηκοῦς, "in name only," in the absence
of the appropriate form. Both sides of the interdependence are stated strikingly at de Gen.
An. Bi, 735a6–8:

no soul will be present in anything else except, naturally, in that of which it is
<the soul>, and no part <among the bodily "parts"> will exist if it does not
participate <in the appropriate soul>, except homonymously, like the eye of a corpse.

How exactly is matter dependent on form, according to the doctrine of the homonymy of
matter? According to the homonymy doctrine, an eye, for example, cannot exist outside a living
animal — a being with ἐν ζῷοι καὶ τοιαύτῃσιν. Without ἐν ζῷοι καὶ τοιαύτῃσιν, the various sense-organs are
at best sense-organs in name only. But ἐν ζῷοι καὶ τοιαύτῃσιν is as form to the various sense-organs
as matter: ἐν ζῷοι καὶ τοιαύτῃσιν supervenes on the different sense-organs. It follows, apparently,
that the existence of the full-fledged sense-organs is in some way dependent on the form that
is supervenient on them. This result — if it can be trusted — puts Aristotle directly in
conflict with the anti-essentialist principle sketched in Section II above. Aristotle appears
to be committed to saying that in this case, the material half of a form-matter compound exists
in the full sense, only when the compound itself exists. Accordingly, the matter on which ἐν
ζῷοι καὶ τοιαύτῃσιν supervenes Has a predicative it could not possibly fail to have. And by this, we mean
that it would no longer exist, or would exist only homonymously, if it failed to have the form
in question.

This argument is not in fact sound. Aristotle’s doctrine of the homonymy of the bodily
parts is designed to show that the constitutive form of an eye, for example, is not to be
equated with simply its structure, but must also make room for the function of an eye — its
various ἐν προκεχάριστη σεισμὸν (de P. An. Bi, 646b13, cf. 647a24), the different "works and doings"
that comprise its behaviour as a part with a particular function within some larger system.
Our notion of the constitutive form of a thing, then, is not exhausted by the structural
properties of the thing, but must also take account of the role it occupies in the teleological
scheme of things.

Within this framework, what has some suitable portion of ἐν ζῷοι καὶ τοιαύτῃσιν is not my eye in
the full sense, but my homonymous eye: something with the structural properties of an eye, but
which is not an eye in the full sense — is not a living eye. Clearly, an eye in this reduced
sense can continue to exist even in the absence of ἐν ζῷοι καὶ τοιαύτῃσιν. My homonymous eye, then,
does not fail Aristotle’s anti-essentialist principle with respect to supervenient form.

At the same time, an appropriate portion of ἐν ζῷοι καὶ τοιαύτῃσιν is the constitutive form of my
eye in the full sense of ‘eye.’ And my eye properly so-called will not exist except in the
presence of ἐν ζῷοι καὶ τοιαύτῃσιν. So the principle of essentialism for a thing with respect to its
constitutive form is also upheld in this case.

If these arguments are right, we do not have to give up the idea that the matter is fully
constituted antecedently to the arrival of the next complement of supervenient form.
Aristotle’s doctrine of the homonymy of matter is quite consistent with his anti-essentialism
for matter and supervenient form. As Aristotle’s anti-essentialist principle demands, a given
case of matter is fully constituted as what it is, before it can have the next level of
supervenient form. On this point at least, then, the analogy between the two halves of
Aristotle’s system of predication does not break down.
IV. ACCIDENTS AND KINDS: COMING TO TERMS WITH THE NEW THEORY.

I turn finally to the positive account of the individual substance, his accidents, and his kinds, that the new theory of (metaphysical) predication provides. It is fundamental, above all, not only that the two systems of predication are different in the various ways suggested, but also that they are two — that they are not collapsed together into one great scheme in which every successive modification is regarded as yet another imposition of form, or equally seriously, every modification is merely an accidental variation of an underlying matter. I take these two points in order.

(i) Not every difference for Aristotle is a difference in kind. To see why not, we can begin with the obvious contrast concerning the relative complexity of the two halves of Aristotle’s scheme. Suppose that an individual substance, a, can be analyzed as a compound of proximate matter and "substantial" or "last" form, m1 + Ψ1. It is overwhelmingly likely, as we have already seen, that m1 itself (which is here the subject for Ψ1) is a compound of matter and form, m2 + Ψ2. Thus, a = m1 + Ψ1 = (m2 + Ψ2) + Ψ1. And m2 itself may be a compound of still other matter and form, m3 + Ψ3, so that a = m1 + Ψ1 = (m2 + Ψ2) + Ψ1 = ((m3 + Ψ3) + Ψ2) + Ψ1.

The analysis of a, then, takes this form (where ‘↓’ indicates the "downwards" relation of predication):

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In the top half of the scheme, by contrast, there is just a single layer of predication, consisting of all the compound material substances, which are subject to all their various accidents. There are no more layers than this. Suppose, for example, that the substance, a, is subject to the accident, Φ1. Then there exists the accidental compound of a with Φ1, a + Φ1, for short. Suppose that a is also subject to the second accident, Φ2. Then there exists a second accidental compound, a + Φ2. But we cannot infer from this the existence of a compound of an accidental compound with an accident: there is no such entity as (a + Φ1) + Φ2. The top half, then, looks like this:

```
Φ1  Φ2  Φ2  ...  Φn
↓   ↓   ↓   ↓   ↓
```

It does not look like this:

...
The two halves of Aristotle's scheme together detail the steps by which different forms supervene in order on successively more complex layers of matter, until we reach a fully-formed member of a kind, which thereafter is a subject for accidents. Kinds in the proper sense of the term exist only at the top of the lower half of the scheme, in connection with the final layer of forms, and immediately before the layer of compound material substances and their accidents. But it will be useful to speak of kinds also in the lower-level cases, in connection with lower-level forms. For example, if $\psi^1$ is the form associated with a's kind, there is also some lower-level kind associated with $\psi^2$, a still lower kind associated with $\Psi^3$, and so on. Examples of such lower-level kinds include bone, blood, bronze, and the like.

Two rules involving kinds (both kinds proper, and also lower-level kinds) hold throughout Aristotle's scheme -- but with just one exception in each case, at opposite extremes of the scheme. According to the first principle, with one exception,

(1) **Subjects belong to kinds.**

In the lower half of Aristotle's scheme, with one exception, if a form supervenes on a subject, then there exists some other form that is constitutive of that subject. For example, $\Psi^3$ supervenes on $m_1$, while the different form, $\Psi^2$, is constitutive of $m_1$:

\[
\begin{align*}
\Psi^2 \\
m_1 \\
\end{align*}
\]

That is, $m_1 = m_2 + \Psi^2$, where $\Psi^2$ is the form associated with $m_1$'s (lower-level) kind. And in the top half of the scheme, an accident is predicated of a compound material substance, only if there is a form that is constitutive of that substance, and is the form associated with its kind. For example, $\phi^1$ is an accident of $a$, while the form $\psi^1$ is constitutive of $a$, and is the form associated with $a$'s kind. At this level, the principle is sometimes stated as the principle of "Izing before Having," discussed in earlier Sections: for example, Socrates Has pale, only if he Is first (a) man. The principle of "Izing before Having," then, is a special case of a more general principle that holds throughout Aristotle's scheme, with one single exception.

The exception is prime matter, at the very bottom of the entire scheme. Prime matter is not itself a compound of any further matter and form, and hence it has no constitutive form. The exception is no surprise, since the rule is an anti-bare-substratum rule, and prime matter is at least in the properly qualified sense a bare substratum. The failure of the rule in this case puts an end to the sequence of progressively lower-level predicables, predicated of increasingly lower-level subjects which are themselves compounds of a subject with a
predicable, where that subject in turn is analyzed as a compound of still some other subject and some other predicatable. The sequence ends when we reach a final step at which there exists a subject which is not itself analyzed as a compound of some other subject with some other predicatable.

A second rule holds throughout Aristotle's scheme except at the very top. With one crucial exception,

(2) **Predicables make a difference in kind.**

Throughout the lower half of the scheme, if a form is predicated of a subject, then the resulting compound has that form as its constitutive form, and thanks to it, is a member of some (perhaps very low-level) kind. For example, \( \Psi^2 \) is predicated of \( m^2 \), and \( \Psi^2 \) is constitutive of the resulting compound, \( m^1 = m^2 + \Psi^2 \), and is the form associated with its kind:

\[
\begin{array}{c}
\Psi^1 \\
\downarrow \\
\Psi^2 \\
\downarrow \\
\Psi^2 \\
\end{array}
\]

The exception, as predicted, is at the very top of the scheme. The accident \( \Phi^1 \), for example, is predicated of the compound material substance, \( a \), but the resulting compound, \( a + \Phi^1 \), is not itself a member of any further kind. This exception puts an end to the upwards sequence of forms, introducing ever-more-complex kinds, and allows instead the introduction of a layer of predicables of a different character, which are accidents.

With this step, we reach the point with which we began this part of the discussion: not every modification is the imposition of yet another layer of form, and not every difference is a difference in kind. Interestingly, it is not enough to ensure this result to insist simply on a division between upper and lower halves in Aristotle's scheme. It is essential also that there is only a single layer of predicables in the upper half of the system, and that it does not contain any further predicables, at a level beyond that we stipulate to be the last. Aristotle is firm that the sequence of forms involved in the constitution of a given compound material substance is bounded at both ends, and the single exceptions to each of the two rules given are intended especially to guarantee this result. With these single exceptions, however, the two rules otherwise hold throughout the system, from top to bottom. It follows given this last point that there must be a single layer of predicables in the top half of the system, or the sequence of forms is not bounded at the upper end after all.

One argument is relatively trivial. Thus, consider the hypothesis that, contrary to what has been supposed here, there is a further level of predicables beyond \( \Phi^1 \). For example, suppose that the accident \( \Phi^2 \), is predicated of \( a + \Phi^1 \). By rule (2), except at the single level of \( \Phi^1 \), predicables make a difference in kind. Accordingly, the compound \( (a + \Phi^1) + \Phi^2 \) is itself a member of some new, unwanted kind.

This result is easily avoided by reformulating more generously the exception to rule (2). We can say that the rule holds only in the lower half of Aristotle's scheme, and that predicables never make a difference in kind in the upper half of the scheme, however many different levels of predicables exist in that half. A second difficulty, however, involving rule (i), is not so easily turned aside. Suppose (again) that \( \Phi^2 \) is predicated of \( a + \Phi^1 \). By rule (i), with the exception of prime matter, subjects belong to their own distinctive kinds. It follows that \( a + \Phi^1 \) too, since it is subject to \( \Phi^2 \), must also be a member of its own kind after all.
To prevent this unwanted proliferation of kinds, and in place of the wholesale reworking of the two rules given, our best recourse is simply to deny that an accidental compound is itself a proper subject for accidents. If Socrates + pale, for example, is not a subject for accidents, then we cannot use rule (1) in order to argue that Socrates + pale is a member of some new kind. Again, if Socrates + pale is not a subject for accidents, then we have no way of obtaining higher-level accidental compounds, (Socrates + pale) + musical, and the rest, which by rule (2) are themselves members of kinds.

On this view, what it takes to halt the upwards sequence of forms and their associated kinds includes not merely the division between upper and lower halves in the scheme of predication, but also the further idea that in the top half, there is only a single layer of predicables. And in fact, Aristotle insists that the pale is musical, for example, or the musical is pale, only because both musical and pale are accidents of some man. But pale Socrates (say) -- that is, Socrates + pale -- cannot itself be the subject of some further accident.1

(ii) Aristotle also rejects the conclusion that every predicatable is merely an accident of a single substratum. Aristotle's reductio argument in Metaphysics 23, using the old subject criterion for primary substance, attempts to portray a thing's accidents and the forms that help make it up as all alike merely accidental modifications of a single underlying subject. In fact, however, no such single subject exists. In arguing for a single underlying subject in 23, Aristotle seems to rely on the idea that the relation, "\(x\) is predicated of \(y\)," is transitive (1029a23-24), but this idea is clearly mistaken. For example, the accidents of a compound material substance are the accidents of that substance, but (despite what Aristotle says at 1029a23-24) that very substance is not itself predicated of anything, let alone of some underlying matter,1.6. It does not follow, then, that the accidents are predicated of an underlying matter. Again, \(m^n\) at the bottom of Aristotle's scheme is supervened on by \(\psi^n\), and the resulting compound, \(m^n + \psi^n = m^n-1\), is supervened on by \(\psi^n-1\). But (again) these premisses are not enough to show that \(m^n\) is supervened on by \(\psi^n-1\). In general, then, there is not obviously any way to show that \(m^n\) is subject not only to \(\psi^n\), but also to \(\psi^n-1, \ldots, \psi^2\), and finally \(\psi^1\), let alone to \(\psi^1\) and the other accidents of a thing.

Aristotle's new theory, then, does not show that he has given up his view of individuals as stable members of kinds, or that he is about to lapse instead into a Platonic "bare substrate" ontology. But he now draws very differently the distinction between "subject-fixing" predicables or kinds on the one hand, and the accidents of a thing on the other. In the Categories, the contrast is made in terms of a distinction between two different kinds of predication: a substance is its subject-fixing predicables, but it has its accidents. In the Metaphysics, by contrast, Aristotle offers a distinction between two kinds of predicables, forms and accidents, which he distributes between the two different halves of his scheme of (metaphysical) predication. Forms are predicables of matter: the result, finally, is a finished substance, which is a member of a given kind, and hence a fit subject for accidents.

The key to Aristotle's account of the individual substance, complete with both its accidents and its kinds, lies with the way in which these two parts of his system of predication interact. The two halves of the system are separated one from the other, but only with the proviso that at the same time, there exists a point of intersection between the two, occupied by the individual members of kinds. An individual substance lies at the point at which a thing is completely fashioned as a member of its kind, thanks to the lower half of the system of predication; it is accordingly a fit subject for accidents, which accrue to it through the workings of the upper half of the system. How do we decide which predicables are to count as accidents, and which as forms? There is a sense in which the distinction between accidents and forms is arbitrary -- it comes simply wherever we put the division between the last set of predicables and all its predecessors. From this perspective, the one crucial
condition is that there should not be any further predicable at a level beyond that we stipulate to be the last. As Furth has emphasized, identifying precisely which predicable fall on which side of the divide between the two halves of the system in any given case is not, most likely, the task of metaphysics but rather (for example) biology in the case of a biological substance, and differently for substances of different, non-biological kinds. It is sufficient simply, as we have seen, that metaphysics should tell us that such a transition point between the two halves of the system exists, wherever in fact that transition point turns out to be located.

The key role in this shaping of the individual substance, on the road to becoming a fit subject of accidents, is played by form. Form, matter, and the relation of supervenience replace membership in a kind as the more nearly basic notions in Aristotle's theory. In the intermediate Metaphysics theory, the notion of a kind, which was primitive in the Categories, is analyzed in terms of form and matter (Z10, 1035b27-30, Z11, 1037a6-7). In the full-strength analysis, accordingly, the fact that Socrates is a man, for example, is explicated not by reference to a relation between Socrates and a kind, but in terms of the supervenience of form on matter.

Form is also involved in settling what constitutes sameness or difference in kind. For example, does being musical, or being male, make Socrates a member of a different kind from a person who is female, or unmusical? Again, as we have seen, we look to form to provide an answer. In fact, form is indifferent to the differences in question, and hence, they are not differences in kind but accidents, and predicated not of the matter but of the compound material substance.1 In other words, we are at the point of transition from the lower to the upper half of Aristotle's scheme.

This view of the primacy of form repairs a difficulty in Aristotle's earlier theory. In the Categories, the individual substance is primary substance, despite its unacknowledged dependence on its kinds, which Aristotle regards as (merely) secondary substances.1 The new theory of form removes this discrepancy. For in the Metaphysics, sameness or difference of form is what justifies the ways in which we group things into kinds, and at the same time, appropriately, form is also primary substance.2

NOTES
2. Further hints of the idea that, in contrast to sensibles, forms Are what they are, appear in the Sophist. Plato writes:

May we now be bold to say that that which is not unquestionably is a thing that has a nature of its own -- just as the tall was tall and the beautiful way beautiful, so too with the not-tall and the not-beautiful -- and in that sense that which is not also, on the same principle, both was and is what is not, a single form to be reckoned among the many things that are? 258b9-14, after Cornford's translation.

Cf. the discussion of the two uses of 'is' in Michael Frede, Praedikation und Existenzaussage, Goettingen 1967.

Aristotle identifies form as substance tout court, and leaves off the qualification, "primary": for example, Z8, 1033b17-18, Z10, 1035b14 ff, Z11, 1037a25, 29 (but see a28'), Z11, 1041b7-9 (Ross' text [Ross 1924, Vol. II, p. 224]). But the omission does not cast doubt on the identification of form with primary substance: perhaps more often than not throughout Metaphysics Zeta, 'substance' is shorthand for 'primary substance.' In Zeta 3, next, Aristotle argues that form is prior to matter, and prior too to the compound of form and matter (1029a5-7; 1029a29-30 adds that the compound is prior to the matter). And in 28, Aristotle explains how the primary substance, that is, form, and the compound substance are related:

the compound <substance> (-picker of name from, Ross) it [= the form]. 28, 1033b17-18.

In Eta 3, finally, Aristotle explains that kind terms in general, 'house,' for example, or 'animal,' are often ambiguous between terms for the compound substance, and terms for the form. Such uses are to be explained by the notion of focal meaning, where (presumably) the use to pick out the form is primary, and the other peripheral uses are to be explained in terms of it.

5. This statement of Aristotle's theory is not without problems: see note 16 below.

6. In the ontology of the Metaphysics, either an accident is (metaphysically) predicated of an individual substance, or a form is (metaphysically) predicated of matter. Given this theory, what becomes of the view from the Categories that a single kind of entity is subject for every predicable, and that this entity is primary substance? This question is raised in Metaphysics Zeta 3, where Aristotle experiments with the idea that matter is subject to everything, both to accidents and to forms. The upshot of Aristotle's discussion is that the "subject" criterion for primary substance from the Categories cannot stand as is. For, the criterion is designed to pick out a single kind of entity as subject for everything, and hence as primary substance; but in the Metaphysics theory, as we have seen, Aristotle holds that there are two irreducibly different kinds of subject, and no such single subject exists. On this topic, see further in Section IV below.

7. On the topic of accidental compounds, see Frank A. Lewis, "Accidental Sameness in Aristotle," Philosophical Studies 42 (1982) 1-36, and Gareth Matthews, "Accidental Unities," in M. Nussbaum and M. Schofield, eds, Language and Logos, 223-240. The '+' notation in the text stands for the operation of compounding, due to Kit Fine, which I take to be primitive in Aristotle's theory. Other associations which this same notation may have in other contexts should be disregarded.

8. 210, 1035b27-30, Z11, 1037a6-7, and perhaps Z8, 1033b25-26 (but see Ross 1924 on 1033b16).


10. On the '+' notation here, see note 7 above.

11. The discussion in this and the next paragraph and in parts of Section IV below covers
ground also traversed by Montgomery Furth: points at which I am particularly indebted to Furth's account are detailed in later notes.

12. This is Aristotle's doctrine of the homonymy of severed parts (Metaphysics 210, 1035b23-25, 211, 1036b28-32, 216, 1040b5-16, and elsewhere in Aristotle, Meteor. 412, 389b31-390b2, De An. B1, 412b18-22, de Part. An. A1, 640b34-641a5, a18 ff, and de Gen. An. A19, 726b22-24, B1, 734b24-27, 735a7-8). For the objection to the accidental character of the relation between matter and the form that supervenes on it based on the doctrine of the homonymy of matter, the reader should consult the subtle arguments of J. L. Ackrill, "Aristotle's Definitions of Psyche," reprinted in Barnes, Schofield, and Sorabji, editors, Articles On Aristotle, 4. Psychology and Aesthetics, pp. 65-75. Ackrill also enters a second reservation regarding the use of the form-matter model, in the case of compounds formed by the process of ἐναις, but space does not permit discussion of this point here.

13. This point has been emphasized by Furth.

14. Prime matter is "bare" only in the qualified sense, that there is always some form which prime matter has, but it is not itself a compound of form and matter, that is, prime matter has no constitutive form.

15. The examples and the reasoning are both borrowed from Metaphysics Γ4, 1007a33 ff, where Aristotle argues that there are no "upwards" chain of accidental predications, for in fact, "no more than two combine" (b1-4), that is, any sequence defined by the relation, "x is an accident of y," has at most two members. As for the chances of α + Φ1 as a subject for predicables, "not everything makes up one thing" (b10). Cf. also An. Po. A4, 73b6, 7, A22, 83a2, 10 ff, An. Pr. A26, 49a35, and Lewis (note 7 above), p. 15 and n. 13.

16. 1029a23-24 is quoted in Section II above. Aristotle uses the term ὅφε λα for ambiguously here, first for the compound material substance, which is a subject to accidents, then for substance in the sense of form. In fact, only substance in this latter sense is predicated of matter -- and this not of any matter, but only of the proximate matter.

17. It is relevant here to notice that there are two different relations, "x is the matter of y." One is a relation between a matter, m1, and the compound, m1 + w1, of which it is (in some sense) a part: this relation is transitive. The other matter-of relation holds between m1 and w1, and this relation is clearly not transitive. The temptation to think that, contrary to what has been urged in the text, the supervened-on-by relation is transitive, may come from identifying that relation with the second of these different matter-of relations, and then falsely inferring from this that it shares the logical properties of the first.

18. Cf. the discussion earlier in this Section. Aristotle himself takes up the point in Metaphysics 19.


20. Work on the topics covered in this paper was supported in part by an A.C.L.S. Fellowship funded by the National Endowment for the Humanities, hereby gratefully acknowledged. An earlier version of the paper benefitted from a hearing at the University of Texas at Austin in Spring 1984. I am indebted also to Alan Code for continuing discussion on these and related topics. I regret that the paper, "Aristotle's Doctrine of the Material Substrate," Ph. R XCIII, No. 2 (April 1984), by Sheldon Cohen, reached me too late to take account of here.