The Aristotelian notion of a First Substance (like Fido the dog), an enduring thing with perhaps changing properties, became ridiculed and rejected in the period from Locke to Hume. I clarify the idea and explain how, when separated from some unnecessary accretions, it emerges as a notion to which we are all committed, perhaps, indeed, innocently. One standard objection (that the substance ends up, absurdly, having ‘no properties’) involves the misconception that the Aristotelian subject of Fido’s properties needs to be some extra item, other than, literally, Fido. The main rival view treats things as ‘bundles’ of properties or ‘tropes’; I explore some difficulties in conceiving the components of the bundles. The root of the trouble, I think, lies in the Humean view that if two things are non-identical, they must also be capable of existing separately: this immediately, and disastrously, makes it impossible to recognize ontological dependence between non-identical objects. I end by replying to two special worries: that if substances existed at all, they would be imperceptible and unknowable.

1. Aristotelian Beginnings

The term ‘substance’ is unusual in that, while it is a word that philosophy has given to ordinary language, ordinary usage today is almost no guide to its traditional significance. The word is mostly used now for stuffs—like gold, and lead, and perhaps even shaving foam. The Greek word which became substantia in Latin and substance in English, was certainly much broader in application. Ousia is a verbal noun from the verb einai, to be, and a more direct translation would be being or perhaps (more abstractly) entity. Since many kinds of thing can be said in different ways to be beings, or to be the being of something, the term, unsurprisingly, was applied widely. From the many main candidates, I shall single out four of special importance in Aristotle and the later history; they continue all to play a part in the 17th century. The first two dominate in the Categories, the opening text in the traditional ordering of the Aristotelian Corpus, which was as familiar as virtually anything in philosophy to many students in the 1600s. Substances or Beings may be:

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1 For comments, discussion and encouragement I am grateful to David Charles, John Campbell, James Pryor and Anthony Price, as well as the audience at the Joint Session and my fellow-symposiast P. M. S. Hacker. This piece is part of a larger project which continues with a detailed examination of the fate of substance in Locke.
1. First Substances, *individuals* like Fido the dog, or Tibbles the cat. (These are *substances* or *beings* in the sense *things which are*.)

2. Second Substances, the *kinds* of which First Substances are instances, like *dog, cat*; and (perhaps by extension) *lead* and *gold*. (These are, I suppose, *substances or beings* in that they are *things that are* once there are instances of them: thus, for example, ‘The tortoise has existed for over 40 million years’ (cp. 2b6). (That doesn’t, however, distinguish second substances from other universals, which also exist when instances of them do.) The kinds gain their degree of substance-hood from their degree of ‘closeness’ to the individual first substances (2b7-22): thus a species is ‘more a substance’ than a genus (2b22). The second substances may also count as *beings* because they constitute the *being of* the first substances; cp. 1028a34.)

In the central enquiry of the *Metaphysics Z* and *H*, on the other hand, when Aristotle pursues the question ‘what is substance?’—or ‘what, primarily, is’ (1028a30, 1028b4)—the most successful candidates for the status of *substance* seem (though the details are much debated) to be essences or forms (*Ζ*.4-6 & 17, esp. e.g. 1041b5-10):

3. Essences or Natures: e.g. the essence of lead, or the essence of gold. (The essence of gold is the fundamental property or cluster of properties a thing has to have in order to be gold; this essence constitutes the *being or substance* of gold, in that it is *what has to be in order that gold should be*.)

There is, however, one further candidate (among yet others), that needs repeatedly to be considered (Ζ.3, H.1), though its claims to being *what primarily is* are rejected (1029a27-32):

4. Matter, either (a) *proximate matter* (e.g., *bone, tissue, and blood*, which, perhaps, are the matter composing Fido) or (b) *remote matter* (either (i) the elements *earth, air, fire and water*, which ultimately compose bone, tissue, blood, and other things around us; or perhaps (ii) the ‘prime matter’ which we may think of as composing even those four elements. Cp. Arist. *H*.4 1044a16, with Ross’s note).

Matter’s claim to the status of *substance* rests on its claim to be the primary subject of predication: for ‘that which underlies a thing primarily’—i.e. the primary logical subject of its predicates—‘is thought to be in the truest sense its substance’ (1029a1, tr. Ross).

Of these four, (1) and (3)—the individual first substance and the essence—are undoubtedly the most important applications of the term in Aristotle and in the tradition. (E.g. ‘Substance is twofold. In one sense it means ... the substance of a thing ... , which we may call essence or *essentia*. In another sense substance means a subject or *suppositum*.’ Aquinas *ST I* 29.2 co; cp. 30.1 ad 1; III 2.6 ad 3.) My business
Here lies with the first—to try to identify more exactly what is really involved in the Aristotelian notion of a First Substance: what are the commitments of a person who calls Tibbles or Fido a being or substance? Only with that notion clarified can we see the way it became, I believe, misunderstood in Locke and set up for rejection in subsequent generations.

The core of the notion is set out in the *Categories*:

A substance—that which is called a substance most strictly, primarily, and most of all—is that which is neither said of [i.e. predicated of] a subject nor in a subject, e.g. the individual man or the individual horse. ... (2a11)

All the other things are either said of the primary substances as subjects or in them as subjects.

(2a34)

Thus, a primary substance is something of which all other things are predicated, which is not itself predicated of anything (as *Metaphysics* Ζ will later say of the ‘substratum’ or logical subject, 1028a36, and of substance, 1029a8). We predicate dog of Fido, we say the characteristics of being black and furry are in him, but we do not predicate Fido of anything. Aristotle cites several distinctive features of the first substances that distinguish them from the things predicated of them. I shall quote four as they appear in a popular 17th-century textbook—Robert Sanderson’s *Logicae artis compendium or Abridgment of the Art of Logic* (Oxford, 1615), inserting references to the corresponding passages in Aristotle that Sanderson, mostly accurately, represents:

(a) Every Substance seems to signify a this something (hic aliquid), that is, a singular thing. ...[Cp. Arist. 3b10 & ff.]

(b) There is no contrary to a Substance. ... [Cp. 3b24 & ff.]

(c) A Substance does not admit of greater or less. ... [Cp. 3b34 & ff.]

Thus (a) a First Substance is an individual, like this dog, or Fido, whereas Secondary Substances (and predicates in general) signify a kind of something. (b) *Fido* has no ‘contrary’, whereas a quality like white does (namely black, 2b6). (And, to talk at the level of things rather than of words: as Dummett has argued (1973, ch. 4), a name cannot be negated whereas a predicate can.)

Finally and most importantly:

(d) A Substance, and this is its principal property, is capable of contraries while remaining numerically the same; e.g. water is capable of heat and of cold.² [Cp. 4a10 & ff.]

² Robert Sanderson (1587-1663) *Logicae artis compendium* (Oxford, 1615), Book 1, ch. 9 ‘Of the Category of Substance’, §3. The claims that I label (a)-(d) appear as 3-6 in Sanderson. Locke possessed the first edition. (See
An individual would have been a better example than water (either the kind or a sample of it). To take Aristotle’s own example:

an individual man—one and the same—becomes pale at one time and dark at another, and hot and cold, and bad and good. Nothing like this is to be seen in any other case. (4a19-22)

A First Substance can have one property at one time and a contrary property at another: it is a thing that endures through time and is capable of change.

The Aristotelian characterization of a first substance as a fundamental logical subject—a subject of predication not itself predicated of other things—an is certainly retained in 17th-century scholastic conceptions. The Aristotelian inheritance tends to be cast more in the material than the formal mode (to use Carnap’s terms): features are said to ‘inhere in’ Fido, instead merely being ‘said of’ or ‘predicated of’ him—hence a substance becomes characterized as something in which things (e.g. qualities, properties, forms) inhere, that does not itself inhere in other things. (Note Locke’s echo of this conception: the qualities distinctive of e.g. a horse are thought to ‘rest in, and be, as it were, adherent to that unknown common Subject, which inheres not in any thing else’ (2.23.6, my emphasis).)

In the Aristotelian tradition, a substance was also often characterized as a self-sufficient thing.

Sanderson’s chapter, for example, opens with this ‘Definition’:

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Harrison & Laslett 1965.) Many further editions followed in Locke’s lifetime: 2nd ed., 1618; 3rd ed., 1631; 5th ed., 1657; 6th ed., 1664; 8th ed., 1672; 9th ed., 1680. My translation is from Vol. 6 of Sanderson’s Works (1854). Locke refers to Sanderson, along with ‘Burgerdicius ... and the whole tribe of logicians’, in his first Letter to Stillingfleet (Locke, Works IV.8). He insists that his own idea of substance agrees with theirs, as indeed with Stillingfleet’s (to the extent, it emerges (IV.22-23), that Stillingfleet uses ‘substance’ for the substratum or subject to ‘modes or accidents’ (IV.13)—rather than for essence).

3 Here and elsewhere, references to Locke in the form x.y.z refer to Book x Chapter y Section z of the Essay concerning Human Understanding.

4 Eustachius a Sancto Paulo, Summa philosophiae I, pars 1a, p. 96: ‘Substance in general may be defined as: A being subsisting or existing by itself (per se existens)’ (my transl. from E. Gilson, Index Scolastico-Cartésien §428). Descartes, Principiae philosophiae i.51: ‘By substance we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence’. Boyle, OFQ II.462a: ‘substance is commonly defined to be a thing, that subsists of itself, and is the subject of accidents’. E. Chambers, Cyclopaedia (1728; 7th ed., 1752), s.v. ‘Substance’: ‘something that we conceive to subsist of itself, independently of any created being, or any particular mode or accident ...’ Hume tries out the characterization of substance as ‘something which may exist by itself’ (T233) (though he doesn’t exactly approve of it, since, in his view, that definition would apply to accidents no less than to supposed ‘substances’).
A Substance is a Being subsisting by itself (Ens per se subsistens); and it is prior to every accident in order, in nature and in knowledge; it stands under it by supporting it (Book 1 ch. 9 §1).

What does this self-sufficiency amount to? In Descartes, the self-sufficiency of substances is taken as causal independence from everything else whatsoever—hence Descartes’s conclusion that, strictly, ‘there is only one substance ..., namely God’ (Principia philosophiae i.51). (Thus for Descartes cats and dogs are strictly not substances: they depend on God for their existence.) But in the Aristotelian scholastic tradition, the self-sufficiency claimed for substances was taken, I think, more weakly: it summed up the idea that qualities and their instances are ‘dependent on’ substances for their existence, whereas substances themselves are not likewise dependent on their qualities. The ‘per se subsistence’ of substances was taken merely as the converse of the ‘in alio subsistence’ of qualities. (Aquinas, for example, contrasts the way ‘... substance has existence of itself’ with the way ‘accidents have their existence in a subject’ (ST I 39.3 co.).) Thus:

to subsist, or to exist by itself, is nothing but not to exist in another thing as in a subject of inhesion.

Substance differs in this respect from accident, which cannot exist by itself, but only in another thing, in which it inheres. (Eustachius a Sancto Paulo, Summa philosophiae I, pars 1a, p. 96; my transl. from E. Gilson, Index Scolastico-Cartésien §428; my emphasis.)

There are several dependency claims one might distinguish in this domain. For Aristotle, white, for example, exists in individual white things but would not exist if those primary substances did not (2b6): white therefore can be said to be ‘dependent upon’ its various instances. (White could exist without any particular white thing, however, as long as other white things existed.) But the more relevant dependence claim here, I think, is a different one: that the particular accidents, the whiteness of this cat, for example, could not exist without the cat. By contrast, the cat seems not to depend on such qualities in order to exist. (This claim needs care, however, for the Aristotelian wouldn’t deny that there are certain properties the cat needs in order to exist, e.g. its essence and its necessary properties: and the cat cannot exist without them any more than they can exist without it. I shall not pursue this here. Perhaps the final claim, in the case of necessary properties, would be one of identification-dependence: that Tibbles’s cathood can only be individuated in terms of Tibbles, whereas Tibbles himself does not need to be individuated in terms of Tibbles’s cathood. (Instead, Tibbles is individuated, perhaps, in terms of his matter—or, we might suggest, his location at some particular time—and the general kind cat.) Cp. Aquinas ST Ia 29.1 co.: ‘Substance is individuated by itself; whereas the accidents are individuated by the subject, which is the substance; since this particular whiteness is called this, because it exists in this particular subject.’) The primary substance is a self-sufficient thing (per se existens), whereas the qualities depend for their existence on their being in or of a substance.
If causal independence is no part of the *Categories* notion of a First Substance, it is worth mentioning another feature that was not required: simplicity, or having no parts.

We need not be disturbed by any fear that we may be forced to say that the parts of a substance, being in a subject (the whole substance), are not substances. For when we spoke of things in a subject [and ruled them out as not being substances] we did not mean things belonging in something as parts. (3a29-32).

We see here that substances may have parts, and the parts of substances may themselves be substances.

There were 17th-century conceptions which went well beyond what we have taken to be the core Aristotelian notion of a first substance—that of a subject of predication, not predicated of other things. In Leibniz (and in some degree Spinoza, though in different ways) a substance is not only causally self-sufficient and simple (or at least, without substances as parts), but also indestructible and uncreatable. The results of such conceptions are of course these authors’ great and opposing metaphysical systems: for, once the notion of substance becomes so demanding, it is clear that horses and human beings will no longer satisfy it, and we must therefore search further afield, if we are to find anything that does—whether Leibniz’s monads or Spinoza’s totality of all that is. I shall not be concentrating on these conceptions of substance, for several reasons. The additional requirements are not found in the *Categories*, and even when they are presented as deriving from that core notion or from inescapable truth, the derivations are thoroughly dubious. And, finally, if the notion of substance is taken to include such demanding requirements, it becomes doubtful that there is anything that succeeds in meeting it: certainly it is hard to believe that Leibnizian monads actually exist. It is possible that disillusion with these great systems contributed to the overall demise of the notion of substance in the 18th century: if substance reduced in the empiricists’ hands to a ‘supposed, I know not what’ in Locke (2.23.15) and to nothing in Hume and expanded to monads in Leibniz and the whole universe in Spinoza, then it is perhaps unsurprising if later generations abandoned the notion altogether. (There is, however, a further story to tell about substance in Kant and Hegel.) My suspicion is, in general, that the misconceptions among the empiricists have probably been more dangerous, however, than those among the rationalists; precisely because they can seem easily importable into the views of other philosophers: whereas what is distinctive of Leibniz and Spinoza has tended to remain attached to those systems and not be imported by others. In any case, while there are many other stories one could tell, it is with the Aristotelian core and what became of it in Britain around

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5 I have in mind, for example, Leibniz’s derivation of his ‘Predicate-in-Notion’ thesis from the nature of truth, and his derivation of causal independence from the Predicate-in-Notion thesis, both of which are, I think, invalid.
1700 that I am here most concerned; and with the prospects for a recovery or rehabilitation of that older notion.

2. Clarifying and demythologizing

The Aristotelian notion of substance that I have been characterizing, is apt, I think, to shift between seeming utterly innocent and seeming metaphysically outrageous. How could we possibly reject the idea of a thing, a subject of qualities, capable of change through time? Don’t we employ such notions all the time in our thought and talk? On the other hand, is it not just that idea that generations of philosophers have ridiculed as charged with commitments that cannot possibly be honoured—in particular, a commitment to an unknowable, imperceptible substratum that somehow ‘underlies’ the ordinary thing and mysteriously ‘possesses’ its qualities?

There are, I think, two main classes of worry: quite abstract worries about the nature of First Substances and what we could possibly perceive or know of them, and, on the other hand, more specific worries about the identity of such objects and their identity-conditions over time. I shall confine myself here entirely to worries of the first type, which were, I think, the main source of the protests in Berkeley, Hume and Russell—they derive ultimately, I think, from problems with the conception of the relation of such substances to their properties. My treatment will be relatively brief; I am not pretending to settle these issues, but mainly to provide a better conception of what we believe when we believe in the existence of First Substances. I will not be claiming that the notion of a first substance is ultimately wholly coherent; only that the objections of the kind I consider all fail, usually because of a misconception of the Aristotelian position. Whether First Substances can survive the other kind of challenge—whether their identity-conditions are ultimately coherent—is a question for another place.6 My clarification of the notion of a First Substance may, I hope, serve as a preliminary to the task of seeing how the notion became so badly obscured in Locke and the generations that followed.

In the eyes of a moderate Aristotelian, I believe, the twin dangers are of mythologizing first substances and of eliminating them: some philosophers have turned substances into something wilder than could possibly be believed in, while others have tried to rob us of objects that we can hardly do without. The second danger of course feeds off the first (—the more ambitious the claims for substances, the more vociferous the rejection of them—), and the best protection against both extremes is to stay away from mythology right from the start. Leibniz provides two good protective manoeuvres.

6 David Wiggins’s 1980 and 2001 make an important case for answering the question in the affirmative.
First, we should see that talk of a substance’s ‘supporting’ qualities or of qualities ‘inhering in’ a substance can be read as simply a fancy way of talking of the object’s having those qualities. And that is obviously an idiom we understand very well:

From the beginning we conceive several predicates in a single subject, and *that is all there is* to these metaphorical words “support” and “substratum” (Leibniz, NE 2.23.1, my emphasis).

Berkeley exclaims (though not directly to Leibniz):

> It is evident *support* cannot here be taken in its usual or literal sense, as when we say that pillars support a building: in what sense therefore must it be taken? ... (PHK i.167)

A reply is easy to find: ‘Fido supports the property of blackness’ (along with ‘Blackness inheres in Fido’) is virtually tantamount to ‘Fido has the property of blackness’. (The metaphor of ‘supporting’ may perhaps also hint that the blackness—this particular blackness, the blackness of Fido—is dependent on Fido; that claim of course needs—and can receive—further defence. Talk of ‘inhering’ may also perhaps only be appropriate when the property in question is an ‘inherent’ or ‘intrinsic’ property—and what that amounts to, may demand further investigation. But the core commitment with these idioms is just to a thing’s having a property.) It is a further question, how ‘Fido has the property of blackness’ may or may not go beyond ‘Fido is black’: the former obviously involves a commitment to the existence of the relevant property, but I believe there are, so to speak, ‘lightweight’ conceptions of properties (and Fregean methods for introducing such abstract objects) that ensure that the commitments of the former kind of sentence are satisfied under

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7 Cp. Locke 2.13.20: ‘An intelligent American, who enquired into the Nature of Things, would scarce take it for a satisfactory Account, if desiring to learn our Architecture, he should be told, That a Pillar was a thing supported by a Basis, and a Basis something that supported a Pillar. Would he not think himself mocked, instead of taught, with such an account as this? ... But were the Latin words Inherentia and Substantia, put into the plain English ones that answer them, and were called Sticking on, and Under-propping, they would better discover to us the very great clearness there is in the Doctrine of Substance and Accidents, and shew of what use they are in deciding of Questions in Philosophy.’

Hume goes further and wholly rejects the notion: ‘We have, therefore, no idea of inhesion.’ (T234)

Reid replies (*Essays on the Intellectual Powers* Essay II ch. 19; Hamilton ed., i.323): ‘When a philosopher calls it a substratum [to extension, solidity and motion], and a subject of inhesion, those learned words convey no meaning but what every man understands and expresses, by saying, in common language, that it is a thing extended, and solid, and movable. / The relation which sensible qualities bear to their subject—that is, to body—is not, however, so dark but that it is easily distinguished from all other relations. Every man can distinguish it from the relation of an effect to its cause; of a mean to its end; or of a sign to the thing signified by it.’
any conditions where the latter kind is true.⁸ There are occasions indeed in the history of the subject where terms like ‘support’ and ‘inherence’ are used to express views that go beyond what is innocently rephrasable in the way I have suggested—and for such cases I have no defence. (I have my suspicions, for example, when Locke claims that we take the ideas or qualities expressed by a word like ‘horse’ to ‘rest in, and be, as it were adherent to’ their ‘unknown common Subject’ (2.23.6, my emphasis). Such language probably reflects a tendency to take the subject and the qualities as more separate from each other than they really are. Sanderson’s opening definition of substance is this: ‘A Substance is a Being subsisting by itself; and it is prior to every accident in order, in nature and in knowledge; it stands under it by supporting it (eiique substat sustentando ipsum).’ (Sanderson 1615, Book 1, ch. 9.) One might read this with huge generosity as saying something innocent in a highly metaphorical way; I suspect, however, that Sanderson actually shows as well as spreads confusion.) But if there are problems here, then they are no fault of the core Aristotelian notion; the problem lies, as we shall see, with accretions and corruptions in later years.

Talk of a substratum should, also, not frighten us. The term was a standard equivalent to the Greek term hupokeimenon⁹—and though that term etymologically means what is laid out under, or what underlies, it is used by Aristotle for anything that is a subject -- anything of which things are said or predicated, or in which things are (3b16, 19b37, 24b29, 43b40).¹⁰ The metaphor of being laid or spread under (present in the Latin substratum as in the Greek hupokeimenon) is obviously not to be understood literally—any more than the metaphors in our talk today of a thing’s ‘falling under’ a concept or of a predicate’s ‘applying to’ an object. (We know that these are not much like an object’s ‘falling under’ a bench, or glue’s ‘being applied to’ a surface; but the idioms are well understood none the less. A protestor who wanted all such terms to be used only in accord with their literal and traditional meaning(s) should see how unrealizable the project would be, when even our talk of a logical ‘subject’ incorporates the notion of subjection.) The point is not that these are merely ‘dead’ metaphors—on the contrary, they are genuinely at

⁸ I have in mind Fregean attempts to introduce number- and direction-terms by contextual definition in the kind of way considered by Frege in the Grundlagen §§62-65. See Wright, 1983, and Dummett, 1991, e.g. ch. 15.

⁹ Not the only standard equivalent: Aquinas uses ‘suppositum’ (e.g. at ST Ia 3 3 co., ad 2), i.e. what is placed under—an exact equivalent to the Greek hupokeimenon, given the standard use of keimai (to lie) as the passive of tithenai (to place, Lat. ponere).

¹⁰ Thus hupokeimenon is applied both to (4) matter and to (1) the concrete substance at Z.3 1029a2-3. (Note incidentally, that there are looser usages of ‘substratum’ in Locke too: in a Journal entry of 1676, Locke talks of the ideas we form of species as being ‘the subjects of our denominations’ and ‘the substratum to our words’ (Locke 1936, 83, my emphasis)—treating those two phrases as virtually equivalent; Locke’s doctrine seems to be that ideas are what we mean by our words, or as he puts it, the subject (i.e. topic) or substratum of those words.)
work in subtle ways that inform the imagery of large systems of our philosophical thinking. (Think of our talk of higher- and lower-order entities, of the hierarchy of types, and of what the fundamental things are.) But they can be at work without being at work quite literally.

Many people imagine that as soon as Locke talks of substratum, he must have in mind something spread out like a stuff or matter—and, what’s more, spatially under the properties. But though there are times when Locke deliberately ridicules such associations (as when he talks of *Inhærentia* and *Substantia* as ‘Sticking on’ and ‘Under-propping’ (or as ‘Hangers on’ and ‘props’, in Draft C 2.16.23—as if the Latin terms were neuter plurals—)), none the less most of the time he treats the metaphors as no more than metaphors. And we should remember Locke’s claim that his conception of *substance* is the same as Stillingfleet’s: it applies to what Stillingfleet calls the ‘substratum, or subject wherein [modes or accidents] are’ and to what Locke calls the ‘common subject’ of ideas or ‘sensible qualities’ (Works IV.13)—both of which can be quite innocent notions.

There are people who read ‘Substratum’ in Locke (e.g. at 2.23.1, 5, 6, and 37) as meaning something much more troublesome—either a ‘quality-free bearer of qualities’, or (—actually not the same idea—) something literally spread out and under the properties. I am sure Locke did not use it to mean either of those things, but will have to leave the argument for another occasion. The word can certainly be pressed into service as an instrument of confusion (as may have happened in Locke on occasion), but Locke at least lays claim to a minimally troublesome use for the term: he places himself with Stillingfleet, for example, in making the ‘substratum’ to modes and accidents be simply the logical ‘subject’ of them (Works IV.19-21). And in our aim to maintain an innocent understanding of the core Aristotelian notions where that is possible, it is that example that we shall follow.

Leibniz gives us a second tool for demythologizing substance: the recognition that the notion of a ‘subject’ or substance is no more than is involved as soon as we make a co-predication claim, or think of *one and the same thing* as F-ing and G-ing:

> to require of this ‘pure subject in general’ anything beyond what is needed for the conception of ‘the same thing’—e.g. it is *the same thing* which understands and wills, which imagines and reasons—is to demand the impossible (Leibniz, NE 2.23.2).

As soon as we make a claim of co-predication, we are committing ourselves to there being *one subject* that is doing these two things.

Strictly, as Leibniz well knows, not every subject is a substance. (When a person says ‘courage is a virtue and it needs to be cultivated’, she treats courage as a *subject*; but not a *substance: courage* lacks the defining characteristic for substances of being not-predicable of other things.) What Leibniz is characterizing here is strictly only the notion of ‘pure subject in general’; to capture the notion of a
substance, we would have to add a further condition, e.g. that such a subject be not predictable of other things. (Alternatively, one might require (and this might link with the considerations raised in the next note), that the subject be treated as an instance of a predicate ‘in the category of substance’ (like man or cat)—which tells us, in a sense, ‘what the object is’ (2b9-12, 2b28-35), and in turn helps us to grasp the appropriate identity conditions for the thing.) There are several details I cannot pursue here; in particular, Leibniz’s insight may be strengthened if combined with some thoughts about predication and identity in Gareth Evans.11

However exactly it is to be developed, the link between predication and ontology is, I think, of the greatest importance. We shall see later the value of this connection between objects and co-predication in the theory of perception—it allows us to question the common conception that we perceive nothing but qualities: if we can see the co-instantiation of red, round and moving, then we are already perceiving one thing.

But the more important consideration behind my own interest (and I think Leibniz’s) is this: to see that multiple predication is (we might say) cheap and widely available, and it is worth being reminded that objects come at exactly the same price. (This is close to the point that Quine made in his 1950s papers on ontological commitment: to be is to be the value of a variable—i.e. whatever is envisaged as falling under a predicate of the language (as being the value of a variable in the language) is being treated as an object that exists. By contrast, Carnap had pretended names and predications could be accepted without serious ontological commitment to objects for the names to refer to and the correlative predicates to be true of.) From this point of view, it is a peculiar irony that Bertrand Russell so often attacked the notion of a

11 Why link being a subject with being the subject of multiple predication rather than one? Certainly if a person treats x as being F and as being G, then she treats x as a subject; but doesn’t she do so too if she simply treats x as being F? Yes—but (1) anything that is the genuine subject of one predication will surely also be the subject of more (for I don’t think we can make sense of the idea of something that only falls under one predicate: even the form of the Beautiful (to take an extreme example) may be ‘single in nature’ (Plato, Symposium, 211b1: monoeides); but as well as being beautiful, it will also be eternal, unchanging, a Form, and so on). (2) The real question concerns whether, and when, what looks to be predication in a language really is properly interpreted as such. For that, attention to complex predication is crucial. As Gareth Evans has argued: ‘What objects a language distinguishes and talks about’ is determined by the kinds of complex predication users of the language employ and the truth-conditions they associate with them (1975, 37). For, complex predication itself (even in the absence of the ‘individuative apparatus’ Quine emphasized, like an identity predicate) can show the users to have ‘mastery of the identity conditions of rabbits’—and hence to be talking of rabbits (38; see p. 39 for a full statement).
substance but developed a subject-predicate logic that so precisely expresses it.\textsuperscript{12} A conceptual scheme in which people affirm that \textit{there is something such that it uniquely rules France and is bald} is a conceptual scheme committed to the existence of \textit{rulers}—a certain subclass of First Substances.

3. The subject that ‘in itself has no properties’

It is time to consider directly some attacks on the notion of a first substance. I shall later consider arguments about imperceptibility and unknowability. But perhaps the most common complaint is that an Aristotelian substance turns out on reflection to be a ‘substratum’ that in itself is entirely without qualities—a paradoxical, unintelligible item.

‘Substance’, when taken seriously, is a concept impossible to free from difficulties. A substance is supposed to be the subject of properties, and to be something distinct from all its properties. But when we take away the properties, and try to imagine the substance by itself, we find that there is nothing left. (Russell 1945, 211; cp. Russell 1900, 49-50, 59-60)

A slightly more complex argument is presented in J. L. Mackie, to the same conclusion: that an Aristotelian substance is only a property-free ‘substratum’. Saving Mackie’s words for a footnote, we may extract the core as follows:\textsuperscript{13}

\begin{enumerate}
\item The cat \textit{has} various properties (e.g. ‘the shape, size, colour ....’)
\end{enumerate}

\textsuperscript{12} Of course not strictly at the same time: and actually in his 1911 Presidential Address to the Aristotelian Society, Russell was a defender of particulars as fundamentally different from universals (and Ramsey takes him as an opponent in his paper ‘Universals’).

\textsuperscript{13} Mackie, 1976, 77.

[1] We say that the thing here, the cat, \textit{has} each of the properties ... So [2] it seems that the thing itself must be distinct from each of its properties, and therefore from all its properties together: it must be something other than the properties, something in which they all inhere, and to which they all belong ... [3] We cannot conceive how qualities could subsist alone: they need something to subsist in. ... [4] What we thus need to supplement all the properties is the substratum which must therefore be something which considered purely in itself has no properties and is not constituted by any combination of properties.

Clearly Mackie would have had hardly more time for First Substances as ‘other than’ and ‘distinct from’ their properties than for property-free Substratum.
The ‘thing itself’ is ‘distinct from’ and ‘other than’ those properties: something ‘in which they inhere’;

For (3) Qualities cannot subsist without a subject.

Hence (4) The subject of the properties is something that ‘in itself has no properties’.

Mackie presents the argument as being Aristotelian, and he claims that at least ‘some scholastically trained thinkers’ have been convinced by it (1976, 79). But of course his view is that, even if the conclusion can be attributed to some Aristotelians, it is evidently quite absurd. In Russell and Mackie and many similar arguments, the impression is given that the Aristotelian notion of substance is thereby reduced to absurdity. I shall argue, however, that what is shown to be absurd is not the Aristotelian notion of a first substance but a misconception of it. For, on a good Aristotelian reading, versions of propositions (1)-(3) are true, but the conclusion (4) neither follows nor is desired to follow.

The key premiss is (3), and it can be read in two ways. Innocently, it says that where qualities are found, there exists a subject that instantiates those qualities—for example, quite simply, Tibbles. Troublesomely, it says that where qualities are found, there exists another subject that ‘possesses’ those qualities—a further item, other than Tibbles, deeper and more fundamental. That still does not actually get us to the conclusion (4): since, for all that has been said, this ‘other subject’ might, for example, be the ordinary matter composing Tibbles (which doesn’t have no properties at all, but merely somewhat different ones from Tibbles). It is only if we pretend to be able to place all the qualities on the one hand (without a subject), and the subject on the other (—supposedly without any qualities—), that the paradoxical conclusion follows. But that is not at all what a modest reading of (3) (or (2)) requires; and it is in fact an utterly unAristotelian thing to do—for on Aristotle’s view, qualities are not capable of existing without things that have them, and things are not capable of existing without qualities. When the Aristotelian says the object and its qualities are different things, she is not claiming that they are separable things, only that they are different—i.e. non-identical. This is a point that will become clearer in a moment.

The conclusion (4) is itself strange: how is the ‘subject’ supposed to end up having ‘in itself ... no properties’ when it was first introduced precisely as that to which the properties belong? How can the subject start as that to which the properties belong and end up being something to which no properties belong? The obvious sense in which we say that a thing possesses a property of f-ness makes it tantamount

14 Aquinas ST Ia 28.2 co: ‘The being of an accident is being-in’ or inhering (accidentis ... esse est inesse). Cp. Ia 45.4 co: ‘according to the Philosopher (Metaphysics VII text 2) accident is more properly said to be of a being than a being’ (secundum Philosophum, accidens magis proprie dicitur entis quam ens.). There were indeed, as we shall see, some unfortunate deviations from this view (particularly in Suarez), prompted above all by certain theological conceptions of the Eucharist.
to saying that the thing is f. And it is doubtful that there is any other relevant sense. Sometimes, indeed, one thing possesses another thing by a kind of extrinsic relation (as when I possess a car, and can be separated from the car, etc.); but no good Aristotelian would think that an object ‘possessed’ properties in that sense. So a good Aristotelian would only accept (4) if forced to do so. And we have yet to find any reason to think she is.

How did critics imagine that Aristotelians reached—or were forced to—the conclusion? It may have seemed a consequence of (2): critics may have thought that if the subject is ‘distinct from’ and ‘other than’ the properties, then it must itself have no properties. But this again is a misunderstanding, in itself and of the Aristotelian view. Tibbles has properties (as all agree); and he is distinct from his properties, in the sense that he is not identical with any or all of them. (For example—as we shall see more fully later—Tibbles was born, and weighs 4 kilos; but neither any nor all of his properties was born or has a weight.) But that does not imply that Tibbles and his properties are separable, in the sense that each could be detached from the other (leaving the subject without properties, and the properties without a subject). Of course, things have accidental properties, which they can in an ordinary sense ‘lose’. But when that happens, it is not that the property and the subject are detached (as if, when someone lost their youthful good looks, the good looks got up and departed leaving the face behind). When one squashes a ball of clay, something that was round now is flat; the clay has ‘lost its roundness’, not in the sense that one item (the roundness) has been detached from another (the clay); but only in that the clay was a certain way, is now another way. And, incidentally, it ‘lost’ one property only as it ‘gained’ another—the clay was always of one shape or another, and, in general, things are always one way or another. Things and properties are non-identical, as we see by careful logical considerations; but that does not at all imply that they should be thought of as separable or detachable from each other.

It is worth looking again at the content of claim (3): Qualities cannot subsist without a subject. The claim is plausible and Aristotelian, and it plays a dominant role in 17th-century defences of substance—it is invoked, for example, in one of Descartes’s proofs of the cogito: But note: even if it is Aristotelian doctrine that a property exists only when it has instances, that is not the point being made here.

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15 Augustine, *De Trinitate* V.5 (talking of the blackness of someone’s hair): ‘It is called a separable modification [accidens separabile], but if we stop to think for a moment it will be evident that it is not a question of something being separated and departing from the head, or of blackness leaving and going somewhere else when whiteness takes its place but of that quality of color turning and changing there in the same place.’

16 ‘Nothingness possesses no attributes or qualities. It follows that, wherever we find some attributes or qualities, there is necessarily some thing or substance to be found for them to belong to …’ (Descartes, *Princ. Phil.* i.11). For the principle in Locke, see 2.23.1: ‘not imagining how these simple Ideas can subsist by themselves, we accustom our selves to suppose some *Substratum*, wherein they do subsist …’
What is meant is more limited: that *a case of a quality*, or a *quality-instance* (like a modern-day ‘trope’) cannot exist without there being a subject for it; or—to put it most trivially—that there is only *an instance of a quality* if there is *something instantiating that quality*. There cannot be a case of redness without *something* being red.

The conclusion could be captured by saying that *quality-instances* require subjects or bearers. This seems to me both true and in some applications surprisingly unobvious. It may seem an odd form of dependence, for which it is hard to find a place in the world. The reply, I think, is to say that the dependence is the ontological shadow of an important logical point. Let us take as a model for the relations of ontological dependence the case of a dent: *a dent* can only exist if *something* is dented—for example, a car door (The example is from John Cook (1968).) But this is hardly surprising: it comes from the conceptual fact that a dent is, as one might say, *an indentation or deformation IN a surface*. The very concept of a dent is the concept of something that is ‘in’ or ‘of’ another object: thus, we only have the right to be confident there is a dent present if we are also ready to admit that there is a surface dented. A dent is, by definition, a ‘dependent particular’: a particular thing with its own history (this dent is different from that dent, it has existed only since last month, and it seems to be getting rusty), but it is not an *independent* thing: it exists only thanks to something else (the door) existing and being dented. And one benefit from the example is that it makes clear how one thing can be *different* from another without being *independent* of it: the dent is non-identical with the door, but it could not exist without it. It is a point that we will sometimes need to remind ourselves of in connection with Hume’s arguments for bundle conceptions.¹⁷

Some parallel points can be made about properties and property-instantiations. A dent occurs where the surface of a thing is deformed or indented; similarly, an individual shape (e.g. a circle) is present when the spatial limit of a thing has a certain kind of form (e.g. is the locus of points equidistant from a central point). Indeed, there is a sense in which we can think of a shape (e.g. a triangle) without thinking of any particular instances of it; still, a shape is always the kind of thing that could in principle be instantiated by an object. And a case of the shape will be a case of that shape’s being instantiated by an object. A shape is (something like) the *form of the spatial limit OF a thing*. And just as a dent requires a thing dented, so an individual shape (a particular case of circularity) can only exist if there exists another item, namely, the thing shaped.

Given (1), (2) and (3), the Aristotelian subject of the cat’s properties will be precisely *the cat*: Tibbles himself, the ‘first substance’, the bearer of the properties, is something non-identical with the properties; he has an interesting relation to his (universal) properties—like *furriness* in general, or *blackness*—the relation of instantiation; but he stands in a closer and more interesting relation with his property-instances (Tibbles’s shape, Tibbles’s size): those things would not exist without Tibbles. But the

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¹⁷ See also Broackes 2002, sect. 4.
fact that Tibbles is non-identical with his properties doesn’t at all imply that Tibbles has no properties: on the contrary, Tibbles, the logical subject of the predicates black, furry etc. that are attributed to him, is evidently a thing-which-has-properties (and is black and furry, etc.). Hence—though of course there is much more one might say on the subject—(4) does not follow, nor would the Aristotelian wish it to be true.

To put it crudely, for a good Aristotelian dealing with a first substance like Tibbles: the way to find out what ‘the substance itself’ is, is not to ‘take the properties away’ and see what (paradoxically) is left behind. It is to leave them there.

4. Bundles and the need to recognize ontological dependence

The main rival to this Aristotelian view is, of course, some kind of a bundle theory: Tibbles is not the thing that has the various properties in question, Tibbles is, literally, the bundle of properties themselves. The classic statement is in Hume: ‘We have ... no idea of substance, distinct from that of a collection of particular qualities, nor have we any other meaning when we either talk or reason concerning it’ (T16); there are antecedents in the neoPlatonists and others. The view can seem almost inescapable given empiricist principles—for any Aristotelian substance would apparently be beyond what we could perceive, given the common thought that we perceive only qualities, not things or substances. And on the

18 For antecedents, see Lloyd, 1990, Ch. 3 (with Plotinus VI.3.8.14-23); and Sorabji 1988, Ch. 4. For Nicolas d’Autrecourt’s attack on the inference from the apparent presence of white to the presence of a substance for the white, see his second Letter to Bernard of Arezzo (transl., e.g., in Hyman & Walsh, 1973, 708-13).

19 Several views are worth distinguishing.

(1) That we can only perceive qualities (and not substances):

   Hobbes (III Obj., AT VII.178): ‘Even the Peripatetics of classical times taught clearly enough that a substance is not perceived by the senses but is inferred by reasoning.’

   Locke Draft B§19 (p. 129): ‘... neither can Externall objects furnish the understanding with any Ideas but of sensible qualitys ... nor the minde furnish the understanding with any Ideas but of its owne operations & the severall ways & modes thereof. Hence it comes to passe that we have noe Ideas nor notion of the essence [Draft C 2.1.5: substance] of matter, but it lies wholly in the darke.’

   Newton, Mathematical Principles, General Scholium: ‘In bodies, we see only their figures and colors, we hear only the sounds, we touch only their outward surfaces, we smell only the smells, and taste the savors; but their inward substances are not to be known either by our senses, or by any reflex act of our minds: much less, then, have we any idea of the substance of God.’
empiricist principle that all our ideas are derived from impressions, the very conception of substance will be beyond us, if it is the conception of something supposedly different in category from qualities (Hume T 1.1.6; cp. 1.2.6, 1.4.3).

A standard worry about bundle theories is about what the ‘bundling’ is supposed to amount to; but even more urgent is the question of what the things-bundled are supposed to be. There are two main types of theory, bundling properties or instead property-instances (or ‘tropes’). There are serious problems for both.

Suppose we try to treat Tibbles as a bundle of properties. It is worth asking what the constituent properties are supposed to be. Though the issue is obviously debated, one obvious option is that a property like blackness or weighing 5 kg is a universal: an abstract quality (or, more or less, kind of thing), of which there are instances here and instances there. (If we take the existence of such a thing as blackness seriously at all—and if we don’t, then what are we supposed at the moment to be bundling together?—then it can hardly be a concrete particular (since the feature blackness—or what blackness is—remains exactly the same, whether instantiated by many things or by few).) But if that’s what properties are, does it make any sense to suppose Tibbles to be a bundle of them? The properties—the shape, the size, the colour—are abstract objects. Surely a cat can hardly be identical with any such things taken singly (or it would not be a material thing at all). A cat also cannot be identical with a set of qualities (for a set of abstract objects will itself be an abstract object—and a cat is not); nor can it be identical with a mereological sum or bundle of qualities (since if qualities are abstract objects, then a mereological sum of them will itself be another abstract object).

Hume, T16: ‘If it be perceiv’d by the eyes, it must be a colour; if by the ears, a sound; if by the palate, a taste; and so of the other senses.’

(2) That we know substances through perceiving qualities:

Descartes in debate with Gassendi: Med. 2 (AT VII 30-32), V Rep.: ‘I wanted to show how the substance of the wax is revealed by means of its accidents (per accidentia manifestetur)’; ‘I have never thought that anything more is required to reveal a substance than its various attributes’ (AT VII 359-60, my emphasis). Cp. Descartes, Principia i.11 & 52. On the other hand, there are times where Descartes treats substance as unperceived—e.g. at the end of II Rep., where he defines substance as the (unperceived) subject of perceived qualities or attributes: ‘The only idea we have of a substance itself, in the strict sense, is that it is the thing in which whatever we perceive ... exists, either formally or eminently.’ (AT VII.161)

Aquinas (ST Ia 13.8 co.): ‘As we know substance from its properties and operations, so we name substance sometimes from its operation, or its property’—though God and lesser substances are treated differently.

Cp. Gilson, Index §434 (Suarez, Met. disp. 38.2.8-9); §435 (Toletus, De anima, lib. I, cap. 1, tex. 11, qu. 6).
Perhaps the best candidate property for identity with the cat Tibbles would be the property of being identical with Tibbles; but that too can hardly be correct. There is of course at least a 1-1 correspondence between objects and such uniquely-applying properties; but that is not enough for us to identify them (any more than such correspondence allows us to identify Tibbles with the set \{Tibbles\}). In fact, if we accept the existence of such properties, then the property of being identical with Tibbles will be an abstract object, derivative from Tibbles (as also the singleton set \{Tibbles\} is an abstract object, derivative from Tibbles). And that of course means that the property cannot be identified with Tibbles: since Tibbles is not an abstract object, and is not derivative from himself. But there are easier and more immediate reasons for resisting any such identification: we can talk of Tibbles being born and dying, but it makes no sense to talk of the property of being identical with him undergoing those life-events. Tibbles, let us suppose, at some point weighed 5 kilos, but the property in question never did. Tibbles changes over time, but the property of being identical with him does not. It makes sense to talk of an object, say Tibbles, having the property of being identical with Tibbles, but it makes no sense to talk in the same way of Tibbles having Tibbles, or of Tibbles having himself. And if such are the objections to identifying Tibbles with this property, it should be obvious that there is no chance that any other property is going to do better. Properties are just of the wrong ontological category to be identified with ordinary material objects.

If we turn not to qualities but instead to quality-instantiations (or ‘tropes’), the non-identity is no less clear. The issue is delicate: there are at least two notions of quality-instantiation, not usually distinguished. There is an Aristotelian conception of a particular quality-instantiation: for example, of Tibbles’s weighing 5 kg, or of Tibbles’s being in pain. These are, for an Aristotelian, perfectly decent things to talk about; the trouble in the present context is just with the thought that they might be building-blocks out of which ordinary objects were made—that, for example, a cat might be formed from the bundling of Tibbles’s weighing 5 kg, Tibbles’s being in pain and Tibbles’s being 28 cm tall. For, to be brief, each of these supposed components actually looks to be derivative from the thing it was supposed to be composing. Tibbles’s weighing 5 kg has, I think, an ontological status partly similar to that of Tibbles’s actions—think of Tibbles’s miaouing at time t, or Tibbles’s walking out of the room at time t, each of which looks to be dependent upon Tibbles for its existence and identity. Indeed—and this is a further point—each of these seems properly to be understood as the instantiation, by a particular object—by that object with-all-that-it-amounts-to—, of the quality in question. Tibbles’s walking out of the room is, of course, not an action with no agent, nor, instead, an action with an agent that has no properties other than that of walking out of the room; on the contrary, it is an act of walking, by a four-legged black cat, of such and such a weight, size, physique etc. (Tibbles’s walking out of the room may have caused a sensation precisely because Tibbles had a broken leg, or perhaps because people had thought he was knocked out cold: its character amounts to far more than is mentioned in the linguistic phase that describes it.) And if Tibbles’s weighing 5 kg fits a similar model, then this state will be a perfectly good metaphysical item. But it will not
be prior to Tibbles, but posterior to him: it will not be the kind of thing a bundle of which might compose him, but instead something that already depends on Tibbles in his complex multi-propertied existence.

Some people have tried to resort to quality-instantiations of a very different sort. These atomic quality-instantiations, as I shall call them, are meant to be cases of one quality and nothing else: the idea is that this shape is a case of shape and nothing else (and this colour a case of colour and nothing else) and that each of these should be regarded as a self-sufficient existence, essentially independent of other things.\(^{20}\) The trouble is that it is hard to make sense of the idea of a case of one property and no other. Surely nothing can have a shape and no size—nothing can be circular and nothing else (e.g. not of a particular diameter); nothing can be red and nothing else (not of any extent or shape); nothing can be of a certain mass and nothing else (e.g. of no size or shape). (After all, mass, for example, is (approximately) a measure of the responsiveness or not to mechanical or gravitational forces on the part of a thing already otherwise identified.\(^{21}\)) And of course, if there are no such things as these atomic quality-instances, then there are no such things as sets or bundles of such things.

We might try saying that the cat is identical, not to a set of quality-instances, but instead to the instantiation of a set of qualities. If that means that the cat is identical to the thing instantiating the qualities of being f, being g, being h etc., then it seems quite correct; but the view has collapsed back into the Aristotelian proposal. And still it will be true that the instantiation of a set of qualities is not identical with either the qualities or the set.

\(^{20}\) D. C. Williams (1953, 113) for example, wants a shape and a colour each to be a trope, and an individual component of his ‘alphabet of being’ (115): he uses one pair of names (‘Harlac’ and ‘Bantic’) for ‘the respective color components’ of his two lollipops and another pair (‘Hamis’ and ‘Borcas’) for their ‘respective shape components’.

\(^{21}\) ‘Some few of the primary Qualities have a necessary dependence, and visible connexion one with another, as Figure necessarily supposes Extension, receiving or communicating Motion by Impulse, supposes Solidity’ (Locke 4.3.14; cp. 2.13.11, 2.23.17, 3.10.15).

Some connections have been noticed by trope theorists. Keith Campbell says, for example: ‘Color, solidity, strength are never found except as the-color-of-this-region, the-solidity-of-this-region, and so on. So wherever a trope is, there is formed volume.’ (1981, 136) But Campbell leaves unexplained there how we are to conceive the co-instantiation of colour, shape and volume—unless it is (as the Aristotelian would like, but Campbell would resist) that there is one thing that is, for example, red, spherical, and 3 cm. in diameter. The ‘and so on’ in the quotation from Campbell seems a bit of a give-away: the author seems to shy away from saying, as one would expect for consistency, that strength is never found except as ‘the-strength-of-this-region’. But one can see why Campbell might have baulked at that: for can it really be the region that is strong, rather than what’s currently occupying that region?
How did people get into this trouble? In Hume—the classic proponent of a bundle theory—, the root of the trouble is his insistence on treating as ‘a principle’ the idea that whatever is ‘different ... may exist separately’ (T233). For if that is true, then impressions and ideas are capable of existing by themselves and so also are any accidents or modes. The separability principle is, however, I think, definitely false: for, to return to the earlier example, even if two dents are different and each can exist without the other, that does not imply (and it is not plausible to think) that the dents are self-sufficient existences, capable of existing separately by themselves (without anything else in the world, including the car doors etc.). And so also with the blackness of Tibbles and his fur: each is different from the other; but that is not remotely enough to show that each is an independent existent, a building-block of the world, capable of existing all by itself. The conclusion, when taken seriously, is in fact clearly impossible to accept. (As though everything in the world could be destroyed, except for that fur, supposedly capable of remaining behind, all on its own—without Tibbles, and without anything else that constituted Tibbles!) Hume himself baulked at the conclusion on occasion: in his discussion of abstract ideas, for example, he declares that the motion of a body cannot actually be separated from the body itself (T244-45) nor the length of a line from the line. Hume insists that what is happening when we apparently ‘abstract’ one from the other, is that we ‘consider [the line and its length, the body and its motion] together, since they are in effect the same and undistinguishable; but still view them in different aspects, according to the resemblances of which they are susceptible’ (T25, my emphasis): this is ‘partial consideration’ (T43), not the ‘separation’ of ideas. But even with this admission, Hume seems incapable of saying what we surely need to say: that the line and its length, the body and its motion, are different though non-separable. (After all, the length of the line is only one feature of it; the line, on the other hand, is not only one feature of it. The motion lasted 5 seconds; the body had been in existence for much longer.) Hume cannot find a way to say that two things are different without making them separable. It is obviously something that we need to be able to say. One consequence is, however, that we will, with such cases, be recognizing claims of ontological dependence or interdependence between things that are different. This is, I believe, a kind of claim we make all the time, but something that (except in the case of wholes in relation to their parts) we have only recently begun again to acknowledge and study.23

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22 ‘Since all our perceptions are different from each other, and from every thing else in the universe, they ... may exist separately, and have no need of any thing else to support their existence. This is [a] principle.’ (T233, my emphasis; cp. T107, 244, 634). For a discussion of this in relation to the theory of personal identity, see Broackes 2002, esp. sect. 4.

23 I might mention Kit Fine as one who has recently reminded us of important dependence claims, and Strawson as one who never forgot.
5. Seeing Substances and Knowing Substances

So far I have investigated a challenge to Aristotelian first substances, and shown up some difficulties for bundle theories. But however favourable these investigations may seem to Aristotelian ideas, there is likely to remain a suspicion that the Aristotelian view is simply myth-making.

Part of the problem comes from two interconnected objections of great importance. I shall call them the Objection from Perception and the Objection from Knowledge: they take off from (or pass through) an alleged lack of perception and lack of knowledge of substance and conclude to the gratuitousness, or dispensability of substance. The first can be put like this: we perceive only qualities;24 hence we cannot perceive a substance: and in that case, even if we have a logical principle persuading us that where qualities are found there must exist a substance which possesses those qualities,25 still, that substance will be a mysterious, imperceptible thing. The second adds that we therefore have absolutely no knowledge of this thing: as Russell puts it, the term ‘denotes something completely unknowable, and therefore not needed for the expression of what we know.’ (Russell, 1945, 212)

I believe that these objections are very fundamentally misconceived if read as objections to First Substances: for, I shall argue, we do both perceive and have knowledge of First Substances. But the issue has certainly been confused by things said by philosophers claiming to defend substance. Descartes talks of the substance of his mind as ‘this I know not what of mine’.26 Locke talks of substance as a ‘supposed, I know not what’ (2.23.15). Reid, while playing down the oddity of the notion of substance, still calls it ‘this obscure something, which is supposed to be the subject or substratum of those qualities’ (i.273).27 These comments make most sense if we see the authors’ conception of substance as mixing in with the notion of substance as ‘subject of qualities’ the idea that the true subject of Tibbles’s qualities is (not Tibbles but) some deeper underlying subject: something deeper and more mysterious than Tibbles, something at best,

24 See note 19 above, with quotations under heading ‘(1) That we can only perceive qualities (and not substances)’.
25 Cp. Descartes Pr. i.11 and Locke 2.23.1, quoted above in my discussion of proposition (3) in Mackie’s argument.
26 ‘But it still appears ... that the corporeal things ... are known with much more distinctness than that I know not what of mine [istud nescio quid mei], which cannot be pictured in the imagination.’ (AT VII.29). I have substituted my own phrase ‘that I know not what of mine’ for ‘this puzzling “I”’, which is used in the CSM translation—the ‘I know not what’ idiom is much too important in later discussions to be passed over here. (See n. 30 below.)
27 Cp. Reid (Hamilton ed., i.322-323, my emphasis): ‘all the information that our senses give us about this subject, is, that it is that to which such qualities [as we perceive] belong. From this, it is evident, that our notion of body or matter, as distinguished from its qualities, is a relative notion; and I am afraid it must always be obscure until men have other faculties.’
perhaps, identifiable with the *matter composing Tibbles*. That is a view that I think is partly mistaken (if taken as an account of all predication in general) and partly a change of topic; it certainly played a role in the general confusion over the notion of substance in the early modern period, but I must save that topic for another place. I shall take the arguments here on the understanding that they are directed at first substances.

As such, the objections are quite mistaken. The Objection from Knowledge gives the impression that we have knowledge of the *qualities* of Tibbles, while we lack knowledge of the *subject* of those qualities, the substance possessing them. The reply is: but the subject of those qualities is Tibbles himself, the first substance; and knowledge of a thing simply consists in *knowing what is true of* that thing—knowing, that is, what qualities, properties etc. the thing has, what relations it stands in, and so on. There is nothing further to know than what is true of the object. If what we meant by ‘the substance to which Tibbles’s qualities belong’ were a thing different from Tibbles (e.g. perhaps, the underlying matter composing him) then, indeed, there might be a case for saying that knowing Tibbles’s qualities fell short of knowing that substance. But if the substance is, simply, the thing that is the logical subject of those qualities, then knowledge of Tibbles’s qualities constitutes knowledge of that substance, Tibbles. Of course exhaustive knowledge of the substance is never going to be available to us, since exhaustive knowledge of all its qualities is not going to be; but the same limitation befalls the philosophers who reject all talk of substance, as of course it befalls everyone—we’re all short of knowledge of the thing that is Tibbles, however we conceive that thing. But, given the same body of knowledge of Tibbles’s qualities, the philosopher who believes in Tibbles as a logical subject of the qualities can be credited with just as full a knowledge of her object as can her counterpart who believes Tibbles to be a bundle of qualities. It is a misunderstanding of the logic of substance to suppose that qualities, so to speak, veil the substance. On the contrary, if a first substance is simply the logical subject of the qualities, then the qualities *reveal* the substance.28

This is in fact the point that Descartes was struggling to make to Gassendi in the dispute about the wax (and the nature of the mind) at the end of the second Meditation—one small part of the acrimonious debate that ran through the Fifth Objections and Replies, and Gassendi’s later *Disquisitio Metaphysica*. Gassendi claimed that knowledge of the qualities fell short of being knowledge of the substance.29

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28 A. C. Fraser (1907, 151, my emphasis): ‘In knowing the phenomenal data, [Locke] seems to imply that we know nothing of the substantial reality, which is thus concealed instead of being revealed by its own phenomena ... not a something that is continually revealing itself in its qualities’.

29 ‘An attribute or property is, of course, one thing, and the substance or nature to which it belongs or from which it flows another. Hence to come to know the attribute or property, or the heap of properties, is not thereby to come to know the substance or nature.’ Gassendi, *Disquisitio Metaphysica*, Against Med. 2, Doubt VIII, Instance II, in Opera III.312b, my tr.
Descartes insisted, on the other hand, that ‘the substance of the wax is revealed by means of its accidents’ and that ‘the more attributes of a given substance we know, the more perfectly we understand its nature’ (AT VII.359). Descartes is right with respect to the kind of substance he mostly intends—something he wants to treat as the logical subject of the attributes we have knowledge of. Gassendi, on the other hand, keeps reading the issue as concerning an underlying substance—something whose nature might in principle be quite unlike what appearances suggest (thus, he insists, the ‘substance’ of our mental attributes of thinking and willing might turn out to be a ‘very thin vapour ... diffused through the parts of the body’ (AT VII.260)).

The debate is muddied by the fact that Descartes himself has already introduced a certain distancing between himself, so to speak, and his mental substance (‘this I know not what of mine’, istud nescio quid meî, AT VII.29) and between the wax and ‘the substance of the wax’ (AT VII.271), and talked of the need to ‘distinguish the wax from its outward forms—take the clothes off, as it were, and consider it naked’ (AT VII.33). All this gives the impression to Gassendi (who is entirely happy to accept it) that knowledge of a thing’s qualities is one thing, knowledge of the substance quite another. But Descartes’ basic view is that, to learn the true nature of a substance, he needs to find one set of properties (the fundamental ones) and set aside another set (the superficial and changeable ones)—rather than, so to speak, looking for an underlying substance that stood entirely opposed to its properties. In learning of the superficial qualities, he was already learning (superficially) of the substance; the serious task is to get knowledge of its fundamental properties—which constitutes fundamental knowledge of the substance. But though the knowability of substance is clear in Descartes, it becomes confused in his successors; and there are reasons in Descartes himself. For Descartes’s substances represent the first stage of a transition: in the material realm, ‘substance’ is no longer used for First Substances like dogs and cats but for matter (though there are occasions where Descartes talk of individual material things as substances); by contrast, however, minds are individuals, in some ways still like First Substances. Descartes himself believes he can unfold the nature of these substances by the meditative method (of for example Meditation 2 for the mind, and Meditation 5 and Principia ii.4 &11 for the body); but of course any later philosopher with less confidence in the meditative method could wonder where our knowledge of such natures could come from. As

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30 Gassendi says we cannot conceive or explain ‘what on earth is the I know not what lying hidden under the accidents [of the wax] and subject to changes’ (Doubt VII, Opera III.309b). Gassendi also uses the phrase nescio quid in V Obj. (AT VII.273 & 275)—echoing, in turn, Descartes’s talk of ‘that I know not what of mine’ in Med. 2 (istud nescio quid meî, AT VII.29 lines 23-24). I imagine that this repeated chant among his predecessors, calling substances an ‘I know not what’, is the stimulus for Locke’s own repeated talk of substance as ‘a supposed, I know not what’ (2.23.15; cp. §§2, 3, 29)—it is of course a clear echo of the French and Latin idioms. Unfortunately, the verbal similarity is completely lost in the Cottingham, Stoothoff, Murdoch translation, which has ‘this puzzling “I”’ (AT VII.29 lines 23-24), and similarly in the translation of Gassendi (at VII.273 and 275).
substances come increasingly to play the role of ‘underlying constituents’ (whether in the realm of matter, or—as in Locke31—also in the realm of mind) they become more remote from empirical acquaintance, and superficial observation cannot be expected to tell us much of their nature. It only takes doubts about the success of rational reflection, then, to leave us with the prospect of complete ignorance then of the nature of these new substances. Such indeed is very much the picture we find in Locke. My main point here, however, has been that at least if substances are individual First Substances, then knowledge of their qualities does not fall short of being knowledge of those things.

The Objection from (lack of) Perception is a little harder to evaluate. There are several things one might say. One might baldly assert that we can in fact perceive things, not just qualities—it is surely a phenomenon, that we can in some sense see the cat jump onto the table, or a see a door close; and if this is in some sense ‘higher-level perception’, that is no support to the objection in question—for if there is genuine perception of first substances at any level whatever, then such first substances are not the ‘unknown’, ‘hidden’ unobservables that the objection wanted to portray them as being.

But perhaps one can meet the intuition behind the objection a little more directly. Remember how Leibniz explained the core notion of a logical subject as nothing more than is captured in co-predication. Philosophical arguments may persuade us that we perceive only qualities; but it is a phenomenon, that we can perceive blackness, roundness and movement, for example, not as so to speak disconnectedly present (as if they might each be qualities of quite different things), but rather as all co-instantiated: it may look, for example, as though a black round thing is moving. Even within a sense-datum theory something similar is true, even if it is a black spot in the visual field that is moving.32 Either way, it is simply not correct to suppose we perceive qualities without perceiving co-instantiation of qualities. And as soon as we have the perception of co-instantiation of qualities, we have the perception of a thing.

Hume’s kinsman and critic, Henry Home, later Lord Kames, understood this very well, though he draws a over-ambitious conclusion from it. He contrasts the case where he perceives three qualities in three things with the case where he perceives three qualities in a single one, e.g. a tree:

When looking around on different objects, I perceive colour in one quarter, motion in a second, and extension in a third; the appearance these make in my mind, are in nothing similar to the impression made by a tree, where the extension, motion, and other qualities, are introduced into the mind, under the modification of an intimate connection and union. But in what manner are they united and connected? Of this, every person can give an account, that they are perceived as inhering in, or

31 I am thinking of the role of a person’s mental substance as an unknown ‘what ‘tis thinks in him’ (2.23.23: cp. 2.27.14: each of us has ‘in himself an immaterial Spirit, which is that which thinks in him’; see also 4.3.6 (p. 543.10)).

32 Cp. Mabbott 1973, 29-35, at p. 34 -- a good discussion that I completely underestimated the first three or four times I read it.
belonging to some *substance* or *thing*, of which they are *qualities*; and that, by their reference to this substance or thing, they are thus closely united and connected. Thus it is, that the impression of *substance*, as well as of *qualities*, is derived from sight. (Home 1751, 24533)

Almost everything seems to me right until the last line. Faced with the empiricist worry that we have no impression of substance, Kames replies simply that in fact we do have such an impression. The trouble is, that the conception of the substance surely does not come from an additional impression, beyond the impressions of extension, motion and whatever; and in some sense, the role for the notion of a *thing* is not something new when we reach the stage of perceiving (as we might say) the co-instantiation of two qualities e.g. something *extended and moving*. For any quality-perception whatever—even an impression of colour alone—can be thought of as essentially predicative in character: it has a content that might be captured by an open sentence ‘Yellow (x)’. It is already the kind of thing that leaves a place for, indeed calls for, the existence of a thing which satisfies it. So perhaps, if one so much as takes perception to be true of, or to fit, the portion of the world before one, one is already manifesting a grasp of the notion of the kinds of *thing* that the qualities perceived should belong to—a grasp, that is, of the appropriate ranges of objects and things.

6. Conclusion

It is possible, I hope, now to pull together some main themes. There is a question that has the air of raising for debate, quite neutrally, the issue whether to reject or accept first substances. ‘Is the object identical to the properties, or is it something over and above them?’ The question has an air of innocence: surely one could answer Yes or No; and even if Ockham’s Razor and other considerations ended up winning the day for a bundle theory, it would have been a fair fight.

But the question is to be refused: it makes a presupposition that is quite incorrect—that we can take for granted that ‘the properties’ are present, and we merely need to ask if there is a subject for them as well.34 The claim does not have to be granted at all: as we look around us, properties—as abstract objects—are not in a direct sense present at all; and the Aristotelian will say that the sense in which there are properties ‘there’ is simply that there are instances of properties, i.e. things instantiating them.

33 Cp. ‘It is not figure, extension, motion, that we perceive; but a thing figured, extended and moving.’ (Home 1751, 252).

34 ‘The logically prior judgements are those asserting the existence of the various predicates, and the substance is no longer something distinct from them, which they determine, but is merely all those predicates taken together.’ (Russell 1900, 59.)
The Aristotelian view is not that there are qualities, and there are bare particulars, and they somehow need to be joined together. Rather, we start with concrete things, things with qualities. We are no more given properties alone than we are given bare substrata. We are given things with properties.

Leibniz, once again, gets this right. We should not accept, he says, the view that all we perceive is qualities or properties, abstract objects:

NE 2.23.1: ... On the contrary, what comes into our mind is the concretum conceived as wise, warm, shining, rather than abstractions or qualities such as wisdom, warmth, light etc., which are much harder to grasp.... It can even be doubted whether these accidents are genuine entities at all ... We know ... that it is abstractions which cause the most problems when one tries to get to the bottom of them. ... So to treat qualities or other abstract terms as though they were the least problematic, and concrete ones as very troublesome, is ... to put things back to front.

To the extent that those properties are there, of course, there is also whatever is necessary in order for those properties to be there—i.e. the subjects. So the question ‘Is the object identical to the properties, or is it something over and above them?’ should be treated like the question ‘Is the door identical to the dent, or is it supposed to be something over and above it?’ The answer of course is that the door is not identical to the dent (the dent is, for example, both younger and smaller than the door), but it can hardly be said to be ‘something over and above’ the dent either: for we could not have had a dent in the first place without a door—or some suitable surface—to be indented. If suitable properties are present at all, then an object—non-identical with them—will already be present.

Curiously, John Bacon, a defender of tropes, comes very close to this. He provides an expression of the view I think we need to follow, that is perfect almost to the last word.

We never experience pure properties or relations without instances any more than we encounter bare objects without properties and relations. What we come up against in the world are propertied and related objects, instantiated universals, wholes with both a particular side and a universal side; in a word, tropes. (1995, 3-4)

The trouble is, however, precisely with that last word: it would be fine if the conclusion were ‘concrete objects’. Tropes, like concrete objects, are supposed to be wholes with ‘a particular side and a universal side’, but, unlike concrete objects, they are supposed to have only one item on the universal side: a trope of circularity (or what I called an atomic instantiation) is a case of circularity and of nothing else—not of shape, nor of colour, nor of any feature. By contrast, a concrete object has, one might say, ‘a particular side and universal side’, but there will be many items that feature on its universal side: the particle may be circular, but it will also be of a certain mass, a certain size, and so on.
So far, this has been an exposition of an Aristotelian point of view, not an attempt to follow to a final conclusion all the challenges it needs to address. But I do hope it shows the instability of the bundle theory. The question is, in the end, one of logical coherence: as soon as we have particular sorts of co-instantiation we commit ourselves to things that instantiate those (conjunctions of) properties. That is not a commitment to things separate from the properties: the object and the property-instantiations are not separable, though they are different. But that is not mysterious: it is, we might say, pure logic. As soon as we have a conceptual scheme that provides for predication, we have a conceptual scheme that provides for things satisfying the predications.

Perhaps the most curious irony is the way at the start of the early modern period nothing appeared more scholastic and absurd than the notion of ‘real accidents’ or ‘real qualities’—qualities supposedly capable of existing without a subject or substance. These mysterious items had been invented, so Boyle reported, by theologians in order to save the doctrine of transubstantiation. Aquinas, for example, had argued, that in the Eucharist the accidents of the bread and wine continued to exist while not inhering in a substance at all:

The accidents of the bread and the wine ... do not have as subject the substance of the bread and the wine, which does not subsist ... Neither do they have as subject their substantial form, which does not subsist. ... We are forced to admit that ... the accidents subsist without a subject (ST III 77.1).

Suarez had gone further. To Boyle, these views seemed ‘either unintelligible, or manifestly contradictory’ (OFQ, III.462a): it is a contradiction to call something a quality and yet to say that it ‘may subsist without a subject’ (462b)—since the latter claim gives this thing ‘the true nature of a substance’ after all. But once such things as the whiteness of some bread are given the role of substances—while yet not being ‘either matter or modes of matter, or immaterial substances’ (462b)—it is utterly unintelligible what they are supposed to be.

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35 See the footnote quotation from Suarez (Disp. Metaph. 40 p.m. 341) in the ‘Theoretical Part’ of Boyle’s OFQ (II.455n): ‘And this opinion [that quantity is distinct and separable from matter] is wholly to be maintained: for although it cannot be adequately demonstrated by natural reason, yet it is proved to be true on the principles of theology, especially because of the mystery of the Eucharist.’

36 Suarez (in Metaphysicae disputationes, Disp. 31, sect. 11, art. 23) rejects the view of ‘recent Thomists’ and Aristotelians, that ‘accidents have no other existence than the existence of the subject in which they are.’ In fact, ‘an accidental form has its own proper existential being, which it imparts to a subject when it informs it’. This is ‘confirmed’ by the Eucharist, ‘wherein numerically the same accidents are conserved without a substance’ (31.11.25).

37 It is to treat the qualities in fact as ‘substances, even though we named them qualities’ (Descartes, AT III.667).
A hundred years later, the idea of the whiteness existing without the bread is exactly what Hume embraced: if we take a substance as ‘something which may exist by itself’, then all our perceptions ‘are substances’ (T233)—and the same is true of qualities in general—: each can exist by itself, without any need for a subject. It is curious to find Hume’s qualities playing the same role as the scholastic species of the Eucharist. It is curious to find tropes doing so again, another 250 years on.


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--- MacLachlan & Stewart.


