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## TIBBLES THE CAT: A MODERN SOPHISMA\*

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There is a metaphysic, Aristotelian in character, implicit in our ordinary ways of thinking. Much of the impetus for revisionist (as against descriptive) metaphysics comes from puzzles that call into question the consistency of that metaphysic.<sup>1</sup> One such puzzle, scholastic in origin as well as in flavor, is that of Tibbles the cat.<sup>2</sup>

Before us stands a 10-pound cat named 'Tibbles'. Before us also is that 9-pound part of Tibbles which consists of all of Tibbles except his tail. Following philosophical custom, call that bodily part, for which English has no common name, a 'puss'; and give Tibbles' puss the proper name 'Tib'. Further, assume that cats are wholly physical. (Or else let 'Tibbles' name the body of the cat, or even a toy cat.) Suppose now that Tibbles loses his tail. We are left with a tailless cat – and a puzzle. If Tib and Tibbles both still exist, they are numerically different physical objects, one a former 10-pounder, one not, which now consist of just the same matter and occupy just the same place. That, presumably, is impossible. Either Tib or Tibbles, therefore, has ceased to exist. But which one? The identity of a cat surely is not tied to its tail. So Tibbles still exists. But surely Tib has not ceased to exist: Tib lost *none* of its parts. Something has to give. But what?

Tibbles-type puzzles are a mainstay of revisionist metaphysics. They figure in arguments for mereological essentialism, the doctrine that every part of an object, no matter how small, is essential to its identity. They persuade some philosophers to deny the dictum that different objects cannot occupy the same place at the same time. They are part of what persuades other philosophers to relativize numerical identity, whether to time or to sort. They are used to motivate rejection of our ordinary conception of (physical) objects

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as three-dimensional in favor of a conception on which objects are assimilated to events and have temporal as well as spatial parts. And they convince Peter van Inwagen that there are no such things as undetached tails and pusses.<sup>3</sup>

In this paper, I offer a novel and conservative solution to the puzzle of Tibbles the cat. I do not criticize the existing solutions or the theories within which they are embedded.<sup>4</sup> I am content to offer an alternative, one that relies on the recently resurgent doctrine of Aristotelian essentialism. My solution, unlike some of its competitors, is applicable to the full range of cases in which, as with Tib and Tibbles, there is the threat of coinciding objects. In section I, I present the solution. In sections II–IV, I defend it against four objections.

I

Here is what I propose to say about Tib and Tibbles: Initially we had a 10-pound cat, Tibbles, which contained a 9-pound puss, Tib. Before us now, following the loss of the tail, is a single 9-pound object, one which is both a cat and a puss. That object is Tibbles, which earlier had a tail but now is tailless. Tib has ceased to exist.

What is novel in this account, and what will surely seem counterintuitive, is the claim that Tib has ceased to exist. After all, I allow that there was such a thing as the puss Tib. And I allow that there is a puss before us now.<sup>5</sup> The latter is spatiotemporally continuous with Tib. And it is both qualitatively and compositionally identical to Tib. So how could it fail to be Tib? My answer, very simply, is that Tib was *merely* a puss, whereas the puss now before us is also a cat.

I rely on three assumptions. First, I assume that cats are *essentially* cats, from which it follows (in S5) that *non*cats are essentially *non*cats. In doing so, I presuppose Aristotelian essentialism, the doctrine that some of the properties of an object are (non-trivially) essential to it, that others are accidental to it, and that the essentiality or accidentality of those properties is independent of how the object is described. More specifically, I presuppose sortal essentialism, the doctrine that an object's *sort* is essential to it. Second, I assume that Tib was a noncat. More generally, I assume the maximality of (the

concept) cat. That is, I make the commonsensical assumption that proper parts of cats are not themselves cats. Third, I assume that if Tib still exists, now that Tibbles' tail is no longer connected to it, then Tib is now a cat. This, too, is a thoroughly commonsensical assumption. If Tib still exists, why wouldn't it be a cat? What qualification would it lack?

From the first two assumptions it follows that Tib was a noncat *essentially*, meaning that Tib could not have survived a change that would have made it, if it survived, a cat. In effect, the third assumption is that Tib's disconnection from Tibbles' tail was just such a change. Taken together, the three assumptions yield the surprising conclusion that Tib has ceased to exist.

None of the three assumptions is beyond dispute. Especially following Quine's critique, sortal essentialism, which underlies the first assumption, was in disfavor, even disrepute, until rehabilitated by Kripke and Putnam.<sup>6</sup> And although it is now widely accepted, it is by no means uncontroversial. I will attempt to *clarify* that doctrine (in section IV), but I will undertake to *defend* neither sortal essentialism nor the more general doctrine of Aristotelian essentialism. I will be content to note that both doctrines arguably are implicit in our ordinary ways of thinking. At least, they do not conflict with those ways of thinking, as do other theories by which the puzzle of Tib and Tibbles has been disposed.<sup>7</sup>

The second assumption, that *cat* is maximal, is implicit in our ordinary ways of counting cats. The burden of argument rests with anyone who would deny it, with anyone who would affirm that a whole-bodied cat contains numerous parts that are themselves cats. And the only argument I know against the maximality of *cat* is one that simply presupposes the denial of my admittedly counterintuitive conclusion that a cat's puss ceases to exist when the cat loses its tail.<sup>8</sup> To meet that argument I need only show that my conclusion can be made intuitively congenial, which I aim to do.

The third assumption, that Tib is a cat after its separation from Tibbles' tail, providing Tib exists after that separation, would be denied by David Wiggins, the author of a leading theory of diachronic identity. Wiggins would say that after the separation, there are two objects that consist of the same matter and occupy the same place: Tibbles, which is a cat and not a puss, and Tib, which is a puss

and not a cat. Elsewhere,<sup>10</sup> I argue that this type of account is incoherent. (What could make Tib and Tibbles different in sort? Perhaps a difference in identity conditions? But then what could ground the difference in identity conditions?) Still elsewhere,<sup>11</sup> I show how Wiggins' theory can be modified so as to preserve the principle of one object to a place – and to accommodate such commonsensical propositions as the third assumption. (The required modification will be indicated in section IV below.)

To recapitulate: I rely on three assumptions, each of which is plausible as well as philosophically defensible: (1) Noncats are noncats essentially. (2) Tib was a noncat. (3) If Tib still exists, Tib is now a cat. When combined, these assumptions entail that Tib no longer exists. And they provide a novel and conservative solution to a venerable *sophisma*.

II

In this section and the two that follow, I anticipate and respond to four objections. The first objection is this: My conclusion that Tib ceased to exist is absurd and serves only to reduce to absurdity the combination of initially plausible assumptions from which it was deduced. When Tibbles' tail was separated from Tib, Tib underwent no intrinsic change, at least none of any significance. Tib underwent a change only in its relational properties, a 'Cambridge change'. The idea that such a change could result in Tib's destruction is preposterous.

In reply, I will make two points. First, the three assumptions serve not only to *entail* that Tib ceased to exist, but also to *explain* why Tib ceased to exist. Accordingly, they can transmit their own congeniality to the initially uncongenial conclusion. Yes, Tib underwent a relational change, not an intrinsic change. But because of the maximality of *cat*, that relational change resulted in a sortal change. And because of the essentiality of sort, the sortal change resulted in Tib's ceasing to exist. Given the three assumptions, each of which is plausible, and plausible independently of its contribution to solving Tibbles-type puzzles, the conclusion that Tib ceased to exist can be given a satisfying explanation.

My second point is that the initial implausibility of that conclusion can be explained away. It does at first seem obvious that the puss before us now is the puss we had to begin with. What explains this, I submit, is that the differences between the pusses are less salient than are the likenesses. We quickly focus on what the pusses have in common: their qualities and their composition. And we neglect their difference in sort. We neglect the point that the earlier puss was merely a puss, whereas the latter is also a cat. (Calling them both 'pusses' reinforces that neglect.) Furthermore, when we mentally compare the earlier and later pusses, we tend to picture each as it is at a single moment and, consequently, to ignore the differences in their behavior. The present puss walks, hunts, eats, procreates, and otherwise acts; the earlier puss, Tib, did not. (Our concepts of a walker, a hunter, an eater, and a procreator are maximal.) Once we attend to the differences in sort and behavior, it ceases to seem obvious that the present puss is Tib.

In sum, we can explain why Tib ceased to exist; and we can explain away the initial implausibility of that *explanandum*. So, contrary to the first objection, it is not absurd to say that Tib ceased to exist when Tibbles lost his tail.

Ш

Here is a second objection to my position: Suppose that Tibbles' tail has now been surgically reattached. Now, surely, Tib exists. But if Tib existed before the severing of the tail and exists now following its reattachment, then Tib must also have existed throughout the interval between those events. Otherwise Tib went out of existence and then came back into existence, which is impossible. As Locke said, an object "cannot have two beginnings of Existence." <sup>12</sup>

Arguably, Locke meant only that there cannot be two times at which an object *first* begins to exist. In any case, I argue at length elsewhere, <sup>13</sup> from premises having nothing to do with the need to deal with Tibbles-type puzzles, that there need be nothing problematic about intermittent existence in cases in which the *components* of the intermittently existing object exist continuously. What might indeed be impossible is for an object, together with all of its *parts*, to go out of existence and later return to existence. Some later object might, of course, be the same qualitatively as the earlier object, but it is not clear what could make any later object the same numerically. In our

case, however, in which Tibbles' tail is severed and then reattached, the parts of the earlier object, Tib, do not cease to exist. The parts of the later puss are spatiotemporally continuous, and numerically identical, with the parts of Tib. Furthermore, Tib and the later puss are objects of the same sort. Accordingly, there is a basis for asserting their numerical as well their qualitative identity, even if, as I have argued, Tib ceased to exist when Tibbles lost his tail. There is no barrier to saying that when Tibbles regains his tail, Tib comes back into existence.

Here is a third objection: Even if the concept of a cat is maximal, as I maintain, there are other concepts that are not maximal. And, it may be urged, there are Tibbles-type puzzles that arise for those concepts, puzzles that cannot be handled in the way I propose to handle Tib and Tibbles.

Now I agree that some of our concepts, including some whose instances are objects, do seem to be nonmaximal. It seems, for example, that some tables are proper parts of larger tables. (Think of tables to which optional, factory-designed extensions are attached.) But such cases do not provide the makings for Tibbles-type puzzles. Suppose that all of a certain table has been destroyed, except for the smaller table it once contained as a proper part. Providing we indeed are content to say that there were two tables to begin with, one a part of the other, we will feel no inclination to say that the larger table continues to exist. We will be entirely content to say that just the smaller one remains. Tibbles-type puzzles arise only when the whole and the part initially are not objects of the same sort.

Perhaps the latter claim will be disputed. Perhaps it will said that puzzles arise for those nonmaximal concepts which are also dissective. (A concept is dissective just in case every macroscopic part of an instance of that concept is itself an instance of that concept.) Suppose that archaeologists excavate and tag a piece of wood, one that evidently had been part of a prehistoric artifact, and then send their important find to a museum, where the tag is removed and the piece of wood displayed. Suppose further that removing the tag removes a few molecules of wood as well. Surely we would want to say that the piece of wood found by the archaeologists, Piece, still exists. But *piece of wood* is dissective. So, prior to the removal of the tag, Piece contained a slightly smaller piece of wood, Smaller

Piece, which was composed of all and only those wood molecules that now compose the piece of wood on display. But surely that smaller piece, too, still exists. So, it seems that Piece and Smaller Piece are numerically different objects now occupying just the same place. We have a Tibbles-type puzzle, even though Piece and Smaller Piece initially were objects of the same sort. And since Smaller Piece, unlike Tib, underwent no sortal change, my solution to the puzzle of Tib and Tibbles is inapplicable to the puzzle of Piece and Smaller Piece.

In reply, I deny the dissectivity (though not the nonmaximality) of piece of wood, and of the more general concept piece (and its relatives, such as chunk, bit, and scrap). It is true that philosophers sometimes speak of arbitrary parts of pieces as themselves pieces. But they do so, quite possibly, only because there is no ordinary term for such entities, and because it is not important for their purposes whether parts of pieces really do qualify as pieces. In any case, it is plausible to say that 'piece', when not used in some stipulative sense, applies only to entities that are separately movable or otherwise differentiated from their immediate surroundings (even if only by legal or other convention, as with the "piece of land" Smith owns out in the country). Accordingly, I deny that Smaller Piece was a piece of wood. If it was an object at all, which I doubt but will allow for the sake of argument, it was an object for which we have no ordinary common name (other than 'part of a piece'). When wood molecules were stripped away by the removal of the tag, Smaller Piece underwent a sortal change – one that would have made it, if it survived, a piece of wood - and for that reason ceased to exist. (Of course, its components did not cease to exist. They now compose Piece.) The case can, after all, be handled in the same way as Tib and Tibbles.

If, contrary to my view, arbitrary parts of pieces are pieces, then the case should be handled by denying that Piece survived. What has survived, we should say, is merely a part of Piece. For practical purposes it is convenient, and does no harm, to speak as though the piece of wood on display is Piece. Actually, however, it is Smaller Piece. If the concept of a piece is dissective, then mereological essentialism is entirely reasonable for mere pieces of stuff, just as it for quantities of stuff. In my view, however, the concept of a piece

is *not* dissective; and neither is any other sortal concept applicable to objects.

IV

I anticipate one further objection. I have said that Tib ceased to exist, on the grounds that Tib was a noncat, that noncats are noncats essentially, and that Tib would now be a cat, if Tib still existed. Perhaps that line has been made plausible enough, but it would seem just as reasonable to say that *Tibbles* ceased to exist, on the grounds that Tibbles was a nonpuss, that nonpusses are nonpusses essentially, and that Tibbles would now be a puss, if Tibbles still existed. To be consistent, it seems, I ought to say that Tib and Tibbles have *both* ceased to exist, which is not a very appealing position.

The proper response is to deny the parity of the kinds *cat* and *puss*. An object that is both a cat and a puss, a cat/puss, is a cat essentially and a puss accidentally. Accordingly, the cat/puss before us can be identified with the earlier cat/nonpuss, Tibbles, but not with the earlier puss/noncat, Tib. It was possible for the cat Tibbles to go from nonpuss to puss, although it was (conceptually) impossible for the puss Tib to go from noncat to cat.

But what *justifies* these claims? More particularly, what justifies the crucial claim that a cat/puss is essentially a cat rather than a puss? To prepare the way for an answer, I must ask the reader to bear with three paragraphs of preliminaries.

On the doctrine of sortal essentialism, on which my solution depends, every object is an object of some sort – the Aristotelian term is 'second substance' – and is an object of that sort *essentially*. Some of the terms applicable to an object tell the object's sort specifically, some generically, and some not at all. To say that a term 'tells an object's sort' is to say that the term tells what the object is. If we know that there is an object in the bag, and know only that the object is yellow, we know one of the object's characteristics, but don't know what the object is. When we learn that the object is a piece of fruit, and then that it is a banana, finally we do know what the object is, first generically, then specifically. We have learned the object's sort.

By a 'sortal' I will mean a term that tells the sort, that answers the what is it question, for at least one (actual or possible) object. Some terms answer the what is it question for all objects that satisfy them. An example, as we will see, is 'cat'. Some terms, such as 'object' and 'yellow object', answer that question for no objects. Still others answer the question for some of the objects that satisfy them, but not for others. For instance, we will see that 'puss' answers the what is it question for pusses that are not cats (and thus qualifies as a sortal), but not for pusses that are cats.

For ease of expression I will count two terms as the *same* sortal if (and only if) there is a sortal which both restrict. (One sortal restricts a second if and only if anything that satisfies the first must satisfy the second.) For example, 'cat', 'Persian cat', 'kitten', 'mammal', 'injured mammal', and 'animal' all restrict the sortal 'animal' and will count as the same one sortal. Since pusses that are not cats are also not animals, 'puss' does not restrict 'animal' – and therefore will count as a *different* sortal.

Now in my judgment, it is 'cat' rather than 'puss' that tells what sort of thing a cat/puss is. Probably the reader will find it easy to agree with this judgment, if only on intuitive grounds, but it would be nice to have an explicit criterion by which to make such judgments. I offer the following: Of the sortals satisfied by an object, the sortal that tells the object's sort is the sortal whose satisfaction entails possession of the widest range of properties. Or, to allow for the possibility that an object might qualify as an instance of a concept, a defective instance of it, even if the object lacks the range of properties possessed by nondefective instances of that concept, I'll put the criterion this way: Sortal S is the sort-telling sortal for object o if and only if being a nondefective instance of the concept denoted by S entails possession of a wider range of properties than does being a nondefective instance of any of the other sortals satisfied by o.

Consider the different but cosatisfiable sortals 'cat' and 'puss'. Satisfaction of either term entails possession both of physical properties and of chemical properties. But being a nondefective cat entails possession of a full range of biological properties, whereas being a nondefective puss does not. (Even if pusses have *some* biological properties, such as the capacity for growth, there are certain biological properties, such as the capacity for reproduction, that are had

only by organisms – and hence only by those pusses which are also cats.) Furthermore, being a nondefective cat entails possession of psychological capacities (or a propensity to develop them); being a nondefective puss does not. (Most pusses are not cats. Most are proper parts of cats. As such, they do not walk, hunt, eat, procreate, or otherwise *act*. Our concepts of a walker, a hunter, an eater, and a procreator are maximal.) Accordingly, the range of properties common to all nondefective cats exceeds the range of properties common to all nondefective pusses. By my criterion, it is 'cat' rather than 'puss' (assuming it to be one or the other) that tells the sort of any object which satisfies both terms.

In the work cited in footnote 11, I clarify, illustrate, and defend this criterion. Here I will be content to note its reasonableness. (And I will set aside the special case of defective instances.) To know an object's sort is to know, at least in a general way, what the object is like in itself and what place the object has in the order of nature. It is to have a sense of the object's capacities and of its relationships. So, of the (families of corestrictive) sortal terms satisfied by the object, it is reasonable to identify as the sort-telling term that term which best conveys the categories of properties, the range of properties, possessed by the object. Hence my criterion.

So, it is 'cat' rather than 'puss' that tells what sort of thing a cat/puss is. This is what makes it possible to say that a cat/puss is essentially a cat but only accidentally a puss. It is what enables us to affirm that Tib was essentially a noncat while denying that Tibbles was essentially a nonpuss – and to say that Tib, but not Tibbles, ceased to exist. Thus do I answer the fourth and final objection.

In conclusion: Aristotelian essentialism offers a defensible and long-overlooked solution to Tibbles-type puzzles, a solution which, unlike most of its competitors, requires no revisionist metaphysics: no relativization of identity, no exceptions to the principle of one object to a place, no exclusion of undetached parts, no assimilation of objects to events, and no rejection of persistence through mereological change.

## NOTES

\* For criticisms and suggestions, I am grateful to an anonymous referee for this journal and, especially, to my colleague John Tilley.

- <sup>1</sup> For the distinction between descriptive and revisionist metaphysics, see the introduction to P.F. Strawson's Individuals: An Essay in Descriptive Metaphysics (London: Methuen, 1959). In brief, descriptive metaphysics aims to elicit and systematize the metaphysic implicit in our ordinary ways of thinking; revisionist metaphysics offers alternatives to that metaphysic or, at least, to some of its elements. There is ample scope for disagreement over what the elements are (and how they should be explicated), but here is a plausible (though partial) recitation: The world contains many objects of many sorts, natural and artificial, animate and inanimate; some of these objects, if not all, exist in space and time; some, if not all, interact with one another, exist independently of human minds, have qualities and parts, and persist through time despite undergoing qualitative and mereological change. Peter van Inwagen sketches in very similar terms what he calls 'the Common Western Metaphysic', noting that that metaphysic might with equal justice be called 'the Common Eastern Metaphysic', since it almost surely squares with the ordinary thinking of Easterners, even though it is at odds with much of traditional Eastern philosophy. (See his *Metaphysics* [Boulder, Colorado: Westview Press, 1993], 19–21, including note 2.)
- <sup>2</sup> The puzzle is Peter Geach's adaptation of a medieval *sophisma* (puzzle), "Animal est pars animalis." (See David Wiggins, "On Being in the Same Place at the Same Time," The Philosophical Review 77 [January 1968]: 90–95, pp. 94–95.) Among the medievals who discussed that sophisma, or closely related ones, were William of Sherwood, William Heytesbury, Albert of Saxony, and Paul of Venice. (See Norman Kretzmann's "Syncategoremata, sophismata, exponibilia," in The Cambridge History of Later Medieval Philosophy, ed. N. Kretzmann, A. Kenny, and J. Pinborg [Cambridge: Cambridge University Press, 1982], 231 n. 79, 237 n. 100, 238–40.)
- <sup>3</sup> Among those resorting to mereological essentialism is Roderick Chisholm, in "Parts as Essential to their Wholes," *The Review of Metaphysics* 26 (June 1973): 581–603. Those driven to allow the coinciding of diverse objects include David Wiggins, op. cit., and Mark Johnston, "Constitution Is Not Identity," *Mind* 101 (January 1992): 89–105. One who responds by relativizing identity to time is George Myro, "Identity and Time," in *Philosophical Grounds of Rationality: Intentions, Categories, Ends*, ed. R. Grandy and R. Warner (Oxford: Oxford University Press, 1985): 383–409. Among those relativizing identity to sort is Peter Geach, "Identity," *Review of Metaphysics* 21 (September 1967): 3–12. Solutions invoking temporal parts are found in Richard Cartwright, "Scattered Objects," in *Analysis and Metaphysics*, ed. K. Lehrer (Dordrecht: D. Reidel Publishing Co., 1975): 153–71, pp. 168–70 and Mark Heller, The Ontology of Physical Objects (Cambridge: Cambridge University Press, 1990), 19–20. For van Inwagen on undetached parts, see "The Doctrine of Arbitrary Undetached Parts," *Pacific Philosophical Quarterly* 62 (April 1981): 123–37.
- <sup>4</sup> In "Dion and Theon: An Essentialist Solution to an Ancient Puzzle," *The Journal of Philosophy* 91 (March 1994): 129–39, I offer a parallel solution to a similar puzzle. That paper contains a discussion of the competing solutions and their drawbacks. The present paper concentrates instead on possible objections to my solution.
- <sup>5</sup> Those unwilling to recognize just any part of an object as itself an object may be tempted by a very simple solution: that of denying that there ever was such an object as Tib, the 'puss' of the whole-bodied cat Tibbles. But even if that denial

has merit, the puzzle is easily reinstated by a reformulation: Let 'Tib' name the head of Tibbles, and then let Tibbles lose everything except his head, yet be kept alive and alert by modern technology. This time there will be no denying that there was such an object as Tib, except by the seemingly desperate expedient of van Inwagen ("Undetached Parts"): that of denying that there are such objects as undetached heads.

- <sup>6</sup> W.V. Quine, "Three Grades of Modal Involvement," Proceedings of the XIth International Congress of Philosophy, Vol. 14, (Amsterdam: North Holland Publishing Co., 1953): 65–81; reprinted in The Ways of Paradox and Other Essays, Revised and Enlarged Edition, W. V. Quine (Cambridge: Harvard University Press, 1966): 158–84; Saul Kripke, Naming and Necessity, Revised and Enlarged Edition (Oxford: Basil Blackwell, 1980); Hilary Putnam, "The Meaning of Meaning," in Mind, Language, and Reality: Philosophical Papers, Vol. 2 (Cambridge: Cambridge University Press, 1975): 215–271.
- <sup>7</sup> For a good discussion of Aristotelian essentialism, see Gareth Mathews, "Aristotelian Essentialism," *Philosophy and Phenomenological Research* 50, Supplement (Fall 1990): 251–62.
- <sup>8</sup> Peter Geach, *Reference and generality*, Third Edition (Ithaca: Cornell University Press, 1980), 215–18.
- <sup>9</sup> Sameness and Substance (Oxford: Basil Blackwell, 1980).
- Michael Burke, "Copper Statues and Pieces of Copper: A Challenge to the Standard Account," *Analysis* 52 (January 1992): 12–17.
- 11 Michael Burke, "Preserving the Principle of One Object to a Place: A Novel Theory of the Relations Among Objects, Sorts, Sortals, and Persistence Conditions," *Philosophy and Phenomenological Research* 54 (September 1994): 591–624.
- <sup>12</sup> An Essay Concerning Human Understanding, ed. P. Nidditch (Oxford: The Clarendon Press, 1975), p. 328.
- <sup>13</sup> Michael Burke, "Cohabitation, Stuff and Intermittent Existence," *Mind* 89 (July 1980): 391–405.

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