



OXFORD JOURNALS
OXFORD UNIVERSITY PRESS

Mind Association

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Source: *Mind*, New Series, Vol. 102, No. 405 (Jan., 1993), pp. 133-146

Published by: Oxford University Press on behalf of the [Mind Association](#)

Stable URL: <http://www.jstor.org/stable/2254176>

Accessed: 05-02-2016 02:44 UTC

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DISCUSSIONS

Constitution is Identity

HAROLD W. NOONAN

I

In his interesting article "Constitution is not Identity" (1992) Mark Johnston argues that (in a sense soon to be explained) constitution is distinct from identity. In what follows I dispute Johnston's contention.

In this section I explain what is at issue and the main positive argument Johnston gives for his position. In § II I suggest that an argument for the thesis that constitution is identity (hereafter thesis (CII)) which Johnston describes as "especially worthy of respect", is, in fact, even more worthy of respect than he thinks, since his criticisms of it fail. In § III I emphasize a (surprisingly neglected) argument of David Lewis's for a four-dimensional metaphysic and attempt to bring home the implausibility of maintaining the distinctness of constitution and identity within the context of such a metaphysic (in this section I draw on, and put to my own use, a recent discussion by Peter Simons (1991)). Finally I suggest, in § IV, that the vagueness of *de re* modal statements cannot be accommodated satisfactorily within Johnston's position (in this section I am heavily indebted to Christopher Hughes (1986) and Ernest Sosa (1987)).

Johnston begins with Gibbard's well-known example (1975) of Goliath and Lump1. Goliath is a statue and Lump1 is the piece of clay from which it is made. Goliath and Lump1 coincide at all times at which either exists. Unless we are prepared to accept that purely material entities of identical material constitution at all times may nonetheless be distinct, we must accept that Goliath and Lump1 are identical. Yet there are modal predicates true of Lump1 which are false of Goliath, and modal predicates true of Goliath which are false of Lump1. For example, Lump1 might have been squeezed into a ball and not destroyed, which is not true of Goliath. On the other hand, Goliath might have had its arms and calves replaced by new parts and continued to exist, which is not true of Lump1.

Similar examples occur frequently in the literature and they present philosophers with an uncomfortable choice. Thesis (CII), i.e. the thesis that *purely material entities of identical material constitution at all times cannot be distinct merely in virtue of differences in modal, dispositional or counterfactual properties*, is a very plausible one, but in cases such as that of Goliath and Lump1 it seems to be in conflict with Leibniz's Law. Hence we must either reject (CII) or

offer an account of modal predication which shows the conflict with Leibniz's Law to be merely apparent.

Johnston takes the first of these options because he thinks that (CII) is not sufficiently well-supported to justify offering an account of modal predication which gives it a special status. However, as he notes, many philosophers—he mentions Lewis (1971), Gibbard (1975), Gupta (1980) and Robinson (1982)—disagree, and an account of modal predication is available which allows (CII) to be maintained in the face of these cases.

This account, to put it in a nutshell, is that modal predicates are what I have elsewhere (1991) called (for good historical reasons) *Abelardian predicates*, where an Abelardian predicate is a *predicate whose reference (i.e. the property or (Fregean) concept denoted by it) can be affected by the subject term to which it is attached*.

Accepting this suggestion makes it possible to maintain that Lump1 is identical with Goliath even though it is true that Lump1 might have been squeezed into a ball and not destroyed, but false that Goliath might have been squeezed into a ball and not destroyed, for one can say that the property denoted by the predicate "might have been squeezed into a ball and not destroyed" in the *true* sentence "Lump1 might have been squeezed into a ball and not destroyed" is not the same property as that denoted by that predicate in the *false* sentence "Goliath might have been squeezed into a ball and not destroyed".

In fact, it is easy to see that acceptance of the Abelardian character of modal predication is not merely *an* option for the defender of (CII), it is the *only* option available to him. That is, a *necessary commitment* of the view that constitution is identity is that modal predicates are Abelardian.

The most well-known development of the idea that modal predicates are Abelardian is David Lewis's counterpart-theoretic account of modal predication, as this was revised to allow for a variety of counterpart relations. On Lewis's view "could have been squeezed into a ball and not destroyed" stands for the property *has a counterpart under the statue counterpart relation which is squeezed into a ball and not destroyed* when attached to "Goliath", and stands for the property *has a counterpart under the matter counterpart relation which is squeezed into a ball and not destroyed* when attached to "Lump1". Since the statue counterpart relation and the matter counterpart relation incorporate different respects of similarity, these are different properties.

However, as Lewis himself stresses, the counterpart-theoretic interpretation of modal predication is merely one way of putting flesh onto the bare bones of the skeletal idea that modal predicates are Abelardian (in Lewis's terminology what I am calling the Abelardian character of modal predication is what he refers to as "the inconstancy of representation *de re*"). The skeletal idea can be fleshed out in other ways (as it is, for example, by Gupta).¹ Moreover, the notion of an Abelard-

¹ However, the thesis that modal predicates are Abelardian does provide an argument for thinking that *some* reductive account of modality (if not Lewis's some other) must be correct. For otherwise it will be impossible to give non-Abelardian, i.e. context-independent, specifications of the properties contextually designated by modal predicates like "could have been squeezed into a ball and not destroyed".

ian predicate is not applicable just to the case of modality, it can be applied more generally, and there are uncontroversial examples. One such is Quine's predicate "was so-called because of his size". Clearly, this predicate is Abelardian: it stands for the property *being called "Giorgione" because of his size* when attached to the name "Giorgione" and for the property *being called "Barbarelli" because of his size* when attached to the name "Barbarelli".

Quine's predicate is an example of an Abelardian predicate whose reference is determined by the *spelling* of the singular term to which it is attached. But the view of modal predication to which I am suggesting that the defender of (CII) is committed is that modal predicates are Abelardian predicates whose reference is determined by a component of the *sense* of the subject expression to which they are attached. And it is this difference, on this view, that accounts for the fact that modal predicates, unlike Quine's predicate, make sense in combination with quantifier phrases, and not only in combination with singular terms.

The straightforward argument against (CII) which Johnston gives, therefore, can be resisted. However, Johnston thinks that it should *not* be resisted, for he thinks that there is, in fact, no good reason to accept (CII).

It is unclear, I think, why the fact that denying (CII) entails acknowledging that Goliath is distinct from Lump1 should not, by itself, count as a good reason for accepting it. For, as Lewis suggests, it reeks of double-counting to say that Goliath and Lump1 are distinct. But there is an argument for (CII) which Johnston is prepared to acknowledge *would* be a good argument except for the weaknesses he claims to be able to expose in it. In the next section I claim that this argument is not vulnerable in the way Johnston thinks that it is.

II

The argument Johnston thinks worthy of respect proceeds by way of the following principle (I follow Johnston's numbering):

(8) If y is a paradigm F and x is intrinsically exactly like y then x is an F .
Suppose now, for *reductio*, that Goliath and Lump1 are distinct. Goliath is a paradigm statue of Goliath, and Lump1 is intrinsically exactly like Goliath. By (8), Lump1 is a statue of Goliath. Hence there must be, not merely two coincident *material objects* where Goliath is, but two coincident *statues*. But, Johnston is prepared to accept, this *is* intolerable. Hence, given (8), Goliath and Lump1 cannot be distinct.

However, Johnston thinks, this argument can be resisted, for it can be seen that (8) is *false*. (8) is false because if it were true, the following would also be true:

(9) If y is a paradigm F and x is an entity that differs from y in any respect relevant to being an F only very minutely, then x is an F .

But that (9) is false, Johnston argues, can be seen by considering Peter Unger's (1981) "problem of the many".

The first point to note, in order to see what is wrong with Johnston's criticism of this argument for (CII), is that (8) is *obviously* false for reasons Johnston himself points out, in passing, and can be seen to be so quite independently of consideration of the "problem of the many".

First, it is clear that for many concepts it is a necessary condition of a thing's being an *F* that it has a certain type of causal origin. Plausibly, this is true of statues. Consequently (8) is not generally true.

Again, in the case of some concepts a maximality requirement applies: nothing can be an *F* if it is a proper part of an *F*. Once more, this is plausibly true of statues (though not, as Johnston notes, of tables or crowns). Consequently, for this reason also, (8) must be rejected.

But, of course, the fact that (8) is false for these reasons is no objection to the argument for (CII) under consideration. For, since Lumpl has the same causal origin as Goliath, and is not a proper part of anything which is a statue (unless Goliath is), a version of (8) revised to take account of these qualifications can take the place of (8) in the argument without weakening it in any way.

Johnston's claim, however, is (or must be) that the criticism of (8) which derives from consideration of Unger's "problem of the many" applies equally well to *any* revised version of (8) which could replace (8) in this argument for (CII). It is this I wish to dispute.

In particular, I shall argue that Johnston gives no reason to deny the following version of (8):

(8*) If *y* is a paradigm *F* and *x* is intrinsically exactly like *y* and *x* does not partly overlap any *F* then *x* is an *F*.

Nor does he give any reason to deny the following version of (9):

(9*) If *y* is a paradigm *F* and *x* is an entity that differs from *y* in any respect relevant to being an *F* only very minutely and *x* does not partly overlap any *F* then *x* is an *F*.²

But (8*) can replace (8) in the argument for (CII) under consideration without any weakening in its force.

Unger's "problem of the many" begins with the observation that:

(10) In the closest vicinity of any paradigm middle-sized material *F* there are usually very many entities that differ only minimally from the paradigm in any respect.

So consider a cloud, *c*. A cloud consists of water droplets, and will be surrounded by water droplets. In the closest vicinity of *c*, then, there will be many cloud-shaped collections of water droplets. Some of these will be proper parts of *c*, differing from *c*, perhaps, by only one water droplet. Others will be collections of water droplets of which *c* is a proper part, differing from *c* perhaps by only one water droplet. Given (9), each of these collections is a cloud. Hence, it seems, in the closest vicinity of *c* there must be many clouds—albeit highly coincident,

² The requirement of an appropriate causal origin must, of course, be taken as read.

almost completely overlapping. But this is false. Hence, Johnston argues, the “problem of the many” shows that (9)—and hence (8)—must be rejected.

As Johnston notes, in this argument clouds are only functioning as a vivid example. The argument can be run for any materially complex type of thing. In fact, of course, the problem is a familiar one, discussed, for example, by Geach and Chisholm as well as by Unger, all of whom have offered their own solutions.

Johnston’s solution to the problem of the many is to say that (9) is false because it is false that *any* cluster of water molecules constituting, or capable of constituting a cloud, can itself be a cloud. Suppose the cloud *c* is constituted by cluster k_0 and there are a number of almost exactly similar, highly coincident, almost completely overlapping clusters k_1, k_2, k_3, \dots . Then, Johnston’s claim is, *none* of k_0, k_1, \dots is a cloud, since none is a substance but a mere quantity of matter. Hence (9) is false. What is true is:

- (9′) If *y* is a paradigm *F* and *x* is an entity that differs from *y* in any respect relevant to being an *F* only very minutely and *x* is of the right category, i.e. is not a mere quantity or piece of matter, then *x* is an *F*.

Similarly, (8) is not true, rather what is true is:

- (8′) If *y* is a paradigm *F* and *x* is intrinsically exactly like *y* and *x* is of the right category, i.e. not a mere quantity or piece of matter, then *x* is an *F*.

But (8′) provides no ground for claiming that Lump1 is a statue.

Now it is essential to Johnston’s position that this solution to the problem of the many is not merely *one* solution among many, but the only possible solution, that is, that, as he puts it, recognizing a distinction of category between a material object and the matter which constitutes it, “is crucial in dealing with the problem of the many”.

I shall argue, against this, that another solution is possible. First, however, I wish to show that whether or not this is so, Johnston’s own solution to the problem of the many comes at an unacceptably high price. This can be seen by reflecting on the vagueness of “cloud”.

Because “cloud” is vague we cannot say that in the situation Johnston imagines cloud *c* is determinately constituted by k_0 . It is indeterminate whether the cloud is constituted by k_0 or k_1 or k_2, \dots . Hence it is indeterminate exactly where the cloud is. Now one tempting view is that the indeterminacy in this situation is due to vagueness in language. The word “cloud” is vague and there are many different sharpenings, or legitimate ways of precisifying it. On one such sharpening k_0 constitutes the cloud in the situation, on another k_1 does so, and so on. But this is not because the cloud is a vague *object* whose boundaries are indeterminate. It is because there are *many* candidates for being the cloud; one exactly constituted by k_0 , one exactly constituted by k_1 , and so on.

But if this is the correct account of the indeterminacy in this situation—namely, that it is due to linguistic vagueness and not at all to any vagueness in the world—then Johnston’s assertion, that it is recognizing the distinction of category between a material object and the matter which constitutes it which is crucial to dealing with the problem of the many, is false. If Johnston’s contention that

none of $k_0, k_1, k_2...$ is of the right category to be a cloud, i.e. that none is a cloud on any sharpening, is true then the indeterminacy in the situation can only be explained by recognizing *in addition* to $k_0, k_1...$ another class of entities, $c_0, c_1, c_2...$ (where c_0 is exactly constituted by k_0 , c_1 is exactly constituted by k_1 and so on) which are of the right category to qualify as clouds, and which are such that each *is* a cloud on some legitimate sharpening. But once we acknowledge this additional ontological commitment the problem of the many resurfaces, and creates as much perplexity for the defender of (9[^]) as for the defender of (9).

Of course, Johnston can respond to this line of argument by rejecting the linguistic theory of vagueness. He may say that in the situation envisaged the *only* entities present are: a vague object c (which is determinately denoted by the singular term “the cloud”) and the various quantities of matter $k_0, k_1, k_2...$. The indeterminacy is due to the vagueness of the object c and not to that of the word “cloud” and hence, although it is indeterminate whether k_0 or k_1 or $k_2...$ constitutes the cloud it is determinately true that only one cloud is present, since none of k_0, k_1 etc., is of the right category to be the cloud.

The possibility of this response has to be granted, but all it means is that Johnston’s solution *can* work, but only if it is part of a package deal, including an acceptance of an ontology of (compositionally) vague objects. I now wish to argue that this price (an unacceptably high one, I think) does not need to be paid to solve the problem of the many.

The first point to note in this connection is that, as already pointed out, the problem of the many is a familiar one and Johnston’s solution is not the only one on the table.

The datum which has to be explained is that there is only one cloud in the situation envisaged. But, granted this datum, it does not follow without further assumptions that there is only one cloud *counting by identity*, which is taken for granted by Johnston.

It is a deeply engrained conviction in many philosophical circles that if x is an F and y is an F and x and y are not identical then x and y cannot legitimately be counted as *one* F . According to this philosophical view, when counting F s one must count them as one if and only if they are identical. But, in fact, it is perfectly possible to count by a relation weaker than, i.e. not entailing, identity. Suppose R is a relation weaker than identity which holds among F s and which sorts the F s into equivalence classes (as, for example, the relation *being the same height as* sorts men into equivalence classes in respect of their height). Then one can count F s according to the rule that F s x and y are to be counted as one just in case xRy . To do so one assigns the number *one* to any F and to any F which bears R to that F , and to no other F , one assigns the number *two* to any F to which a number has not been assigned, to any F which bears R to it and to no other F , and so on. The number finally arrived at will be the count of F s in the domain under consideration when counting by R , and if it can be true that xRy even if x is not identical with y this number may obviously be smaller than the number arrived at when counting by identity.

This is a point which has been taken on board by several philosophers, including Lewis (1983) and Robinson (1985), who appeal to it to lessen the implausibility of a “multiple occupancy” analysis of personal identity “fission” cases. It has also been suggested as a solution to the problem of the many by Geach (1980) and Chisholm (1986). Since Chisholm’s position on this is, perhaps, somewhat less well-understood than Geach’s, let me quote him. In the following passage (1986, p. 70) Chisholm is arguing that the following principle is false:

If there is an x and there is a y which are such that (a) x is other than y , (b) x is an F and (c) y is an F , then there are at least two things, each of which is an F .

Chisholm writes:

Consider a simple example. Every dog has a smaller dog as a proper part—say, that dog which is like the original dog except for not having its tail, or that dog which is like the original dog except for only having a part of the original tail. The smaller dog is obviously other than the bigger one—for it is a proper part of the bigger one and nothing is identical with a proper part of itself. Hence we have an x and a y which are such that (a) x is other than y , (b) x is a dog and (c) y is a dog—but the situation involves only one dog.

The point here is not that Chisholm’s solution to the problem of the many is necessarily correct, but merely that there are other solutions than Johnston’s on offer, so that given, as we have seen, the high price that has to be paid (the existence of vagueness in the world) if Johnston’s solution is to be accepted, it surely needs stronger support than he provides.

In fact, this point can be pressed further. For another solution to the problem of the many is available which accepts that there is just one cloud in the situation envisaged *even counting by identity*.

A plausible principle governing the concept of a cloud, and other concepts for which the problem of the many can arise, is that there cannot be two distinct but highly coincident clouds, that is, that for any x and y , if x is a cloud and y is a cloud and x is distinct from y then x is not highly coincident with y . Turning this around we get the following sufficient condition for identity for clouds:

- (11) For any x and y , if x is a cloud and y is a cloud and x is highly coincident with y then x is identical with y .

If this principle is determinately true then any sharpening of the concept of a cloud (or rather, of the word “cloud”) must conform to it. Hence, in the situation envisaged, any one of k_0, k_1 etc., may be a cloud under some sharpening, but no two can be clouds under the *same* sharpening. Therefore, under any sharpening it will be determinately true that there is just one cloud in the situation envisaged counting by identity, *even if Johnston’s contention that no mere collection of matter can be a cloud is rejected*.

Of course, although given principle (11) k_1 cannot be a cloud under any sharpening of the concept under which it applies to k_0 , a sharpening under which the concept applies to k_0 will be no better than one under which it applies to k_1 , and there could never be any good practical reason for sharpening the concept in the

one direction rather than the other. Hence, if this solution to the problem of the many is accepted, we have to regard the vagueness of “cloud”, not as a consequence of a mere failure to make matters more precise, but as a necessary condition of the avoidance of arbitrariness. (For, if a sharpening on which k_0 but not k_1 was a cloud was introduced, no reason could be given why that sharpening should be preferred to one under which k_1 but not k_0 was a cloud. In fact, such a sharpening could not be introduced except by *listing* the entities which were to be counted as clouds. Hence such a sharpened concept of cloud would not be learnable by ostending paradigms. It understates the point, then, to say that given principle (11) the vagueness of “cloud” is a necessary condition of the avoidance of arbitrariness; in fact, it is a necessary condition of its learnability by ostension.)

The solution to the problem of the many just suggested, of course, entails that (8) and (9) must be rejected, but it gives no reason for rejecting (8*) and (9*), and if (8*) is true Lump1 is a statue if Goliath is.

The conclusion of this section, then, is that the argument for (CII) based on principle (8) cannot be undermined by appeal to the problem of the many in the way Johnston thinks. It is, as he suggests, especially worthy of respect. In fact, there seems to be no good reason why it should not be accepted.

III

I now wish to turn to another line of argument for (CII). As Johnston notes, (CII) is bound to appear to be a triviality to anyone who accepts that material objects are four-dimensional summations of temporal parts (“perdurants” in the recently introduced Johnstonian terminology). But, he suggests, no argument for (CII) can be based on this since “this metaphysical view of continuants is plausible only if particular claims like [“Lump1=Goliath”] are true.” Any argument for (CII) from the four-dimensional metaphysic, he suggests, must be question-begging.

However, I think that this suggestion neglects the fact that the four-dimensional metaphysic *can* be motivated independently of the acceptance of particular identity claims like “Lump1=Goliath”. The argument I wish to recommend is a strangely neglected one (which, therefore, I quote fully) stated by David Lewis (1983, pp. 76-77).

Lewis’s argument goes as follows (he is arguing for the particular claim that persons are summations of person-stages but the argument obviously generalizes):

First: it is possible that a person-stage might exist. Suppose it to appear out of thin air then vanish again.

Second: it is possible that two person-stages might exist in succession, one right after the other, but without overlap. Further, the qualities and locations of the second at its appearance might exactly match those of the first at its disappearance. Here I rely on a *patchwork principle* for possibility: if it is possible that X happen intrinsically in a spatio-tempo-

ral region, and if it is likewise possible that *Y* happen in a region, then also it is possible that both *X* and *Y* happen in two distinct but adjacent regions.

Third: extending the previous point, it is possible that there might be a world of stages that is exactly like our own world in its point-by-point distribution of intrinsic local qualities over space and time. Fourth: further, such a world of stages might also be exactly like our own in its causal relations between local matters of particular fact. For nothing but the distribution of local qualities constrains the pattern of causal relations.

Fifth: then such a world of stages would be exactly like our own *simpliciter*. There are no features of our world except those that supervene on the distribution of local qualities and their causal relations.

Sixth: then our world is a world of stages. In particular, person-stages exist.

Seventh: but persons exist, too, and persons (in most cases) are not person-stages. They last too long. Yet persons and person-stages, like tables and table-legs, do not occupy spatio-temporal regions twice over. That can only be because they are not distinct. They are part-identical; in other words, the person-stages are parts of the person.

I suggest that there are two points about this argument that can be made at once. First, up to and including stage six, it is irresistible. Second, up to and including stage six, it does not beg the question against the opponent of (CII). Of course, it is precisely the move from stage six to stage seven that opponents of (CII) like Johnston must resist. What I now want to do is to highlight the implausibility of accepting the conclusion of stage six of Lewis's argument whilst refusing to move to stage seven.

It will be helpful here to look at some thoughts of Peter Simons (1991). Simons takes up a comparison Lewis makes between opponents of the four-dimensional metaphysic and a group of villagers who insist that the whole of a long road is in their little village since not one lane is missing. That is, they only count lanes and not cross-sectional segments as parts.

Simons takes up the comparison and defends the villagers. Their ontology is not poorer than ours, he claims, it is simply different. *We* say that the road has both lanes and segments as parts and we are right. *They* speak of an entity they call, let us say, "*R*", which has lanes as parts but no segments, and they are right, too. Suppose the road is merely a dirt track as it passes through the village. Then *we* can say, correctly, that the part of the road only in the village is a dirt track. And *the villagers* can say, correctly, that it is not the case that the part of *R* only in the village is a dirt track (since there is no such thing as the part of *R* only in the village). There is no contradiction here since *we* and they are talking of different things. Nor are they, in any clear sense, Simons suggests, conceptually impoverished; for every one of our spatially unqualified statements about the road's segments there is a corresponding spatially qualified statement available to them about *R*. Thus when we say that the part of the road only in the village is a dirt track, they can say that *R* is a dirt track *as it passes through the village*—

where this spatial qualifier functions as temporal qualifiers do in the view of those who deny that continuants have temporal parts.

Simons suggests another comparison. Consider a solid cone going down from the surface area into the centre of the earth. Now consider an entity which is wholly present at each depth—the *bearing*. We will say that the part of the cone only at a certain depth is, say, clay. Someone whose ontology includes bearings but not cones (call him a “depthist”) must deny that the part of the bearing only at that depth is clay, since he must deny that there is any such part, but he can say instead that the bearing is clay *at that depth*.

Now the lesson Simons wishes to draw from these examples is one of Carnapian tolerance. Just as we can allow that there are *both* roads *and* entities like *R*, *and* cones and bearings, so we can allow that there are *both* four-dimensional Lewisean perdurers *and* three-dimensional continuants. The Lewisean ontology is not wrong, but nor is our everyday ontology of continuants. Nor do Lewisean perdurers and continuants compete for space—they occupy the same spatio-temporal region, only conceptualized in different ways. Hence, while Lewis’s argument up to stage six can be accepted, there is no compulsion to move from stage six to stage seven.

However, I think that the lesson to be drawn from Simons’s examples is quite different—not Carnapian tolerance but Davidsonian charity.

Given that there are such things as roads how can there be such entities as *R* whose only parts are lanes? Why should we accept that there are such things? Similarly, given that there are such things as cones, why should we accept that there are such things as bearings?

The villagers say that *R* is a dirt track in the village, but they insist that this is not because there is a part of *R* only in the village which is a dirt track. Hence they claim that there is something—*R*—running through the village which has no part only in the village. Why should we take their word for it? Perhaps we can take it that what *they* mean when they say “There is something running through our village which has no part only in the village” is true. But since we ourselves are unable to perceive any such entity why should we take their word for it that what *we* would mean by saying “There is something running through the village which has no part only in the village” is true? Why should we rather not conclude that since they are insisting on something which, interpreted homophonically, is, by our lights, obviously false, the homophonic interpretation should be rejected? Similarly in the cone/bearing case. When the depthists insist that there is something—a bearing—wholly present at each depth why should we take their word for it? Since, interpreted homophonically, they are saying something which is obviously false, why should we rather not conclude that the homophonic interpretation is wrong?

This is what Lewis suggests in a passage Simons quotes; the villagers are not to be interpreted homophonically. Rather, they should be interpreted as meaning less than we do by “part” since they do not recognise parts cut crosswise. Hence, when they say that there is an entity running through their village which has no part only

present in the village they are speaking correctly, since all they mean is that every *lane* extends beyond the village. *Mutatis mutandis* for the claims of the depthists.

The examples, then, are not examples of communities who recognise entities which really exist but have simply not been noticed or thought of by us. Rather, they are examples of communities whose conceptual resources, as expressed in their languages, are impoverished. For they do not have any word for the full concept of *part* which we possess.

But if this is the correct thing to say about Simons's examples, as it seems clear that it is, then the conclusion to be drawn about the perdurer/continuant case is also not the irenic one he suggests. Rather, what we must say is that if, indeed, there are perdurers, as Lewis's argument to stage six is designed to establish, then there are not *also* continuants. People, statues, tables and so on, *do* have temporal parts and those who deny this are either mistaken, or not to be interpreted, by Lewisians at least, homophonically. Of course, this conclusion may seem unpalatable. But then the point that must be questioned is whether Lewis's argument does establish the existence of perdurers. If it does, as I believe, then the move to stage seven—the conclusion that people, statues, and so on are perdurers—is irresistible. And, of course, to come back to the main point of this section, if this is accepted, (CII) must be accepted also.

IV

I now turn to my final line of argument for (CII), which draws heavily on work of Christopher Hughes (1986).

As we saw at the outset, the main consideration against (CII) is that there is an apparently straightforward argument against it, via Leibniz's Law, which can only be resisted by interpreting modal predication as Abelardian. The reason put forward for accepting this interpretation of modal predication is that it avoids ontological inflation, but in cases like that of Goliath and Lump1 it might seem that the degree of ontological inflation that has to be accepted by an opponent of (CII) is a price well worth paying for retention of the standard account of modal predication. What I want to argue now is that the degree of ontological inflation that must be accepted by a defender of the standard account of modal predication is far greater than the case of Goliath and Lump1 makes evident, and that this degree of ontological inflation *cannot* be regarded, by any sensible person, as a price well worth paying.

To begin with, consider again the case of a compositionally vague general term, like "cloud" or (following Hughes) "lake".³

³ As in section II the argument to follow proceeds on the assumption that vagueness has its source in language, not the world. It may, therefore, be resisted by a believer in vagueness-in-re. This does not seem to me to be much of a point against it. Anyhow, it should be noted that this qualification does not need to be made about the second argument in this section (centring on the concept of a snowdiscball).

In the closest vicinity of any lake *L* there will be numerous collections of water molecules, largely overlapping, differing, perhaps, by only one molecule. If we sharpen our concept of a lake in a particular way, *L* will be constituted by one of these collections, if in another way, by another, and so on. Let us suppose that two such sharpenings are *lac* and *lacus*. Now let us suppose that in the region where a particular lake—Lake Laguna—is located the *lac* and the *lacus* are very largely overlapping, but not coincident, and so clearly distinct. It will be indeterminate exactly where Lake Laguna is and exactly which collection of water molecules constitutes it, because it will be indeterminate whether “Lake Laguna” refers to the *lac* in the region or to the *lacus*. Similarly, it will be indeterminate which modal predicates are true of Lake Laguna, since the modal predicates true of the *lac* will differ from those true of the *lacus*. But this, so far, is entirely consistent with the standard view of modal predication, since the *lac* and the *lacus*, being only partly coincident, are clearly distinct.

But consider now a situation where there is another lake, Lake Laguna*, very like Lake Laguna, except that where Lake Laguna* is located the water molecules are so disposed that a *lac* and a *lacus* are, as before, both present, but this time, are *wholly coincident*. However, it will still be true that different modal predications are true of the *lac* and the *lacus* and so it will still be indeterminate, in virtue of this, which modal predicates are true of Lake Laguna*.

This situation, clearly enough, is logically on a par with that of Goliath and Lumpl and our options are the same: we must either insist that, despite their coincidence, the *lac* and the *lacus* are distinct, or accept the Abelardian character of modal predication. The difference between the two cases, however, is that there is no plausibility in this latter case in claiming that we are justified in recognizing the non-identity because of the fundamental distinction in ontological category between the two things: as Johnston stresses, Goliath is an artefact and Lumpl is a mere quantity or piece of matter, but since the terms “*lac*” and “*lacus*” are both merely sharpenings of “lake”, the *lacus* and its coincident *lac*, in the Lake Laguna* region, cannot belong to different ontological categories. Hence, even if, as Johnston insists, “within our scheme of persisting objects and their constituent pieces or quantities of matter there are systematic reasons to distinguish objects from the matter which constitutes them”, these reasons do not apply to the case of the *lacus* and its coincident *lac*. But if we accept the identity in this case, and hence the Abelardian character of modal predication, it can no longer be thought of as a merely *ad hoc* response on the part of the defender of (CII) to appeal to this notion to block the Goliath/Lumpl argument against his position.

The implausibility of accepting that the *lacus* and its coincident *lac* are distinct is heightened, moreover, once we appreciate that if we do so we will have to accept not merely *two* coincident objects where Lake Laguna* is, but many more, for there will be many other sharpenings of “lake” under which fall entities exactly coincident with the coincident *lacus* and *lac*. And, of course, the point generalizes.

So, as Hughes puts it, if we accept the standard, non-Abelardian, view of modal predication to account for the vagueness of *de re* modal predication we have to accept that “many a world-line is a crowded place”.

The same point can be seen in another way (here I am indebted to Sosa (1987)). In fact we employ a particular set of artefact concepts, but clearly we could have employed a slightly different set. Thus we talk, for example, of “snowballs”, where what is required for the persistence of a snowball is the persistence of a roughly spherical lump of snow. A snowball is destroyed once the lump is flattened into a disc shape.

Clearly, however, we could talk of “snowdiscballs”, where what is required for the persistence of a snowdiscball is less demanding; merely that the lump of snow remains either in a ball shape or a disc shape. The concept of a snowdiscball is as legitimate as the concept of a snowball and, in fact, in many cases where a snowball is present there will also be present an all-times-coincident snowdiscball (in every case, that is, in which the snowball is not made from a previously disc shaped piece of snow or destroyed by flattening it into a disc shape). But to hold, in such a situation, that two, at-all-times-coincident, entities are present seems clearly absurd. It cannot be justified by insisting on the systematic reasons for distinguishing pieces of matter from the objects which constitute them. And, again, if we accept that in such a situation there are two coincident entities, we are bound to accept many more, for, once one gets the idea, it is very easy to invent other variations on the concept of a snowdiscball. The point obviously generalizes to other artefact concepts.

The position, then, is that if we insist on the standard, non-Abelardian, account of modal predication, which underpins the argument against (CII), it will not be enough to allow that there is a systematic distinction between pieces of matter and the physical objects they constitute, we will also have to accept that *within* the category of physical objects constituted by pieces of matter it is possible for two distinct physical objects to be at all times coincident, and in fact we will have to accept that not only *can* this be the case, but it is *always* the case—whenever we are prone to speak of there being one physical object of a certain sort, there are, in fact, *many*, always coincident, physical objects of similar sorts distinguished only by their modal, dispositional or counterfactual properties. But, I submit, this degree of ontological inflation is too high a price to pay to preserve the standard account of modal predication. Yet once we reject that account we no longer have any good argument for non-identity even in the case of Goliath and Lumpl; we can, therefore, embrace (CII) without qualms.

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