[∃p: TRUE(p) iff EYE-DOCTOR (Peter)] BELIEVES (John, p)

but the variable 'p' only ranges over beliefs possessing the contextually relevant property F.[3]

Institut Jean-Nicod (CNRS/EHESS/ENS)
1bis avenue de Lowendal, 75007 Paris, France
recanati@ehess.fr

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The loneliness of stages

DAVID BRADDON-MITCHELL & KRISTIE MILLER

Harold Noonan has recently argued (2003) that one of Lewis's (1983: 76–77) arguments for the view that objects persist by perduring is flawed. Lewis's argument can be divided into two main sections, the first of which attempts to show that it is possible that there exists a world of temporal parts or stages, and the second, which attempts to show that our world is such a world. Noonan claims that there is a flaw in each of these two stages.

In the first stage of the argument, Lewis begins with the premiss that it is possible that some temporal part, say a person stage, might exist. Since a person stage is no more nor less than something intrinsically just like a person that exists for only a short period of time, it is possible that such a stage could exist in virtue of a body appearing and then vanishing shortly afterwards. Then suppose that we accept the patchwork principle of possibility, according to which if it is possible that x occur intrinsically in some spatio-temporal region R, and it is possible that y occur intrinsically in some spatio-temporal region R*, then it is possible that x and y occur in adjacent spatio-temporal regions. Given this principle, it follows that

it is possible that two person stages might exist, one spatio-temporally adjacent to the other, and such that the qualitative properties of the first person stage the moment before it ceases to exist, are identical to the qualitative properties of the second person stage at the moment that it comes into existence. Thus Lewis concludes that it is possible that there exists a whole world of stages put together in this way: that is, a world where objects perdure.

Noonan argues that Lewis misapplies the patchwork principle and thus illegitimately moves from the premiss that there is a possible world in which there is a single person stage, to the conclusion that there is a possible world with two adjacent person stages. For the patchwork principle only applies to regions that are described intrinsically, and, argues Noonan, describing any region as containing a person stage must involve describing it in extrinsic terms. The idea is that temporal parts or stages have their temporal extent essentially, so the region that contains the person stage is described as containing an object that does not exist outside of that region. But to describe a region in this way is no longer to describe it intrinsically, for it requires referring to the absence in other regions of the object contained in that region.

It is instructive to compare this objection with a related one from van Inwagen (2000). He also holds that it is illicit to move from the possibility of there existing a single person stage, to the possibility of there existing two adjacent person stages. As van Inwagen sees it, although there could be a world containing an object, the first half of whose existence is intrinsically identical to an object that is a person stage in some other world W1, and the second half of whose existence is intrinsically identical to an object that is a person stage in some other world W2, it would make no sense to think of this object as being composed of two person stages. Van Inwagen insists that there is only one object in the patched together world, not two objects, the one going out of existence when the other comes into existence.

So the key claim for Noonan is that being a temporal stage is a matter of having a certain extent essentially. Further, something's temporal extent is for Noonan an extrinsic matter. And since Lewis's argument requires patching together temporal stages, we need to copy something extrinsic. But as the patchwork principle only applies to things described intrinsically, it cannot be used to patch together a person from stages.

But there are two very different ways it might be true that a person stage has its extent essentially. On one of these extent is extrinsic, but on another extent is intrinsic. We argue that a version of Lewis's argument goes through on the second understanding, because there is no problem of copying extrinsic properties.

These ways correspond to two conceptions of person stage. The first of these we will call 'the 3stage':

3stages: X is a 3stage of Y just if X is intrinsically like Y over some time, Y is a person, and X is not temporally abutted by other regions of space-time that are intrinsically like persons at times.

The second of these we call 'the 4stage':

4stages: X is a 4stage of Y just if X is intrinsically like Y over some time and Y is a person.

On the first conception, Noonan and van Inwagen are right. Perhaps the three dimensionalist has accepted that person stages are possible only because they are thinking of 3stages. If so, then there is a difficulty for the Lewis argument, for if we need to copy the loneliness of the stage to be sure we are really copying the stage, then we certainly cannot do this consistently with 'pasting' intrinsic duplicates of 3stages together, for the pasting removes the loneliness (and in any case to copy the loneliness is to copy something extrinsic). Thus on this conception, the temporal extent of the stage is something sensitive to the extrinsic environment of the stage. The stage's having the extent that it does is something which varies from world to world just in virtue of how the world is not only within the actual borders of an intrinsic copy, but also in other regions. Thus if a 3stage in W possesses its extent essentially, then this tells us more about other worlds which contain that 3stage than that they contain intrinsic duplicates of the 3stage in W.

A 4stage is a different kind of beast. It is just an intrinsic copy of a person at a time. It too possesses its extent essentially, but extent is not an extrinsic matter for 4stages. A 4stage possesses its extent essentially only in so far as any intrinsic duplicate of the 4stage copies the spatio-temporal volume, for that is an intrinsic property. On the 4stage conception, the environment outside that volume does not determine what parts of the world, if any, count as containing the 4stage. So a 4stage can possess extent essentially, but this is consistent with copying only intrinsic properties.

Crucially, the four dimensionalist was never arguing for 3stages (plainly: for it follows from the definition of 3stage that our world does not contain them). Rather, the four dimensionalist is only arguing for the existence of 4stages. Should the three dimensionalist admit that the possible world that contains a 3stage contains a 4stage? Since a 4stage just is the occupant of a region of the world intrinsically like a 3stage (a special case of being intrinsically like a person over an interval) then surely, if there is a 3stage, then there is a region intrinsically like the 3stage: namely the 4stage. The patchwork principle can then be applied to the 4stage straightforwardly, since this requires 'cutting' and 'pasting' only intrinsic properties.

So in creating a patched world, we don't need to copy any extrinsic properties. For the assumption that there is a world that contains just one

stage, requires us only to imagine a world that is globally intrinsically a certain way: the way that contains only that stage.[1] When we apply the patchwork principle, we copy only the intrinsic properties of a region of that world. Is our copy a stage? If being intrinsically thus and so is enough, it is. At no point have we stipulated that things are extrinsically a certain way, or attempted to patch together extrinsic properties.

So how should we read this whole argument? As we have seen, on van Inwagen's view it seems to be essential to a person stage not only that it occupies only a certain spatio-temporal region, but further that other nearby volumes *not* be occupied by person stage-like states of affairs. So although the patched-together world is locally intrinsically the same as each of the worlds from which it was patched, what objects the patched world contains is not merely a function of these local properties, but rather is determined by the overall pattern of those local properties. This is all to say that he reads person stage as 3stage. There are reasons for finding 3stages a little puzzling: they seem to render the identity relation extrinsic. We know that each of the person stages in the different worlds is distinct. But for van Inwagen, a world that contains abutting intrinsic duplicates of these stages, no longer contains distinct stages, but rather, contains an enduring object that is strictly identical at every time at which it exists. It is hard to see, though, why putting together intrinsic duplicates of distinct objects should magically result in their strict diachronic identity. But crucially, the puzzling nature of 3stages is really irrelevant: for what we need is arguments for the non-existence of 4stages, not arguments about what follows when we track the existence of 3stages, and van Inwagen does not provide such arguments.

Noonan is less explicit about what counts as a stage: his anti-patching argument is one that would work were the intended reading of 'stage' 3stage, but he seems to be assuming that we are discussing the sense of stage intended by the four dimensionalist, so perhaps there is some unintended equivocation here.

We conclude, therefore, that neither Noonan nor van Inwagen have provided good reasons to think that it is not possible to create a patchwork world of stages in the manner Lewis describes.

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[1] There is another way one might use the idea that something extrinsic needs to be copied, and that this is illegitimate. One might deny that an intrinsic copy of a person at a time is a person stage at all, since that is a matter of being extrinsically connected to other intrinsic copies of persons at times. In this case, let us just use 4stage to mean 'intrinsic copy of person at time' and accept that the lonely 4stage is not a person stage. This poses no problem, for the required extrinsic properties will go back in the 'pasting' procedure to guarantee that we (again) have person stages. So the patchwork principle will be used only on things described intrinsically, and the extrinsic properties will arise as part of the patchwork.

Having established the possibility of a world of stages, Lewis's argument then attempts to show that our world could be just such a world. He begins by stipulating that the patched-together world has the same local properties as our world. Lewis does not allow himself to assume that it must then have the same causal relations as our world, but adopts a weaker principle which allows him to infer that there is a third world intrinsically just like the patched-together world but with the right causal relations between person stages to contain people. This world is like ours in both intrinsic properties and causal relations. If all of the features of our world supervene on the distribution of local properties and their causal relations, it follows that our world must be this world of stages.

Noonan maintains that there is a flaw here too. Lewis does not presuppose that causal relations supervene on the local distribution of properties, but, rather, helps himself only to the weaker principle that nothing but the distribution of local properties constrains the pattern of causal relations (the 'Nothing but' principle, as Noonan calls it). Despite the 'Nothing but' principle, it is possible that even though W1 and W2 share the same local distribution of properties, they have a different pattern of causal relations, just so long as this difference is not constrained by something other than the local properties. Suppose that W1 has causal relations C1, and W2 has causal relations C2. Suppose also that W1 has some feature F that W2 lacks. But now it is possible, Noonan points out, that there is some W3 that has the same local distribution of properties as W1 and W2, but has causal relations C1, while lacking feature F. What this tells us is that F does not supervene on the combination of the local distribution of properties and the causal relations. Suppose that F is the feature of 'being a world of perdurers'. Then it is possible that there are two worlds, W1 and W3, alike in their distribution of local properties and their causal relations, one of which is a world that perdures, W1, and one of which is a world that does not perdure, W3.

Noonan concludes that the 'Nothing but' principle leads us to say that whether a world endures or perdures does not supervene on the combination of the local distribution of properties and the causal relations, and thus that it is a 'mysterious principle' that the three dimensionalist need not accept.

But this is not quite right. The argument does not lead directly to an unconditional conclusion that there is a failure of supervenience. We can clarify matters by setting out Lewis's argument in greater detail and in the form of a *reductio*. Suppose that our world, call it *W1*, has a local distribution of properties L and has the property E of containing no perduring objects.

(1) Assumption: the combination of local properties and causal relations is a supervenience base for perdurance or endurance. Call this *the supervenience principle*.

(2) Assumption: the 'Nothing but' principle tells us that nothing but the local properties can constrain the causal relations.

(3) Assumption: in addition, the local properties do not determine the causal relations. Call this *the non-determination principle*.

(4) W1 (the actual world) has local properties L and the endurance property E.

Suppose there is a world made up of stages, that is, the perduring world we have patched together. Call this *W2*.

(5) There is a patchwork world W2 that perdures: it has the perdurance property P. Its distribution of local properties is also L.

Thus

(6) W1 and W2 must have different causal relations, since one endures, while the other perdures and they are both L worlds. Let us say that W1 has causal relations C1, and W2 has causal relations C2.

Thus

(7) We can infer the existence of W3, which has the L feature of W2 and like W2 perdures. Since (from 6) the local properties do not determine the causal relations, W3 can be a world that does not share W2's causal relations, but instead has the C1 relations.

(8) W3 is thus exactly like W1, our world, with respect to all of its local facts and its causal relations, yet it is a world that perdures, where our world endures.

(9) This, however, contradicts our original assumption that the combination of local facts and causal relations is a supervenience base for perdurance or endurance.

Thus we must reject one of the assumptions. Following Lewis, we could reject the initial assumption that the actual world W1 is a world with the endurance property E. That is, we could conclude that the actual world perdures. But there are four other possibilities. We could reject (5), the claim that there is a patched-together perduring world. This is the premiss that Noonan and van Inwagen reject, as we discussed earlier. Indeed, following van Inwagen's reasoning, the three dimensionalist can argue that W2 is an enduring world, in which case by Lewis's own argument so too is the actual world. Alternatively, we could reject (1) the supervenience principle, according to which the combination of local properties and

causal relations is a supervenience base for endurance or perdurance. Or finally, we could reject (2), the 'Nothing but' principle or (3) the non-determination principle.

Rejecting the non-determination principle pre-emptively rules out (5); for if the local properties fix the causal relations, then W2 has the same causal relations as the actual world. Then if W1 and W2 share the same causal relations and local properties, we immediately know (from 1) that W2 is, like the actual world, an enduring world. Thus there is no *reductio*. So this is certainly a possible move for the endurantist. But of course the patchwork argument is supposed to give us independent motivation for (5). And all that determination of the causal relations by the local properties, together with the supervenience principle does, is tell us that W2 and W1 are alike in being enduring or perduring. So if the independently held hunch that the patchwork world is perduring, is stronger than the hunch that the actual world is enduring, then we should conclude that both W1 and W2 perdure and vice versa.

Since we have already shown, *pace* Noonan and van Inwagen, that there is no good reason to reject (5), let us consider the other two options. Noonan suggests that the three dimensionalist has independent reason to reject the 'Nothing but' principle because it is a mysterious principle that entails the falsity of the supervenience principle. But this is not so. What is true is that if the three dimensionalist accepts (5) and accepts the 'Nothing but' and the non-determination principle, then she must reject the supervenience principle. Like any argument, this one can be resisted by denying one or more of its premises. What is at issue is whether the three dimensionalist must give up *some* plausible principle in order to avoid the argument's conclusion. Since no doubt Noonan thinks that the supervenience principle is very plausible, he concludes that it is the 'Nothing but' principle that should be rejected. And indeed, perhaps this is the best option for the three dimensionalist. But that is not because the 'Nothing but' principle has been shown to be an implausible principle that the three dimensionalist would have denied independently.

We do not doubt that many three dimensionalists will reject the weak 'Nothing but' principle, and embrace, for example, a principle that enduringness itself might constrain causal relations. We do not think, though, that someone neutral on the endurantist/perdurantist debate would think this principle obviously more plausible than the 'Nothing but' principle. So the fact that the three dimensionalist with 'his wits about him' might deny the 'Nothing but' principle does not undermine the merit of the argument. Arguments in philosophy are rarely directed against the entrenched opposition, for it is rare for a position to be one that cannot be fortified into consistency with enough wit. Instead, the target is the unconverted. And there are surely many who are agnostic about whether

our world is a world of stages, and yet who do not see how something
other than local properties could constrain causal relations.[2]

The University of Sydney
Sydney, Australia 2006
dbm@mail.usyd.edu.au

The University of Queensland
Brisbane, Australia 4072
kristie_miller@yahoo.com

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Dion, Theon, and the many-thinkers problem

MICHAEL B. BURKE

My solution to the problem of Dion and Theon (Burke 1994a) employs
the doctrine of sortal essentialism.[1] Jim Stone (2002) objects to my solu-
tion and proposes to weaken the doctrine so as to block my employment
of it. Others question a *different* element of my solution: the maximality
of personhood and thinkerhood. After opposing Stone's weakening of
sortal essentialism, and responding in a preliminary way to the objection
that motivates it, I outline a novel, conservative solution to the related
'many-thinkers problem', one that fortifies *all* of the elements of my
solution to the problem of Dion and Theon.[2]

[1] I take the doctrine to assert that for every object there is a property, a sortal property,
such that (a) to know that the object has that property is to know *what* the object
is, and (b) it's metaphysically impossible for the object to exist without having that
property.

[2] Other critics of my solution include Olson (1997), Carter (1997), Lowe (2002: 68,
74–76), Noonan (1999), Sidelle (2002: 127–29) and Sider (2001: 161–65), among
others. One supporter is Rea (2000).