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SELF AND SUBSTANCE

Sydney Shoemaker
Cornell University

I

Nowadays the question whether the self is a substance, and whether the identity over time of a person requires the identity of a substance, has a musty smell to it. We recognize it as a question that played a central role in the intriguing discussions of personal identity in Locke, Butler, Hume and Reid; but it has not been the central question in contemporary discussions of personal identity, and in most such discussions it is simply not addressed.

Yet the question does have echoes in contemporary discussions. Contemporary "reductionists" about personal identity hark back to Locke and Hume, and contemporary antireductionists hark back to Butler and Reid. As I shall try to show, some of the intuitions of the antireductionists—e.g., their denial that the person who comes out at one end of a "teleportation" process can be the same as the person who went in at the other end—can be seen as expressions of the idea that in some good sense of "individual substance," a person must be an individual substance. And such a view seems at odds with the view of a reductionist like Derek Parfit, who says that while we can allow that a person is a "subject" of experiences, since this is "the way we talk," it is nevertheless true that facts about persons and their experiences admit of an impersonal description that reveals them to be nothing over and above facts about the relations of experiences to one another and to bodies.[1]

There is always a danger that framing a current philosophical issue in traditional metaphysical terms—here, in terms of the concepts of substance, inherence, etc.—will result in obfuscation rather than clarification. But that is a risk I shall take. I shall try to show that it is possible to combine some of the central intuitions that go with the claim that the self is a substance with some, although certainly not all, of the intuitions that go with reductionist views about personal identity. Among other things, I shall be developing the view, which I have presented elsewhere, that the psychological continuity view of personal identity, the contemporary heir to Locke's memory theory, can usefully be seen as complementary to—the "reverse side of the coin of"—a functionalist view about the

nature of mental states. And I shall be arguing that there is a version of this view that is compatible with much of what Peter Unger argues on behalf of a "physical" view of personal identity in his *Identity, Consciousness & Value*, a work I place (somewhat hesitantly) in the Butler-Reid tradition.

Owing in large part to the work of Derek Parfit, the emphasis in recent literature on personal identity has shifted somewhat from the metaphysical issue of what constitutes such identity to questions about its importance—in particular, the question of whether it is identity "as such" that matters in "survival." My primary concern here will be with the metaphysical issue, not the issue of importance. But at the end I shall briefly discuss the relation between these.

II

As is well known, Locke denied that the identity of a person over an interval of time requires that it be one and the same substance that thinks "in" the person throughout that interval. As is also well known, Hume made the more radical denial that there is any substance at all involved in the existence of a person or self, unless our "perceptions" themselves count as substances.

Here Locke and Hume can be pitted against Joseph Butler and Thomas Reid, both of whom insisted that a self or person *is* a substance and that the identity over an interval of time of a self just *is* the identity over that interval of the substance the person is. Butler and Reid were dualists, and took it for granted that the substance involved in personal identity is an immaterial one. Locke and Hume were committed to denying that a self or person is an immaterial substance. But they were equally committed to denying that it is a material substance. Hume, of course, rejected the notion of substance altogether. And Locke says that those "who place Thought in a purely material, animal Constitution, void of an immaterial Substance" plainly "conceive personal Identity preserved in something else than Identity of Substance; as animal Identity is preserved in Identity of Life, and not of Substance" (Locke 1975, p. 337).

There is, as Butler and Reid both pointed out, a seeming contradiction involved in Locke's position. He defines "person" as meaning "a thinking intelligent Being, that has reason and reflection, and can consider it self as it self, the same thinking thing in different times and places" (p. 335). This seems to imply that a person is a Subject of a thought, and thereby a thinking substance, yet Locke denies the evident consequence of this, that the Identity of a person requires the identity of a thinking substance.

One might suggest, as I have done elsewhere[2], that Locke can be extricated from this apparent contradiction if we distinguish, as he (and Butler) did not, between two different senses of "substance." Call these the "subject of properties sense" (elsewhere I have called this the "Aristotelian sense") and the "parcel of stuff sense." What Locke's definition of "person" commits him to is that persons are substances in the subject of properties sense. This is compatible with the denial that a person is a substance in the parcel of stuff sense, and with the claim

that one and the same person can at different times be constituted by different substances, in the latter sense.[3] Admittedly, this works better for the denial that a person is a material substance than for the denial that a person is an immaterial substance. Locke says that "those, who place thinking in an immaterial Substance only...must show why personal Identity cannot be preserved in the change of immaterial Substance, or variety of particular immaterial Substance, as well as animal Identity is preserved in the change of material Substances..." (p. 337). To suppose that "substance" here means "parcel of stuff" is to invoke the notion immaterial stuff—which sounds disturbingly like immaterial matter. Yet *something* like that seems to be going on in Locke, given the comparison he is making between change of immaterial substance and change of material substance.

Hume presumably could have agreed with the Lockean definition of person as "a thinking, intelligent Being...etc." So why isn't he committed to persons being substances in the subject of properties sense? Here the obvious reply is that Hume thinks that a person's having a certain thought just consists in a certain bundle of perceptions having a perception of a certain sort as one of its members. So merely assenting to the truth of subject-predicate propositions about persons should not by itself commit one to persons being substances in the subject of properties sense. Following a suggestion of Paul Grice, in his classic 1941 paper on personal identity, let us say that a self is a substance in the subject of properties sense if and only if (1) statements of the form "S thinks, experiences, etc. such and such" are sometimes true, and (2) such statements are not analyzable in a certain way.[4] Bundle theorists *a la* Hume deny (2). The sort of analysis that would make (2) false would be one whose *analysans* does not refer to or quantify over persons or subjects of mental properties.

The view that statements about persons are analyzable in a way that relieves us of commitment to mental subjects as constituents of the world seems at least akin to the "reductionist" view, championed by Derek Parfit and others, that personal identity is analyzable in terms of "psychological continuity and connectedness." And some proponents of the latter view have said things that seem at least in the spirit of the Humean denial that selves are substances. Parfit says that "because we are not separately existing entities, we could fully describe our thoughts without claiming that they have thinkers" (Parfit 1984, p. 225). And he repeatedly says that it is "because of the way we talk" that it is true that persons are subjects. This strongly suggests that while condition (1) of the Gricean rendering of "Selves are substances" is satisfied, condition (2) is not.

III

Critics of reductionist views of personal identity are especially hostile to versions of reductionism that maintain that such imagined procedures as the teleportation of science fiction, and what I have called the "brain state transfer (BST) procedure," whereby the states of one brain are imposed on another without any transfer of matter, can be person-preserving.[5] To say that such a procedure is

person-preserving means that a person A existing at time t1 and a person B existing at a later time t2 can be one and the same despite having different bodies and different brains, the identity holding in virtue of the mental states of A at t1 and those of B at t2 being linked by a chain of mental states exhibiting a certain sort of continuity and connectedness, which the procedure is sufficient to bring about.

The case against such versions of reductionism often rests on intuitions about what Parfit calls the "branch-line" case. In the branch-line case, two later persons stand in relations of psychological continuity and connectedness (psychological C&C) to one earlier person; in the case of one of these the body and brain are the same as those of the earlier person, and the chain of psychological C&C is carried in the normal way by physical processes in that body and brain, while in the case of the other the psychological C&C is due to an episode of teleportation or BST transfer. There are widespread intuitions that favor the former of these—the one having normal physical continuity with the original person—as being the original person. And these same intuitions are often seen as favoring the view that even where there is only one later person whose states are psychologically C&C with the states of an earlier one, the holding of the relationship of psychological C&C is not sufficient for identity.[6]

One might think of such intuitions as rejecting one sort of reductionism, one that says that personal identity consists in psychological C&C, for another, one that says that it consists in physical continuity of a certain sort. But often those who are moved by such intuitions think of themselves as opposing reductionism generally. Such thinkers are in the tradition of Butler and Reid. And a natural way to express their view is by saying that persons have to be individual substances of a certain kind, and that if the conditions of personal identity were as the psychological C&C account claims—if they allowed teleportation and the BST-procedure to be person-preserving—persons could not be substances. In the branch-line case there is, intuitively, "substantial unity" between one of the candidates and the original person, and not between the other candidate and the original person.

What notion of substance is at work here? Proponents of the psychological C&C view can assent to the truism that persons are subjects of thought and experience; they think of themselves as giving the transtemporal identity conditions for such subjects. Are they committed to the denial that selves are substances in the Gricean version of the subject of properties sense, because they hold judgments of personal identity to be analyzable in a certain way? But while some proponents of the psychological C&C view may be committed to the view that judgments about persons have an analysis of the sort ruled out by condition (2) of the Gricean rendering of "Selves are substances," others are not. Presumably philosophers who hold that the truth conditions for judgments of personal identity can be framed in terms of the notion of *physical* continuity are not thereby committed to the denial that (2) is satisfied; so it is far from clear that those who hold that these truth conditions can be framed in terms of psychological C&C are

committed to this denial, even if they think that these truth conditions allow teleportation and the like to be person-preserving.

Could the notion of substance here be the parcel of stuff notion? It is true that in some versions of the branch-line example the preferred candidate for being the continuation of the original person is one that is composed of the same matter of the original person. But this will not in general be true. Everyone agrees that in normal, paradigmatic cases of persistence of persons over time there is constant interchange of matter with the environment. So the view cannot be that it is a requirement of personal identity that a person always be composed of the same parcel of matter. It could of course be held that it is a requirement of personal identity that there be a certain sort of continuity of material composition—one that requires that over very brief intervals the material composition remains nearly the same. But this would not of course imply that a person *is* a substance in the parcel of matter sense.

So proponents of the psychological C&C view of personal identity are not committed to the denial that selves are substances in the logical subject sense. And while they are committed to the denial that selves are substances in the parcel of matter sense, that is a denial they share with their opponents. So in what sense is it the latter, rather than the former, who are the proponents of the substantiality of the self?

IV

There is a strand in the traditional conception of substance that until now I have not mentioned. Substances are ontologically *independent* in ways in which other entities are not. What metaphysicians call "modes" and "affections," and what all of us call states, are entities whose existence is logically parasitic, or as C.D. Broad put it "adjectival," on the entities of which they are modes, affections, or states; their existence just consists in certain things being modified, affected, or qualified in certain ways. Entities on which other entities are dependent in these ways, and which are not themselves dependent in such ways on other entities, are individual substances.[7]

The independence criterion of substantiality is closely related to the conception of individual substances as subjects of properties, if that is understood as including condition (2) of the Gricean rendering of that conception. Suppose that the only tenable notion of mental particulars, such as thoughts, sensations, etc., is one on which these are modes or affections of—on which their existence is adjectival on—minds or selves that "have" them. In that case minds or selves will be independent relative to such mental particulars, and on that account will qualify as substances. And by the same token, there will be no possibility of a reductive analysis of judgments ascribing thoughts or experiences to minds or selves into judgments solely about mental particulars and their relations to one another—and no possibility of a reduction of facts about minds or selves to facts about

mental particulars. So minds and selves will count as substances by the Gricean criteria.

But I think that there is another way in which independence can function as a criterion of substantiality. As many have noted, it is a feature of the "continuants" that are paradigm individual substances that their persistence through time involves there being relations of causal and counterfactual dependence of their properties at later times on their properties at earlier times.[8] Other things equal, if this piece of wax had not had the shape it had an hour ago, it would not have the shape it has now; and it is, in part, *because* it had that shape then that it has its present shape now. This will be true if the shapes are the same. But it may also be true even if the shapes are different; the piece of wax has a certain shape now because it had a certain other shape an hour ago and has been sitting in the sun for the last hour. (Of course, if the wax is left in the sun too long, the contribution of its earlier shape to its later shape may become negligible.) The causation involved here is largely what W.E. Johnson called "immanent" causation: causation that is internal to the thing's career, as contrasted with the "transeunt" causation involved in the action of one thing on another.[9] It is not always true that the resemblance between the later and earlier stages of a thing is due to immanent causation. If I take a watch to a jeweler to be repaired, its post-repair similarity to its pre-damage state is due in part to the intervention of the jeweler, which involves transeunt causation. But by and large, and especially in the case of those things (plants and animals) that are often taken as the paradigm individual substances, it is by immanent causation that things retain their properties over time and undergo those changes that are characteristic of the kinds of things they are. In organisms, we now know, this immanent causation takes place in accordance with genetic "instructions" encoded in DNA molecules. (At the molecular and submolecular levels much of the causation involved here will of course be transeunt; it is only relative to the career of the organism as a whole that it is to be classified as immanent.)

We might sum all this up by saying that individual substances are autonomous self-perpetuators. Or, better, *relatively* autonomous self-perpetuators. Some things—e.g., images on movie screens—appear to be autonomous self-perpetuators when they are not; and to these we deny the status of being individual substances. In the case of inanimate objects like rocks, this self-perpetuation is a pretty boring affair—simply a matter of retaining the same properties over time, in the absence of influence of other things. In the case of organisms, and minds, it is a much more dynamic affair. Here there are characteristic kinds of change which something must undergo, or be apt to undergo, if it is to be a thing of the sort in question. Some of these are triggered by impacts of the environment, and involve transeunt causation. But there will always be a large element of immanent causation. And it is largly immanent causation which is responsible for the thing's continuing to exist as a thing of a certain kind, one embodying certain principles of change and unchange.

The existence of things that are autonomous self-perpetuators is not, of course, totally independent of other things. Organisms are sustained by nutrition derived from their environments, and even nonorganic things depend for their continued existence on things and conditions that lie outside their boundaries. But things can be said to be independent to the extent that the causation involved in their continued existence is immanent causation. The extent to which this is so varies from one sort of thing to another. At one extreme we have organisms, at the other we have images on movie screens. Among things between these extremes, self-regulating and self-repairing mechanisms have it to a greater extent than machines that need constant repair through human intervention. It seems plausible that it is to the extent that something is viewed as an autonomous self-perpetuator that we find it natural to regard it as an individual substance. It is a view that goes back to Aristotle that organisms have an edge over artifacts with respect to substantiality. It is also plausible to suppose that persons (or selves) have a high degree of this sort of independence—at least as high as that of organisms generally.[10] And my suggestion is that this is a source of the view that persons are substances in a way they could not be if their identity conditions allowed teleportation and the BST-procedure to be person-preserving.

Here it is instructive to consider a thought experiment of Peter Unger's.[11] Unger describes a scenario, or rather a series of scenarios, in which a brain is "superfrozen," all of its matter is rapidly replaced in a way that preserves structure, and the resulting brain is then "superthawed," the result being a person psychologically indistinguishable from the owner of the original brain prior to the superfreezing. In one scenario, the replacement of the brain matter takes place in four stages, each involving the replacement of one quarter of the brain with an exactly similar chunk of brain matter. In another, the replacement has as many stages as there are atoms in the brain, and each stage involves the replacement of one atom. In both cases the whole process takes only a tenth of a second. Unger thinks that in the first case the person does not survive the procedure, while in the second case the person does survive. I think this is a natural view to take about these cases. And I think we can see it as a special case of the intuition that a person should be an autonomous self-perpetuator whose characteristic continuity over time is carried by immanent causation.

Both of Unger's procedures are of course radically invasive, involving a large dose of transeunt causation. But there is an important difference. In the first case, where the replacement takes place in four stages, it is essential to the success of the procedure that the replacement parts have the right psychologically relevant structure, namely that of the parts they replace. Miracles aside, this would require that the state of the original brain be somehow recorded, this providing a "blueprint" that can be used to construct replacement parts having the right structure. This means that if we regard the procedure as person-preserving, we will have to say that the process whereby the psychological traits of the person are "perpetuated" is not one of *self*-perpetuation, and not one involving only imma-

nent causation—it involves a large measure of transeunt causation, namely that involved in the recording and in the manufacture of duplicates on the basis of the recording.[12] By contrast, in the second procedure the replacement parts—the individual atoms—have no psychologically relevant structure.[13] No recording of psychologically relevant states need take place, and no construction of psychological duplicates need be involved. Here there seems much less reason to deny that the causation by which the psychological traits of the person are perpetuated is immanent causation.

The cases of teleportation and the BST-procedure resemble the first of Unger's replacement scenarios. In these it seems very natural to say that the causation involved in the perpetuation of mental states, and in bringing about psychological continuity over time, is transeunt rather than immanent causation. And insofar as that is true we cannot count these procedures as person-preserving without compromising the independence of persons, i.e., their status as autonomous self-perpetuators. It is in that sense that the view that such procedures can be person-preserving offends against the intuition that persons are individual substances.

Of course, if we are willing to be flexible enough about what count as the boundaries of a person, we can say in all of these cases that the psychological trait perpetuation takes place by immanent causation. In Unger's replacement example, let the recording mechanism and the duplicate-making mechanisms count, temporarily, as part of the person. Do the same with the mechanisms involved in teleportation and the BST procedure. But such gerrymandering is of course extremely unnatural. Moreover, it simply postpones the difficulty. For what explains how it is that a person at a certain time acquires these additional parts, and subsequently loses them? This—the person coming to be, and then ceasing to be, a certain sort of scattered object—can hardly be due to the operation of immanent causation! To say the least, the view of these procedures as person-preserving cannot be made to fit comfortably with the view of persons as beings that are essentially autonomous self-perpetuators.

One aspect of the view that substances are autonomous self-perpetuators finds expression in an extreme form in Leibniz's theory of monads, according to which the future states of an individual substance are "contained in" its current state, and flow from it in accordance with a "rule of development" that is internal to its nature. The picture of the later states of a thing "flowing from" its previous ones of course requires that its history be temporally continuous. And if the substance is thought of as being a material thing (as of course Leibniz's monads are not), it seems to require a spatiotemporally continuous history. This does not mean only that the chains of causality involved in the thing's history should be spatiotemporally continuous. That much would presumably be true of the chains of causality involved in teleportation. What it requires in addition is that the thing's history should occupy a spatiotemporally continuous series of space-time locations, at each of which the thing exists with properties of the sort characteristic of that sort of thing, those properties "flowing" from the properties the thing has at earlier members of the series. And that will not be true in cases of telepor-

tation and BST. On any such procedure, there will be short intervals in which there is nothing to the existence of the person but a series of radio signals, or a set of data stored in the memory of a computer. And of course it goes with this that, on the assumption that such procedures could be person-preserving, the causation involved in the perpetuation of the person's properties would in some cases have to be something other than immanent causation.

V

I have distinguished two parts of the claim that selves, or persons, must be such as to satisfy the "independence" criterion of substantiality. The first was that selves (persons, minds) are independent relative to mental particulars such as thoughts and sensations, the latter being "adjectival on" selves *qua* mental subjects. The second was that selves are (relatively) autonomous self-perpetuators. In this section I shall develop the first of these ideas further, relating it to certain general themes in the philosophy of mind, and in the next section I shall do the same with the second.[14]

That certain mental particulars are adjectival on mental subjects can be read off (almost) from the expressions that designate them. Assuming that "S" designates anything at all, what is designated by such a gerundial phrase as "S's feeling pain at t" or "S's seeing red at t" will be an entity that is adjectival on what "S" refers to. By itself, this cuts no metaphysical ice. Suppose for a moment that selves are what Hume said they are, bundles of perceptions, and that it is such bundles that personal pronouns and names of persons refer to. It will be true even on such a Humean account that "S's seeing red at t" designates an entity that is adjectival on what "S" refers to. What this entity will be, on a Humean account, is something like: *the inclusion of a perception of red in S (a certain bundle of perceptions).* But while that entity is adjectival on S, its existence clearly involves the existence of mental particulars whose existence is not (on the Humean view) adjectival on S, or in any way logically dependent on it, namely the perceptions that make up the bundle. Perceiv*ings* are adjectival on perceivers, but perceptions, as Hume conceives them, are not.

So to support the claim that mental particulars are adjectival on mental subjects it is not enough to argue on grammatical grounds that certain mental particulars, those designated by gerundial phrases, are adjectival on subjects. For one thing, not all of the mental particulars we speak of in everyday life are so designated; it takes some rather ruthless regimentation to construe talk of pains, for example, in such a way that the only entities referred to or quantified over are mental subjects and states of mental subjects. For another, and this was the point of the preceding paragraph, it is compatible with a particular's being so designated that its existence involves the existence of mental particulars that do not have this adjectival status—as is true on the Humean view.

In part, the case for the dependent status of mental particulars is the case against the "act-object" conception of sensory states, and its close relative, the

sense-datum theory of perception. On such a view, experiencing red and feeling pain (entities that are plainly adjectival) are given the relational analysis their superficial grammar suggests: being in such a state is held to consist in being related in a certain way (experiencing, or feeling) a mental particular of a certain kind (a red image, or a pain). And the mental particular to which one is thus related is not conceived of as being the sort of thing that could be designated by a gerundial phrase, or by any other designator that makes manifest that its existence is logically dependent on that of anything else. As it happens, proponents of the act-object conception and the sense-datum view have typically thought that these particulars *do* have a logically dependent status—that their *esse* is *percipi*. It is one of the embarrassments of their view that they have no satisfactory account to give of this dependence—it is not the dependence of affections or states on their subjects, and it is not clear what else it can be. No doubt this is one source of bundle theories; having been committed to such particulars by the act-object/sense-datum mode of thinking, and being embarrassed by one's inability to explain their dependence, one drops the dependence claim and attempts to regard these mental particulars as the mental building blocks out of which the mind is built. But there are well-known objections to the act-object conception and the sense-datum theory, and I shall take it for granted that this way of thinking is mistaken.

Even if one rejects the act-object conception and the sense-datum theory, and resolutely resists the reification of mental images and the like, one might think that a bundle theory is available to one. One allows that sens*ings* and experienc*ings* are entities whose existence is adjectival on mental subjects. But one thinks that a sensing or experiencing is just the inclusion of a sensation or experience in a bundle of suitably interrelated mental particulars, and takes sensations and experiences to be entities whose existence, unlike that of sense-data and the like, is unproblematical.

It is of course controversial whether we can distinguish, in the way this view must, between sensings and sensations, and between experiencings and experiences. But I think that there is a case against this view which does not depend at all on the claim that mental particulars can be shown to have a dependent status because of the gerund-like status of their designators (that claim being one that some will see as claiming the primacy of mental subjects on the basis of "the way we talk"). The more fundamental case rests on a consideration about the mental that has been put in a variety of different ways.

It is widely held, and not only by those who call themselves functionalists, that the identity of a mental state, e.g., its being a belief with a certain content, depends on what other states its subject has or is capable of having. Someone cannot have the belief that the cold war is over, or that the United States is in a state of political reaction, without believing and knowing a vast number of other things. The identity of beliefs is partly determined by their inferential connections—what beliefs they tend to give rise to when combined with other beliefs. And the identity of mental states generally is partly determined by the

ways they combine with other states to influence behavior (as when a set of beliefs and desires produce a piece of behavior they jointly "rationalize") and to generate other mental states (as when new beliefs and desires arise from reasoning and deliberation). This remains true if we abstract from the status of these as "states," i.e., entities whose existence is adjectival, and speak of them simply as mental particulars. Insofar as these particulars have mental identities, as beliefs, desires, sensations, etc., of certain kinds, they are what they are in virtue of their membership in a system of states (or if you like, particulars).

While in some cases having a certain mental state actually requires having others, as the belief that the cold war is over requires the belief that it occurred and the knowledge of what it was, this is not the most important point. The important point is that the existence of a mental state of a certain kind brings with it the truth of a vast number of conditional propositions about what other states would be apt exist, or what behaviors would be apt to occur, were that state to be combined with—were it to be coinstantiated with—other states of certain kinds.

I think that the point can be clarified by reflecting on the notion of a "realization" of a mental state. Assuming physicalism and the supervenience of the mental on the physical, a mental state must be physically realized. Here I assume the functionalist view that the realization of a mental state is a physical state apt for playing a functional or causal role definitive of that mental state. So, it has been suggested, the firing of C-fibers may realize pain in human beings, because it is the neural state that has the characteristic causes and characteristic effects of pain. But, as I have insisted elsewhere, here it is essential to distinguish between the "core realization" and the "total realization" of a mental state.[15] C-fiber firing will not play the functional role of pain unless the brain as a whole is wired in such a way as to enable C-fiber firing to have those characteristic causes and effects. So C-fiber firing is at most the core realization of pain; the total realization will be C-fiber firing *plus* the brain's having that enabling wiring. In general, one can think of the total realization of a mental state as a realization of a sizable fragment of a psychology or psychological makeup, namely that part of it that serves as the categorical base—the truth-maker—for the conditional propositions that must be true of the core state if it is to be the core realization of that particular mental state. If we want to identify a token mental state with a physical state, and if we take it to belong to the essence of a token mental state that it is a state of a certain kind (a pain, or a hope or fear with a certain content), then we should identify it with the total realization rather than the core realization. If we are willing to give up the claim that the mental identity of a token mental state is essential to it, we can perhaps identify a token mental state with a core realization. But in either case, it will be essential to the existence of a mental state of a certain kind that the core realization of it be embedded in a total realization which includes a fragment of a psychological makeup.

It is obvious that there will be a good deal of overlap between the total realizations of different mental states of the same individual. The realizations of both the belief that it is raining and the desire to keep dry will include the realization

of the fragment of folk psychology which dictates that these states, in combination with others (e.g., certain beliefs about umbrellas), will lead to taking an umbrella if one goes outside. But to speak of what mental states will do when they are "combined" is just to speak of what they will do when they belong to the same subject—the same person, self, or mind. That notion, of what Bertrand Russell called the relation of co-personality and what we might call the psychological unity relation, will enter essentially into the characterization of any of the psychological makeup fragments that enter into the total realizations of mental states.

Now let us return to the status of mental particulars. Assuming physicalism, it is plausible to suppose that mental particulars are identical to physical particulars, these being token realizations of mental states and events. Insofar as they are token *states*, they already have an adjectival status. What in the first instance they are states of are brains and nervous systems, and their having this status doesn't automatically make them adjectival on persons or mental subjects. But if these token mental states are token total realizations, and if total realizations include fragments of psychological makeup whose characterization essentially involve the mental unity relation (the relation of *belonging to the same subject as*), then it seems that the existence of such a token state essentially involves its being the state of a subject having the psychological makeup in question.[16, 17]

Here is it important to distinguish two components of reductionist views about the self. One is the claim that the unity relation between mental particulars—e.g., Russell's "co-personality" relation between experiences—can be characterized without explicit mention of any subject of which these particulars are affections, or on which their existence is adjectival. The other is the claim that the terms of the mental unity relation are entities that are not essentially affections of mental subjects—are entities that could, in principle, exist without their existence constituting some mental subject's being in a certain mental state. The view I have sketched accepts the first claim but rejects the second. It accepts the first because it holds that the mental unity relation can be analysed in functional terms, in a way that does not involve explicit reference to mental subjects. It rejects the second, because it holds that the terms of this relation are entities whose very existence involves, in the way indicated above, their being related, or being disposed to be related, to other such entities in certain ways, this in turn constituting their being states of a mental subject.

You cannot please everyone, and this view will not please advocates of an extreme version of the substance doctrine. It will not please those who think that the relation of subjects to affections is prior to the unity relation between affections, and that all that can be said about the latter is that it is the relation that holds between two affections when there is a single subject of which each of them is an affection. But I think that view is mistaken—and not just for the case of subjects and affections that are mental. Dents in fenders are a prime case of affections—entities whose existence is adjectival on other entities. But it is certainly not the case that nothing can be said about what it is for two dents to stand in the unity relation except that there is a single thing of which both are affections. Dents must be in surfaces, and to say what it is for there to be a surface on which there are two

dents one must appeal to the unity relation whereby different bits of surface count as parts of the same surface. In general, as John Perry has brought out, the concept of a kind of objects essentially involves the unity relation whereby different events belong to the career of an object of that kind.[18]

VI

I turn now to the further development of the idea that individual substances are "relatively autonomous self-perpetuators," and its application to the case of personal identity. I want to show that this is compatible with, indeed finds natural expression in, a version of the psychological continuity view of personal identity. The version is closely connected to the functionalist conception of mental states; as I have put it elsewhere, it sees the psychological continuity that is constitutive of personal identity as the "playing out over time" of the functional natures of the various sorts of mental states.[19] Since psychological continuity views of personal identity are commonly seen as "reductionist" views, one might expect them to be more in the spirit of the bundle theory of the self than of the view that the self is a substance. But I will be suggesting that a psychological continuity account of the sort indicated is not only compatible with the view that the self is a substance, in the sense elucidated earlier, but gives that view its best chance of being true.

Consider someone who at a given time has a typical set of mental states. The states include not only conscious mental states, but also all of the beliefs, desires, preferences, intentions, hopes, anxieties, etc., that are present only in dispositional form. Suppose that a functionalist account of mental states is true. It is a commonplace that an important part of the functional role of a mental state is to give rise, in combination with other mental states, to yet other mental states. This happens when people reason and deliberate. But it also happens in ways that involve no exercise of agency. The "cognitive dynamics" and "cognitive kinematics" of mental states is such that over time they change in certain ways depending on what other mental states accompany them. An expectation of something as being in the remote future evolves into an expectation of something immediately forthcoming, given normal awareness of the passage of time. And one need not engage in any deliberate reasoning or deliberation for one's understanding of a situation to mature over time, and for separate items of knowledge or belief to merge into a unified conception. One important way in which mental states give rise to later mental states is by laying down memories of themselves. And of course certain sorts of mental states have natural upshots which in the normal course of events they ultimately give rise to, as intentions give rise to decisions and decisions give rise to the initiation of courses of action. So given our person who starts at a particular time with a certain set of mental states, we expect there to be a series of mental states which develops from that set of mental states and which exhibits a kind of continuity.

It is the grossest oversimplification to characterize this continuity, as is commonly done, by saying that later stages of the series will contain memories of the contents of earlier stages, that temporally proximate stages of the series will have

significant similarities, and that there will be relations of causal and counterfactual dependence of later stages of the series on earlier ones. All of that is true, but it vastly underdescribes what happens. A better description is that the later stages of the series are the consequences of the earlier stages in it playing the functional roles that are constitutive of their being the kinds of mental states they are.

That the mental histories of persons do in fact display this sort of continuity is not a controversial claim. But what the psychological continuity view says, in the version presented here, is that there being this sort of continuity in a series of mental states is constitutive of that series being the history of an individual person, or individual mental subject.

There is a threat of circularity here. Functional characterizations of mental states make free use of the notion of mental unity—of belonging to the same mental subject. What a functional definition tells us is that if a given state stands in this relation to other states of certain kinds (e.g., the belief that it is raining is accompanied by the desire to keep dry and certain beliefs about umbrellas), it will contribute to the production of another mental state (e.g., a decision to take an umbrella) which is related to it by this relation. Given this, it is *of course* the case that a series exhibiting the sort of functionally characterized continuity described above will be the mental career of an individual person or subject—for it follows from the description that successive stages of the series will be glued together by the mental unity relation. But that means that the account relies on the very notion, that of mental unity, which it purports to be defining.

The seeming circularity we confront here is akin to a seeming circularity that confronts functionalist accounts generally, and which is generally conceded to be avoidable. Functionalist accounts characterize particular kinds of mental states in terms of their relations to, among other things, other minds of mental states. If all kinds of mental states are given such a characterization, the total set of characterizations will apparently display a kind of circularity—state A is characterized (in part) in terms of a relation to state B, which is characterized (in part) in terms of a relation to state C...which is characterized (in part) in terms of a relation to state A. The circle needn't even be very large; it belongs as much to the functional nature of a certain desire that in combination with a certain belief it gives rise to a certain action as it does to the functional nature of that belief that in combination with that desire it gives rise to that action. What all of this brings home is that functional definitions of mental states must be, in David Armstrong's words, "package deals"; and the Ramsey-Lewis technique for defining mental states is a way of giving such package-deal definitions which ensures that no vicious circularity is involved.[20] What we now see is that the "package" must include not only the individual mental states but also the mental unity relation. What we are talking about is a certain sort of relation between mental state instantiations, one such that token mental states related by that relation will tend to have certain joint consequences. This will be a multiply-realizable functional relation, in just the way that the mental states are multiply-realizable functional states. In a particular case it might be realized by the holding of certain neural connections between the neural states that realize particular mental states. But here we must remember the

distinction drawn earlier between "core" and "total" realizations. What in the first instance the neural connections will connect are the neural states that are the core realizations of the mental states—e.g., of a particular belief and a particular desire. But these count as realizations of those mental states only because they are embedded in total realizations of them. And their being so embedded consists in the overall "wiring" of the brain being such that certain conditional propositions are true of states of these sorts. Part of what makes this true in a particular case might be that these two core states stand in a neural connection whereby they are apt to produce (in a relatively direct way) certain kinds of effects. But the holding of that neural connection will be only a core realization of the mental unity relation. The total realization will require this to be embedded in a realization of a fragment of a psychological makeup, one rich enough to make it true that the related states are indeed core realizations of mental states of the kinds in question, and that the consequence of their being so related is of the appropriate psychological kind.

Now the account I have suggested seems to make personal identity consist in the continuity of what Peter Unger has called "individual psychology." Unger denies that it does, holding that it consists instead in the continuity of what he calls "core psychology." Continuity with respect to core psychology, in turn, he holds to consist in a certain sort of physical continuity. And he represents his view as a physical, as opposed to psychological, view of personal identity, despite his holding that personal identity involves a kind of psychological continuity, namely continuity with respect to core psychology. Philosophers he regards as holding the psychological view he opposes include Derek Parfit, David Lewis, and myself.

Continuity with respect to core psychology, as Unger understands it, is continuity with respect to basic psychological capacities. These are traits something must have in order to count as a mental subject, of the human sort, at all. So they are not traits by which different people can be distinguished. He takes it that these are realized in states of brains and nervous systems. And I take it he would agree that human beings—embodied brains—are autonomous self-perpetuators with respect to such traits. It is the kinds of physical continuity that make them self-perpetuators with respect to these traits that he regards as constitutive of personal identity. That, I think, is what places him in the tradition of those who hold that the self is a substance.

The version of the psychological continuity theory I am presenting in this section agrees with Unger that continuity with respect to core psychology is necessary and sufficient for personal identity, and agrees that being an autonomous self-perpetuator with respect to core psychology is necessary and sufficient for personal identity. But it accepts this, not in opposition to the view that continuity with respect to individual psychology is necessary and sufficient for personal identity, but as a consequence of that view.

At this point I should warn the reader of a potentially confusing clash between Unger's terminology and my own. He speaks of "core" psychology, contrasting this with individual psychology, and I speak of "core" realizations, contrasting these with total realizations. So far there is no clash; the "cores" are

just of different things. The clash comes when we see that on my view what constitutes the core psychology of an individual is made up of, not the core realizations of the person's mental states, but the *non*-core components of the total realizations of the person's mental states. I have said that the total realization of a mental state includes a fragment of a realization of a psychological makeup—something that provides the categorical base or truth-maker of the conditional propositions that must be true if particular physical states are to count as core realizations of certain mental states. Collectively, these realizations of fragments of psychological makeup, these non-core components of the total realizations of a person's mental states, constitute the realization of what Unger would call the person's core psychology.

If there is the sort of functionally characterized continuity I spoke of earlier, this must, assuming physicalism, be realized in continuity in the series of physical states that are the realizations of the mental states that make up the series that displays the psychological continuity. And these must of course be total realizations. But continuity with respect to the total realizations will require continuity with respect to the fragments of realizations of psychological makeup that are the non-core components of the total realizations. And continuity with respect to these will amount to continuity with respect to core psychology, in Unger's sense.

Could there be continuity with respect to core psychology without there being continuity with respect to individual psychology, i.e., without there being the functionally characterized sort of continuity described earlier? And could there be the latter without the former?[21] Not if continuity with respect to core psychology is as I have described it. Continuity with respect to core psychology is an aspect of continuity with respect to individual psychology, and is necessarily involved in it. There are cases in which individual psychology is minimal, and virtually all there is to psychological continuity is continuity with respect to core psychology. Perhaps, as a limiting case, there can be creature that has core psychology and no individual psychology at all; a creature born in a coma, who has never had sensory experiences of any sort, has never had any beliefs, desires, intentions, etc., and has never laid down any memories. What there cannot be is a case in which, at a given time, a creature has both a core psychology and an individual psychology, but tracing the core psychology over time takes us to one later person while tracing the individual psychology takes us to a different one. Tracing an individual psychology will include tracing a core psychology.

VII

I have been arguing that certain conservative intuitions about personal identity, intuitions I have associated with the claim that the self is a substance, are compatible with a version of "reductionism," i.e., with a psychological continuity view of personal identity. These conservative intuitions are ones that I respect, and which—some of the time—I share. But they are, in me, at war with other intuitions. When I consider certain situations involving teleportation and BST-procedures, I am strongly inclined to say that these procedures are, in those sit-

uations, person-preserving. And that is incompatible with the view I have been presenting here.

What we see here is the introduction into the debate of the issue of "what matters." One can, without outright inconsistency, combine a conservative view about the metaphysics of personal identity with a Parfitian view about what matters. Consider, for example, the case in which people submit to the BST procedure every few years because, as they see it, this is the only way to survive in the face of radiation in their environment.[22] (Clones of their bodies are grown in radiation-proof vaults, and every few years the brain states of a person are transferred to one of his or her clones, by a procedure that destroys the original body.[23]) Here are some possible views about this case. (1) It is false that these people survive the BST-procedure, and they are mistaken in thinking that it gets them what they want in wanting to survive (even though for thousands of years these people have lived happily—none of them for more than a year or two—with this mistaken belief.) (2) It is false that these people survive the BST-procedure, but identity is not what matters in survival; so it is perfectly reasonable for these people to believe that the BST-procedure gets them what they want in wanting to survive. (3) The BST-procedure is person-preserving, and for that reason it gets these people what they want in wanting to survive. It is view (2) that combines a conservative view about the metaphysics of personal identity with a Parfitian view about what matters.

Position (1) I regard as unacceptable. Perhaps these people could be making a metaphysical mistake in thinking that the BST-procedure as person-preserving—they are if selves are substances in the sense I have sketched. But suppose they don't think that, or are agnostic about the matter, but nevertheless think that the BST-procedure is "as good as" survival; given that they are under no illusions about the sorts of psychological continuity the BST-procedure will provide, it is not intelligible that their belief that that procedure gives them "what matters" could be mistaken. The same holds even if they have the mistaken belief that the procedure is person-preserving, as long as their belief that the procedure gives them what matters is not grounded on that mistaken belief.

Insofar as I am drawn to the version of the psychological continuity view that respects the conservative intuitions about personal identity, I am drawn to position (2). But while I think that there are possible cases in which identity and the proper object of special concern come apart, e.g., cases of "fission," I think that there is nevertheless a close conceptual link between these. I think that it is a constraint on the concept of a person that the truth conditions for judgments of personal identity should, so far as possible, make it true that persons are identical with the future persons for whom they rationally have a special sort of concern.[24] This conceptual link makes (2) an unstable position; the two parts of it, although not strictly inconsistent, do not go comfortably together. If one starts with (2), but is more convinced of the conservative (self as substance) intuitions that make up its first part than of the Parfitian intuitions that make up its second part, one will be under pressure, because of the conceptual link, to revert to (1). If one starts with (2), and is more convinced of the Parfitian intuitions about what matters than

of the conservative intuitions about the metaphysics of personal identity, one will be under pressure, again because of the conceptual link, to move to (3).

What I just said is right only on the assumption that the liberal version of the psychological continuity view, that on which the BST procedure and the like could be person-preserving, is at least coherent. And this has been questioned. Peter van Inwagen says that "if one is a materialist and if one believes that persons really exist, then one must concede that every person is strictly identical with *some* material being." He goes on to say "Someone who holds views like Shoemaker's [he has in mind a combination of materialism and the liberal version of the psychological continuity view] is therefore committed to the proposition that there could be two simultaneously existing material things such that one of them could become strictly identical with the other simply in virtue of a flow of information between them."[25] And this, he says, violates a well established modal principle, which earlier in the paper he expresses by saying "a thing and another thing cannot become a thing and itself."

This argument is mistaken, and it is instructive to see why. I fully agree that it is incoherent to hold that something could become strictly identical with another thing in virtue of a flow of information—or in any other way. But the combination of materialism and the liberal version of the psychological continuity view does not commit one to the possibility of this. What *does* commit one to the possibility of this is the combination of these views with the view that persons are substances in the sense I tried to elucidate earlier in this paper—in particular, the view that they are autonomous self-perpetuators. But of course the clear-headed advocate of the liberal version of the psychological continuity view will deny this. And she can consistently do this without abandoning materialism. The claim that a person is a "material thing" might mean simply that a person is a thing whose existence consists in various of the material/physical components of the world standing in certain relations and having certain properties. A materialist is of course committed to persons being material things in that sense; she is also committed to baseball teams, corporations, religious sects, and so on being material things in that sense, assuming she agrees (as it is not clear van Inwagen does) that such things exist. From something's being a material thing in that sense, nothing much follows about its transtemporal identity conditions. But "material thing" is more likely to mean something like: something that is a material thing in the first sense *and* is a substance in the sense I have discussed. And being a materialist who believes in the existence of persons does not, by itself, commit one to persons being material things in this second sense. I have acknowledged that the view that persons are substances—and so, given materialism, are material things in this second sense—is a view that has a strong intuitive appeal. It is a view to which I am strongly drawn. But this view is not, I think, underwritten by any more general principle or theory which has an independent claim on our acceptance—independent, I mean, of the prima facie intuitive plausibility of this particular view. And if it conflicts, as I think it does, with other views that also have strong intuitive appeal, I know of no higher court of appeal that can be counted on to decide matters in its favor.

So I think that there are conflicting tendencies in our thinking. There are tendencies that might be summed up in the slogan that the self is a substance; these are what this paper has mainly been about. And there are tendencies that emerge when we think about certain possible situations, e.g., ones in which the "survival" afforded by teleportation or the BST-procedure is the only survival available, and put ourselves in the place of those in those situations. Now, of course, given the way the world actually is, we don't need to count teleportational and BST-procedures as persons preserving in order to make it the case that personal identity is what matters. And it might be suggested that our concept of a person is made for the kinds of situations that actually exist—ones in which personal identity can matter in the right way *and* be the identity of an individual substance—and that we should not expect it to apply to imaginary situations radically different from these. But this seems too easy a way out of the difficulty. If the concept of a person does not apply to the imaginary community I have described, neither does the notion of being a subject of such mental states as belief, hope, fear, etc.. And if that notion doesn't apply, neither do the notions of those mental states themselves. And that is too much to swallow. So there is a conflict here I do not know how to resolve.[26]

Notes

1. See Parfit 1984, pp. 223, 225, 226, 251, 341.
2. See my 1984.
3. A parcel of stuff can be thought of as a "quantity" of stuff in Helen Cartwright's sense (see her 1970) that at no time is a scattered object. It must be composed of the same stuff at every moment of its existence. This is what Locke seems take a "body" to be in *Essay*, II,xxvii,3.
4. See Grice 1941. Grice expresses (2) by saying that the self is not a logical construction.
5. See my 1984, sect. 10.
6. One way in which psychological continuity theorists attempt to handle such cases is by holding a "closest continuer view" which allows physical continuity to be the tie-breaker in cases in which two or more later persons are competitors for being identical with one earlier person, both being related to it to an equal degree by psychological C&C, but holds personal identity to consist in psychological C&C in cases where there is no such competition. See Nozick 1981, Chapter One.
7. The idea is not that substances can exist without having any states or affections at all, but that the existence of a substance does not require the existence of any particular state or affection. By contrast, each state or affection depends for its existence on the particular substance of which it is a state or affection.

   But suppose that it is essential to substance S that it have properties of kind K. E.g., it is essential to a person that it have certain psychological capacities. Then there will be, corresponding to such a substance, the state-like entity: S's having properties of kind K. S will depend for its existence on the existence of that entity. The independence claim about substances must be qualified to allow for this sort of dependence, on what might be called higher-order states. (Here I am indebted to Harold Langsam.)
8. See my 1979.
9. See Johnson 1964.

10. It should be noted, however, that the independence of persons, *qua* subjects of mental states, is compromised in one way in which that of other organisms is not. Assuming an "externalist" view about mental content, the content of a person's mental states is determined in part by her causal relations to things in her environment and, if Tyler Burge is right, by what linguistic practices exist in communities to which she belongs. To the extent that personal identity consists in a psychological continuity that involves the content of mental states, it requires a certain amount of constancy in the external factors that enter into the determination of such content. This is a further reason, beyond the dependence of persons, *qua* biological organisms, on an appropriate environment, for qualifying the term "autonomous self-perpetuator" with the term "relatively." The independence of persons is compromised still further if, as Robert Wilson maintains in a recent paper (Wilson 1994), much of the computation involved in a person's mental life is "wide" rather than "narrow," i.e., involves systems lying outside the person's boundary.
11. See his 1990, pp. 123–5. I have slightly altered the details of his examples.
12. As Tamar Gendler pointed out to me, if brains naturally produced duplicates of their quadrants, and then stored them like spare tires somewhere in the body, then replacing the four quarters with *these* duplicates might seem more plausibly person-preserving.
13. Of course, they have a structure that suits them to play various roles in the physical realization of mental states. What I mean is that their structure encodes no information about anyone's psychological makeup.
14. There are precursors of the discussions in these sections in, respectively, my 1985 and my 1984.
15. See my 1981.
16. Suppose that one believes in the possibility of person-preserving teleportation, or the like, and so denies that a person can be strictly identical to a particular brain or living human body. It might seem (as it does to Peter van Inwagen—see his essay in this volume) that if one is also a materialist one is committed to the absurdity that when one has a mental state, that mental state is realized in two different things—the brain or living human body, and the person that is temporarily constituted by that brain or living human body. But that is a mistake. The most that is shared by the person and brain/body on this view is the core realization. If, as this view holds, the identity conditions for persons and brains/bodies are different, then it is only the former that are capable of instantiating total realizations of mental states—and it is only when there is a total realization of the state that the state is realized. That persons and their brains share core realizations but not total realizations seems to me very plausible—most of us do not think that a person is identical with his or her brain, and do not think that one's brain is one's mental twin. The view that persons and living human bodies, or persons and human beings, share core realizations but not total realizations is intuitively much less plausible, but certainly not incoherent.
17. It might be held that the most that has been established here is that there is a conceptual dependence of the existence of mental particulars of given kinds on their being a mental subject, and that this does not establish, by itself, that there is any ontological dependence of the particulars that are of these kinds on a mental subject. If we identify the token mental states and events with token *core* realizations rather than with token *total* realizations, then we can say that their existence does not depend on there being any mental subjects, although their having the status of being token core realizations of particular sorts of mental states or events does depend on this. The cost of adopting this view is that it requires us to give up the plausible view that a mental particular that

is in fact of a given mental kind is essentially of that kind. But some are already prepared to give this up on the basis of externalist considerations about mental content—what is in fact a token thought about water, so they say, is only contingently so, since that same token event might have occurred on Twin Earth and been about twater instead. Of course, even those who say this typically allow that a token thought is essentially a thought, even though it is only accidentally a thought about water; whereas to avoid the view that token thoughts are ontologically dependent on minds one must hold that token thoughts are only accidentally thoughts.

18. See his 1975. One example he uses is that of a baseball game; unless one knows how baseball events (pitches, hits, etc.) must be related in order to count as parts of the same game (as opposed, e.g., to being parts of different parts of a double-header), one doesn't have the concept of a baseball game.
19. See my 1984.
20. See D. Lewis 1972.
21. In my 1992, I present an example, that of "Brainland," which at first sight seems to be one in which a core psychology always stays with the same brain while an individual psychology is regularly moving from one brain to another—and I there favor the view that the career of a person follows an individual psychology. But the brains of Brainland are programmed *not* to realize continuity with respect to individual psychology for more than short intervals, and this means that they are programmed not to realize continuity with respect to core psychology for more than short intervals. Those who oppose the liberal version of the psychological continuity theory I favored in that paper, and favor instead the conservative (self as substance) version presented here, should not say that the careers of Brainland persons coincide with the careers of the brains there; they should say either that there are no persons there or that the persons there are exist only for brief intervals. It is partly because I find that view unattractive that I face the conflict described in the next section.
22. See 1984, section 10.
23. In "Materialism and the Psychological Continuity Account of Personal Identity" (this volume, 307), Peter van Inwagen maintains that it is biological nonsense to suppose that cloning could result in a "blank brain" onto which a set of mental states could be imposed. No doubt he is right. Perhaps we should envisage instead something like Peter Unger's "informational taping" procedure, in which the molecular structure of a brain is recorded and a duplicate is constructed out of a stock of molecules. Judging from his remarks on teleportation, van Inwagen thinks that this would be physically impossible (given the time constraints). That could well be true. I think that the possibility that it is true can usefully be compared with possibility that it is physically impossible for the functional organization that gives human beings their behavioral repertoire to be realized in an inanimate computer, or in aliens having a physical makeup radically different from that of ordinary human beings. Philosophers who suspect that the latter is so nevertheless take sides on the truth of the conditional "If (perhaps *per impossibile*) an electronic computer, or an alien with silicon based physiology, could pass the Super Turing Test (had a functional organization that made it behaviorally indistinguishable from a normal human being), it would have mental states of the sort we have." (For example, John Searle takes sides on this, because he denies the truth of the conditional.) To consider whether such conditionals are true is a useful way of probing our mental concepts. (Compare: it may be chemically impossible for there to be a substance other than the element with atomic number 79 that passes all of the layman's and jeweler's tests for being gold; certainly "fool's gold"

(iron pyrites) doesn't pass them. That doesn't destroy the interest of the question of whether such a substance, were it to exist, would count as gold.) Similarly, philosophers who share van Inwagen's suspicion can take an interest in the truth or falsity of the conditional "If (perhaps *per impossibile*) there were psychological continuity via a BST procedure, the procedure would be person-preserving." van Inwagen himself takes sides on the issue; he gives reasons (bad reasons, as we shall see) for thinking the conditional false.

24. See my 1967.
25. "Materialism and the Psychological Continuity Account of Personal Identity," this volume, p. 312.
26. I am grateful to Gail Fine, Tamar Gendler, Harold Langsam, Eleonore Stump, and Peter Unger for extremely helpful comments on an earlier draft of this paper.

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