

CHAPTER 4

PERSONAL IDENTITY AND THE SURVIVAL OF DEATH

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... If by any means I might attain unto the resurrection of the dead.

St. Paul, Philippians 3: 11, King James Version

1. INTRODUCTION

1.1 “Surviving Death,” Criteria of Personal Identity, and Two Metaphysical Debates

Physical bodies belonging to the kind *Homo sapiens* appear, one and all, to be headed for disaster. Each body’s ongoing existence depends upon the activities of cells, organs, and larger biological systems. There comes a time when, for one reason or another, the parcels of matter that constitute these structures stop doing their jobs. At one moment, a bunch of atoms are caught up in the life of an organism: oxygen is being transported by red blood cells, sodium and potassium ions are being shuttled around in nerve cells, and so on. Suddenly, the self-same atoms cease to perform these biological functions—they come to constitute a

corpse, in which all the living cells are rapidly dying. Let us call this sort of failure, in which the matter making up one's entire body abruptly stops sustaining crucial biological processes like respiration and circulation, "the death of the body" (for the difficulties of providing a *real* definition of "death," see chapter 1, this volume).

It is conceivable that bodily death, as I have described it, is an illusion. Although it *looks* as though the matter making up our bodies becomes a corpse, in fact it does not do so. How could this be? Perhaps, unbeknownst to the rest of us, the atoms and molecules in question continue to support the same biological life—somewhere else! Peter van Inwagen once told a "just-so story" according to which God secretly steals each human body, just as a person is about to die, by whisking away all of its matter (or at least some large crucial portion thereof), replacing it with the corpse-simulacrum we bury or cremate (van Inwagen, 1998, pp. 45–51). The story shows that there is at least one strategy God could use to secure our ongoing existence—though it would require perpetration of a vast hoax, and it is a little hard to believe that God actually conducts business in this fashion. (For the record, it should be noted that van Inwagen does not take his story to be the literal *truth* about how God effects our survival.)¹

In this chapter, I shall assume that nothing peculiar happens to the particular atoms and molecules making up our bodies when we die (they stay right here on earth, usually constituting a corpse); and I ask the question whether, nevertheless, human persons might somehow be able to survive the kind of event I am calling "the death of the body." I shall not address the momentous question whether any of us *actually* survives bodily death, but a slightly different question: whether survival is even *possible* for creatures such as ourselves.

But what kinds of creatures *are* we? Philosophers offer radically different theories about the nature of human persons. Since Locke's famous chapter on identity in his *Essay Concerning Human Understanding*, philosophical discussions about our nature have been dominated by questions about the conditions under which a person will or will not persist through time: If a certain cobbler were to awaken with all the memories and character traits that had formerly belonged to the prince, and vice versa, would that mean that a person had switched bodies? Does a person continue to exist after brain death, so long as his or her body remains alive? Answers to such questions can be given in a systematic way by formulating "criteria of personal identity"—general statements about the persistence conditions of persons. Different philosophers have argued for radically different criteria of personal identity; and their criteria have different implications for the question whether survival of death is possible, and, if it is, what would be required for it to occur. Some criteria of personal identity imply that the persistence of human persons depends entirely upon psychological continuities, others claim that only ongoing biological continuities are relevant, and still others fall between these positions. (A few philosophers deny that any informative criteria of personal identity can be given.)

One burden of this essay is to explain why it has proven so difficult to reach agreement about the correct criterion of identity for persons. Questions about

criteria of identity cannot be sharply separated from two other deep disagreements about the metaphysical nature of persons: (1) whether dualism or materialism is true, and (2) whether the doctrine of temporal parts is true. I shall argue that believers in temporal parts should draw quite different conclusions about the criteria of personal identity than those who reject temporal parts, and that—for those who reject temporal parts—it matters a great deal whether dualism or materialism is true.

In section 2, after briefly characterizing the nature of the question—What kind of thing am I?—I describe several (partial) answers: dualism, materialism, the doctrine that persons have temporal parts, and the rejection of this doctrine. Then, in section 3, I sketch some criteria of personal identity on either end of a spectrum running from the purely psychological to the purely biological. Among philosophers with a view about these matters, the largest proportion is probably constituted by those who combine materialism with the doctrine of temporal parts. Section 4 is addressed to such philosophers, and contains an argument for the conclusion that they should take our persistence conditions to be partly a function of our own attitudes. Persons are (what Mark Johnston has called) “Protean” in nature. I argue that Proteanism, rightly construed, should make it quite easy for us to survive death, even on materialistic assumptions about our constitution—so long as there is a deity who wants us to survive.

But Proteanism is only plausible if the doctrine of temporal parts is true. If it is false, there is no reason to think we are Protean, and every reason to think that our persistence conditions depend upon the natural kind to which we belong, not upon how we think about ourselves. At this point in my argument, the question whether dualism or materialism is true becomes crucial. Section 5 makes the unsurprising point that dualism presents no obstacle to the possibility of our surviving death. In section 6, I contend that, although materialism (without temporal parts) makes survival of death trickier, a resourceful God would have little trouble bringing it off.

1.2 Who Will Be Interested in This Chapter?

The argument for a Protean criterion of identity (section 4), shall, I hope, be of interest to anyone who takes seriously the idea that we might persist by means of temporal parts. But, beyond the argument for Proteanism, the conclusions of the chapter will be of greatest interest to those who think there is, or may well be, a God. Most of today’s atheists are materialists; and the forms of survival-for-materialists that shall emerge require miraculous events. Furthermore, my conclusions about the prospects of survival-for-dualists provide little comfort for (that rare bird!) the dualist atheist. A person’s mental life evidently depends upon her possession of a living, healthy brain; so, even if she is an immaterial thinking thing, it seems unlikely that she could go on thinking after the destruction of that organ—barring, once again, some miracle. Without God in the picture, dualism by itself would not lead us to expect any very meaningful kind of survival of death.

Some philosophers have taken materialism to be obviously true, and to be incompatible with our enjoying any kind of life after death—thus providing a knock-down argument against the existence of a good God who will right wrongs and explain the meaning of our earthly circumstances in the afterlife.² If I am right, these arguments would fail, even if materialism were as obvious as many take it to be. So the chapter should interest atheists who make use of such arguments—however quaint they may find the supernatural machinery that I frequently wheel in.

1.3 Forms of “Survival” I Shall Ignore

Whatever consolation there may be in the thought that one will “live on, in the memories of loved ones,” it is not a kind of survival I shall consider here. Nor shall I be satisfied to be told, as Einstein told the relatives of his deceased friend Besso, that nothing really goes out of existence: the universe is a four-dimensional whole, and “the distinction between past, present, and future is only an illusion, however persistent” (Prigogine, 1980, pp. 203–204). Perhaps there is solace to be found in such thoughts, but they do not offer the personal survival promised by many religions. My friends may remember me, and my earthly life may take up a certain portion of a four-dimensional space-time manifold, but neither fact will make it the case that, after my death, there will be someone around of whom I can now truly say: “I will be he!”

Some religions hold out the prospect for something that sounds a bit like survival but that also seems to preclude survival—at least, survival as a person. The Buddha described a kind of deliverance to be found in Nirvana; but, according to many interpreters, the deliverance consists in annihilation—permanent freedom from the wheel of death and rebirth. On the other hand, for much of Hinduism, to be united with Brahma after death is not to be annihilated, although it is to cease to be a person. I do not know whether merging with an impersonal One should count as “surviving death”; but it is not *personal* survival, and I will not explore the idea here.

Another proposal for surviving death that I shall set to one side depends upon the following intriguing analogy: “a brain is like a computer, and a person is like a program being run on that computer.” Since a program is a set of instructions that can be run on many different computers, the analogy suggests a way for a person to survive the destruction of his or her present brain. All that is required is a new brain (or a supercomputer of sufficient complexity) to “run the program” with which the person is identical. Frank Tipler claims that “*we shall be emulated in the computers of the far future*”; this is “the physical mechanism of individual resurrection” (Tipler, 1994, p. 220). I am immortal because I am a program that will run endlessly in computers or other devices designed by “a God Who exists mainly at the end of time”—at something Tipler calls the “Omega Point” (Tipler, 1994, p. 5).

If I were a program, then God certainly could “resurrect” me by such means. But the most straightforward interpretation of the idea that *I am a program* has bizarre consequences. One and the same program can run, simultaneously, on many different computers; and it can also exist as a mere code, unimplemented. What kind of thing can be present in many places and times (in virtue of being instantiated or exemplified by many things in different places and times), and can exist although it is unexemplified? It is what metaphysicians call a “universal.” A universal does not change, *in itself*. The pattern of fifty stars and thirteen stripes exemplified by Old Glory, and the melody of “Twinkle, Twinkle, Little Star” are examples of universals. The individual flags and musical performances that *exemplify* such patterns are changing things, but the patterns themselves do not change. The pattern of a melody requires that certain changes occur, *if* it is exemplified; but that does not mean that the melody, considered as an abstract thing that can be in many places and times, changes at all. It is an immutable pattern. A computer program is similar to a melody; both include rules governing the kinds of changes a thing must undergo if it is to play the melody or run the program. But the program itself is not the brain or computer that is changing, any more than the melody to “Twinkle, Twinkle...” is identical to my whistling of it; the program is something that is present in anything running the program at every time it is running the program, just as the song is present whenever anyone whistles it. But if “I am a program” implies that I am an unchanging universal, the view has got to be wrong.³

On a more plausible reading of the proposed analogy between persons and software, the point is that a *personality* is like a program. But it seems quite wrong to say that, whenever and wherever there is an example of someone with the same personality, one has the very same *person*. Gradually altering someone else’s mind until he is psychologically similar to me would not cause either of us to become located in two places! It is far from clear that merely simulating my personality using different hardware in the future would be enough to insure *my* survival, rather than the existence of a mere doppelganger.

John Leslie, in discussing several varieties of immortality, suggests a similar but less mechanistic form of survival. Each of us might well, he thinks, be something like an idea in the mind of God—a character in a story God tells “himself” or “herself.” (Neither gender is literally applicable to Leslie’s pantheistic deity—nor, for that matter, to the God of Judaism, Christianity, or Islam; however, when talking about the deity of the Western religious traditions in this chapter, I shall follow their usual conventions and use masculine pronouns.) If God bothered to think of us at all, Leslie argues, we should expect that the deity would go on thinking about us, telling stories according to which we live on after bodily death (Leslie, 2007, pp. 61–65). As in the person-as-program proposal, I fear there is a kind of “category mistake” here; a person cannot be an idea in anyone’s mind, even in a mind capable of telling itself an infinitely complex story. So I will neglect this form of survival as well.⁴

2. MATERIALISM, DUALISM, AND THE DOCTRINE OF TEMPORAL PARTS

2.1 What Kind of Thing Am I?

It is a question of great moment to me whether *I* can continue to exist after the death of *my* body; and the same question can be asked by anyone, using the same form of words. As shall appear, the philosophical debates most relevant to this question tend to begin with a slightly different question: under what conditions is a person who exists at one time identical to a person who exists at another? But an answer to this question might not provide me with an answer to *my* question, for a couple of reasons.

Following John Locke, philosophers sometimes use “person” to mean something like: “a thinking thing capable of self-consciousness.” On the face of it, this sounds like a capacity that a thing could gain or lose. I happen to believe that I existed before I had the capacity for full-blown self-consciousness; I acquired it only when my nervous system reached a certain complexity, and I may perhaps lose it again, due to irreversible brain damage, even though I might continue to live for some time. On Locke’s understanding of “person,” and given these assumptions about my origin and possible fate, *being a person* would be a contingent property of me, something that can be gained or lost.

I am happy to allow that there may be a perfectly respectable use of “person” that works like this—a meaning according to which I might once have been a non-person and could become one again. But, with “person” understood in this way, it would be one thing to find out the conditions under which I would or would not survive *while remaining a person*; and it would be another to find out what *my* persistence conditions are. After all, on this interpretation of “person,” I can continue to exist without being a person.

Eric Olson has suggested that there is at least one perfectly good meaning for the phrase “is the same person as” that does not entail absolute identity (1997, pp. 65–70). He considers the idea that to be the same person as someone is to play a kind of role—it can be compared to being the same cabinet minister as someone, when the latter phrase is used in a sentence like: “The Earl of Tunisia was, from 1952 to 1954, the same cabinet minister as Winston Churchill had been during World War II—namely, Minister of Defense.” And I believe Olson is right: we can certainly make some sense of the idea of using “being the same person as Dean Zimmerman” to refer to a title or role that could be passed on to someone other than me. One can cook up fanciful (and creepy) science fiction scenarios in which I deliberately cause some other human being to gradually acquire my memories, personality, and feelings of obligation, in order that I might live on *in someone else*—someone who is obviously not identical with me, but who can be relied upon to take my place after I have died. I suppose if that sort of thing were a common

occurrence, a phrase like “being the same person as Dean Zimmerman” could come to mean something similar to “being the Minister of Defense.” But when I wonder whether there are any conditions under which I could survive death, I am not wondering whether there are any conditions under which *someone else* might come to resemble me in the future, playing a role similar to mine in future social circles. So, if “the same person as Zimmerman” refers to a kind of *role* adoptable by someone other than me, then answering questions about the conditions under which the same person would exist will not necessarily tell me what would happen to *me* under those conditions.

A further complication that must be taken into account is the possibility that persons might come in several different kinds; and that some might be able to survive changes that others cannot. Why think that everything having a certain capacity—in this case, the capacity for thought and self-consciousness—must have similar persistence conditions? A wall of brick and a wall of ice may have similar capacities for resisting pressure, but the one can persist through increases of temperature that will melt the other. So suppose there *are* different kinds of persons with different persistence conditions. My greatest concern is not with personal identity *in general* but rather with the identity over time of the kind of person *I* happen to be.

In order to sidestep these issues, I shall give “person” a somewhat artificial gloss when formulating criteria of identity. I belong to a natural kind of entity that, at least in its mature, healthy form, has the abilities Locke associated with personhood—namely, the abilities to think and to be self-conscious. I also have certain persistence conditions essentially—that is, there are certain kinds of change I can undergo, and others that I could not possibly survive. In my discussion of criteria of personal identity (including the psychological and biological theories formulated as (PC) and (BC), below), “person” will mean “person like me”: that is, a kind of thing that shares my persistence conditions and that, at least *normally*, satisfies Locke’s definition of a person as a thinking, self-conscious being. The many similarities among the human minds that express their thoughts using first-person pronouns, and the similarities among the human bodies with which we speak or write words like “I,” “ich,” and so on, strongly suggest that each of our uses of first-person pronouns manages to refer to a thing of the same natural kind; and I shall assume that is the case.

2.2 Semantic Ascent: To What Sort of Thing Does My Use of “I” Refer?

I frequently shift from the question, What kind of thing am I? to the question, To what kind of thing did I refer by means of the word “I” just now? A substantive answer to the second question would not merely tell us something about words; it would answer the first question as well. This is an instance of what Quine called “semantic ascent.” As he pointed out, where there are great differences of opinion

about some subject matter, for example, the nature of persons, it is often useful to speak, for a little while at least, about a closely related but less tendentious subject matter: namely, the *words* that are used to talk about the subject matter (Quine, 1960, p. 272).⁵ Semantic ascent would not be so innocuous if “I,” when I speak the word out loud or write it down, refers to something very different from the subject of my thought when I silently ask myself, What kind of thing am I? But I do not expect that thought and expression are so loosely related as that.⁶

“I” is what David Kaplan called an “indexical”; so the natural place to start, when looking for its referent, is the best accounts of how this particular indexical works. I shall assume a roughly Kaplanesque account of the meanings of indexical terms, though I should hope the morals to be drawn would apply within other plausible theories.

Like “now,” “here,” and demonstrative uses of “that,” there are two components to the meaning of a particular use of “I”: one is a rule that governs everyone’s use of the word, and another is the thing that gets designated by the word on this particular occasion, something that can vary from one use to another. The common meaning, the rule upon which all users are relying, is what Kaplan calls the indexical’s “character.” Sentences containing the word “I” are not, in general, about *speaking* or *using words*, they are about *people*. What I said, when I said I was hungry, was not that someone is talking and using the word “I” to refer to a hungry person; I was saying that a particular individual, namely, Zimmerman, was hungry. Kaplan would put the point by saying that “I” is “directly referential,” contributing the thing “I” designates, in the context of use, to the “content” of what is said (i.e., to the proposition expressed), rather than contributing the character of “I” (i.e., *the speaker of this sentence*).

The “I”-rule appears to be quite simple: *in the context of a particular use of the word, it refers to the agent (typically the speaker or the writer) who is using it*. Speaking (or otherwise using a word) is an intentional action; so “the speaker” must refer to an agent, a thinking being. And, if the world were politely cooperative, serving up exactly one agent, one conscious being who is *the speaker* on any occasion when “I” is used, the rule would be easy enough to apply—once we figure out what these singular agents are.

Because the rule governing the reference of “I” does not advert to any description beyond “the user of the word,” one can see how it might successfully refer to someone who uses the word despite the fact that she has many false beliefs about her own nature. Thomas Nagel compares our ability to refer to ourselves in the first person, even if we are confused about our persistence conditions, with our use of natural kind terms, like “gold”:

The essence of what a term refers to depends on what the world is actually like, and not just on what we have to know in order to use and understand the term. I may understand and be able to apply the term “gold” without knowing what gold really is—what physical and chemical conditions anything must meet to be gold. My prescientific idea of gold, including my knowledge of the perceptible features by which I identify samples of it, includes a blank space to be filled in by empirical

discoveries about its intrinsic nature. Similarly I may understand and be able to apply the term “I” to myself without knowing what I really am. In Kripke’s phrase, what I use to *fix the reference* of the term does not tell me everything about the nature of the referent.

... Various accounts of my real nature, and therefore various conditions of my identity over time, are compatible with my concept of myself as a self, for that concept leaves open the real nature of what it refers to. (Nagel, 1986, pp. 41–42)

To sum up: whatever “I” refers to when I intentionally use the word, the referent is a conscious agent, and so a thing with mental states. Beyond that, however, there is controversy about its nature. I shall focus on two of the most general controversies about the kinds to which human persons belong. One is the relatively familiar debate between dualists and materialists. The other is a more recondite metaphysical debate about whether, whenever an object lasts for some period of time, there must also be many other shorter-lived objects coinciding with it—that is, the debate over whether or not things have *temporal parts*. The two debates are orthogonal: adopting a certain position with respect to one of them does not foreclose one’s options with respect to the other.

2.3 Dualism and Materialism

For present purposes, I take dualism to be a metaphysical thesis about human beings: namely, the doctrine that, for every person who thinks or has experiences, there is something—a soul or spiritual substance—that lacks many or most of the physical properties characteristic of nonthinking material objects like rocks and trees; and that this soul is essential to the person, and in one way or another responsible for the person’s mental life. Materialism is the denial of this; each of us is composed entirely of stuff that can be found in lifeless, unconscious forms.⁷

Dualism comes in two principal varieties. Many dualists believe that each person simply *is* the soul—that extra, unusual component, the one that is present only in things with a mind. When I am conscious, that is because *it* is conscious, and I am identical with it. I shall call this view “simple dualism.” Compound dualists, on the other hand, take the person to be a composite entity, consisting of soul and body. Compound dualists, in turn, may be divided into two classes. Aristotelian and Thomistic forms of dualism deny that each of us is identical to a soul; we are, rather, body-soul composites. And, at least in living human beings, it is not the soul itself that thinks; instead, it is the whole composed of body and soul that does whatever thinking is going on.⁸ Some other compound dualists, however, want to have it both ways: Although I am, myself, a compound of soul and body, nevertheless my soul has my mental properties—it is, itself, a thinking, feeling entity; indeed, one that has all the same thoughts and feelings as myself (Swinburne, 1986, pp. 145–146).⁹ I shall set this version of compound dualism to one side, since it leads to a strange conclusion: that there are two thinkers, thinking exactly the same thoughts as myself, only one of which is identical with *me*.¹⁰

2.4 The Doctrine of Temporal Parts

I imagine that most people reading this chapter will already think of themselves as either dualists or materialists. Fewer will already have a view about whether they persist through time by means of temporal parts; so the doctrine and its denial deserve a little more attention.

The doctrine of temporal parts is the result of taking the temporal dimension of a thing to be rather like its spatial dimensions; in a slogan, things take up time in the same way they take up space. There are at least three respects in which temporal and spatial extension are supposed to resemble one another, according to the friends of temporal parts. The first involves the sheer number of parts; I will call the doctrine “Momentary Parts.” The second involves the way extended things inherit properties from their parts; I will call the doctrine “Property Inheritance.” The third involves the way smaller parts go together to make up larger parts; I will call it “Arbitrary Sums.”

Taking up space is a matter of occupying many different locations; and the normal way to do that is by having different parts located *just* in those different locations. Similarly, according to the friends of temporal parts, things “take up time”—that is, things exist at more than one time—by having different parts located *just* at the different times at which they exist. So, if I exist at noon and also at midnight, there is an instantaneous part of me that exists just at noon, and another one that exists just at midnight—each with exactly the shape and size I have at the moment it exists. *Momentary Parts* is the doctrine that, at each instant a person exists, there is an instantaneous entity occupying the same location as the person—what one might call a “person-stage”—and that every part that the person has at that time (e.g., the person’s hands, heart, and hairs) shares an instantaneous part in common with that brief, person-like thing.

Another common assumption about a thing that occupies many places is that its character at those different places is due to the nature of the parts it has at those places. A flag is red with white polka dots in virtue of having round parts that are purely white and another part that is purely red (but with many holes in it). A flag is solid red in virtue of having many different parts in many different places, each the same red color as the others. The doctrine of *Property Inheritance* says that something similar is true with respect to time: the color and other intrinsic properties of a temporally extended object are due to the nature of its shorter-lived temporal parts. A flag that starts out bright red and gradually fades to a light pink hue changes its color in virtue of having many very brief parts with slightly different colors; a flag that keeps its color has many different temporal parts with exactly the same color.

A metaphysician could, in principle, accept Momentary Parts while rejecting Property Inheritance. Where I am, at each moment, there is an instantaneous thing located exactly there; but I am not pale or skinny or tall in virtue of its color, shape, and size—rather, the reverse. How could this be? Perhaps because the short-lived thing is a second-class, derivative entity—less fundamental than the longer-lived

person with whom it coincides.¹¹ In any case, the doctrine of temporal parts, as I shall understand it, includes both views.

Metaphysicians who accept these two doctrines typically also allow that there are many shorter- and longer-lived wholes made out of the temporal parts of any given persisting thing—that is, more or less arbitrary sums of temporal parts. Again, an analogous spatial principle seems appealing. If an object can be divided into thirds, any two contiguous thirds should constitute another part of the object, one that is two-thirds as large as the whole. More generally, for any connected subregion of an object's location, the parts of the object within that subregion constitute a further part of the object, located within just that subregion. Similarly, if a number of my temporal parts occupy a continuous subinterval of the period during which I exist, there ought to be a temporal part of me consisting of just those parts, existing just during that period. For example, the temporal parts of me that exist at each instant of a certain day should compose a twenty-four-hour-long person-like entity that is also a part of me.

The first two doctrines do not dictate exactly what sort of summation principles the friends of temporal parts should accept. Should every collection of temporal parts—however arbitrary and gerrymandered—be allowed to have a sum, an object composed of just them, existing at no other times? There is room for disagreement here; but there is also great pressure, backed by further spatial analogies, to recognize many objects sharing most of my temporal parts with me.

The spatially analogous cases are objects with vague boundaries. Clouds, mountains, and even (when one looks closely enough) living bodies, are “fuzzy around the edges.” There are many parts that are not definitely “inside” and not definitely “outside”—for example, a water molecule on the edge of a cloud, an outcropping of rock in the high foothills of a mountain, or some carbon dioxide about to be expelled from the lungs of an animal. The most natural ways to understand this sort of vagueness take it for granted that, when we refer to clouds, mountains, and animals, there are many candidates for our terms, differing slightly in their boundaries—some including, others excluding, various borderline parts. We could choose to *draw* boundaries more precisely, thereby referring to a narrower range of these candidates; we could “lay it down” that the mountain ends exactly *here*; but, in order for such a procedure even to make sense, the candidates must already exist, awaiting our choice to focus on some rather than others.

Many persisting objects exhibit a similar vagueness along the temporal dimension—indeterminacy in the times at which they come into being and cease to exist. When does some water vapor become sufficiently dense to count as a cloud? When does a massive hunk of granite become so worn down that it is no longer a mountain? At what precise instant does an animal begin its life, or cease to exist? These questions about temporal boundaries seem as vague as corresponding questions about spatial ones; and, as in the spatial case, they seem to admit of stipulation—we can choose to draw more precise boundaries around the beginnings and endings of vague persisting things. But, again, since we do not bring things into existence simply by stipulation, the persisting objects with different beginnings and

endings must already exist in order for us to be able to choose among them. The doctrine of temporal parts can make sense of the existence of many candidate objects of reference, usually in the same place at the same time, but differing slightly in their origins and ends; but that requires Arbitrary Sums—there must be sums of temporal parts that include or exclude parts for relatively trivial reasons. In other words, for any changes we could conceivably select in an attempt to become more precise when talking about the histories of ordinary objects, there must already exist sums of temporal parts with temporal boundaries marked by such changes.¹²

2.5 Leaving the Options Open

A chapter in a handbook about death is probably not the place to address, head on, the question which combination of metaphysical views is true. Many philosophers regard the contest between dualism and materialism as having been decisively settled, long ago, in favor of the latter. I would argue that they are wrong,¹³ but in the present context it will suffice to consider our prospects for survival of death on both dualistic and materialistic hypotheses. (I shall give short shrift to dualism—its friendliness to the possibility of survival is obvious.) The size of the opposing camps in the philosophical dispute over temporal parts are, I suspect, roughly equal; so it is well worth exploring what should be said on both alternatives. What I try to show is that survival of death is a real possibility, no matter how the cards fall—whether or not we have temporal parts, and whether or not we have (or are) souls.

In the next section, I set forth a representative sample of the competing criteria of personal identity over time that have been offered by philosophers, focusing on popular ones that appeal to psychological and biological continuities. In section 4, I argue that, assuming the doctrine of temporal parts, both dualist and materialist should agree that the best account of our persistence conditions is Proteanism: a subtle hybrid criterion of identity that takes our self-conception into account. In section 5, I consider what one should think about the competing criteria if the doctrine of temporal parts is false. Here, the difference between dualism and materialism becomes more significant.

3. COMPETING CRITERIA OF PERSONAL IDENTITY OVER TIME

3.1 A Schematic Criterion

Locke's discussion of personal identity focused philosophical attention upon the question: Under what conditions is a person who exists at one place and time

identical with some person existing in a certain place at a certain subsequent time? Many philosophers have taken up Locke's search for what is often called a "criterion of identity over time" for persons—that is, a way to fill in the blank on the right hand side of the following schematic statement:

- (SC) A person x who exists at a time t is the same person as a person y who exists at a later time t^* if, and only if: _____.

In my discussion of various ways to fill out (SC), I shall assume that, if something is a person, it could not fail to be a person. I shall also assume that, if x at t is the same person as y at t^* , then x and y are one and the same thing—numerically identical; one, not two. These assumptions should not be too controversial, since I am using "person" as a term for the kind of thing that has persistence conditions *like mine*, whatever they might be. I assume that you—the readers of this book—and I are sufficiently similar in nature for there to be an interesting way of filling in (SC) that applies to us all.

Some ways of filling in (SC) may fail to be profound philosophical theories about the nature of persons, even if the resulting version of (SC) is true; because some fillings are almost completely uninformative. For example, one might fill in the blank with: " x is a person, y is a person, and x is identical with y ." This would tell us only that personal identity is a species of numerical identity (ruling out the sameness-of-person-as-sameness-of-role thesis described in the preceding subsection). It would tell us nothing about the kinds of episodes persons can survive, and the kinds of episodes they cannot survive—that is, nothing about the *persistence conditions* of persons. So philosophers have tried to do a little better than that, formulating criteria using concepts that do not, at least on first blush, entail anything about the identities of x and y .

The most popular proposals include criteria that yield very different pictures of the persistence conditions for persons. Some put more emphasis upon psychological connections between the person at the earlier time and the person at the later time, while others emphasize biological connections.¹⁴

3.2 Psychological Criteria

Locke himself seems to have wanted to fill in (SC) with something about *memory*, putting him far to the psychological side of this disagreement. Although his actual views may have been subtler than this, his 18th century readers generally took him to be saying that the person y at the later time t^* is the same as the earlier individual, x , if, and only if, the former has a memory of something x did at t . Butler, Reid, and others raised some serious objections to the criterion.¹⁵

For one thing, memory seems to require analysis in terms of personal identity, rendering the proposal less philosophically interesting than it might at first have seemed; so latter-day Neo-Lockeans, like Sydney Shoemaker, have replaced "memory," in their statements of psychological criteria, with "quasi-memory"—a quasi-memory being an apparent memory of a type of event that happened to

the earlier person, and that is caused by the earlier event (important qualifications must be added, specifying the *right kind* of causal path between the event and the seeming-memory; and there are worries about whether the appropriate causal dependence can be described without bringing in the identity of the experiencing person with the remembering person).¹⁶

Locke's theory also seems in trouble because of cases like Reid's brave officer: in middle-age, he remembers events in his childhood, which are forgotten in old-age; but in old-age he nevertheless recalls heroic deeds from his adulthood. Locke's criterion, read straightforwardly, implies that the old man is the same person as the adult hero, who is the same person as the child, though the old man is not the same person as the child. One popular response is to require, not direct quasi-memory connections between the person at the one time and the person at the other, but only that they be connectable indirectly, by a chain of direct quasi-memories holding among persons who exist at times between the t and t^* of (SC).

Locke's reliance upon episodic memory has also fallen out of favor. If someone had amnesia about particular episodes in her past, while nevertheless retaining the very same character traits and skills, the same likes and dislikes, the same general beliefs, and so on, we should hardly hesitate to identify the pre-amnesiac with the post-amnesiac. So Neo-Lockeans like Shoemaker and Parfit extend the range of psychological connections relevant to personal identity, so as to include the carrying out of intentions formed at an earlier time, the continued belief in a conviction formed at an earlier time, and so on; and they offer criteria of personal identity in terms of indirect chains of persons and times among which a sufficient number of these direct psychological connections hold.¹⁷

In principle, a psychological version of (SC) should make allowances for the possibility that such chains of direct psychological connections might split, as would happen if some kind of "fission" occurred: for example, if the hemispheres of a single person were to survive transplantation into two bodies, or if a teletransportation device were to generate two people instead of one—assuming that teletransportation is able to preserve the right kind of quasi-memory and other direct psychological connections between pre- and post-teleportee. Although one could allow, with David Lewis (1976), that in cases of fission there were two people all along; it is at least as common for defenders of psychological theories of personal identity to add a "no branching" clause.

Taking all these qualifications on board, defenders of a psychological criterion wind up with something along these lines:

- (PC) A person x who exists at a time t is the same person as a person y who exists at a later time t^* if, and only if: (1) either x at t is directly psychologically connected to y at t^* ; or x at t is directly psychologically connected to a person u at an intermediate time t^1 , and u at t^1 is directly psychologically connected to y at t^* ; or ...; and (2) however long this chain might be, it never divides in either temporal direction, i.e., there is no person z and time t^2 in the series such that z at t^2 is directly psychologically connected to *two* people, v and w , at another time.

This statement of a psychological criterion is a very rough approximation of the accounts given by, for example, Shoemaker and Parfit.¹⁸ The second clause is supposed to rule out both the “fusion” of two persons into a single person; and the “fission” of one person into two. Contemporary Neo-Lockeans are not all committed to this precise proposal, of course; but they all have their ways of adding epicycles to Locke’s account in order to deal with problems of forgetfulness, fission, fusion, and so forth. (PC) is simply a sketch of one of the more plausible attempts to provide a psychological criterion of identity; for present purposes, it can stand in for all of them.

Like many other psychologically based criteria, (PC) certainly implies that a person goes where his or her brain goes—at least so long as the removal of the brain does not interfere with its ability to support an ongoing psychological life. It is not so obvious what verdict (PC) would give in the case of a Star-Trek style teletransporter; nor in the case of the fabled device that effects a “brain state transfer” (BST). The BST machine is said to “read off” the psychological states subserved by one person’s brain, while it simultaneously (i) causes another brain to support the same individual psychology and (ii) “scrambles” the original brain so that it no longer does so. Should the Neo-Lockean say that the causal connections between the experiences of the person who goes into the teletransporter, or who undergoes BST, are *directly connected* by, say, quasi-memory to the seeming-memories of those experiences enjoyed by the person who appears at the receiving end of the teletransporter, or who sits on the other side of the BST device? Plenty of Neo-Lockeans (e.g., David Lewis and Derek Parfit) are willing to count these processes, and other ways of preserving a person’s psychological characteristics, as sufficiently direct to qualify as person-preserving. Call these “liberal Neo-Lockeans.” Others—“conservative Neo-Lockeans”—disagree, requiring that the causal path by which psychological connections are secured may never pass entirely outside the boundaries of something that itself qualifies as a person who exemplifies the psychological states involved in the process—anything less is not a sufficiently direct connection.¹⁹ Liberals and conservatives agree that, when a brain is transferred from one head to another, there is a person who exists during the interim while the brain is kept alive (in the traditional “vat of nutrients”). Until it is transplanted, the person is no larger than a detached brain.²⁰ By contrast, when the teletransportation or BST devices are imagined to operate, the causal process preserving a person’s individual psychology is generally supposed to be entirely carried, at least briefly, by the information states of a computer that is not—or not obviously—a person. The conservative Neo-Lockeans deny that a person can survive this sort of process.

3.3 Biological Criteria

Far to the other side of the psychological–biological spectrum are “animalists,” such as Peter van Inwagen and Eric Olson, who describe the identity conditions of a person in entirely nonpsychological terms.²¹ Human persons are, they say, human

animals. Animals are living things, organisms; and their persistence conditions coincide with what biologists tell us about the lives of organisms—in our case, organisms belonging to mammalian species, such as *Homo sapiens*. The life of an organism is a homeostatic event, a process whereby a relatively unified and independent material object perpetuates itself, maintaining the integrity of its boundaries and inner structure despite considerable gain and loss of parts. A human person just *is* an organism; so the beginning of a life marks the origin of a person, and the ending of a life represents the end of the person. A biological criterion of personal identity takes roughly this form:

- (BC) A person x who exists at a time t is the same person as a person y who exists at a later time t^* if, and only if: the matter making up the person x at t comprises all of the matter caught up in the homeostatic biological event known as the life of an organism; and the matter of y at the later time t^* also comprises all the matter that is then caught up in the very same life.



An uncompromising animalist (of whom there may well be none!) would admit that the same biological life can go on, at least for a time, after brain death; indeed, even after the liquefaction of the brain stem;²² and that an organism can die even though a single organ—liver, heart, kidney, or, most relevantly, brain—should be removed and kept alive, perhaps surviving transplantation into a different organism. It might seem, to the recipient of the brain transplant, that she once inhabited a different body; but in fact she would be wrong, according to the uncompromising animalists—a victim of false memories. And what about severed heads? It is doubtful whether any biologist would be willing to say that the head of an animal is an organism in itself, even if it were detached from its body and kept alive by artificial means. A truly uncompromising animalist will follow where biology seems to lead, concluding that a severed, still-living human head is not the same person as the organism from which it was removed, even if the head is kept alive and remains (seemingly) alert for a couple of days—a medical possibility proven by distressing experiments on monkeys and dogs.

The uncompromising animalist faces difficult questions about whether a brain in a vat or a severed head can think. One should have supposed that thoughts could be occurring in virtue of the ongoing functioning of the brain, whether it is alive in a vat or a severed head. Are they thoughts without a thinker, or thoughts in the mind of a quite different *kind* of thinker, one who is not an animal? Neither alternative is a happy one.

More moderate animalists, although they accept the letter of (BC), cannot bring themselves to go quite so far. Peter van Inwagen and Eric Olson are moderate animalists. They affirm (BC), but deny that a person would survive complete brain (including brain stem) death; and they affirm that I would go wherever my living, complete brain goes. They reconcile this with (BC) by arguing that, since the life of an organism is monitored and controlled by signals to and from the brain stem, the continued functioning of the brain stem is necessary for the life of the organism to continue; and a living head or whole brain (perhaps even just a living brain

stem itself, though I am not so sure of their views about this case), is sufficient for a human being's life to continue.²³

3.4 Ongoing Disagreement about Criteria of Identity

Locke and defenders of Neo-Lockean views, like Parfit and Lewis, typically proceed by what Mark Johnston calls “the method of cases”: they tell stories about magical, science-fictional, or at least technologically impossible scenarios in which one person's memories and other psychological characteristics are imposed upon the body and brain of another, or one brain is successfully transplanted into another's body; and they coax their audience into sharing their judgments about whether, in that case, the resulting person would be the same person as the source of the memories and mental traits. But as Bernard Williams (1970) emphasized long ago, our reactions to such stories can be made to shift around. It is easy for defenders of (BC) to describe the same cases in ways that elicit reactions incompatible with (PC). How would you like to have your brain scrambled, until it is rendered incapable of thought? Would you feel any better if you learned that someone, in another room, was having his brain scrambled as well? How about if you learned that, after the scrambling, he would be given memories of things he never did, character traits he never had? Would it make you any happier to be told that they resemble the memories and character traits you have right now?

The extent of the philosophical disagreement about how to complete (SC) goes far beyond debates among defenders of the four criteria so far considered: liberal and conservative psychological criteria, and uncompromising and moderate biological criteria. Many competing criteria of identity can be supported by cases that these two versions of (PC) and two versions of (BC) seem to get wrong. In their contributions to this volume, Fred Feldman and Eric Olson weigh the pros and cons of (what Feldman calls) the “Termination Thesis,” as opposed to (what Olson calls) “Corpse-Survivalism.” (BC) and (PC) imply the Termination Thesis: “people go out of existence when they die” (Feldman, chapter 2 this volume). More carefully, (BC) and (PC) imply that, in the ordinary course of things, if a living human body and brain die (with no deity or machinery to produce the person's psychological characteristics elsewhere), a person ceases to exist. But, as Feldman and Olson show, there is much to be said for a contrary view, Corpse-Survivalism: “one continues existing as a corpse after death.”

Unless it is unusually violent, death is simply the change from a living to a nonliving state. So what awaits us at the end of our lives is not annihilation, but decay and dissolution, and only when this process is far advanced do we cease to exist. (Olson, chapter 3, this volume)

Alternatives to (BC) and (PC) can be formulated that respect the pull of Corpse-Survivalism by adding epicycles to these criteria: one sort of continuity is required for the ongoing existence of a person, while alive; and another, less stringent sort of physical continuity is sufficient, by itself, from death onward.

The beginnings of a human life present the defender of (PC) with a similar choice. Only things with psychological states can be indirectly psychologically connected to me. So, according to (PC), I am not the same person as the very early fetus, a living organism that nevertheless “grew into me.” An alternative to (PC) could be developed that allowed biological continuity to determine the persistence conditions of a thing until psychological states first make their appearance; whereupon psychological continuity takes over.

Some cases (both imaginary and actual) pull us in one direction, some in another; and radically different theories about how to fill in (SC) have won significant numbers of defenders, with no convergence in sight. The galling stalemate has elicited two main reactions: (1) the apparent disagreement is not a deep one; it is due to some kind of ambiguity or conceptual confusion which, once it has been cleared up, allows apparently opposing theories to be equally valid ways of describing the world; and (2) the apparent disagreement is very real, and many of us are simply wrong about our own persistence conditions; but this should not surprise us, since the method of cases is a frail reed, not to be trusted.

Reaction (1) makes sense only if our ways of talking about ourselves and others, and our identities over time, already contain (or could easily come to include) significant ambiguities or indeterminacies, ones that can be resolved in equally good ways. Either we mean one of them, but could just as well have meant one of the others (and those who defend the wrong criteria of identity are feeling the pull of these equally good meanings); or our usage is in fact already ambiguous or indeterminate, requiring only resolution to clear up the apparent disagreement. Olson calls this strategy “Pluralism,” and notes that its most common form assumes the doctrine of temporal parts, described in section 2, above. In the next section, I explore the implications of a temporal parts metaphysics for personal identity, arguing against the idea that disagreement about persistence conditions is a sign of failure to choose between equally good psychological and biological criteria for persons. If the temporal parts metaphysics accurately describes our mode of persistence through time, we should conclude, with Johnston, that we are Protean in nature. In the final section, I consider the implications of supposing that we do not persist by means of temporal parts. In that case, whether dualism or materialism is true, we should conclude that (2) is the right diagnosis of ongoing disagreement over how to complete (SC): There is a fact of the matter, and many of us are wrong.

4. TEMPORAL PARTS AND PROTEAN PERSONS

4.1 So Many Speakers!

The “I”-rule, “refers to the speaker,” appears simple enough. And, if the world were politely cooperative, serving up exactly one conscious being who is *the* speaker on

any occasion when “I” is used, it would obviously refer to that being; and knowledge of which thing was conscious would tell us who the referent is. But if the doctrine of temporal parts is true, things are not nearly so simple. There are hordes of objects sharing my current temporal part, some with pasts that go back to temporal parts of Elvis, or Napoleon, or some ancient mastodon, and futures that include temporal parts of twenty-second-century US presidents, or alligators yet unborn; still others have pasts and futures much shorter than mine, such as the twenty-four-hour temporal part of me that will cease to be exactly twenty-four hours from now, and the ten-minute-long temporal part that began five minutes ago, and so on. When I am using the first person, in thought or speech, each member of the horde is intrinsically just like me. Each of us has exactly similar mental states and is making the same noises; and so each of us would seem to be a speaker. Does each, then, refer to itself by the word “I”?

Full knowledge of the Kaplanian character of “I,” plus knowledge of all the relevant facts about the physical and mental world (including facts about everyone’s dispositions to use certain words in certain contexts), ought to be enough to enable a sufficiently intelligent being—that is, a god—to figure out the referent of the word in our mouths (or to figure out whether and to what extent it has a determinate referent). But that is a lot of knowledge! Could we figure it out with a humanly attainable amount of information concerning the rule governing “I,” and the circumstances in which we are using it?

Kaplan points out that the rule for determining the referent of an indexical, its character, may remain quite opaque to competent speakers:

Many users of the so-called directly referential expressions lack a real understanding of the exact mechanism or rule of reference by which the referent is determined. Though we act *in conformity* with some such rule, we do not invariably know the rule in the sense of being able to articulate it...

So long as we were able to cling to the illusion that words like “I” and “Aristotle” abbreviate simple descriptions that are immediately available to introspection, we could think that anyone who used such an expression knew how it secured its reference and might express this knowledge in using the word. But who still thinks that nowadays? (1989, pp. 577–578)

Those who reject temporal parts may suppose that, because there is only one thinker and speaker for every meaningful use of the first person, the rough and ready statement of the rule governing “I” is sufficiently detailed to select exactly one referent; but since, “nowadays,” temporal parts theorists abound, many philosophers can no longer think it is so easy as all that.

The metaphysics of temporal parts implies that, in exactly the location where I am now, there are many other person-like things which share my current temporal part, but that differ in their pasts and futures, some having utterly bizarre histories. Could “I” be radically ambiguous in my mouth, or vacuous due to a presupposition of uniqueness, because each of these person-like things is trying to refer to itself by means of the same “token” or use of the word?²⁴ Many of them can, presumably, be dismissed as ineligible to be the referent of “I.” As a general policy, we ignore objects

with highly unnatural boundaries. When we count things, or make claims about “everything,” we tacitly restrict the “domain of discourse” in ways that rule out uninteresting things or objects with gerrymandered borders. When asked, “How many things are in the fridge?” one does not count the top and bottom half of a can of soda as two things. (In a sufficiently odd context, one might count the can as one thing and the liquid inside it as another—if one were counting portions of liquid and solid objects separately for some reason.) Generally speaking, we restrict our attention to objects that “stand out” from their surroundings and can be kept under observation: in other words, sums of temporal parts that have natural spatial boundaries (at their surfaces, there is a significant difference between the thing and its surroundings) and natural temporal boundaries (their origins and endings represent relatively sharp discontinuities in the persisting sums of temporal parts in the vicinity).

Most members of the horde coinciding with me would be disqualified, if available referents for “I” are culled by elimination of things with highly unnatural boundaries; these things may be “speaking” in some sense, but they are not referring to themselves. However the search for criteria of personal identity (described in section 3) has turned up numerous competing and relatively natural ways to gather together person-stages into interesting groups, such as (PC) and (BC). Can the friends of temporal parts expect that, by looking closely at the fine details of the rule for determining what “I” designates on any occasion of its use, they might thereby settle whether my usage refers to a psychological continuer, a biological continuer, or some other person-like thing that (they think) shares my current thoughts? It might be part of the character of “I” that it refers to the user of the word (in speech or thought) who has the *most* natural boundaries. But I doubt that will get us very far.

Our judgments about real and imaginary cases—brain death, teletransportation, and so on—are not just random responses; they fall into a number of self-consistent patterns. (PC), (BC), and variants represent several of these patterns. On the temporal parts metaphysics, there is a candidate for being me for each combination of origin and ending boundaries, and a corresponding criterion of identity that could be formulated so as to pick out things with just those kinds of boundaries. None of these candidates seems radically ineligible, due to gerrymandering, for being the referent of “I” in my current person-stage’s mouth. After all, none of these relatively natural joints is perfectly natural, or anything close to it. There is much vagueness and arbitrariness in the temporal boundaries of a human life. Did my life begin at conception, or at the point when twinning was no longer possible, or upon my first acquiring the most rudimentary of psychological dispositions, or at the beginning of the third trimester (if that is a different point from the previous boundary), or at “viability,” or at birth, or when I first began to think of myself from a first-person point of view? Will my life end with the last beat of my heart, or the last breath I exhale, or the last firing of neurons; or might *my* life end much earlier than the biological life of my body; that is, might I cease to exist long before my body dies, due to irreversible “brain-death”? Each of these claims about when

I come into and go out of existence is at least somewhat defensible; each boundary is somewhat natural (though each, of course, remains quite vague). The doctrine of temporal parts guarantees that there are objects beginning and ending at every combination of these boundaries.

Is each of these largely overlapping, relatively natural objects a speaker, referring to itself? The resulting ambiguity of “I” would be more than just a kind of harmless indeterminacy of reference amongst objects that differ in such tiny ways that we could never come to care about their differences. Some of them came into existence months before others; some may well cease to exist long before my last breath; the objects favored by corpse-survivalists will continue to exist long after that.

To simplify matters, I shall focus on just two of the many relatively natural ways to build person-like sums out of collections of human person-stages: an uncompromising version of (BC) that assigns radically biological boundaries, and a liberal version of (PC) that assigns radically psychological boundaries. A *biological continuer* will consist of stages that are bounded by the biological generation and death of a member of the species *Homo sapiens*. Biological continuers include embryo-stages, and occasionally the stages of living human bodies in which the cerebellum has been destroyed or surgically removed. A *psychological continuer* consists of stages bound together by psychological connections: later stages have seeming-memories of events that correspond to experiences had by earlier stages, and they have these seeming-memories because of those earlier experiences; later stages have intentions caused by decisions made by earlier stages; later stages display virtues or vices due to disciplined or undisciplined behavior on the part of earlier stages; and so on. Let the causal dependencies involved in these connections be those due to “any reliable cause,” so that teletransporters work, but the chance appearance of a much later duplicate, with an erratic causal history leading back to some person, will not count as survival. To find the psychological continuer of which a given person-stage is a part, trace such connections backward and forward as far as they go, without branching. Psychological continuers will not include some of the early embryonic stages that are parts of biological continuers. If teletransportation technology or brain transplants were to become possible, psychological continuers could include person-stages of a different biological continuer altogether. If any human organisms come into existence with some kind of psychological states, and go out of existence at the same time that their thinking ceases, then there could be some biological continuers that are also psychological continuers. But probably, as a matter of empirical fact, none exactly coincide: all the organisms that will have minds (at least, all the ones with which we are familiar) begin to exist long before they have mental states; and many utterly lose the ability to think long before they die.

Under the pretense that only the biological and psychological continuers coincident with me are viable candidates for “the speaker” who is using “I” while writing this paper and thinking these thoughts, many questions remain: Does the rule governing use of the first-person select just one of these as referent; and if so, which

one? Does “I” fail to refer to either (like “the tallest man on earth” when there is a tie)? Is “I” ambiguous; or, what is nearly the same thing, does the one sound really count as two instances or tokens of the word, one referring to the biological continuer, the other to the psychological continuer? And how should one even begin to try to answer these questions? There is no handbook filled with detailed rules for the uses of indexicals that will answer them. The best we can do is grope for plausible-seeming principles about the way the word “I,” as we use it, would find its referent, given the doctrine of temporal parts.²⁵

4.2 Deference to Authority and to Others

Nagel suggested that “I,” like “gold,” might refer to something with an essence quite unknown to the user. The same sort of deference to unknown “external” factors can occur in our use of proper names. Sometimes I use a name, say, “Bob,” with very little knowledge about the person referred to other than the fact that somebody else was talking about somebody or something they were calling “Bob.” (“Did you happen to overhear her conversation? Who was she talking about?” “Don’t worry, she wasn’t talking about you, she was talking about Bob.” “Oh, good. But who is Bob?” “I don’t know; just some guy she was talking about.”) I can successfully refer to someone while relying entirely upon someone else’s knowledge about the person (Bob might turn out to be a monkey). If the rule by means of which “I” refers were sufficiently deferential to the usage of others, my own self-conception would be irrelevant to the question what sort of thing I am. A crude thesis about deference to others would go like this: Although I am convinced that “I,” in my mouth, refers to an animal, a biological continuer with the persistence conditions of (BC); nevertheless, due to the fact that most others who speak my language think very differently, “I” in my mouth refers to a psychological continuer.

Another crudely stated doctrine of deference to other users would result in an easy way for God to insure my survival: Suppose that, in the presence of competing candidates for being the referent of “I,” the *highest authority* (whoever that might be) can simply stipulate that I mean just *one* of them; and, whether or not I am aware of the stipulation, that is the thing to which “I” would refer. If God desires to resurrect each of us by decreeing, as we die, “Let there be a duplicate of *that* person, rapidly healing, at such-and-such location in the heavenly realms,” then all God need do is lay it down that what we refer to by “I” is a psychological continuer.²⁶

I will not say that the character of “I” is *not* deeply deferential to authority or widespread usage. Plenty of English words display similar kinds of deference. Suppose the word did work in such a way that, though I am as deeply convinced that I am a mere animal as anyone could be, God’s decree could result in my referring to a psychological continuer (with psychological connections preserved by any reliable cause). Then it would be easy to resurrect each of us: God need only create one psychological continuer for each person who ever lives, each one deliberately duplicating exactly one person who died (so that even if two people died in exactly similar states, each would have his or her own psychological continuer). Or

suppose instead that the usage of others is enough to make it true that my use of “I” refers to a psychological continuer, whatever my own attitudes might be. What would happen if the psychological continuers God creates for each of us are made to think and use words in ways that insure *they* all refer to psychological continuers using the first person? If deference to others includes a sufficient amount of deference to future English-speakers as well, we could *now* be referring to psychological continuers in virtue of the usage of these future person-stages.

The argument to follow presupposes that the rule for “I” does *not* display much, if any, deference to others; but it appeals to a principle that could be used, together with a doctrine of deference to others, to derive the conclusion that the usage of these divinely created psychological continuers would be relevant to whether we, now, refer to sums of temporal parts that include these distant person-stages.²⁷

4.3 Supposing “I” Is Not So Deferential to Others

I doubt whether the reference of “I” in my mouth should be sensitive to the decisions of God—someone with whom most of us do not have conversations (at least, not in English).²⁸ And, although it would not much matter for my purposes, I doubt we should posit a great deal of deference to others in the rules for determination of the referent of “I.”²⁹

Comparison to other indexicals and demonstratives suggests that—assuming the doctrine of temporal parts—the speaker’s intentions can play a highly significant role, one that trumps what others may think I mean, or may themselves mean by the word. Consider “now,” “here,” and demonstrative uses of “that” or “this” (accompanied by pointing or some other way of presenting something to someone). Like “I,” they are used to refer to different things upon different occasions; and there are systematic rules about their use—for example, “now” can only refer to a time, and it must be one that at least overlaps the time at which it is used; “here” can only refer to a place, and (unless the speaker is pointing at something) it must be a place that includes the location of the speaker’s body; “that,” accompanied by gestures, can only refer to something that can be seen in the direction indicated by the user of the term. But, in most contexts, these simple rules alone will not be enough to select just one thing to be the referent of the word; and a precise referent can only be determined by various additional factors in the context of use.

“Now” might be used to refer to a split second (as in, “Let the race begin . . . now!”); but there are many periods of time, of varying length, overlapping the moment when a given person uses the word—for example, a day or night or hour or century that includes that moment—and “now” can be used to refer to one of these longer periods of time. Imagine a worker who is given a set of instructions each morning by a contractor. If the contractor says, “Now you should dig a hole for the foundation so we can begin pouring cement tomorrow,” “now” (arguably) refers to that whole day. Shorter and longer periods are available to be meant by “now”; and the context of use determines which period is selected. Although other features of a context might be able to trump the speakers’ intentions with respect to the length

of time indicated, they must surely be highly salient features of the contexts in which “now” is used.

“Here” can obviously refer to larger or smaller regions, depending upon context; “I’m here” can mean “I’m in this room,” but it can also mean “I’m in this town” or “I’m in this country,” depending upon the situation. Many regions exist that include the relatively small place occupied by the speaker’s body; and very many of them are potential meanings of the word “here” in a speaker’s mouth. And, again, the speaker’s intentions must often be the crucial factor in determining the size of the region picked out—though, again, I am not saying that these intentions could never be trumped by any other contextual features.

Similarly, when many things appear in the direction someone is pointing, further features of the context of use must rule some of them out in order for “that” to achieve even a moderately determinate reference. When pointing to a body of water and saying “that is salty,” one might be referring to a tiny inlet, or a much larger bay of which it is a part, or an entire ocean. They are all *there*, in the world, as candidates for the attempted demonstration; the actual referent of “that” depends upon additional facts about the context.

What facts? Kaplan’s considered opinion is that an attempted demonstration is “directed by the speaker’s intention to point at a perceived individual on whom he has focused” and that it is “the directing intention” that determines the referent of the demonstration; the pointing is a “mere *externalization* of this inner intention” (p. 582). If I am focusing my attention upon the *bay* and intend to point to it when I point toward the inlet *and* the bay *and* the ocean (all at once, as I must), then the referent of “that,” in “that is salty,” is the bay and not the inlet or ocean. The directing intention may include descriptive elements that, although they *could* be relevant in some circumstances, are trumped by other factors. If I point to some water and say “that is salty,” intending thereby to be pointing to the ocean of which this bay is a part...but it is really a lake, not a bay; then one should probably say that I succeeded in pointing to the lake; and that, if it is salty, what I said was true, despite my misconception. If I point to what I take to be some liquid in a small inlet, intending thereby to demonstrate only the liquid here; but in fact there is just one, giant, partless blob filling the inlet, the bay, and the ocean; again, my directing intention, though a relevant factor in the context, is trumped (try to forget, for the moment, that the idea of a partless, space-filling blob may be incoherent!). But when many candidates are there to be meant, and I intend to point to one of them, it should take some doing to wrench my demonstration away from it!

“I” seems to me to be a sort of internal demonstration, a mental act of pointing. So I shall assume that the kind of thing some person-stages take persons to be—the sort of spatial and temporal boundaries they take persons to have—are highly relevant contextual factors when determining the agent behind a given use of “I” by those stages. Again, the intention the stages have to point to a thing of a certain kind may be trumped by other relevant contextual factors. Suppose van Inwagen is right about the following doctrines: besides subatomic particles, there is nothing smaller than an entire animal in the vicinity of my body; I am a physical thing;

and particles cannot think. In that case, whether or not I think of myself as a soul or a brain, my intention to point, using the first person, to a thinker that is immaterial, or a thinker that is a brain, will succeed only in pointing toward a whole animal. But if van Inwagen is wrong, and there are many physical objects here, equally well-qualified, intrinsically, to be thinkers; then my intention to point, in the first-person way, to just the thinking *brain* might well succeed—even if other person-stages refer to animals using the first-person. Now consider the temporal case: Suppose I am a soul, though I believe with all my heart that I am an animal, and I intend my first-personal internal pointing to pick out a thing with biological persistence conditions. Since nothing with biological persistence conditions is thinking this thought, but a soul is the *real* thinker, some aspects of the directing intention become irrelevant or are overridden, and “I” simply refers to a thing with . . . whatever the (naturally nonbiological) persistence conditions are for souls. And if souls do not have temporal parts, then even tacit views on my part about how souls *would* persist, *were* there such things, become irrelevant to the reference of “I” when used by this soul. But the doctrine of temporal parts implies that there are many thinking things, of varying temporal length, toward which any such internal pointing could be directed. Assuming materialism, there are many physical objects with different origins and endings. In the absence of sharp, natural boundaries, and the presence of multiple somewhat natural candidates, the intention to point, internally, to a thing satisfying certain physical conditions could hardly be irrelevant to the determination of reference. Or so it seems to me.

This much is, I hope, fairly secure, and compatible with significant deference to the usage of others: Imagine a world in which all speakers, everywhere and at all times, used an English-like language with a word having the character of our “I”; and suppose they always, quite explicitly, self-consciously, and consistently thought of themselves as having the persistence conditions articulated in (BC) and that nothing about their articulated self-conception is undermined by unarticulated dispositions to react in one way or another to the continuation or cessation of their psychological or biological lives. Under the assumption that they are physical objects with temporal parts, they really ought to succeed in referring to biological continuers by their uses of “I”; and to fail to also, on those occasions, refer to psychological continuers. Likewise, *mutatis mutandis*, for a world of convinced believers in (PC). The two kinds of thinking things are “there to be meant.” When *everyone* is trying hard to mean one of them—whatever exactly such “trying” consists in, whether it involves explicit beliefs or mere dispositions to behave in certain ways, or, more likely, some weighted combination of the two—, they ought to succeed. With suitable changes, the argument to follow could be run using whole communities. However, I suspect that “I” is much more like an internal demonstrative, sensitive to the attitudes of the user.

I am not sure to what extent the use of “I” should be tethered to explicit beliefs held by the person-stages using the word, as opposed to unconscious beliefs, or dispositions the stages have to generate further person-stages that would act in relevant ways—dispositions which may be psychologically inaccessible to the current

and upcoming stages. Some who hold similar views emphasize explicit beliefs of the “I” user.³⁰ Although, for my purposes, not much hangs upon it, I shall assume that attitudes about the referent of “I” need not be made fully explicit in order to be relevant factors in the context of a given act of internal, first-personal pointing.

The Protean criterion of identity for persons for which I shall argue is heavily indebted to Mark Johnston’s work; and I shall follow Johnston in assuming that there is a family of “*person-directed attitudes*” that are especially relevant to determination of the kinds of events one could or could not survive, in the near future; and that one did or did not survive in the near past (what I shall call a person’s “local persistence conditions”). These attitudes comprise:

- (i) [O]ne’s future-oriented and retrospective concerns for oneself and others;
- (ii) one’s expectations about experiences and memories of those experiences;
- (iii) one’s expectations about the relations between action and desert. (Johnston, 1989, p. 448)

An adult person, at any given time, will have a host of person-directed attitudes, and, to the extent that the person has a coherent body of attitudes, the three kinds that Johnston mentions will converge upon a certain relation R that these attitudes are tracking. To be a good candidate for R, a relation must be the sort of thing around which one could organize one’s life; it must be at least somewhat natural and important, so that short-lived things could come to care (in the special person-directed way) about other short-lived things to which they stand in R.

Let “R organizes *x*’s person-directed attitudes at *t*” (or “R organizes *x*’s life at *t*”) mean that, at *t*, *x*’s attitudes are tracking R—*x* tends to hold himself responsible for what R-related past person-stages did, looks forward to or fears what R-related future person-stages experience, and so on. (I remain neutral, here, about the extent to which a criterion of personal identity that appeals to these distinctive person-directed attitudes could be deeply informative. One might naturally worry that these attitudes can only be characterized in ways that immediately involve the notion of *being the same person*. However, even if they do, the Protean account of our persistence conditions would still tell us something extremely interesting about our nature.) My argument for a Protean theory of persons will make the simplifying assumption that there are really only two good candidates for the role of R-relation—one biological, the other psychological.

A person’s specifically egoistic concerns, expectations about memories, and expectations about personal responsibility, might definitively favor a relation of biological continuity like the one at the heart of (BC). Such a person—an “organism-identifier”—would not expect to remember the things the recipient of a BST would *seem* to remember, she would not dread the evils she thinks will befall the recipient, or look forward to her joys. Likewise, she will not expect to arrive at the receiving end of the teletransporter. She knows that *someone* will have experiences after these events, and that someone will *seem* to remember things she has done; but her attitudes and the actions they would motivate reveal that she honestly does not expect it will be her. A “psychology-identifier,” on the other hand, would

have person-directed attitudes that definitively track a relation of psychological continuity like that used in (PC). She would be inclined to use a BST in order to prolong her life, regard **safe** teletransportation as a new way to travel, and so on.

I offer an argument from the doctrine of temporal parts (something, incidentally, Johnston rejects) for the conclusion that persons are, as Johnston says, “Protean” in their persistence conditions: we may be able to survive a certain kind of episode at one time but not at another time due entirely to changes in our ways of thinking about ourselves. This sort of change need not be thought of as violating the principle that a thing’s persistence conditions are essential to it. In the sense in which persistence conditions are essential, survival of the BST procedure or teletransportation, after one has changed from organism-identifier to psychology-identifier, is something that happens in different conditions—the statement of the persistence conditions of a thing turns out, on this view, to require that we mention facts about the person-directed attitudes that person-stages display at various times. The change is much like other changes in our capacities to survive this or that exigency. Right now, for example, most of us are disposed to die upon ingestion of a small amount of arsenic. But, by following a regimen of gradually increasing doses, most of us could lose this disposition and acquire another. Nothing paradoxical about that!

4.4 The Argument from Temporal Parts to Protean Persons

One might think that the referent of “I” in a person-stage’s mouth should simply be a function of *that stage’s* person-directed attitudes; the current attitudes determine, once-and-for-all, the temporal boundaries of the referent of this particular use of “I.”

Once-for-All Determination of Persistence Conditions: If a brief series of candidate person-stages are organizing their person-directed concerns and expectations around psychological continuity at t , then their first-person thoughts are about a psychological continuer; and if they are organizing their person-directed concerns and expectations around biological continuity at t , then their first-person thoughts are about a biological continuer.

Accepting this doctrine, however, leads to odd results in the case of a series of person-stages that change in their person-directed attitudes, first organizing their concerns around biological continuity, say, and then around psychological continuity. So long as biological continuity is retained through the change of attitude, Once-for-All Determination of Persistence Conditions requires that someone who at first succeeded in referring to herself has lost the ability to do so—at least, by means of the word “I.” When she now uses the word, she refers to something that came into existence much later than her, and may cease to be much sooner or even (should BST, teletransportation, or brain transplantation become available) live much longer. It is strange to imagine that, because of a change of attitude, someone

could lose the ability to refer to herself using the first person, coming instead to refer to someone else.

Indeed, it seems to me to be more than odd; it is a violation of a feature of repeated use of “I” by a single person, a feature it shares with repeated uses of proper names. Suppose I have met someone named Hortense Baltazaar; and I have acquired quite a bit of information about her: she is a champion fencer, a whiz at chess, and a gourmet chef. It never occurs to me for a moment that there might be two living people with such an odd name. I tell all my friends about her. Unbeknownst to me, there *is* another person with this name. And one day, I am told that someone named Hortense Baltazaar has passed away—but it is the other Hortense. I might learn further things about this other Hortense, and report them to my friends; but, so far, it seems clear that the word “Hortense” in my mouth means only the first one. It is as though names are “file folders” that one updates by adding information to them; and I have only one file with the name “Hortense” on it; so everything has to go in there. Now, one might tell stories in which, although I believe there to be one Hortense, there are actually two; and my use of the name is ambiguous—for instance, if I see them both very often, and have an equal amount of information and misinformation about each one, yet believe them to be the same person. Such circumstances require some rigging up; it is not enough simply to come to have many false beliefs about *my* Hortense that happen to be true of the other Hortense. I still just have one name in my vocabulary, and I should be interpreted as talking about just one or the other of the two, if at all possible.

“I” seems sufficiently close to a proper name to require similar treatment. If a person uses “I,” and then uses it again, she may have acquired false beliefs about herself on the second occasion, or have learned that she was wrong about herself on the first occasion; but we should only attribute a change in referent if there is no way it can be helped. I call this idea

Intended Constancy of First-Person Reference: When a person-stage is speaking English, and uses the word “I” to refer to some longer sum of person-stages, each of which also speaks English, and some of which also use the word “I,” one should interpret them all to be referring to the same sum of person-stages, if at all possible.

Intended Constancy represents a kind of deference to one’s own past and future use. When I believe that there is “just one Hortense” among my acquaintances, my repeated uses of the name “Hortense” are meant to be co-referential; and this intention can “trump” false beliefs I have about the bearer of the name, even when they single out someone else. Similarly, for repeated uses of “I.”

Intended Constancy is in tension with the Once-for-All principle in the case of a series of person-stages that change from being organism-identifiers to psychology-identifiers. If at all possible, they should be taken to be referring to the same thing both before and after; so, if there is an alternative to supposing they have begun to refer to something else using “I,” Intended Constancy puts pressure on us to take that alternative.

Johnston's Protean conception of persons provides such an alternative. I offer an argument for it by appealing to Intended Constancy of First-Person Reference and a principle somewhat weaker than the Once-for-All principle:

Local Determination of Local Persistence Conditions: If a series of candidate person-stages organize themselves around R throughout a period T; then, so long as there is no discontinuity or branching of R during T, those stages constitute a persisting person throughout T.

The argument will make use of Sydney Shoemaker's by-now familiar story about a BST procedure, in which a machine "records the state of one brain and imposes that state on a second brain by restructuring it so that it has exactly the state the first brain had at the beginning of the operation." The process destroys or scrambles the original brain. Shoemaker grants that most of us would think "that it would amount to killing the original person and at the same time creating (or converting someone into) a psychological duplicate of him" (Shoemaker and Swinburne, 1984, p. 108). Imagine a community of stubborn organism-identifiers who persist in taking this view of the matter, a community including Orville, the most stubborn of them all. Orville and his people regard the BST procedure as execution, and the clones as imposters—as do the clones, once they realize what has happened, since they emerge psychologically similar to Orville and his friends, and therefore equally stubborn. In Shoemaker's story, radiation has drastically reduced the life-span of a human organism, and a society of psychology-identifiers deals with the problem by cloning new bodies and using the BST procedure to (as they see it) prolong their lives. Suppose Psyche is a convinced psychology-identifier. She and her friends regard the BST device as a lifesaver, providing something that approximates immortality.

Shoemaker claims that a good case can be made for saying that "what *they* mean by 'person' is such that the BST-procedure *is* person-preserving (using 'person' in *their* sense)." But there is also, he thinks, good reason to think that "what they mean by 'person' is what we mean by it; they call the same things persons, offer the same sorts of characterizations of what sorts of things persons are, and attach the same kinds of social consequences to judgments of personal identity." Shoemaker concludes that, if both are true, then we, too, should regard the BST procedure as "person-preserving"; as should, presumably, Orville and his friends. But a different conclusion is possible: we mean the same thing by "person"; but, because of differences in their person-directed attitudes, Psyche can survive a BST while Orville cannot. Shoemaker himself rejects the doctrine of temporal parts; but one who accepts it should draw exactly this conclusion. After all, the person-stages in both communities are parts of both biological-continuers and psychological-continuers. If Orville and his people clearly think of themselves as the kinds of things that could not survive a BST, why would their first-person thoughts refer to a thing that *does* survive such an episode? After all, there is, ready to hand, a person-like thing who does not survive it. The only obstacle to success in referring to the latter sort of person, so far as I can see, would be a concomitant intention to refer to something with natural boundaries: if the psychological-continuers had much more

natural boundaries than the biological-continuers, the greater naturalness might trump their explicit self-conception. But neither (PC) nor (BC) marks perfectly natural boundaries; a mere “other-things-being-equal” default to a more natural meaning should not override the organism-identifiers’ own expectations about the events they could or could not survive.

The same could be said, *mutatis mutandis*, about Psyche and her fellow psychology-identifiers. Putting these thoughts together, one has the first stage of an argument for Proteanism:

1. The only thing that could make Orville’s first-person thoughts refer to something that could survive BST is for him to intend to pick out a thing belonging to a certain natural kind, and for psychological continuity to represent a deeper “natural joint” than biological continuity.
2. The only thing that could make Psyche’s first-person thoughts refer to something that could *not* survive BST is for her to intend to pick out a thing belonging to a natural kind and for organic continuity to represent a deeper “natural joint” in the realm of objects.
3. Neither joint is deep enough to override the boundaries privileged by their own person-directed attitudes.
4. So Orville’s first-person thoughts refer to something that could not survive the BST; and Psyche’s refer to something that could.

Now imagine a third character, Charlie, who moves from the one community to the other, gradually undergoing a change from being an organism-identifier to being a psychology-identifier. Charlie can be just like Orville while he is living in that community; and just like Psyche, once he becomes habituated to her way of looking at things. *Local Determination of Local Persistence Conditions* implies the following conditional:

5. If Orville’s first-person thoughts refer to something that cannot survive BST and Psyche’s refer to something that could; then Charlie’s first-person thoughts initially refer to something that cannot survive BST, and later on refer to something that can.

Since 4 is the conclusion that Orville and Psyche do differ in this way, the further conclusion can be drawn:

6. So Charlie’s first-person thoughts at first refer to something that cannot survive BST, although later on they refer to something that can.

According to the principle, *Intended Constancy of First-Person Reference*, if Charlie’s organism-identifying and psychology-identifying person-stages were all speaking English, they should all be interpreted as referring to the same sum of person-stages by means of “I,” if at all possible. So:

7. Charlie’s first-person thoughts, both before and after the change, should be interpreted as referring to the same sum of person-stages, if at all possible.

Putting 6 and 7 together:

8. So, if at all possible, Charlie's first-person thoughts should be interpreted as referring to a single sum of person-stages that at first lacks the ability to survive BST and then acquires this ability.

Again, the doctrine of temporal parts makes a huge difference: why think that Charlie's pre- and postconversion uses of "I" and his corresponding first-person thoughts should fail to succeed in referring to the same sum of temporal parts? Suppose Charlie, while an organism-identifier, suffered a complete breakdown in psychological-connectedness (e.g., he suffered a brain injury that rendered him infantile; he had to learn everything again); and also that, after years among the psychology-identifiers, he finally tries that BST procedure. There *is* a sum of temporal parts that includes the early person-stages (bridging the gap in psychological continuity) and also the later person-stages (bridging the gap in biological continuity). The combination of Charlie's repeated use of the first person, together with his first-person attitudes during these episodes, together converge upon this particular sum of temporal parts. It is arguably less natural, in its boundaries, than a psychological continuer or a biological continuer; but it has its own kind of integrity, in virtue of satisfying the Local Determination principle. The difference in naturalness is a matter of degree, and should be overcome by Charlie's contribution to what he means by "I." Since it is quite possible to interpret Charlie in this way, the qualification on 8 can be removed:

9. Charlie's first-person thoughts should be interpreted as referring to a single sum of person-stages that at first lacks the ability to survive BST and then acquires this ability.

The doctrine of temporal parts thus supports the idea that a person can change from having the persistence conditions associated with things that are essentially organisms to having the persistence conditions of psychological continuer in virtue of changes in the way he or she (and perhaps the relevant community) thinks and talks.³¹

4.5 Proteanism and Survival of Death

Resurrecting Protean persons *while they are psychology-identifiers* is an easy matter for God; God need only play the part of the BST device or a teletransporter. All that is required for survival is one reliably-caused psychological continuer for each psychology-identifier who dies—for each one, God initiates a new series of person-stages, at some unspecified time and place, with mental states that are the natural continuation of the original person's psychology. The cause is a reliable one, so long as God resolves to pick up the pieces of our mental lives more or less where we left off. This resolution underwrites counterfactuals, such as "Had Jones been thinking about Vienna as he died, the series of person-stages commencing

in this particular quadrant of the New Earth would have had a recollection of having just thought about Vienna.” Suppose there were, in some bizarre cosmic coincidence, two exactly similar dying people who would then need to be resurrected by means of exactly similar new person-stages. So long as God initiates one sequence of afterlife stages because of the one person, and another because of the other person, the causal dependencies link the dying stages of each person with exactly one series in the hereafter; and there is a definite fact of the matter concerning who’s who.

But what of Protean persons who remain stubborn organism-identifiers until death—resolutely thinking of themselves as entirely biological, as destined to pass away with their bodies no matter how much psychological continuity might hold between them and any subsequent person-stages? Can they foil God’s plans to resurrect everyone? With her dying breath (or breaths...it’s a long speech), the organism-identifier might say:

I don’t care whether or not God generates a psychological continuer for me, since I could not be such a thing. When I say “I,” I’m referring to a thing that cannot survive my body’s impending biological breakdown. All of my current inclinations to make plans, feel regret, and so on point to *biology* as setting the boundaries of my history, not *psychology*. For example, I have no expectation to continue on so long as my brain is preserved alive, nor would I accept the offer of a BST procedure even in the face of almost certain death; and I would regard anything that carries on my biological life as me, even if I now knew that it would be devoid of psychological connections with me. Granted, God can create someone who will use “I” to refer to a psychological continuer with whom I now share stages; but my persistence conditions now are determined by my person-directed attitudes now. So God’s post-mortem trickery may succeed in resurrecting *somebody* who is here with me, but it will not be *me*.

Is there anything God could do about a recalcitrant resurrection-resister like this? A strategy for ensuring the survival of mere organisms will be described below. But, if Proteanism is correct, the would-be organism-identifier is not a mere organism; and careful thought about the persistence conditions of Protean persons seems to me to show that resolute organism-identification until death is not enough to block a simple divine strategy for resurrection.

My argument for Proteanism about persons was built upon *Local Determination of Local Persistence Conditions*. This is a principle about the kinds of episodes a person could survive during periods of time throughout which person-directed attitudes remain unchanged. It implies nothing, one way or the other, about what happens during episodes that *coincide with* changes in person-directed attitudes. What should one say about a series of person-stages that organize their common life around R, and then switch to organizing their life around R*, if the switch occurs at the same time as a breakage in the R-relatedness of the person-stages? If R* holds between the earlier and the later person-stages, do the later stages get their way, dragging the earlier stages with them into their post-R-organizing life?

Or do the earlier stages get their way, preventing the later stages from grabbing them?

Mark Johnston's version of Proteanism takes a stand on this question; but I think it is the wrong stand—at least, assuming the doctrine of temporal parts.³² His “Teletransporters” correspond to my community of psychology-identifiers; his “Human Beings” can stand in for my organism-identifiers (though their persistence conditions are slightly different; they go where their brains go); and Teletransportation functions much like a BST device. Human Beings undergo “reculturation” when they come to organize their person-directed attitudes around the relations of psychological continuity favored by Teletransporters. Reculturation might take place as a gradual process, through classes or prolonged contact with Teletransporters. But for those who cannot make the switch so easily, the Teletransporters offer an alternative:

[S]uppose that the Teletransporters believe in baptisms under fire. They only offer reculturation by means of an initial Teletransportation which produces as near a duplicate human body as is compatible with its having the Teletransporters' concept of personal identity. (Johnston, 1989, p. 460)

God might try to resurrect Protean persons by a similar “baptism under fire.” God need only fiddle slightly with the psychological states of the resurrected person-stages, so that they all have the sorts of dispositions that would underwrite reference to psychological continuers by means of their use of the first person. Presumably, such a change is consistent with enough psychological continuities of *other* sorts to preserve sameness of Protean person. Each of us, whatever our current ways of thinking about ourselves, could, in this life, undergo sudden psychological-identifier conversion—as a bizarre side effect of drugs, say, or a blow to the head. Each of us could be turned into someone who expects to go wherever her thoughts are reliably continued, absent branching; who holds herself responsible for things done so long as she seems to remember doing them and she believes that the memory is caused by the doing of them; and so on. If God needs to bring about such a conversion, wholesale, in order to get us all over to the other side, so be it.

Johnston, however, does not believe in baptisms under fire.

What is an insignificant difference at the level of timing makes for a crucial difference at the level of personal identity. Only if Teletransportation follows reculturation can our Human Being correctly see the whole process as one which provides *him* with access to superfast travel and practical freedom from disease. (Johnston, 1989, p. 460)

By Johnston's lights, then, when there is a gap in the R-relatedness of stages, but continuity of R*-relatedness, switching from organizing one's life around R to R* will only carry a Protean person across the gap if the switch occurs before the gap. But why are first thoughts necessarily better thoughts? Friends of temporal parts are generally fans of spatial-temporal analogies. Here, a spatial analogy suggests exactly the opposite conclusion.

Suppose I lead an expedition up an uncharted river, which I call “The Amazon.” Clearly, I intend to keep using the name in the same way, so that if I explore a stream connected with this one and call it “The Amazon,” I intend to be referring to the same thing. Now suppose also that, as I start out, I have definite views about which way I ought to go at any juncture in order to stay on the same river: always take the *widest* stream at any point where streams converge, treating the narrower stream as a mere tributary. Suppose that, at nightfall, my party arrives at a fork, and the right-hand stream is much wider than the left-hand stream, though it looks as though it may be shallower and may soon end in a swamp. I tell my fellow explorers that tomorrow we shall set off on the rightmost stream. While I am pitching my tent, some of the others speak with the natives, learning that the right-hand stream soon becomes unnavigable, and does indeed end in what they call “Alligator Swamp”; while the left-hand stream goes on and on, perhaps all the way to the edge of the earth. Knowing how stubborn I am, my comrades fear that I will stick to my “widest stream” principle and that our exploration will come to a quick, uninteresting conclusion in a nearby swamp. So, instead of trying to convince me to take the leftmost stream, they slip me an Ambien, and, while I sleep, bundle me into a canoe and set off—all the time whispering in my ear that widest isn’t always best; depth and distance matter; and so on. When I awaken, they say: “Look at how far this stream goes, how deep the channel is! The other stream was shallow, and it petered out quickly. Surely there is more to sameness of river than width of stream; why not allow other factors to play a role in the principle for choosing a fork—things like navigability and the length of the stream?” The suggestibility engendered by the drug, together with their whispered advice, have done their work in the night, and I respond: “Of course you’re right; I don’t know what I was thinking!” Instead of ordering them to turn us around, I say: “Let us continue up the Amazon.” At least for the time being, I acquiesce in their modification of my principle for choosing between the mainstream and a mere tributary. Perhaps, a hundred miles further on, I might go back to my old way of thinking, and allow width to trump all other factors. Doing so would not, however, cause the Amazon suddenly to shrink; it would not cause it to “snap back” to this early fork, with Alligator Swamp as its headwaters.

(To make the analogy perfectly parallel to the case of Charlie, one should get rid of the branching. Suppose that I put a precise limit on the width required for something to be the Amazon river; and that the first “juncture” was simply a spot where the river became narrower than that. My fellow explorers would then have to convince me that navigability was more important than width.)

The friends of temporal parts will, I hope, find the analogy compelling—so long as they have accepted the argument for Proteanism. I conclude that, if the doctrine of temporal parts were true, it would be easy for God to cause each of us to survive the deaths of our bodies. But of course that is a big “if”! Those of us who doubt that we persist by means of temporal parts will doubt that survival could be effected so easily.

5. DUALISM WITHOUT TEMPORAL PARTS

5.1 Setting Temporal Parts to One Side

If the doctrine of temporal parts were true, the dualist, like the materialist, would be obliged to admit that there are many beings, each thinking exactly the same things I am thinking right now—for there would be the current stage of my soul, and all the other longer sums of soul stages that have this one as a part, in addition to whichever sum of soul stages lasts for my entire life. With a host of sums of temporal parts on the scene, dualism is likely to lead to a Protean theory about our persistence conditions for the same reasons materialism led to a Protean theory. Different degrees and kinds of psychological continuity could be used to draw rather different temporal boundaries around sums of soul stages (on simple dualism) or soul-plus-body stages (on compound dualism), each of which is itself a thinking thing; and the boundaries around the sum of stages that *I* am ought to be sensitive to my self-conception just as they were on a materialist metaphysics of temporal parts.

For the remainder of this chapter, I shall explore the prospects for surviving death on the assumption that the doctrine of temporal parts is false. First, a question with a fairly simple answer: should dualists who are hostile to temporal parts think survival is possible? In the next section, I pose the more difficult question for the relevant materialists.

5.2 Simple Dualism

Two forms of dualism were described above: simple dualism and compound dualism. I begin with the first (and by my lights less problematic) version.

I can speak in propria persona at long last, since I take simple dualism to provide the most plausible theory about my own nature, and I see no reason to suppose that fundamental things, including souls, must be constantly gaining and losing temporal parts. I conclude that I have no reason to suppose that there are many things thinking exactly the same thing as myself right now. There is my soul, it is the thing that has my mental properties, so it is I—end of story. What does God have to do to insure that I survive the destruction of this body? Simple: keep my soul in existence after my body dies.

I have argued elsewhere that a certain form of simple dualism is not as easy to dismiss as most philosophers seem to think; indeed, that it is better off than its most popular materialist rivals.³³ But I admit that some forms of dualism are not so plausible. Traditionally, dualists have tended to argue that souls must, for one reason or another, exist forever once they have come into existence. Few today find these arguments compelling; but, if they were right, it would take a miracle for me *not* to survive the death of this body. The sort of dualism I find more appealing

does not imply the natural immortality of the soul—quite the contrary. The view is a version of simple dualism developed by William Hasker under the label “emergent dualism” (though “naturalistic dualism” might be a better name, given the other uses to which the word “emergence” is put) (Hasker, 1999, pp. 188–203).³⁴ Emergent dualists regard human persons as distinct from, but natural by-products of, a functioning nervous system; once a brain is sufficiently complex to generate conscious experiences, it also generates a new subject to have them. On this conception of the soul, it would be natural to suppose that the soul fades away as soon as its brain ceases to function. However, even though emergent dualists insist that souls are causally dependent upon brains, soul and brain would nevertheless be what Hume would have called “distinct existences.” The soul, so conceived, would not, strictly speaking, be identical with any part of the brain; and this would leave open at least the possibility that the subject of experience could be miraculously preserved after the death of the brain that generated it. A future “resurrection of the body” would, then, simply be God’s uniting each soul with an appropriate animal body—one that includes the sort of organ needed by that particular soul in order for it to persist and function. (Dualists who are also keen to identify the pre- and postresurrection bodies can adapt one of the methods proposed in the next section for materialist-friendly survival: a reassembly theory, or the Falling Elevator Model.)

Emergent dualists accept the radical dependence of persons upon functioning brains. When brain function is impaired, so is the soul’s ability to think. If memories and character traits are lost or altered when the right (or wrong!) parts of the brain are damaged, the more radical case of a soul preserved without any brain at all would presumably lack all psychological continuity with its pre-mortem self. Critics of dualistic forms of survival are apt to say that, in such a case, everything that we find important about our ongoing existence would be lost—so of what value would the afterlife be?

Granted, if God merely preserved our souls without restoring any of our cognitive faculties, we would be no better off than someone in a permanent vegetative state. Similarly, our lives would lose much of their meaning were God to preserve us, as bare souls, and then bring us into union with brains that gave us alien, unappealing character traits and completely illusory memories. But these mere possibilities do not show that the ongoing existence of a soul is insufficient for a person’s continued existence—merely that a person could continue to exist without most of the things that matter to us (but who ever doubted that?). The emergent dualist supposes that there is one and only one thinker of my current thoughts, that the thinker of these thoughts is identical to an immaterial substance, and that this substance can exist after suddenly losing all my current memories and character traits. It follows that *I* can exist, despite such psychological losses, and that whatever happens to my soul happens to me. In any case, the only real hope for us, if the emergent dualist is right, requires God’s miraculous intervention; and we should trust a benevolent deity to “re-clothe” us with appropriate bodies and brains, if we believe in an afterlife at all.

5.3 Compound Dualism

Emergent dualism is a form of simple dualism: a premortem human person *is* a soul, and this makes survival a simple matter of preserving the soul (i.e., the person) without the original body. But if a person is a *compound* of soul and body, survival of bodily death is more complicated. According to Aquinas and other compound dualists, the thinker of my current thoughts is a unified entity consisting of both matter and soul; and the soul is the “substantial form” of my body, something that makes it a human person, and in virtue of which I am able to do distinctively human things, like thinking. I am not identical to this form; and, although I am able to think in virtue of it, still, strictly speaking, the human being is the one who thinks, not the form.³⁵ Contemporary Thomists disagree about whether, on their view, God’s preserving my soul apart from my body should be thought to preserve *me*.³⁶ Either the soul alone would have to come to constitute all of me; or I would go out of existence, reappearing only when the soul is once again united with a body. On the first alternative, two things—me and my soul, after my death—could be intrinsically exactly alike, each of us having the soul as its one and only part; and yet we would somehow differ in kind. Some philosophers are comfortable with views according to which a pair of things can have all the same parts, arranged in the same ways, and yet differ radically from one another.³⁷ They are free to take this route; but I am skeptical about these kinds of coincident entities. Were I a compound dualist, I should take the second alternative: preserving my soul alone does not insure that I survive; if an afterlife is possible, I must be able to go out of existence and then come back into existence, once my soul is again properly related to a parcel of matter so that the two form a human being.

This second proposal is rather like the kind of reassembly materialism described below, according to which the ongoing existence of the right kind of parts insures that the person can come back into existence when they are properly reassembled. Unlike normal, materialistic forms of a reassembly theory of survival, it simply posits an extra, immaterial part, which—like the mysterious luz bone—can only ever be part of one person. Around this special part, the original body-soul compound can be reconstructed.

[S]ince the soul was what made matter this human being, presumably in the resurrection of the body it will again make the matter it informs this human being. Preservation of identity will not have to be guaranteed by recomposing the human being of the identical atoms as before, and puzzles about what happens when the same atoms have been part of more than one human being are avoided.³⁸

The metaphysics of compound dualism strikes me as more problematic than that of simple dualism; but, if one can wrap one’s mind round a Thomistic metaphysics with a separable substantial form for each person, its story about the mechanics of resurrection will doubtless come to seem a reasonable one.

6. MATERIALISM WITHOUT TEMPORAL PARTS

6.1 Three Proposed Necessary Conditions for Materialist Survival

I conclude with what might seem to be the hypothesis hardest to reconcile with survival of bodily death: namely, materialism under the assumption that there are *not* many thinking things here (all sharing a common temporal part), but only one. I ignore esoteric materialistic theories (for example, Chisholm (1978) once took seriously the idea that each of us might be a tiny physical particle lodged somewhere in the brain), considering only the hypothesis that I am an entirely physical thing, having the size and shape of a human body.³⁹ Like bushes, birds, and baboons, the physical thing in question is a living thing, an organism. Most materialists draw the natural conclusion: our persistence conditions ought to be somewhat similar to those of other organisms—that is, human persons should survive or fail to survive in roughly the same kinds of circumstances as other living material objects, with the case of the higher mammals being the most instructive. There is controversy over exactly what these persistence conditions *are*; but most materialists in this camp hold views about criteria of personal identity far to the biological side of the spectrum. I concentrate on them because they represent the hardest case: the death of the body, as I have described it, can easily seem to be an event no organism could survive; and so philosophers who believe we are, essentially, organisms have naturally concluded that survival is impossible.⁴⁰ Some opponents of temporal parts suppose that, although we may *look* like mere animals, we are in fact physical objects with psychological persistence conditions.⁴¹ I shall largely ignore them here, because the materialist theory of resurrection I most favor—the Falling Elevator Model—will satisfy versions of (PC) if it can satisfy versions of (BC). On the Falling Elevator Model, the same organic life continues, despite the death of the body; and that continued life includes the continued functioning of the same bodily organs. If God can transport my brain, in good working order, past the death of my body and into some sort of afterlife, then any reasonable psychological criterion of identity will declare the resulting person to be me.⁴²

Some philosophers have despaired of finding any informative persistence conditions for human organisms; and Trenton Merricks has argued that, once we have given up the quixotic quest for such conditions, materialism should not seem obviously incompatible with bodily death. After all, if we cannot even say what our persistence conditions are, why should we worry that life after death would violate them (Merricks, 2001)? I am convinced that there *must* be informative necessary and sufficient conditions for the persistence of organisms and other complex objects, however difficult they may be to state with precision (due in part, no doubt, to the fact that they are genuinely vague) (Zimmerman, 1998). So I cannot avail myself of Merricks's strategy.

Here are three popular (and rather plausible) proposals for necessary conditions upon the ongoing existence of material objects. Together, they militate against the possibility of survival, assuming the kind of materialism under discussion. The first principle may be called “gradual replacement”:

- (GR) A living body cannot, all at once, come to be constituted by a parcel of matter that, at the smallest scale, is entirely new; whenever a material particle becomes a part of a body, there must be many other particles of the same size that have been and continue to be parts of the body.⁴³

The second may be called “essentially alive”:

- (EA) A living material object cannot continue to exist as a dead heap of matter; when a living thing ceases to be alive, it ceases to be.⁴⁴

The third is “no causal gaps”:

- (NG) Every stage in the history of a material object, other than the first, must be directly causally linked to prior stages in the history of that object. (van Inwagen, 1998, p. 47; Olson, 2010, pp. 56–60)



The incompatibility of survival and materialism seems to follow from the principles. What happens when the matter of which I am composed rapidly ceases to subservise biological functions? There are really only four possibilities: Either (i) I continue to exist as a nonliving hunk of matter (in chapter 3 in this volume, Olson calls this thesis “Corpse-Survivalism”) or (ii) I suddenly come to be constituted by entirely new stuff (all new matter, or some kind of matter-substitute), or (iii) I continue to exist without any material parts at all, or (iv) I cease to exist. We can rule out (i) by (EA); (ii) and (iii), by (GR). Obviously, (ii) is incompatible with (GR); but so is (iii), since it requires that I—by hypothesis, a purely material object—could lose every single part at once and yet continue to exist.⁴⁵ That leaves only (iv): the death of my body means I no longer exist. And if there are no direct causal links between my final earthly stages and some future life, (NG) says I must be gone forever.

This line of argument can be resisted in several ways, however. Two of the more popular are a reassembly account of survival that violates (NG), and a view about the nature of biological lives that allows a single life to contain discontinuities that violate (GR). Consideration of these alternatives reveals that the prospects for survival are not so bad, even on purely materialistic assumptions about persons, and even without the help provided by a metaphysics of temporal parts. I prefer the Falling Elevator Model, which rejects (GR); but reassembly theories are not so bad off as many seem to think, and I begin by defending them against recent criticisms.

6.2 Resurrection by Reassembly

At one time, it was common to explain the resurrection of all who have died in terms of the reassembly of every human body: God searches the cosmos for the exact

matter that constituted each one of our bodies at the moment of death, and puts each body back together again. A materialist about persons could develop a reassembly theory along these lines, accepting (GR) and, perhaps, (EA) as well. On this reassembly picture, a purely material person either ceases to exist when her body dies, or—assuming Corpse-Survivalism, instead of Essentially Alive—becomes a corpse that gradually ceases to exist when sufficiently dispersed. Eventually, this very same material object comes back into existence when her scattered matter is retrieved and reassembled. (NG) is thereby violated: a material object can enjoy a second-period existence, even though the final stages of its first period of existence do not directly bring about the earliest stages in the second.

(Reassembly accounts might fit more naturally with Corpse-Survivalism than with Essentially Alive. Would reassembling the scattered parts of an inert object, like a boulder, bring that very object—that very boulder—back into existence? This strikes me as more plausible than the claim that reassembling a living thing would bring the living thing back. But accepting the former, while denying the latter, is an unstable position for the Corpse-Survivalist. If I can become an inert object, a mere corpse, I should be as easy to reassemble as the boulder. And once my corpse exists, I exist, according to Corpse-Survivalism; so what could prevent my resuscitation?)

Peter van Inwagen argues that, if *God* were directly responsible for bringing the parts of a body back together, and giving them the form of a living human being, the result could only be a new person. The life that results from God's creative act would not be the continuation of one that ended in a death, since later stages of a single life must be *directly* causally dependent upon earlier stages, linked by biological forms of "immanent causation"—that is, the normal kinds of causal dependence that remain within a single organism.

In his defense of a reassembly account of resurrection, David Hershenov compares the persistence of living things to the persistence of artifacts, such as sculptures. When a statue has been broken into pieces, and then reassembled much later by archeologists, the result is something that the original sculptor made, despite the absence of direct "immanent causal connections" between the restored statue and its original.

God could be understood as the "original artist" who created the world and arranged its matter and laws so that there would be organisms. Such background assumptions would make it plausible to think that God could resurrect people if He were faithful to His original blueprint that formed and maintained the human beings in question. (Hershenov, 2002, p. 458)

Just as reassembly of a once-destroyed statue, by *whomever*, results in a work attributable to the original sculptor; so reassembly by God of the parts I had at death can result in the recreation of God's original "work," namely, the organism that died—so long as they are reassembled in a way that resembles the organization they had in life. If materialism is true, bringing back all the human organisms that ever died should be enough, on Hershenov's principles, to insure that we all survive death.

Even dualists have made use of reassembly in their conjectures about the machinery of resurrection. Christians have traditionally believed that, after death, a person continues to exist in a completely immaterial form; but that, eventually, the soul shall be reunited with *the very same body* that had died. The puzzling aspects of this doctrine were not lost on the early Christian fathers and medieval doctors of the church; the objections they considered apply directly to purely materialist accounts of the survival of persons by means of reassembly. The ancient worries about the resurrection of cannibals and their victims pose troubling questions for the reassembly account. Here is the problem in its most acute form: however unlikely, it seems not absolutely impossible that all the material in a dying person's body should, one day—perhaps after generations of eating and being eaten—wind up constituting the body of another person precisely at the moment of that person's death. There seems no obstacle, at least in principle, to that dying person's being exactly like the original person, in size, shape, genetic makeup, and so on. To use Mark Johnston's terminology, the "peri-mortem states" of the original victim and the descendent of the cannibals could be, by the strangest of coincidences, exactly the same, materially and structurally—they were, as Johnston puts it, "peri-mortem duplicates." What happens when God reassembles the matter that constituted both dying persons? Which one, if either, would be ushered into the New Creation by a policy of divine reassembly?

Johnston turns these questions into an argument against the traditional picture of resurrection-by-reassembly. According to Johnston, any sensible reassembly theory implies the truth of the following duplication principle: necessarily, if a body dies in a certain peri-mortem state, and if, at a later time, the very matter that formerly constituted that body were caused by God to return to that very state—arranged just as it was in the dying person's body—then the original body would be brought back to life. The cannibal story is in tension with this duplication principle; for the principle, together with the mere *possibility* of the cannibal scenario, requires that, in some possible world (however outré and macabre), two bodies become one body. Whether that means that two bodies could come to be in the same place at the same time, or that nonidentical things could become identical, it is not a happy result—Johnston thinks neither should be regarded as a genuine possibility, and any theory that implies such possibilities must be rejected (Johnston, 2010, pp. 29–40).

But the advocate of reassembly need not accept Johnston's duplication principle. As I have argued elsewhere, materialists who reject temporal parts will be hard-pressed to avoid a "closest continuer" clause in their criteria of personal identity (Zimmerman, 1998, pp. 198–201; and Zimmerman, 2010b, pp. 38–44); that is to say, such materialists will have to admit that the continued existence of a person can depend upon the absence of equally good candidates for being that person. Johnston as much as admits that such a clause will be required in the statement of criteria of identity for *some* physical objects, namely, organisms. He allows that, in a case of the perfect fission of an organism, the original organism ceases to exist, and two new organisms come into existence; and he does not deny that a closest

continuer clause is needed to state persistence conditions for organisms (Johnston, 2010, pp. 364–368). He elsewhere insists that an adequate theory of personal identity must allow for at least the conceptual possibility of symmetrical organisms able to survive the destruction of half their organs and systems (Johnston, 1989, pp. 376–377). So there seems no escape from the conclusion that, in the perfect fission of a strangely symmetrical human-like organism, there is an individual (an organism) that does not survive, but that could have survived a process intrinsically just like the ones going on within the original organism and just one of the fission-products—*in the absence of the other*. A closest continuer clause would, then, be needed in order for Johnston to describe the persistence conditions of organisms.⁴⁶ Closest continuer theorists should have no qualms about drawing the temporal mirror-image of this moral, which applies to cases of fusion⁴⁷: if, at present, there exists a certain person who has existed in the past, there must have been a closest predecessor of that person; the presence of two equally good prior candidates for being the same later person can make a difference as to whether a new person has come into existence, rather than a formerly existing person having merely continued to exist.⁴⁸

Once alerted to the need for a “no closest predecessor” clause in criteria of personal identity, the advocate of resurrection-by-reassembly will naturally look with skepticism upon Johnston’s duplication principle. God’s reassembly of a peri-mortem duplicate of some earlier person might be sufficient to bring the earlier person back, in the “normal” case; but *not* when there is an equally close predecessor of that person—someone whose peri-mortem state is just as similar to the initial state of the divinely reconstructed being, and who is equally similar in other respects that matter. A “no closest predecessor” clause could be added to Johnston’s duplication principle in a number of different ways—that is to say, there are different metaphysical theories one could hold about the conditions that are necessary and sufficient for bringing back a living thing by means of reassembly. One respect in which a pair of potential predecessors (or ancestors) could differ in closeness, relative to a certain person existing at a certain time, is *temporal proximity*. Latching onto this kind of closeness, the proponent of reassembly could insist that, in the case of peri-mortem duplicates, a reassembled body would belong to the temporally closer predecessor, blocking resurrection of the original person. This sort of reassembly theorist would qualify Johnston’s duplication principle: necessarily, if a body dies in a certain peri-mortem state, and, at a later time, the very matter that formerly constituted that body were caused by God to return to that very state, then the result would be the original body brought back to life, *so long as that matter did not constitute someone else’s peri-mortem state at any time during the intervening period*.

This is not the only tempting way to modify the duplication principle, in light of the need for a no-closest-predecessor clause. A materialist might think temporal proximity irrelevant, or at any rate something that could be trumped by other kinds of closeness. One intriguing possibility is that, when God miraculously returns some matter to a form resembling duplicate peri-mortem states, one candidate

could be much closer than the other due entirely to differences in the nature of God's activity. The view can be motivated by considering an analogous sort of case that would arise for defenders of a liberal psychological criterion. The case is fanciful, but no more so than a scenario in which peri-mortem duplicates appear: On a planet of cannibalistic time travelers, there are two men, John and Jack, whose births are many generations apart, and who happen to be made out of the same matter arranged in the same way just as they enter their respective time machines in their respective "home eras." Their time machines function rather like teletransportation devices; they demolish a body as they "read off" its structure, and then somehow use this information to generate one "elsewhen"—in this case, much later than either departure. Liberal versions of (PC) imply that such adventures are survivable; but, when a time traveler appears many years after the functioning of both time machines, he will be equally similar, intrinsically, to each man as he entered his machine. What should a liberal psychological criterion say? Plausible attempts to articulate (PC) in detail will impose causal constraints upon a series of stages in the life of a single person; and the question, Is this man John or Jack? would be answered by finding out whose time travel device caused this particular appearance of a man. Suppose the explanation for the time traveler's appearance goes back to John's entry into his time machine, and not to Jack's. Then the traveler is John and not Jack—at least, that is the verdict of a liberal psychological criterion.

Setting (PC) to one side, I return to the attempt to articulate a criterion of bodily identity that is consistent with reassembly. The proposed solution to the puzzle about John and Jack has an analog for a pair of peri-mortem duplicates, Jane and Jill. Suppose that God eventually assembles a body made of the materials common to Jane and Jill at their deaths, arranging the same physical stuff just as it was at the last instant of both lives. The resulting body is revived, healed, and improved. Could God's miraculous assembling of a Jane-and-Jill-like body be causally connected to Jane and not Jill, in something like the way the appearance of the time traveler was causally connected to John's time machine and not to Jack's? Well, why not? I suppose one might object that, since God knows the reassembled body is just like both Jane and Jill, the act of reassembling it could not be done with the intention of duplicating one but not the other. It does not, however, seem difficult to imagine a way for God to act that would make Jane, and not Jill, the causal explanation of a particular body's appearance. God could effect the reassembly simply by issuing a very general decree: "Let there be a body just like Jane's was when she went out of existence, consisting of the same matter in the same arrangement, but rapidly coming back to life rather than decaying." The resulting body would be intrinsically the same as would be the result of a similar command aimed at resurrecting Jill; but if a particular body is reassembled at a particular time because of the decree about *Jane*, then Jane is a closer predecessor along a dimension that a reassembly theorist may take to be decisive.

Borrowing a suggestion from David Hershenov, the reassembly advocate could point out that, in the wildly improbable case of exact peri-mortem duplication, God could still resurrect both Jane and Jill; though, with Jane resurrected first, Jill

would have to wait long enough for her old material parts to become available—and more miracles might be called for, to speed up Jane’s metabolism. Once the matter originally in Jane’s resurrected body has been freed up, God can reassemble Jill, as well; he simply issues a new decree that causes a *peri-mortem* duplicate of Jill to appear.⁴⁹

Opponents of closest continuer theories will balk at these moves. But, if I am right, a sensible materialism requires them; and, as noted earlier, Johnston seems to agree that the persistence of *organisms*, at any rate, can depend upon the absence of competitors. He is hardly in a position, then, to dismiss the reassembly theorist’s modification of the duplication principle.

6.3 The “Falling Elevator Model”

A quite different response to the argument for the incompatibility of death and survival would question (GR), the doctrine of gradual replacement, and grasp alternative (ii): a living thing could suddenly come to be constituted by a completely different set of fundamental particles or a new batch of whatever sort of stuff ultimately makes up human bodies.

Trenton Merricks’s (2001) anti-criterialist strategy might be regarded as a species of this approach: there is no particular kind of continuity—of parts or of anything else—that is required to hold between the dying body and the resurrected one, if the person is to survive death by resurrection. I am inclined to believe that van Inwagen is right, however: There are certain kinds of causal dependencies that must hold throughout the life of a single organism, ones that would not hold between a dying body and a resurrected one, if the latter were simply the result of God’s reassembling the old matter along similar lines.

The atoms of which I am composed occupy at each instant the positions they do because of the operations of certain processes within me (those processes that, taken collectively, constitute my being alive). . . . [I]f a man does not simply die but is totally destroyed (as in the case of cremation) then *he* can never be reconstituted, for the causal chain has been irrevocably broken. If God collects the atoms that used to constitute that man and “reassembles” them, they will occupy the positions relative to one another they occupy because of God’s miracle and not because of the operation of the natural processes that, taken collectively, were the life of that man. (van Inwagen, 1998, p. 47)

In response to van Inwagen’s worries about the possibility of resurrection, I developed a “just-so story” that I called “the Falling Elevator Model” of resurrection.⁵⁰ The model was supposed to respect van Inwagen’s requirement that chains of causation between dying body and resurrected one be suitably direct, unbroken. I described a mechanism by which God could cause these very organisms to appear, elsewhere and perhaps elsewhere. But it was a story that violated (GR); since *all* the matter constituting my body at death remains right where it is, to be buried or scattered, never to constitute me again (in all likelihood).

The Falling Elevator Model is so-called because it involves a last-second jump that saves us from what looks like certain death—a strategy sometimes used by cartoon characters when an elevator cable breaks and they are hurtling toward the subbasement. Reaction to the proposal was mixed. Hud Hudson, Kevin Corcoran, Tim O'Connor, and Jonathan Jacobs said: "That's so crazy, it just might work!" They made good use of it in their versions of Christian materialism. Others (e.g., William Hasker, David Hershenov, and Eric Olson) thought it was merely crazy, and have criticized it from various perspectives.⁵¹

Here are the bare bones of the Model. Van Inwagen accepts a biological criterion along the lines of (BC): an organism begins to exist when some matter first gets caught up in a biological life, and the same organism goes on existing until that life ends. As noted above, Van Inwagen is a moderate: he holds that, in the case of a whole brain transfer, the person goes with the brain (not because the brain insures psychological continuity, but because he thinks the brainstem is essential to the life of an organism, and could constitute a maimed human animal all by itself). An essential feature of the life of an organism is that it displays a kind of "self-maintenance," earlier stages tending naturally to cause later stages that closely resemble the earlier ones in crucial ways. The resulting causal dependence of later stages in the life of an organism upon earlier ones is a kind of "immanent causation." If a BST device scrambles the brain of one organism and imposes that organism's human psychology upon the brain of another organism, it would be absurd to say that an organism had switched bodies. Perhaps a little less obviously, an organism could not be torn to bits by a teletransporter, and then reappear elsewhere when the device assembles a living body using new materials but based on the same pattern. Proponents of biological criteria naturally conclude from these reflections that the distinctive causal dependencies within an organism could not pass through the computer banks of a teleportation device or a blueprint in God's mind. On this reading of (BC), I could not show up somewhere else, after the event I have been calling "the death of my body," simply by God's using what He knows about the state of my body at death as a blueprint for assembling one that exactly resembles it. Such a body would not continue the life of this one; it would be a new organism, a mere duplicate.

The Falling Elevator Model is a way to allow the life of a dying organism to go one way, while the dead matter goes another way. The trick is to posit immanent-causal connections that "jump" from the matter as it is dying, connecting the life to some other location, where the crucial organic structures within the organism are preserved. Immanent causation is not peculiar to organisms; all ordinary physical objects in which we take an interest are the kinds of things that exhibit causal dependencies of later stages upon earlier stages. This includes boring objects, like hunks of dead matter. If a pile of matter persists throughout a period of time, the existence and properties of the later stages of the matter must be partly causally dependent upon the existence and nature of the earlier stages. Since each bit of matter in my body is supposed to stay behind when I die, to be buried (or devoured or . . .), there must also be immanent-causal connections between the

matter in the dying body and the dead material left behind—on pain of making God a body-snatcher. So every portion of the matter in my body must undergo something like fission at the time of my death. Consider just the atoms in my body; and pretend that my body consists entirely of atoms (and the parts of atoms). The Falling Elevator Model affirms that, at the moment of my death, God allows each atom to continue to immanently-cause later stages in the “life” or history of an atom, right where it is then located, as it normally would do; but that God *also* gives each atom the miraculous power to produce an exact duplicate at a certain distance in space or time (or both), at an unspecified location I shall call “the next world.” The local, normal, immanent-causal processes linking each atom to an atom within the corpse are sufficient to secure their identities; no atom need cease to exist merely because it exercises this miraculous “budding” power—a power to produce *new* matter in a distant location.⁵² Still, the arrangement of atoms that appears at a distance is directly immanent-causally connected to my body at the time of my death; and there are no other arrangements of living matter produced by my dying body that are candidates for continuing my life. So, even though the atoms do something that resembles fission, what they really do is bud: producing exactly similar offspring in the next world, while remaining in this one. The organism itself does *not* fission; my body’s life does not divide, but goes in one direction only, carrying my body with it to a new location.

Resurrection by reassembly required a closest predecessor clause in its account of the persistence conditions of persons; and, on widely held assumptions, the Falling Elevator Model will require a closest continuer clause. Imagine a world w_1 , just like the actual world except that, many years ago, God secretly caused my atoms to bud, generating duplicates in the next world in just the way the Falling Elevator Model recommends that God do at my death—but in w_1 , I am *not* about to die, and the atoms in my body carry on with their terrestrial biological activities in the same way they did in the actual world. Since this budding happened during the middle of my childhood, in w_1 a child appeared in the **afterlife** who remembers—or seems to remember—my childhood. On the face of it, the mere occurrence of this budding event should not have killed me as a child; I should have been able to survive having my atoms cause duplicates to appear far away in this manner, so long as the atoms in my body did not themselves do anything unusual, then and there. If I would *not* have survived this unnoticed childhood budding of my atoms, it could only have been because my survival is incompatible with one stage in my life producing competing stages (even when one of the competitors is far away in space-time). But, in that case, appeal to a closest continuer is required straightaway: for in w_1 there is a history involving hunks of matter undergoing events that are intrinsically just like the events in my actual history; but in w_1 I am replaced by a duplicate at the undetectable point of budding merely because of something that happens outside the region in which that history occurs.

Suppose, then, that in w_1 I survive this childhood budding of my atoms. Now imagine a world w_2 in which the budding occurs simultaneously with the destruction of my earthly atoms. The Falling Elevator Model implies that Zimmerman



himself would thereby have leapt to the next world. But the same history that, in w_2 , constitutes a single person—childhood me and then the resurrected me—occurs in w_1 and *fails* to constitute a single person. So, on this supposition, too, the presence or absence of close continuers makes a difference. Whatever one says about what happens in a childhood “budding,” the Falling Elevator defender winds up affirming a closest continuer account of my persistence conditions: whether certain intrinsically similar events constitute the life of a single person can depend upon events that happen outside of the places where the events in that life *actually* occur.

The argument is not airtight; some materialists can embrace the Falling Elevator Model without commitment to a closest continuer theory. Hud Hudson, in his ingenious use of the Falling Elevator story, shows how to avoid the closest continuer account of personal identity by tearing a page from David Lewis’s book: cases of fission can be regarded as cases in which there were two things *all along*, sharing temporal parts prior to, but not after, the fission event (Hudson, 2001, ch. 7). In the case of the childhood budding followed by my normal life and eventual resurrection, the child and I shared our childhood temporal parts; but then, in the next world, we ceased to overlap. However, whether or not a person had been allowed to continue in the time and place at which budding occurred, pre-budding stages plus childlike stages that appear in the next world would have constituted a single person; and the presence or absence of additional close continuers would not interfere with that fact.

Van Inwagen and many other Christian materialists—for example, Trenton Merricks, Kevin Corcoran, Lynne Rudder Baker, and Michael Rea—reject the metaphysics of temporal parts that allows Hudson to avoid a closest continuer theory. Elsewhere, I have argued that van Inwagen (along with other advocates of (BC)) will be forced to accept a closest continuer account of personal identity in order to make allowance for the fact that organisms can undergo fission.⁵³ If I am right about this, the fact that the Falling Elevator Model requires a closest continuer theory should not count as an extra cost—at least, not for those who reject temporal parts, while maintaining that persons are organisms.

6.4 Giving Up the Gradual Replacement Principle

How bad is it to have to deny (GR), when it comes to living bodies? Not so bad, I think. Hershenov claims that, for new parts to be assimilated by a body, many of its old parts must remain; and so my envisioned “jump” is impossible (Hershenov, 2002, pp. 460–563). But (GR) is not just *obviously* true, for living things; and there is reason to suspect that it is at least not *definitely* true for any material objects in our world. Atoms and molecules persist through time in reasonable ways; there are definite answers to the question whether a certain atom or molecule in a living body is the same as one found later on in a corpse. However, at sufficiently small scales, the particles composing the atoms in our bodies start to behave oddly. Electrons, protons, and neutrons obey surprising statistical laws that ought to undermine our confidence in the persistence through time of the particles constituting the atoms in our bodies. Electrons,

protons, and neutrons are all fermions; and indistinguishable fermions—for example, all the protons in my body—caught up in the same quantum–mechanical system do not seem “trackable” over time. When plotting the probability of such a system evolving in various ways throughout a period, one must ignore potential differences in its future states that involve nothing more than the permutation of indistinguishable particles—for example, permutations in which two electrons, protons, or neutrons switch places. Why do nature’s laws fail to distinguish between circumstance *A*, in which *this* proton shows up *there* and *that* proton shows up *here*, and circumstance *B*, in which *that* proton shows up *there* and *this* proton shows up *here*? Many theoretical physicists and philosophers of physics have argued that the best explanation is that the imagined difference between *A* and *B* does not exist—these are not two distinct states of the system. If the two protons really persisted over time, *A* and *B* *would* be distinct states; and so the protons do not really persist.⁵⁴

Since our bodies are interacting with other systems consisting of further indistinguishable electrons, protons, and neutrons, one cannot accept this conclusion and straightforwardly affirm that most of the neutrons, protons, and electrons in my body right now were also present in my body moments ago—at least, not if that means they were definitely *not* present in the *other* physical objects surrounding me moments ago. At this subatomic level, there seems to be a set of particles that constitutes all of my body, without remainder; despite the fact that no members of it are identical with previous parts of my body—at least, no members of it are *determinately* identical with indistinguishable particles in my body at earlier times. Given indeterminacy of identity over time for indistinguishable particles, gradual replacement seems to be at least not determinately true.

The moral I have drawn from quantum statistics is not inevitable. There are alternative explanations of the strange statistics of subatomic particles. Bohm’s version of quantum theory, for example, renders identity of particles through time unproblematic but unknowable. And even without Bohmianism, it has been argued that the statistics do not rule out the possibility of undetectable facts about fermion identity-through-time.⁵⁵ Still, I should not want to gamble on an assimilation principle that requires the falsehood of an attractive explanation of this strange feature of quantum statistics. One quite plausible moral to draw from quantum theory is that atoms and other distinguishable objects made of atoms can persist through time, despite the fact that, at each time, they are decomposable without remainder into a set of particles that do not, strictly speaking, persist through time. If such objects can gain new parts, then they can do so despite the fact that, at some level of smallness, they are wholly constituted by sub–atomic particles none of which existed earlier or even (so far as we know) had parts that existed earlier.

6.5 Plenty of Available Just-So Stories

I have surveyed two possible methods by which God might resurrect persons—methods consistent with supposing that we are entirely physical beings. Reassembly accounts may not be open to the kinds of criticisms leveled against them by

Johnston and others; but they still require giving up (NG). The Falling Elevator Model rejects (GR); but this does not seem too costly. It may in fact be indeterminate whether our material parts are, at the smallest level, only replaced gradually. Contemplation of this seeming possibility leads me to conclude that (GR) is not a necessary truth. But I find (NG) much harder to deny. So I prefer the second account of materialist-friendly survival.

Were I a materialist arguing for the possibility of survival using either reassembly or a last minute leap, I would want to conclude the telling of such tales with van Inwagen's qualifications:

My method was to tell a story, a story I hoped my readers would grant was a metaphysically possible story, in which God accomplished the Resurrection of the Dead.... [T]here may well be other ways in which an omnipotent being could accomplish the Resurrection of the Dead than the way that was described in the story I told, ways I am unable even to form an idea of because I lack the conceptual resources to do so. (van Inwagen, 1998, p. 50)

These are, after all, "just-so stories."

7. CONCLUSION

Is it possible for me to survive the death of my body? The question should be answered affirmatively on almost every account of the nature of human persons that has any plausibility.

If the doctrine of temporal parts is true, "I," in my mouth, should be taken to refer to a Protean person; and a Protean person could make it into the afterlife by a very simple expedient: God need only create a psychological-continuer for me, and insure that he organizes his life around reliably produced, nonbranching psychological continuity. (Although only materialist versions of a temporal parts metaphysics were considered, I claimed that the same conclusion should be drawn for a dualism with temporal parts.)

Among philosophers who reject the doctrine of temporal parts, one finds both dualists and materialists. At least one kind of dualism—simple dualism—is obviously compatible with the possibility of my surviving the death of my body; although, in all likelihood, survival would require a miracle. Compound dualism faces some puzzling questions about what happens to me at death (and the whole idea of souls-as-forms is hard to grasp). But it seemed to have a coherent reassembly story to tell about the resurrection of the very same body, in virtue of the persistence of the original soul. It serves as the form of a body-soul union with a fair claim to be the original human being.

Other philosophers who reject temporal parts also reject immaterial souls; they believe that we are physical bodies made entirely of stuff that can be found in inanimate objects. Traditionally, Christian theologians have held that such bodies

can be brought back into existence by reassembly. Although this idea turned out to be less problematic than some have thought, it still flies in the face of a plausible principle about living things—namely, that their lives cannot display causal gaps. So, for materialists who reject temporal parts, I developed the Falling Elevator Model as a picture of at least *one* way for God to allow a dying animal to “jump” into another location, sloughing off all the atoms and molecules that constituted it at the crucial moment. Whether the materialists for whom I built the Falling Elevator Model happen to favor psychological or biological criteria of identity for their material persons, such a trip should remain possible.

As I noted at the outset, all the means I have considered for surviving death depend upon divine intervention. Readers interested in the even more pressing question, Will I in fact survive the death of my body? had best inquire into the existence of God.⁵⁶ For myself, I think that God exists; and, as a consequence, I believe that this life cannot be the end of (or even a fraction of) the whole story. Eventually, we shall all find out . . . or, if I am wrong, not.⁵⁷

NOTES

1. See van Inwagen, 1998, pp. 49–51.
2. See, e.g., Paul Edwards’s introduction in Edwards, 1997, esp. pp. 69–70; and Flew, 2000, pp. 99–100.
3. For trenchant criticism of (what he calls) “The Program View,” see Olson, 2007, pp. 145–149.
4. Derek Parfit’s work on personal identity may well be the most influential since Locke’s. Parfit focused upon “what matters in survival,” arguing that it is the holding of a certain kind of psychological continuity between a person at one time and a person at another—a relation that can hold between two different persons. Sometimes the word “survival” is now used in a special philosophical sense, to refer to the holding of this relation: the fact that a person “survives” some event would not, then, mean that the original person continues to exist; it would only mean that everything that should matter to us about our continued existence still holds between the original person and a (possibly distinct) person who exists after the event (see, e.g., Rey, 1976). I will not be using “survival” in this technical, Parfit-inspired sense in this paper.
5. For a creative (and no doubt controversial) use of semantic ascent in the literature on personal identity, see Parfit, 1984, p. 290.
6. Though here I have been given pause by a suggestion of Pavel Davydov’s. “I” is obviously context-sensitive; in the context of my use, it refers to me, while in the context of your use it refers to you. But there may be much more to its context-sensitivity. Perhaps the difference between occasions when “I” is used for interpersonal communication and occasions when one is alone or addressing oneself *also* represents a change in context to which “I” is sensitive. This is a possibility that should not be lightly dismissed—although that is what I must do here.
7. This characterization of dualism is somewhat stipulative. For a more careful discussion of the difficulties of defining dualism and materialism, see Zimmerman, 2006.
8. St. Thomas’s dualism is notoriously difficult to interpret. Contemporary dualists inspired by St. Thomas attribute thought to the whole human being, a union of soul

- (an individual, substantial form) and matter; but, as shall appear, they differ over whether, after death, the soul comes to constitute the person or is simply a former part of the person around which he or she will be reconstructed.
9. For criticism of compound dualism, see Olson, 2001.
 10. See Olson, 2001.
 11. For a thorough exploration of the metaphysical options in this vicinity, see Hawthorne, 2006, ch. 5.
 12. An argument for temporal parts along similar lines may be found in Sider, 2001a, pp. 120–139.
 13. For my reasons, see Zimmerman, 2010a; and for a dualist manifesto, see Baker and Goetz, 2011.
 14. Most proposed accounts of personal identity fall pretty far to one side or the other along the physical–psychological spectrum; but there are important intermediate positions, like that of Unger, 1990.
 15. For discussion of Locke’s theory of personal identity, and its early interpreters and critics, see Martin and Barresi, 2000.
 16. See Shoemaker and Swinburne, 1984, pp. 80–91
 17. Shoemaker and Swinburne, 1984, pp. 87–101; and Parfit, 1986, pp. 219–228.
 18. There are deep differences between their views, once one begins to ask what counts as a “direct psychological connection”; compare the theories developed in Shoemaker and Swinburne, 1984, pp. 87–101; and Parfit, 1986, pp. 219–28.
 19. Conservative Neo-Lockeans may be motivated by the thought that persons are substances, and substances must possess powers of self-perpetuation. For discussion, see Shoemaker, 1997.
 20. Assuming materialism, that is. If compound dualism is true, the person would be the brain-plus-soul-as-form—arguably “larger,” in a nonspatial sense, than the brain alone.
 21. See van Inwagen, 1990 and Olson, 1997.
 22. The remarkable abilities of human bodies to survive brain stem death are described in Mackie, 1998.
 23. See van Inwagen, 1990, pp. 169–212; and Olson, 1997, pp. 131–142.
 24. As Pavel Davydov has reminded me, some ways of distinguishing “tokens” of a word might identify one token for each subject which is making the sound “I” by means of my vocal cords—thereby multiplying tokens of “I,” one for every sum of temporal parts that includes my current vocalizing stages. But, as he also points out, all these tokens might nevertheless be co-referential. I should think a good rule for determining the referent of a token of “I” in a given context would, in fact, give the same result for each. A spatial comparison may help motivate this conclusion: On a radically fine-grained view of how tokens should be individuated, “The treasure is here,” scrawled on the dessert sand, would contain an indefinite number of tokens of “here,” one for each part of the dessert roughly centered upon the word (each of which *could* have been meant by someone who wrote those words); but the (no doubt vague) location that *each* such token indicates, in the particular circumstances, ought to be the same.
 25. A metaphysics of temporal parts is not the only view that will open up space for ambiguity in our talk about the persistence of persons. In Olson, 1995, and Sider, 2001b, alternatives to temporal parts are explored which would lead to similar conclusions: (1) nihilism (Olson, 1995, pp. 149–152; Sider, 2001b, p. 194) or mereological essentialism (Sider, 2001b, p. 194), with many equally good “loose” ways of talking



about persistence of persons; (2) relativity of identity, with several equally good candidate kinds to which my identity might be relative (Olson, 1995, pp. 153–156); (3) stage-theory, with many equally good candidates for the kind of temporal-counterpart-relation relevant to determining what I did or will do (Sider, 2001b, pp. 192–193); and (4) a “promiscuous’ endurance theory” with many coincident objects corresponding to equally good candidates for being me, some satisfying versions of (PC), others versions of (BC) (Sider, 2001b, pp. 193–194). On at least some of these metaphysical views, one could give an analog of the argument I shall give for Proteanism. I shall, however, ignore them. Each is much less popular than the two views I consider here: namely, the doctrine of temporal parts, and a nonpromiscuous endurance theory.

26. José Benardete once suggested to me that Timothy Williamson’s defense of epistemicism looks like an argument for the existence of God: only God could establish precise boundaries for the English words “bald,” “heap,” etc. Jonathan Edwards, himself a temporal parts theorist, held an extreme sort of divine command theory of personal identity that would have allowed God to decide whether “I,” in my current stage’s mouth, refers to a psychological continuer or a biological continuer—or, for that matter, a radically discontinuous thing that included some temporal parts from Adam himself among its parts. For discussion of Edwards’s views, see Rea, 2007, pp. 332–345; and Johnston, 2010, pp. 121–125.
27. The principle is called “Constancy of First-Person Reference.” In effect, the whole argument could still be run, replacing an individual and the relation around which she “organizes her life” with a community of language-users and the relation their overall usage and dispositions select as relevant to a single life. God simply has to do for everyone what I, in the argument, imagine him doing for me.
28. Suppose Berkeley were right when he says (in the Fourth Dialogue of his *Alciphron*) that the data of vision (and other senses) represent a kind of divine language by means of which God speaks to us. Could God’s communication with us by means of, for example, a “Visual Language” somehow help to make divine stipulations more relevant to the interpretation of words in English and other natural languages?
29. Compare Nozick, 1981, p. 69.
30. The approach is in contrast to, or at least in tension with, Marya Schechtman’s “narrative self-constitution theory,” according to which the boundaries of a person are determined primarily by a narrative self-conception that can be made fully articulate, as opposed to psychological attitudes of which one may not be fully aware; see Schechtman, 1996, pp. 114–119.
31. It may be helpful to relate the position taken here to the discussion of personal identity in Sider, 2001b. I regard Intended Constancy of First-Person Reference and Local Determination of Local Persistence Conditions as, in Sider’s terms, constraints on “eligibility” that come from our “usage” (Sider, 2001b, pp. 190–191). There is an available “candidate meaning” for our reference to human persons (namely, things belonging to the kind: Protean person) that is more eligible than the things Sider calls “psychological-persons” and the things he calls “body-persons.” So one should conclude that we refer to Protean persons using the first person (and other names assumed to be co-referential with first person pronouns). The argument for Proteanism would be a case of “ongoing philosophical investigation” establishing “a superior theory” among competing criteria of personal identity (Sider, 2001b, p. 201).
32. Although, officially, Johnston rejects the doctrine of temporal parts, his hylomorphism introduces a plenitude of overlapping persisting objects that will do



- just as well for the purposes of my argument for Proteanism. Johnston's most recent arguments for Proteanism can be found in chapter 4 of Johnston, 2010, and are summed up on pp. 293–295. They crucially involve the notion of a disagreement's being "investigation transcendent." Johnston's argument is complex, and I am not sure how closely our arguments for Proteanism correspond to one another.
33. In Zimmerman, 2010, I argue that the most intuitively plausible forms of materialism can be ruled out; whereupon dualism becomes just one more speculative hypothesis about what kind of thing we are, alongside a range of unlikely and no less speculative materialist options. The contributors to Baker and Goetz, 2011 explore the potential empirical fruitfulness of (what they call) *The Soul Hypothesis*.
 34. Karl Popper's dualism also seems to be of the emergent kind (Popper and Eccles, 1977; for discussion, see Hasker, 1999, pp. 185–158). Robin Collins is sympathetic to the view, and briefly sketches a proposal for the mechanism of emergence (Collins, 2011, 244–245). Richard Swinburne does not quite fit the profile. He is skeptical about the extent to which any mind-brain correlations can receive scientific explanations, and this leads him to the conclusion that God takes a more active role in generating and sustaining souls than Hasker supposes (Swinburne, 1986, 198–199).
 35. For contemporary attempts to explain a metaphysics of substantial forms that has these results, see Stump, 1995; Leftow, 2001; and Oderberg, 2005.
 36. On Stump's reading of Aquinas, the separated soul constitutes the person during the unnatural period between death and resurrection. A particular can "exist when it is constituted only by one of its main metaphysical parts, namely, the soul. And so although a person is not identical to his soul, the existence of the soul is sufficient for the existence of a person" (Stump, 2003, p. 53) (For contemporary defense of a Thomistic dualism that takes this line, see also Oderberg, 2005.) According to other interpreters, St. Thomas denies that the separated soul of a person is that person. For discussion of the controversy, and a Thomistic account of the resurrection in which persons enjoy "gappy existence" and the persisting soul secures something like immanent-causal connections between dead and resurrected bodies, see Christina Van Dyke, 2007.
 37. For materialists who make use of coincident entities in their explanations of the resurrection, see Baker, 2007, and Corcoran, 2001b.
 38. Stump, 1995, p. 516; see also Stump, 2006.
 39. A few materialists identify persons with just the *brains* in our bodies—a difference that will not be relevant to questions about survival of death.
 40. E.g., Olson, 1997, p. 71.
 41. See Shoemaker, 1997 and 1999.
 42. I here gloss over an important distinction among materialists who reject temporal parts: namely, the difference between those who affirm and those who deny that there can be more than one entirely physical object existing in the same place at the same time, made out of the same matter. Those who affirm the existence of such coincident objects will typically suppose that, where I am, there is a human body that is not a human person, and also a human person (namely, me) that is not a (mere) human body. The close relation between me and my body is one of "constitution"—the body constitutes the person. The differences between coincident objects related by constitution come out primarily in their persistence conditions. The *mere* body, for example, can "survive death" in a Pickwickian sense, continuing to exist but *as a corpse*; while the human person would cease to be, were its life utterly snuffed out. I shall not give the views of constitution theorists (e.g., Shoemaker, 1999, Baker, 2007,

- Corcoran, 2001b) separate treatment. In general, they agree that there is a human *animal* where each person is; and that, if God could preserve the animal through the death of the body (without losing important psychological connections in the process), God could certainly preserve the person as well. So my Falling Elevator Model, below, will work for them. The reassembly proposals to be discussed first, however, will be of less value to most constitution theorists. (Corcoran, for example, would not be able to make use of reassembly, since his persons satisfy a biological criterion along the lines of (BC); while Baker has no use for either proposal—her persons are not tethered to either body *or* animal; they need not even display the Neo-Lockean’s psychological continuities, but can freely go whither God wilt.)
43. See Hershenov, 2002 for defense of the principle; and Zimmerman, 2010b for criticism.
 44. Fred Feldman, in this volume, calls this widely held principle “the termination thesis” (though he argues against it).
 45. Jens Johansson has pointed out that (iii) would not be ruled out by (GR) if enough of my parts to constitute me could *become immaterial*. But this alternative does not provide much hope of escape for the materialist who wants survival of death (without body snatching) and a strong assimilation requirement. If all the atoms in my body, say, became immaterial at my (apparent) death, then the matter left behind would not be the matter formerly making up my body (at least, so long as we deny that there were two atoms all along, sharing temporal parts). If only larger structures (like the brain, bones, and blood vessels) become immaterial, then again there will be a violation of an assimilation requirement with respect to these larger parts.
 46. Johnston’s attitude toward closest continuer theories is complicated by the fact that he rejects them for “higher-order individuals” such as species (e.g., the Tiger), which survive fission by coming to be “multiply-embodied”; and that he regards persons as similar to species in this regard. When a person seems to undergo fission, what happens is that the original human organism ceases to be, replaced by two new ones; and there is, in addition to the three organisms, a single person who survives twice over. The person is a higher-order individual, constituted by each of the three organisms (Johnston, 2010, pp. 364–368). Admitting the need for a closest continuer clause in the identity conditions for *any* individuals undermines criticisms of materialist accounts of resurrection, if those criticisms depend crucially on the supposed implausibility of an appeal to the absence of closest continuers (or, in the case of Johnston’s argument against reassembly, closest predecessors).
 47. I believe most of those who accept the need for a closest continuer clause in criteria of personal identity would agree that fusion cases should be treated similarly. But I note that Hawley, 2005 contains an interesting argument for treating the cases differently.
 48. Some materialists suppose that facts about identity over time, for human persons, do not supervene upon the facts about the behavior of our parts and their causal relations. They can reject a closest continuer account of our persistence conditions; and they will have their own reasons to reject Johnston’s duplication principle. Merricks’s defense of the compatibility of survival and materialism appeals to the idea that our persistence through time is not determined by the behavior of the matter of which we are made; and O’Connor and Jacobs explicitly use this sort of failure of supervenience to defend a materialist theory of resurrection that does

- not commit them to a closest-continuer criterion of identity (their view is not a reassembly theory of resurrection, but a variant of the Falling Elevator Model).
49. See Hershenov, 2003, p. 34. The context of Hershenov's suggestion is the question: what happens if many human beings overlap in the atoms constituting their bodies at death?—something much more likely than precise peri-mortem duplication. So long as not everyone is resurrected at once, he says, there is nothing to worry about. The newly resurrected can ingest, inhale, and in other ways absorb “fresh” matter, gradually freeing up the shared bits of their bodies; soon enough, everyone's peri-mortem state would be reproducible.
 50. See Zimmerman, 1999.
 51. See Hudson, 2001, ch. 7; Corcoran, 2001b, pp. 201–217; O'Connor and Jacobs, 2010; Hasker, 1999, pp. 224–231; Hershenov, 2002; and Olson, 2010.
 52. Johnston's criticisms of the Falling Elevator Model (Johnston, 2010, pp. 106–107) turn upon a misunderstanding at this point. He thinks that the fissionlike process undergone by each atom can only have two interpretations: either every original atom ceases to be, replaced by two duplicates, one in the corpse and one in the hereafter; or else a new atom is left behind on earth, while the original atom jumps away as part of the living body that appears in “the next world.” But then of course the corpse really *is* a simulacrum, just as on van Inwagen's “body-snatching” model. My alternative was developed precisely to avoid this result.
 53. Zimmerman, 1999, pp. 197–201. For criticism of my argument, see Hasker, 1999, pp. 229–230; for my reply, see Zimmerman, 2010b, pp. 38–44.
 54. For discussion, see Redhead and Teller, 1992; and Huggett, 1997.
 55. See Saunders, 2006.
 56. For the opinions of some well-known contemporary philosophers on the question of God's existence, see Clark, 1993, Morris, 1994, and Antony, 2007.
 57. I tried out a version of the argument for Proteanism in 2004, in one of two talks I gave as the Dasturzada Dr. Jal Pavry Memorial Lectures, at Oxford. Later versions were aired at: St. Louis University; a conference on “Persons: Human and Divine,” supported by the Pew Christian Scholars Program and hosted by Syracuse University; a conference sponsored by the Institut für Christliche Philosophie, at the University of Innsbruck; The Faraday Institute for Science and Religion, St. Edmond's College, Cambridge; and the 2010 Metaphysical Mayhem at Rutgers. I am grateful for all the discussions that ensued; they greatly influenced the current version, though in ways I can no longer recall with much precision. I am sure I owe debts to the late (great) Bill Alston, Tamar Gendler, Eric Olson, David Hershenov, Ted Sider, and numerous participants in Metaphysical Mayhem, including: Andrew Bailey, Janelle Derstine, Bradley Rettler, and Jeff Russell. One thing I remember clearly is John Hawthorne suggesting to me, when I was first thinking about these issues, that deference to future stages might trump all; and I know that he sharpened my thinking about many parts of the Pro-Proteanism argument. Jens Johansson provided an excellent set of comments that enabled me to catch many mistakes. Pavel Davydov helped me immensely at the eleventh hour, showing me—among other things—the naïveté of my original discussion of indexicals. Although I think that the Pro-Proteanism argument was greatly improved by Davydov's generous advice, I am certain that I have not addressed all of the legitimate concerns he raised. Consequently, (much as I would like to) I cannot hold him responsible for the results.

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