

What Matters in Survival: Self-determination and The Continuity of Life Trajectories

Abstract: In this paper, I argue that standard psychological continuity theory does not account for an important feature of what is important in survival – having the property of personhood. I offer a theory that can account for this, and I explain how it avoids the implausible consequences of standard psychological continuity theory, as well as having certain other advantages over that theory.

1. Introduction

The following question defines the problem of personal identity: given the degree to which a person changes over their lifetime, what would make it true that they in fact endure or persist over time? The contemporary answer is that there must be a certain relation(s) that holds between the earlier ways a person once was to the ways they are now such that – despite these changes – its presence entails that a person remains the same individual over time.¹

From a contemporary scientific point of view, if a person is anything, it is a psychological-physical object. If so, remaining the same person over time could involve only relations between these types of states. However, a person's psychology is typically considered distinct from their physical body. If so, we can ask whether psychological integrity is more important than bodily integrity in their survival over time. The most intuitive position is that psychological integrity or continuity is what matters, not physical continuity.

Parfit (1971) offers support for the previous position with the following thought experiment: suppose a person is diagnosed with a fatal brain disease. However, they have the option of having the healthy part of their brain – now sufficient to maintain their current psychology – transplanted into another body exactly like their own. Parfit plausibly claims that most would want the transplant. This is supposed to show that personal identity depends upon psychological continuity, not bodily continuity.

¹ This assumes that the problem of identity over time has been settled in favor of a relational view.

The most widely accepted account of what it is to have psychological continuity – the relations that must hold between the psychological states a person once had, and the psychological states a person has now – is as follows: first, their adjacent psychological states must be similar or resemble one another; and second, their current psychological states must causally or counterfactually depend upon their earlier psychological states.²

Psychological continuity theory, however, has a well-known serious flaw – it cannot serve as a theory of personal identity. This is because psychological continuity over time does not entail identity over time. Nevertheless, the intuitiveness of psychological continuity is what matters in survival is undeniable. For this reason, Parfit concludes that identity is not important in a person's survival over time. As a result, theories of personal identity should be understood instead as theories of "what matters in survival."

If identity is not what matters in survival, then whether psychological continuity fails to sustain it is irrelevant. I argue, however, that even as a theory of what matters in survival, psychological continuity theory fails. I offer an alternative theory of what matters in survival that I call the "life trajectory" theory.

In Section 2, I present two well-known arguments that show that psychological continuity theory fails as an identity theory. I then discuss the response to this failure – that of rejecting identity as "what matters in survival," and I give an argument for accepting this distinct from other arguments. I then offer a neutral definition of the concept of having what matters in survival. In Section 3, I discuss a particular scenario that shows that psychological continuity theory fails even as theory of what matters in survival. In Section 4, I develop a theory hinted at in section 3 – the life trajectory theory. Section 5 offers reasons for accepting this theory based on its advantages over the standard psychological continuity

² For this succinct characterization, see Lewis (1983).

theory, and section 6 considers some objections to it.

2. Identity Theories and Having What Matters in Survival

An identity theory of persons over time is not clearly an attainable goal given several considerations. Any candidate theory of the identity relation that holds of any object must satisfy three requirements: it must be reflexive, symmetric, and transitive. In laymen's terms, any object must be identical to itself. Second, any object that is identical to any other entails that they are identical to one another. Third, for any object identical to another that is, in turn, identical to yet another, entails that the first object must be identical to the last. Finding a relation that respects these requirements concerning personal identity is not easy. First, the most compelling relation for sustaining personal identity – that of psychological continuity – fails to be an equivalence relation. Second, it is not clear that the notion of personal identity is clearly a substantive concept in the first place.

2.1 Psychological Continuity Theory's Failure as an Identity Theory

The first argument that illustrates that psychological continuity cannot be an identity relation is that the standard theory of psychological continuity allows for one-to-many relations between psychologically continuous beings over time. That is, more than one later person can be psychologically continuous with an earlier person. Consider, for example, what is called a "fission" scenario involving tele-transportation.³ Suppose that the Earth is uninhabitable, and Mars is the only planet that can support human life. However, the only means of transportation is tele-transportation. Most people would likely choose to tele-transport to Mars rather than die on Earth, even though 1% of the time the teletransportee "fissions" during the process of tele-transport. That is, upon arrival, 1% of the time, two exact duplicates of the original teletransportee step out of the tele-transporter, both

³ Fission scenarios are also discussed by Parfit (1971:5) but were earlier considered by Williams (1976) and Wiggins (1967).

psychologically continuous with the original transportee.⁴ However, if psychological continuity entails identity, then only one of the two persons after fission could be identical to the original transportee, since two objects cannot be identical to one. But in the fission scenario, there are in fact two people that are psychologically continuous with a previous person. This illustrates that the presence of psychological continuity over time does not entail the presence of identity over time.

The second fact that illustrates the insufficiency of psychological continuity as a theory of personal identity is that it can come in degrees.⁵ Imagine, for instance, a person who undergoes several sudden radical psychological changes and is, therefore, to a certain degree, less psychologically continuous with the person they were prior to these changes. If psychological continuity entailed identity, its presence cannot be a matter of degree since an object cannot be more or less identical to itself. Identity is all or nothing. This fact also shows that psychological continuity is not an identity relation. Psychological continuity theory, then, cannot be a theory of personal identity over time. XXXX

2.2 Does Identity Matter at All?

At any rate, it may not matter whether psychological continuity can maintain personal identity over time, since it is not clear that the identity relation itself is what is of central concern to persons in their concern for survival anyhow. We can see this when we consider an observation of Butler's (1736) concerning Locke's memory theory of personal identity (1694).

Locke held that a later subject is identical to an earlier subject just in case the later subject remembers being the earlier subject, also known the memory theory of personal

⁴ Fission scenarios are also discussed by Parfit (1971:5) but were earlier considered by Williams (1976) and Wiggins (1967).

⁵ See Schetchman for more discussion on the degree criterion (2001).

identity. Butler's (1736) concern was that the theory was uninformative, since a later subject can only remember being an earlier subject if it is already known that the later subject is identical to the earlier subject. Butler assumed that mental states count as memories only if they accurately portray a subject's past experiences. That is, to say that a subject remembers an event entails that that subject having that memory is the very subject who experienced that event. Butler concludes that Locke's memory theory is, therefore, uninformative given that it presupposes the truth of that which is purporting to explain.

In response to Butler's objection to the memory criterion, some psychological continuity theorists – most notably Shoemaker (1970), but also Parfit – rely on a different notion of memory that does not require sustaining identity.

According to Shoemaker, even if Butler is correct about genuine memories, it is possible to have mental states that at least appear to be genuine memories to the person who experiences them, but who nevertheless fails to be identical to the subject who experienced the events that the memories are about. These mental states are described as "quasi-memories," or as "q-memories." For the person experiencing these memories having them is indistinguishable from having genuine memories. That is, there is no discernible qualitative difference between q-memories and genuine memories.

This casts doubt on the importance of a theory of the identity of a person over time, since it allows for the possibility that the only thing a person could rationally want concerning what matters in their survival is the persistence of quasi-psychological continuity – that they would have no grounds for complaint if this was all they ever had, since it makes no qualitative difference from a first-person perspective. If that is correct, then, even if there was a relation that maintained a person's identity, it is irrelevant to what matters in survival. On this line of reasoning, identity fails to matter in survival not because psychological continuity theory allows for fission and degrees of psychological continuity, but rather

because caring about it as something that matters in survival is not reasonable from a first-person perspective.

2.3 Replacing the Concept of Personal Identity with What Matters in Survival

If we suppose that identity does not matter in survival, then what possibly could? In response to the objections to psychological continuity theory, Parfit, paradoxically and startlingly, concludes that identity or being the same person over time, is not important for survival (1984: 261-265; 1995: 21-22).⁶ Instead, Parfit claims that the focus should be on what he calls “what matters in survival.”⁷

Currently, many theorists have accepted Parfit’s conclusion. Call these theorists “survivalists.” Survivalists have the burden of characterizing the concept of what matters in survival. I rely on Parfit and Shoemaker’s idea that what matters is a relation(s) that holds between some person A and a later person B that is qualitatively distinguishable from the holding of an identity relation. The holding of such a relation would allow for A and B to both identify B as A’s successor.

More formally, a relation matters in survival if it meets at least the following two general conditions:

- (1) If a person A at moment t cannot distinguish the difference between themselves and a later person B at moment t_1 , in the same way if A were identical to B, then person B has what matters in A’s survival.
- (2) If a person B at moment t_1 cannot distinguish the difference between themselves and an earlier person A at moment t , in the same way if B were identical to A, then person B has what matters in A’s survival.

⁶ For theorists who resist the idea that fission threatens identity, see Carroll (2011); Demarest (2016); and Lewis (1983).

⁷ For more discussion of the details of Parfit’s arguments, along with issues about interpretation, see Johansson (2010), and Schetchman (1996) who develops the objection that this cannot be a criterion on having what matters since it does not allow us to distinguish self-interested from other-interested concern. Williams (1973) also offers an objection based on similar concerns. It should be noted that Parfit is not consistent in his use of the term ‘survival’. ‘Survival’ sometimes stands for persistence (1984), while at other times, he drives a wedge between the two concepts (1971). I will follow the more natural (1984) use.

Consider this example as a case of the satisfaction of conditions (1) and (2). Assume person A and later person B fail to be identical. Now imagine that at moment t , A knows that they will soon die, and they arrange to have their psychological states preserved by cryogenically freezing their brain just prior to their cessation. They will their brain to neuroscientists with the instructions to transplant it into a healthy subject that, unfortunately, experiences brain death. Subject A also wills their possessions to the body into which their brain is transplanted. At moment t , A identifies with the future of whomever receives their brain as if it is their own. Now suppose that upon A's cessation at moment t_1 another subject B experiences brain death and their body is therefore available for a brain transplant. Upon the transplant of A's brain into B's body, B awakens recalling from a first-person perspective that A desired to renovate their home. Subject B proceeds to do so. In this case, both conditions (1) and (2) for having what matters in A's survival are satisfied: A believes that their desires will be present in person B in the same way they would have been had A been identical to B, and B has A's desires and acts on them in the same way A would have had A persisted as person B.⁸

Conditions (1) and (2) are plausible candidates for having what matters in survival, at least if all that matters is that a person sustains something qualitatively indistinguishable from sustaining their identity. If we suppose this is purely a matter of the internal relations between a person's psychological states over time, as several of Parfit's thought experiments appear to illustrate, then psychological continuity theory is a strong candidate for a theory of what matters for survival, despite that the fact that it fails as a theory of

⁸ The reason for both forward and backward-looking requirements for having what matters in survival should now be clear for at least one reason: the transplant is successful only if there in fact exists a later being who retroactively "owns" their successor's past. For more arguments for both criteria, see Schetchman (2001).

identity. However, not all thought experiments support psychological continuity theory as a theory of what matters in survival.

3. Why Psychological Continuity Theory Fails as a Theory of What Matters in Survival

I now offer two arguments against psychological continuity theory as a theory of what matters in survival. One I call “the intuitive” argument, and the second I call “the metaphysical” argument.

Both arguments rest on explaining why a person as such might react negatively to the prospect of having experiences that fail to correlate with any facts about the external world – what I call a “virtual immersion” scenario – despite the presence of psychological continuity. Any virtual immersion scenario that garners a negative reaction suggests that something might be missing from a psychological continuity theory of what matters in survival. Or it at least demands some type of explanation for any negative reaction. One virtual immersion scenario to which we do have a negative reaction, I explain as due to its depriving a person of having any autonomy.

In the intuitive argument, assuming a desire for autonomy explains the desire for veridical experience, I offer the same type of thought experiment that Parfit uses to show that psychological continuity matters in survival to show that autonomy matters in survival. It then follows that psychological continuity theory cannot be the correct theory of what matters in survival, since it does not require the property of having autonomy. However, an argument based on intuition alone has a low angle of repose.⁹ For this reason, I also offer a metaphysical argument against psychological continuity theory.

In the metaphysical argument, I claim that autonomy is part of what it is to be a person, and that having what matters in survival requires remaining a person. Since having only psychological continuity does not entail having autonomy, and this is required for

⁹ Some reasons for this are explored later in section 6.

personhood, psychological continuity theory fails as a theory of what matters in survival.

3.1 A Case of Virtual Immersion: The Experience Machine Scenario

Virtual immersion scenarios are a good diagnostic for the sufficiency of psychological continuity theory as a theory of what matters in survival, since they maintain psychological continuity in isolation from every other property that might matter in survival. If psychological continuity theory is correct, then no virtual immersion scenario can threaten what matters in survival.

There is, however, at least one example of a virtual immersion scenario that generates a strong negative reaction – Nozick's experience machine (1998). The experience machine scenario involves a machine that can provide a person with an endless supply of desirable, but illusory, life experiences. The prospect of an entire existence inside this machine, however, makes most people recoil in horror.¹⁰ Nozick's explanation of this reaction is that we value more than merely experiencing ourselves as having done certain things, we also want those experiences to be veridical or authentic – to be accurate representations of our interactions with our surrounding environment. But why should veridicality or authenticity be of any value to persons as such? XXXXX

One hypothesis is that having only passive illusory experiences, rather than experiences that actually occur in an external world that allow a psychological subject to navigate that context in a particular way – to form correct beliefs about it, to deliberate about how to achieve their desires, and to take the required actions that their deliberations indicate that they should, is part of what it is to be an autonomous agent or to have a self-determined life.¹¹ That is, having reliable veridical experiences are required for a

¹⁰ The fact that the situation portrayed in "The Matrix" is at all disturbing is proof that many people have negative reactions to virtual immersion.

¹¹ That believing based on evidence enhances autonomy was emphasized by Kant (1785), and which is also part of the reason for why he believed lying to be wrong. Aristotle also had

psychological subject to effectually interact with their environment and to take an active deliberative stance towards it. Veridical experiences, then, are a necessary component to effectively direct or govern a life or to reliably shape its direction.¹² The experience machine scenario, then, in producing subjects that are mere passive experiencers, threatens those subjects' autonomy or ability to have a self-determined life.

3.2 The Intuitive Argument Against Psychological Continuity Theory

That autonomy is a concept that rivals psychological continuity in its importance to persons is illustrated by the following thought experiment. Recall that in Parfit's thought experiments, in the single-case transplant, most agree that their mind matters more for what matters in survival than their bodies, making psychological continuity theory the most competitive theory as an account of what matters in survival. Supposing this is a good argument strategy, I will now appeal to the very same method, except that in this thought experiment, the choice is between remaining autonomous without full psychological continuity over time, or relinquishing it, but retaining full psychological continuity.

Suppose, for instance, that you are ill with a fatal degenerative brain disease, but that neuropsychologists and computer scientists know how to convert sets of psychological states into a digital format. Your doctor offers you the option of having your entire psychology, which has the digital informational value of approximately 2.5 petabytes, or 2500 terabytes, transferred to a digital storage device. You are warned, however, that scientists cannot covert psychological states back into any format readable by an organic brain, and that it is possible to store 2500 terabytes of data on a digital storage unit only if it

a similar idea in which being a person (or "humans" in his terms) in his *Nicomachean Ethics* (trans. Rowe 2002) involves having rational capacities and effectively exercising those capacities.

¹² For arguments that having plans and projects are important for having what matters in survival, see Perry (1976). See Wolf for arguments that knowledge is required for the exercise of free will (1986).

is kept at a ridiculously low temperature.

To preserve your entire psychology, then, it must be stored on a device that is not feasibly portable. If you choose to have your entire psychology converted, then, there will be no way for you to live as the embodied person you once were. You will, however, still be able to communicate with the outside world via projecting your thoughts onto a digital screen. You are also told, however, that there is another option. Your psychology can be compressed and stored on a digital storage unit that will fit within a body cloned from yours, but this compression will inevitably result in the loss of the finer details of your psychological states. For example, you may lose some of your memories or current desires, but the general “shape” of your current psychology would remain the same. This process would, therefore, allow you to keep the defining properties of your psychology in a similar way to the way in which a JPEG file of a tiger, which was originally a RAW file, still looks like a tiger, even though it fails to contain every tiger-y pixel it had originally.

In the first scenario, although your psychology continues in its entirety, you lose a significant degree of autonomy and control over your life. Your autonomy would be severely compromised. In the second scenario, your autonomy and control, among other properties, are fully preserved. That is, after the compression transfer process, you could still do everything you had planned to do prior to the onset of the disease, at least those that you deemed important.

Now which choice is preferable? I suspect the second option is the most attractive – that our psychologies matter, but only insofar as they allow us to continue to be the self-determining beings we had always been. This thought experiment, then, illustrates that autonomy matters in survival then, insofar as Parfit’s thought experiment illustrates that psychological continuity does. If autonomy matters in survival, then because the experience machine scenario threatens it, psychological continuity theory fails as a theory of what

matters in survival, since the experience machine scenario does not threaten psychological continuity but does threaten autonomy.

3.3 The Metaphysical Argument Against Psychological Continuity Theory

One problem with the intuitive argument is that it assumes that our intuitions are a guide to what matters in survival. But this is true only against the backdrop of a theory of the nature of personhood. For instance, Parfit's thought experiment that purports to show that psychological continuity matters in survival depends on the theory that a person is made up only of psychological states and a physical body. Since, in Parfit's thought experiment, a person would choose keeping their psychology intact over keeping their body intact, Parfit concludes that psychological continuity must be what matters in survival.

However, the experience machine scenario shows that having only psychological continuity is unsatisfactory for some reason, and I claim that the reason is that a person in the experience machine lacks autonomy. In fact, even in Parfit's thought experiment, a person's autonomy is not threatened. They may no longer have the same body, but they do not lack a body altogether. They remain embedded in their surrounding environment – able to remain an autonomous agent and pick up their self-determined life as it was before. It is worth considering, then, whether autonomy is also part of what it is to be a person. And this is not an uncommon idea. The property of autonomy is often on the standard "hitlist" for delineating persons from non-persons.¹³

Let us suppose, then, that the capacity for self-determination or autonomy is required

¹³ See Frankfurt (1971) and Kant (1785) for defenses of the idea that autonomy is required for personhood. A close cousin, or perhaps the very same as the concept of autonomy is that of agency. This concept is also often on the standard "hitlist" of properties that delineate persons from non-persons. See Koorsgaard (1989), Rovane (1998), and Wilson (2005) for defenses of the idea that agency is essential to personhood.

for being a person.¹⁴ What follows concerning what matters in survival? Well, nothing, at least not without the assumption that only properties that delineate persons can matter in survival. And why would this be true? The only reason I can think of is that remaining a person matters in survival.

I now offer two reasons for believing that remaining a person matters in survival. First, I appeal to a simple conceptual truth. Second, I show that meeting conditions (1) and (2) on what matters in survival require remaining a person.

On the matter of personhood mattering simply on conceptual grounds, consider the fact that in giving a theory of what matters in the survival of persons, our object of study is...well...persons. Simply by definition, then, being a person must matter in survival.

Now consider whether being a person is required for meeting conditions (1) and (2) for having what matters in survival. I claim that it is. Imagine, for instance, that a person knows they will soon inherit millions of dollars, but they also know that before this happens, they will be turned into a bunny rabbit. The subject who later inherits the money – the bunny rabbit – is not going to experience that event as if it constitutes the satisfaction of the previous subject's desire, assuming bunny rabbits are even sufficiently advanced enough to be cognizant of having inherited anything at all. So, condition (2) is not satisfied in this case. And neither is condition (1): the person who now exists now will not anticipate that the bunny rabbit's inheriting the money will constitute the satisfaction of their current desires.

I conclude then that being a person matters in survival. As discussed, psychological continuity alone cannot sustain autonomy because it does not require reliable veridical experiences as revealed by the experience machine scenario. Since autonomy is not simply something that only matters intuitively, it matters because it is a property required for being

¹⁴ I later consider theories of personhood that do not require autonomy and show that they are lacking.

a person and this matters in survival, an alternative to psychological continuity theory as a theory of what matters in survival is required.

The alternative I offer respects the fact that reliable veridical experience – a precondition for a self-determined life – is required for having what matters in survival. I now turn to explaining this alternative – the life trajectory theory of what matters in survival.

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4. The Life Trajectory Theory of What Matters in Survival

What are the basic components of being autonomous or of having a life of our own design – a self-directed life trajectory? First, there is the property of having a life in general. I will think of a person's life trajectory as the path of a psychological subject through an external environment individuated by that psychological subject's external relations to that environment. A self-directed life trajectory begins with an action that counts as self-determining or autonomous and is shaped by those types of acts afterwards.¹⁵ As the experience machine illustrated, being autonomous requires being related to an external environment in particular ways. Logically, being related to an environment confers certain extrinsic properties upon a psychological subject. I deduce therefore that the continued having of certain extrinsic properties must play a role in an account of what matters in survival.¹⁶

4.1 Extrinsic Properties and What Matters in Survival

Because extrinsic properties play a key role in having a self-directed life trajectory – what I claim matters in survival – I will now explore their nature. Consider, for example, the

¹⁵ Of course, a person's life trajectory is not entirely self-directed, luck intervenes more than many of us would like.

¹⁶ Marya Schetchman has recently developed a similar idea (2014) emphasizing the importance of unity with respect to practical concerns, which she terms having a "person life." Her view, however, counts as a narrative social constitution view, my own is very different from that kind of view.

following extrinsic properties of my own. Currently, I have the short-lived extrinsic properties of drinking a coffee and of typing on my keyboard. In contrast, I also have the longer-lived properties of being the custodian of one Catahoula rescue and one McNab Shepherd rescue, and of living at a certain address. These properties are ephemeral. Even further, however, there are other properties I have that I will always have, such as being the sole author of this work, of being my father's second born child, as well as being the agent of whatever intentional action or decision from which my self-directed life trajectory originated. These are properties that hold of me permanently throughout my lifetime.

All the above properties individuate my specific life trajectory, at least, currently. Only the permanent extrinsic properties, however, can do so over time – those I will have, come what may, for the duration of my lifespan. The reason these properties differ from the more temporary extrinsic properties in that their holding does not depend upon my occurrent relations to my environment. For example, having the extrinsic properties of drinking a cup of coffee or of living in a particular location depends upon being currently related to a cup of coffee and a particular location. In contrast, being the author of this work does not depend upon occurrent relations to this work. It could be destroyed completely and yet I would still have the property of being the author of that work. Similarly, having the property of being my father's second born child is true of me even though my father has passed away and I am no longer currently related to him. That is, having a permanent extrinsic depends only on the relation that conferred it having held at some point in time. Because of this, permanent extrinsic properties can delineate a single continuous life trajectory over time, even though the more ephemeral properties can delineate one at a time.

Therefore, it must be our permanent extrinsic properties that can matter in survival over time. And these properties matter intuitively. They are a part of what gives a person a

sense of continuity over time – of what grounds their current identification of having been a particular earlier subject, and the continued having of such properties are part of what grounds a person's identification as being a particular later subject.¹⁷

4.2 Continuity and Permanent Extrinsic Properties

If the continued holding of permanent extrinsic properties is necessary to have what matters in survival, then understanding how to ensure their continuity is required. Now, one obvious way to ensure their continuity is simply for that very subject upon which they were bestowed to continue over time as their bearer. However, this rules out any non-identity or survivalist theory of what matters in survival, since continuing to have permanent extrinsic properties would require that any later subject must be identical to any earlier subject to have what matters. However, this is not the only way to understand the continuity of a person's extrinsic properties over time. As Shoemaker and Parfit did, I too can appeal to the idea of something's being qualitatively identical to strict survival to explain what is required for the continuity of permanent extrinsic properties.

In general terms, the two conditions on having what matters in survival concerning permanent extrinsic properties are as follows:

- (3) If a person A at moment t cannot distinguish the difference between themselves and a later person B at moment t_1 , in the same way if A were identical to B, concerning their permanent extrinsic properties, then person B has what matters for A's survival.
- (4) If a person B at moment t_1 cannot distinguish the difference between themselves and an earlier person A at moment t , in the same way if A were identical to B, concerning their permanent extrinsic properties, then person B has what matters for A's survival.

¹⁷ Psychological continuity and life trajectory continuity then are symbiotic. But even if this is not sufficiently convincing, the claim that what matters in survival is the continuation of some extrinsic q-properties is not supported on the grounds of our direct intuitions anyway. It is a consequence that follows from other intuitions we do have, like the intuition that being a person matters in survival, which I claim requires a certain kind of connection to an external context. To account for this intuition, it was then conjectured, not deduced, that part of what matters in our survival is the continuation of our life trajectory, which is analyzed in terms of the continuity of certain extrinsic properties over time.

Conditions (3) and (4) define what matters in survival concerning a person's permanent extrinsic properties. If they hold of a later person B, then that person has what I will call the "quasi-counterparts" of earlier person A's permanent extrinsic properties, and this is part of what is required for an earlier person A's life trajectory to continue.

For a later person B to be qualitatively indistinguishable from an earlier person A concerning their extrinsic properties, they must maintain the character of those properties. That is, person B must be able to occupy A's previous environmental niche. But how could anyone but A accomplish this? It is simply a fact that A could have changed in many ways with respect to their permanent extrinsic properties. Remaining neutral on the question of determinism entails that either there is no way to know what A's later extrinsic properties could have been, or there is no way to even determine these facts. A's future could have included gaining various new permanent extrinsic properties, such as having children or inventing the world's best can opener. How then can anyone but A count as having A's future permanent extrinsic properties?

This might appear to be an impossible question to answer. However, because conditions (3) and (4) require only that B has the properties A would have had after they ceased to exist, and the permanent extrinsic properties that A had at time t are the only properties that they are guaranteed to have, then so long as B has those properties in the manner specified by conditions (3) and (4), then B has what matters in A's survival. That is, B is A's successor just in case B identifies as having the quasi-counterparts of the permanent extrinsic properties A would have had if A had persisted, not those that A could have had.¹⁸

Now what is it to have the quasi-counterpart of another person's permanent extrinsic

¹⁸ Given the controversy about whether the future is open or determined, I believe this is reasonable.

properties? There are two characteristics of permanent extrinsic properties that I must address: their eternally present status, and their qualities. Imagine that at moment t , A had the permanent extrinsic property of being the author of a certain work. For A, this property had certain features: (a) believing that they authored the work; (b) remembering having authored it; (c) feeling dissatisfied with it; (d) being credited as the author of the work; (e) accepting that credit; (f) being the only person who authored the work, and (g) once having become the author always remaining the author. To satisfy conditions (3) and (4), A would have to believe that B will have this property in the same way as if A were identical to B, and B would have to believe that A was correct.

Concerning features (a)-(c), the fact that B will be psychologically continuous with A would be sufficient for B to satisfy conditions (3) and (4). Having features (d)-(g), however, requires something slightly different. For A to believe that B will have feature (d), B would have to be able to be credited as the author of that work in the very same way as A would have if A and B were identical. For A to believe that B has feature (e), B would have to be disposed to take that credit in the same way as A did if A were identical to B. To have feature (f), B would have to be the only person identifiable as the current author of that work. To have feature (g) B would have to always remain the present author of that work. Unlike features (a)-(c), having features (d)-(g) requires cooperation from the external environment. For instance, B would have to exist in an environment in which they were the sole author of the work, and they remained the sole author of the work. A consequence of this is that neither A nor B could have what matters in A's survival if they ever fissioned. This consequence is discussed in more detail in Section 5.

A second issue concerning the continuity of extrinsic properties is how do conditions (3) and (4) apply globally? For instance, must B satisfy these conditions for all, or only most, of A's past extrinsic properties. For simplicity and accessibility, I will simply stipulate that B

is, in fact, required to meet both conditions for all of A's permanent extrinsic properties. However, the theory need not be this strong. The same points could be made by replacing the notion of indistinguishability with the notion of significant discernible difference, for instance.

5. The Appeal of the Life Trajectory Theory

I argued that being a person is required for having what matters in survival. I then offered an identity neutral account – the life trajectory theory – that accommodates this. The fact that the theory is identity-neutral is appealing because there are those who reject that identity is required for survival, but who do not endorse psychological continuity theory. Furthermore, identity theorists could also adopt it, properly modified.

The theory is attractive for more reasons than this, however. First, it rules out fission cases as those in which a person has what matters in survival. This is essential for its appeal to identity theorists, but also for non-identity theorists who wish to reject the fission consequence of psychological continuity theory. Second, the life trajectory theory can account for different intuitions about virtual immersion scenarios better than psychological continuity theory can.

5.1 Fission and the Unity Reaction

While it might appear as though a non-identity theorist should have no qualms about fission as a case in which we have what matters in survival, this is not required. In fact, there are several non-identity theorists who have expressed doubts about fission as a way of having what matters.¹⁹ And this is reasonable. After all, it was not an intuitive position initially, not

¹⁹ See Korsgaard, 2003; Schetchman, 1996; Sosa, 1990; Rovane, 1998; Unger, 1997; Whiting, 2002; Wolf, 1986; among others. For Whiting (2002), for instance, having what matters in survival requires that we consider ourselves as a single continuous being over time, stemming from Locke's observation that personal identity consists in the fact that a thinking being "can consider itself as itself, the same thinking thing in different times and places...." (L-N 2.27.9). Her theory requires accepting only unity not identity, which in fact, she rejects.

even for Parfit. Call those who believe identity does not matter, but who reject fission as a way of having what matters “Parfitian unitarians.” For these theorists, having what matters requires unity over time, but not necessarily identity over time. These properties are distinct.²⁰

To be unified over time is to remain an organized or structured complex or systematic whole. This does not require being an object that retains its identity.²¹ For example, consider a sports team I will call “The Changelings.” Suppose that The Changelings win the championship every year, but that its individual members are different each time the team wins. Fans of The Changelings attend every game the team plays and celebrate its victory every year. However, even though The Changelings win the championship every year, there is no object The Changelings that does this winning. There is no group of winners, for instance, that we can congratulate on their long-lived success. Nevertheless, The Changelings remains a unified team for which we can cheer at every year’s final championship game. Being unified over time then is not the same as being identical over time.

The life trajectory theory, then, is fully consistent with Parfitian unitarianism.²² This is because it does not allow fission as an instance of having what matters in survival since fission threatens the quasi-continuity of a subject’s permanent extrinsic properties. That is, fission products cannot meet the requirements for continuity in A’s extrinsic properties. This is true because permanent extrinsic properties can be held only by one successor at a

²⁰ See Belzer (2005) who introduces the difference between what he calls the “identity” reaction and the “unity” reaction.

²¹ See also Perry (1972) for discussion of this distinction.

²² For a non-identity theorist like myself to fully endorse psychological continuity as what matters, an intuitive position even if its current formulation is flawed, I would also need to interpret the life trajectory theory as a theory of theory of psychological continuity, which would be an externalist account of that concept. Although I do not provide such details here, I do believe that such an interpretation is possible.

time.²³

To illustrate, reconsider psychological subject A, and their property of having authored a certain work. Now imagine that A at moment t does not cease, but instead undergoes a procedure that results A fissioning into two subjects B₁ and B₂, both psychologically continuous with, and yet distinct from A. Now, can B₁ and B₂ continue A's permanent extrinsic properties? Let us consider whether they cannot with respect to A's property of having authored a certain work.

First, consider how A had the property of being the author of a certain work – in the form of having been the sole author of that work that had certain qualities. Recall features (a)-(g) that having this property entailed. Both B₁ and B₂ will have the psychological features of (a)-(c), but they cannot have the features (d)-(g). For B₁ and B₂ to have features (d)-(g), they must both be able to be said to currently have the q-counterpart of having authored A's work. But being the sole author of a certain work is not a property that two beings can have at once, simply as a conceptual matter. Furthermore, two individuals cannot legitimately both take full credit for having authored a particular work, nor they cannot they be recognized as such.

Furthermore, it is impossible to correctly attribute the occurrent property of being the sole author of a particular work of A's to two separate individuals. Of course, it could be argued that even if B₁ and B₂ cannot have the quasi-counterpart of having been a sole author, they can have something similar – that of having co-authored the work in question. But having the property of being a co-author has a distinct character from being a sole

²³ One potential objection to this criterion is that it begs the question. The issue can be understood in the following way: in assuming that there are permanent extrinsic properties that only one being can have at a time, haven't I guaranteed that fission cannot preserve what matters in survival? Well, yes, but the argument I have offered for the life trajectory theory did not begin with the premise that properties that only one being at time can have matter in survival. This followed from other assumptions for which there is independent motivation.

author. It is therefore a different property than being a sole author.

These facts about the different characters of the relevant properties are metaphysical facts about their nature, not merely practical matters. So even if we granted the property of co-authorship to B1 and B2, they still could not be A's successor. Of course, both B1 and B2 can claim to be psychologically continuous with something that once had that property of A's, and this is not something that just anyone can claim, nevertheless, having once had A's extrinsic property of being a sole author no more counts as having that property's q-counterpart than would merely having once had A's memories. Neither fission product, then, can maintain what is required for what matters in survival on the life trajectory theory.²⁴ Parfitian unitarianism, therefore, itself attractive, can be adopted by the life trajectory theorist.

5.2 Virtual Immersion Scenarios

The second positive consequence of the life trajectory theory is that it can explain and predict a range of intuitions about virtual immersion cases. To illustrate, I reconsider the experience machine and a variant of that case.

In the experience machine case, I claimed that most would react with horror and anxiety to the possibility of being immersed in a world in which their experiences were entirely de-correlated with facts about their external context. The explanation for this horror was that, in such a scenario, we lose what matters for our survival due to the loss of our personhood. Now consider a different scenario. Imagine the anticipation we might feel if all

²⁴ Even if condition (1) is relaxed in certain ways so that a successor of A need not be completely indistinguishable with respect to certain permanent extrinsic properties of A's, nevertheless, because they are extrinsic properties, certain environmental conditions would still be required to hold that would rule out the possibility of two beings having the q-counterpart of a property like being a sole author. And even supposing the global condition of satisfying condition (1) is relaxed, it is relatively unlikely that all of the permanent extrinsic properties a psychological subject has that entail unity over time could be ruled out, at least not without begging the question.

psychological subjects could rid themselves, en masse, of the shackles of their decaying bodies by immersing their psychologies within a shared, interactive virtual world, maintained independently of their bodies. Suppose that, somehow, our aging, dying biological bodies become obsolete. Surely, a respectable number of us would look at a scenario as a way of achieving immortality.²⁵

As I argued earlier, standard psychological continuity theory predicts that we do have what matters in cases of virtual immersion, and therefore it can predict our reaction of anticipation to the second case. However, it cannot predict our reaction of horror to the experience machine case. In contrast, it appears that the life trajectory theory can predict our reaction of horror, but it cannot predict our reaction of anticipation. Therefore, standard psychological continuity theory gets it wrong for the first virtual immersion case, but right for the second one. And the life trajectory theorist gets it right for the first case, but wrong for the second one. So, neither is to be preferred over the other, at least on these grounds.

However, the life trajectory theory is more versatile than it might at first seem. It turns out that it can in fact predict the correct reaction to the second virtual immersion case. To see this, requires re-conceptualizing what it means to exist in an external context, however. Our natural assumption is that these kinds of contexts must be identified with spatial temporal contexts. But this assumption might be rejected if technology advances to the point of allowing for purely virtual interactions that incorporate all the ways we can interact in the spatial temporal realm. In this case, a purely virtual environment could count as mind-independent – as external – assuming shared experiences of that virtual environment that is itself governed by predictable, systematic laws. If a virtual environment can be construed, then persons could still have extrinsic properties that could persist over time or that they

²⁵ For details about ways these possibilities might be realized and their potential implications, see Chalmers (2010). Sauchelli (2017) addresses how such “life extending” techniques may or may not fit with certain narrative conceptions of what matters over time.

could have permanently. The life trajectory theorist could then say that what matters in survival can be maintained in such contexts.

6. Objections

I now address three objections to the life trajectory theory. Two of them question the underpinnings of the theory, and the third questions the value of the theory.

6.1 The Metaphysics of What Matters in Survival

Once the idea that offering a theory of the identity of persons over time is misguided and that the proper focus is on understanding what it is to have what matters in survival, the question of how to determine the appropriate constraints on this concept naturally arises. For example, an identity theorist might argue that any property that could matter in survival is one that matters only to a life of value. That is, giving up on identity theories entails that there is no difference between a life worth living and having what matters in survival. And, having a life worth living can be an idiosyncratic highly individualized matter, not a topic befitting generalization, unlike what is required for having what matters in survival. For example, if a life worth living cannot be distinguished from what matters in survival, then it is possible for the very same thing to be at stake for a person who so highly values their lucky left big toe that they believe losing it would kill them, and a person who requires that medical professionals refrain from resuscitating them if they can no longer be self-sufficient. The former property does not seem to be a reasonable candidate for having what matters in survival, but the latter property does. However, if there is no difference between a life worth living and what matters in survival, then theories of what matter in survival could no longer distinguish between these two properties.

Appealing to this previous distinction threatens to undermine the entire project of offering any theory of persons whatsoever – at least one with any grounding in

metaphysical concerns.²⁶ A particular constraint that rules out this consequence, then, is needed. The constraint I rely on is that of being a member of the kind person – at least in part a metaphysical kind. Losing a big toe cannot plausibly be argued to be part of being a person, but self-sufficiency, as I earlier claimed, could be.

The topic of what matters in the survival of persons must remain metaphysical to some extent. In fact, the entire debate about what matters in survival, even for Parfit, begins with a metaphysical fact about the nature of a person as a kind – as a psychological-physical entity. And appealing to this metaphysical fact is required to make the single-transplant argument for psychological continuity valid, given that its structure depends upon the choice between physical or psychological continuity as an exhaustive dichotomy.

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6.2 Personhood, What Matters in Survival, and Psychological Continuity Theory

Having argued that personhood is needed to survive, there are at least two ways I can see that the psychological continuity theorist might try to defend their theory as one of survival.²⁷ One way is to argue that the subject in the experience machine retains a self-determined life and is therefore still a person -- retains what matters in survival. Because that subject chose to enter the machine, and every experience they have afterwards, is the result of their original choice, they are in fact living the lives they want to live. The second way is to simply deny that autonomy is something required for personhood.²⁸

²⁶ This is where Schetchman (2014) would have strong disagreements. Whereas she argues that practical concerns are metaphysical concerns. I am committed to the idea that at least being a member of a metaphysical kind is still importantly different from being a member of let us say, a purely normative kind, or socially constructed kind.

²⁷ Note that both ways require that the psychological continuity theorist denies that the experience machine threatens anything that matters in survival.

²⁸ See Wilson (2005) for arguments that agency should not be included in an account of personhood.

The first way to defend psychological continuity theory is to say that the psychological subject in the experience machine does have autonomy because their life in the experience machine was the result of a choice made on their part. Therefore, they are still a person insofar as being autonomous is concerned. In response, note that simply making a choice and XXXX having the situation obtain that a person chose does not entail that that person has a self-determined life. Consider, for instance, a parent who wishes their children to be well off, and they plan things so that this is true after their death. Of course, simply because the parent's choice is realized, this is not part of that parent's self-determined life since their life has ended. Examples like this illustrate that the mere realization of a person's initial choices does not entail having a self-determined life. This line of argument from the psychological continuity theorist, then, does not appear promising. XXXXX

Nevertheless, there are other theories of personhood that reject the previous idea. If autonomy is not required for personhood, then psychological continuity theorists can deny that the experience machine threatens a psychological subject's personhood, and therefore that it fails to threaten what matters in survival.

One alternative theory of what it is to be a person that does not include autonomy is that persons are beings that are delineated by having the property of self-awareness – a kind of higher-order conscious state.²⁹ As Baker (2013) would put it, they must have a “first-person perspective.” However, it is not clear whether this property distinguishes persons from other types of psychological beings that are not persons. For instance, it surely seems that when it is time to clip the nails of my dogs, they show self-awareness, and a first-experiencer's perspective. Each knows that it is their own nails that are to be clipped and that this is unpleasant, which they illustrate by running away as soon as they see the

²⁹ In fact, it is not clear that conscious states do not presuppose self-awareness.

clippers coming out of the drawer.³⁰ Now of course they do not think to themselves that I, one of the dogs that lives here, is going to have my nails clipped. But this is still an instance of self-awareness or of having a self-oriented perspective. But my dogs, as much as I might wish it were so, are not people. Self-awareness and a first-experiencer's perspective, then, are not sufficient for personhood.

Another idea is that persons, unlike dogs, have more complex states of higher-order consciousness than simple self-awareness. That is, they have conscious states about their conscious states. For instance, a person can have anxiety about having anxiety about getting to sleep, which prevents them from sleeping, and dogs do not seem to have this problem. Having states of higher-order consciousness like these then do, at least, separate certain types of cognitive beings as failing to be persons, such as dogs, for instance.

Nevertheless, the previous idea is still too broad. Consider the Borg from Star Trek. These creatures, we see as beings controlled by a central intelligence that itself may have higher order thoughts, and yet there is no single entity with the property of being a person. The collective consciousness is too fragmented, while the singular consciousness of any given Borg likely has the same level of self-awareness of a dog, and quite possibly lacks even a first-experiencer's point of view. The presence of an organism with higher-order consciousness, then, may again be a necessary condition on being a person, but it does not suffice for it.³¹

³⁰ According to Lycan (2001), this would entail that dogs have higher-order states of consciousness, but I am not sure this would be a happy result for what are known as "HOT" theorists, if offering an "HOT" theory as a way of distinguishing persons from other types of cognitive beings. Rosenthal's (1986) theory has much the same problem.

³¹ Carruthers's dispositionalist account (1996) improves upon these ideas since the states must be about oneself, but in terms of being used to address a theory of what matters, it would either beg the question, or count The Borg as a single person.

6.3 Other Fission Scenarios

There are other ways fission might be realized that could be argued are consistent with the life trajectory theory, which would rule out its adoption by the Parfitian unitarian, something I claimed as an advantage of the theory. I consider one such way and suggest that it is not clearly a case of fission, and therefore it does not threaten my claim that the life trajectory theory rules out fission as a way of having what matters.

One non-standard fission scenario is explored by Martin (1995), which he calls “fission rejuvenation.” In this scenario, we suppose that when we are, say, 30 years old, a scientist offers us the opportunity to undergo fission, except that one fission product is kept unconscious, and we then continue our life as before. The unconscious fission product remains physically preserved until our death with continuously updated psychological states that match the conscious one. Once the conscious fission product ceases, the unconscious one is awakened and picks up where the conscious one left off. We can imagine this continuing indefinitely. Martin claims that this is a case of fission, and if that is correct, it appears to be one that meets the requirements of the life trajectory theory for having what

matters in survival. However, the claim that this is a true case of fission is questionable.³² It is not clear, for instance, whether this case is not better described as a case of sophisticated body cloning that includes a mental state transfer process. The claim that fission rejuvenation counts as a true case of fission, then, needs more careful consideration before we could draw any strong conclusions about the life trajectory theory.³³

7. Concluding Remarks

I offered a theory, in lieu of standard psychological theory since I believe it captures more of what counts as a person than that theory does. I also argued that the theory fares better with respect to our intuitions about certain cases, such as fission and different kinds of virtual immersion scenarios.³⁴ Since standard psychological continuity theory cannot accommodate as many of our intuitions as the life trajectory theory can, we ought to reject the standard theory in favor of the life trajectory theory.

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³² Suppose that we have an entire world that fissions. Would each fission product then count as having what matters? The answer I think would depend upon whether the q-counterparts of extrinsic properties are themselves individuated internally or externally mirroring the debate about whether water or even mental states must be so individuated. Thanks to Eric Schwitzgebel for bringing this possibility to my attention.

³³ See Martin (1995) for reasons for thinking it truly is a case of fission.

³⁴ The position explored shares similarities with other view but is still distinct. In particular, the externalist aspect of the life trajectory hypothesis is not new, and neither is the Parfitian view of identity. However, the emphasis on the importance of personhood for having what matters, and their specific way in which externalism and Parfitian views about identity are combined is novel. For comparison, Whiting's (2002) work supports Parfitian singularism, but is driven by internalist considerations. In contrast, Lindemann's (2014) work on personal identity is externalist, but hers is one focused on social relations, rather than all external relations.

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