The Subscript View: A Distinct View of Distinct Selves

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1. Introduction

Frank O'Hara's gravestone reads "Grace to be born and live as variously as possible." This epitaph nicely captures the sentiment that we strive to be a great many things. We take on the roles of parent and child, friend and spouse, mentor and mentee, often all at the same time. Thus, the question "What am I?" seems to rightly admit of a multitude of answers-most of us would object to the idea that we are only one kind of person. Yet, when philosophers answer the question "What am I?", they typically provide a single response. This is perhaps because philosophers are interested in, among other things, what kind of beings we are *fundamentally* and what is required for beings like us to persist through time. These are two distinct concerns but they can get run together, often explicitly. Locke, for example, argues that consciousness is what distinguishes persons from other creatures and sameness of consciousness is what makes a person the same person over time (Locke 1975). Lynne Rudder Baker, herself a neo-Lockean, argues that what it means to be a person is to have a first-person perspective and diachronic persistence requires sameness of first-person perspective (2000, 2007). And Eric Olson contends that creatures like us are fundamentally biological organisms and biological continuity is the relation that determines persistence (1997). Though these philosophers defend very different views, they all take both synchronic and diachronic features of personal identity and persistence to be grounded in a single relation. The assumption of monism is a useful theoretical desideratum, usually generating the simplest explanations with the most minimal ontologies. And when it comes to personal identity and persistence, there is something deeply appealing about the notion that a single feature grounds both our personhood (or humanity) and our ability to survive.

However, this traditional monistic picture has recently been called into doubt. Work by

philosophers and psychologists illuminates the great number of our evaluative practices and experiences that presuppose personal identity. It's unlikely that traditional monistic approaches can ground *all* of them. In order to accommodate these practices, philosophers have begun to eschew the monistic persistence relations of traditional accounts in favor of more complex and novel approaches. For example, Marya Schechtman (2014) incorporates a plurality of persistence-relevant properties into her account of personal identity, while David Shoemaker (2016) rejects traditional persistence relations in favor of another relation altogether in order to ground our seemingly identity-related practical concerns.

These accounts go a long way in accommodating the wide variety of our cares and concerns, but I argue that they don't go far enough. Both accounts fail to question the assumption that we are only one thing fundamentally. But just as we have multiple identities in our personal and professional lives, I argue that our identity-related practical concerns indicate that we also identify as more than one kind of entity at the most fundamental level. In this essay, I propose an account of personal identity that reflects this ontological pluralism—the Subscript View. On this view, there typically exist (at least) two individuals whenever we once thought there was only one, a psychological individual (self_p) and a biological individual (self_b). Distinct survival relations obtain between these distinct individuals: self_p survives psychologically—surviving_p—and self_b survives biologically—surviving_b. According to the Subscript View, there is no singular, more basic persistence relation beyond survival_p or survival_b, and there is no singular, more basic being beyond self_p and self_b. Rather, we make judgments about both self_p and self_b persisting through time and we refer to both self_p and self_b by using pronouns like 'T, 'me', and 'you'.

In Section 2, I review the empirical work on persistence-judgments and practical concerns, focusing specifically on a complex pattern of care and concern, known as ambiguous loss (Boss 1999, 2004), that characterizes the advanced stages of dementia. In Section 3, I present the Subscript View

and argue that it can better account for our many identity-related practical concerns and ambiguous loss than traditional monistic approaches to persistence. In Section 4, I discuss both Schechtman's and Shoemaker's approaches to accommodating these same concerns and argue that they ultimately fall short. Finally, in Section 5, I explore three objections to the Subscript View with the aim of developing and clarifying the view.

2. Our Many Practical Concerns

Before reviewing the empirical work on judgments about persistence, it will be useful to briefly introduce two of the most popular approaches to identity over time in the philosophical literature:

Psychological Approach: X at t_1 is the same person as Y at t_2 if and only if X is uniquely psychologically continuous with Y, where psychological continuity consists in overlapping chains of strong psychological connectedness, itself consisting in significant numbers of direct psychological connections like memories, intentions, beliefs/goals/desires, and similarity of character. (Parfit 1984, 207)

Biological Approach: What it takes for us to persist through time is...biological continuity: one survives just in case one's purely animal functions—metabolism, the capacity to breathe and circulate one's blood, and the like—continue. (Olson 1997, 16)

These views are popular, in part, because each is able to capture a set of intuitions about persistence that the other view cannot. The biological approach can ground the intuition that we were once fetuses and can enter a persistent vegetative state (PVS). And the psychological approach can make sense of "the transplant intuition:" the idea that if all of our relevant psychological properties were to become associated with a new body, *we* would persist in the new body.

Though pluralism about personal identity is underrepresented in the literature, the complex nature of our intuitions about personal identity is well charted. Bernard Williams (1970) famously illustrates how malleable our intuitions can be through a series of thought experiments. In some of Williams's cases, our self-concern can be understood in biological, or physical, terms.¹ We fear torture

¹ Peter Unger (1990) and Jeff McMahan (2002) each defend physical, as opposed to biological, views of persistence. According to McMahan, identity over time consists in "...the continued existence and functioning, in nonbranching form, of enough of the same brain to be capable of generating consciousness or mental

that will be inflicted in the future, even if all of our psychological characteristics will be destroyed prior to the torture (1970).

Someone in whose power I am tells me that I am going to be tortured tomorrow. I am frightened, and look forward to tomorrow in great apprehension... He then adds...when the moment of torture comes, I shall not remember any of the things I am now in a position to remember. This does not cheer me up either...Fear, surely, would still be the proper reaction: and not because one did not know what was going to happen, but because in one vital respect at least one did know what was going to happen—torture, which one can indeed expect to happen to oneself... (Williams 1970, 167-168)

Despite radical psychological discontinuity, it still seems appropriate, and even inevitable, to fear what will happen to *you* in the future.

However, if the case is described differently, it looks as though psychological continuity can ground our intuitions about survival. Williams describes the case by first explaining that two individuals, person A and person B, will switch psychologies,² such that person B's psychology will be associated with person A's body and person A's psychology will be associated with person B's body (1970). If the A-body-person were tortured, the B-body-person may feel a sense of relief that the torture wasn't happening to *her*, despite the fact that her psychological features were, until recently, associated with the tortured body. This attitude, which is also natural and inevitable, indicates that psychological continuity can ground survival judgments as well.³

activity" (2002, 68). Unger argues that we survive so long as "there is a sufficiently continuous physical realization of...core psychology..." (1990, 109), where core psychology includes the capacity for consciousness, reasoning, and the formation of simple intentions (1990, 68). These views, though distinct from the biological approach in a variety of ways, are able to capture many of the same intuitions.

² I'll stipulate that this swap is done through a non-physical process to avoid complications with physical views. ³ Williams's prediction has been born out in research. In a survey study, participants were presented with the statement: "In order for some person in the future to be *you*, that person doesn't need to have any of your memories" (Nichols & Bruno 2010). Over 80% of the participants disagreed with this claim (Nichols & Bruno 2010). However, when presented with a version of Williams's thought experiment, a majority of the participants agreed that it would be *them* who would feel the pain of shocks administered even after their characteristic psychological traits were destroyed (Nichols & Bruno 2010).

Williams's reflection on these hypothetical scenarios is paradigmatic of how philosophers tend to theorize about persistence. Traditionally, philosophers generate cases that disentangle the different relations commonly thought to ground persistence. Then, to determine which relation actually grounds persistence, they reflect on the practical implications the loss of a particular relation will have compared to the loss of another relation. But rarely will this approach prove conclusive, because our judgments conform to different approaches to persistence in different cases. But why do we make such radically different judgments about persistence in different contexts?

2.a. Empirical work on persistence and practical concerns

Recently, both philosophers and psychologists have begun to delve deeper into the nature of our judgments about persistence. Daniel Bartels and Oleg Urminsky (2011) have developed a manipulation that allows researchers to alter individuals' beliefs about psychological connectedness:

Day-to-day life events change appreciably after college graduation, but what changes the most [least] between graduation and life after college is the person's core identity...The characteristics that make you the person you are...are likely to change radically around the time of graduation [are established early in life and fixed by the end of adolescence]...Several studies conducted with young adults before and after college graduation found large fluctuations in these important characteristics [have shown that the traits that make up your personal identity remain remarkably stable]. (2011, 185)

When asked to rate on a scale from 0 to 100, where 0 indicates that "I will be completely different in the future" and 100 indicates that "I will be exactly the same in the future," participants in the low-connectedness condition give significantly lower ratings than the baseline and those in the high-connectedness condition give significantly higher ratings than the baseline (Bartles & Rips 2010; Bartles & Urminsky 2011; Bartels et al. 2013).

Using this manipulation, one study found that participants' judgments about how much blame they deserve for a wrong committed a year ago are largely affected by whether they believed that there was high psychological connectedness between their past and present self (Tierney et al. 2014). Participants in the low-connectedness condition, who were made to believe that they are psychologically very different than their past selves, believe that they deserved significantly less blame for cheating on a test a year ago than the participants in the high-connectedness condition, who believed that their past selves and current selves are psychologically very similar (Tierney et al. 2014).

However, Tierney et al. (2014) also found that participants' anxiety about future pain (from a root canal) was not significantly different in the high and low-connectedness conditions. This finding indicates that our judgments regarding self-concern cannot be explained entirely in terms of the psychological approach to identity over time. Rather, a relation like biological connectedness may best ground such judgments. Thus, in some contexts, like those involving issues of punishment and moral responsibility, our survival judgments are in-line with a psychological approach to survival,⁴ while in other contexts, our judgments are in-line with a completely different approach.

2.b. When we come apart: Ambiguous loss

The above discussion suggests that we make judgments that track different persistence relations in response to different cases. But there is also evidence that we make judgments that track distinct persistence relations in response to the very same case. An intuitive, though painful, belief is that we, and our loved ones, can one day persist in the late stages of Alzheimer's and other forms of dementia. When we visit our loved ones who are suffering from these illnesses, we do so, in part, because we believe them to still be our loved ones. But there is also a sense in which we do not think we, or those we love, will survive such radical psychological discontinuity. We often mourn the loss of our loved ones in these states and grief is ubiquitous in the narratives of their caregivers. Pauline Boss refers to the loss one experiences when a loved one is "physically present, but psychology absent" as ambiguous loss (2004, 554) and it's a distinctive feature of caring for an individual who has dementia. In this section, I'll discuss some empirical work that bears on ambiguous loss and the seemingly paradoxical

⁴ In a series of studies, Christian Mott (2018) found that our intuitions about the statute of limitations on legal punishment and moral criticism are also affected by our judgments about psychological connectedness over time, further indicating that judgments of moral responsibility are grounded in the psychological approach.

aspects of grieving and caring for a loved one in the advanced stages of dementia.

Nina Strohminger and Shaun Nichols conducted a study in which they surveyed the family members of people suffering from Alzheimer's disease, frontotemporal dementia, and amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease (2015).⁵ The participants were asked questions about the persistence of their family members, such as "Regardless of the severity of the illness, how much do you sense the patient is still the same person underneath?" and "Does the patient ever seem like a stranger to you?" Participants reported significantly greater identity disruption in family members with Alzheimer's disease and frontotemporal dementia than family members with ALS, t(112) = 6.50, p < .0001, d = 1.05 and t(115) = 8.75, p < .0001, d = 1.54, respectively (Strohminger & Nichols 2015). This study suggests that certain forms of dementia can threaten our persistence-judgments.

Interestingly, even those critical of Strohminger and Nichols' analysis agree that dementia can undermine persistence. Christina Starmans and Paul Bloom (2018) recently argued that Strohminger and Nichols' study tracked judgments about similarity and not personal identity. Yet, they too grant that: "There are cases...where it may be thought that a person ceases to exist while their body survives, as in severe dementia" (2018, 567). In short, while there is debate over how to differentiate persistencejudgments from similarity-judgments and *which features* destroyed by neurodegeneration threaten identity over time, most agree that dementia can threaten persistence.

This consensus is also found in the growing literature on the grief experienced by caretakers of those with dementia (e.g. Blandin & Pepin 2017; Lindauer & Harvath 2014; Noyes et al. 2010). Much of this research indicates that the relatives of those in the advanced stages of dementia perceive

⁵ ALS is a neurodegenerative disease that primarily affects motor function and was used as the control in this study (Strohminger & Nichols 2015).

their family members to be dead (Lindauer & Harvath 2014; Doka 2004), gone (Marwit & Meuser 2002, 2005) or lost (Blandin & Pepin 2017).

Allison Lindauer and Theresa Harvath's analysis of pre-death grief makes explicit reference to

the "psychological death" of those with advanced dementia:

Pre-death grief in the context of dementia family caregiving is the caregiver's emotional and physical response to the perceived losses in a valued care recipient... This pre-death grief is due to (a) *care recipient psychological death,* which is asynchronous with physical death... (Lindauer & Harvath 2014, 2203, emphasis added)

And Kenneth Doka argues that, in the advanced stages of dementia, "the sense of individual identity is so changed now that family members experience the death of the person who once was" (Doka 2004, 142). Additionally, one of the only measures of caregiver grief, the Marwit and Meuser Caregiver Grief Inventory (MM-CGI), along with its short form (MM-CGI-SF), include two items that measure the extent to which caregivers think of their loved ones as "gone" (Marwit & Meuser 2002, 2005):

9. I have this empty, sick feeling knowing that my loved one is "gone."30. It hurts to put her/him to bed at night and realize that she/he is "gone." (Marwit & Meuser 2002, 762).

And in their model of dementia grief, Kesstan Blandin and Renee Pepin (2017) isolate several features unique to the grief experienced by those caring for patients with dementia, one of which is the "receding of the known self:"

A common experience among family members is that eventually the person with dementia will express themselves as though they are someone else, someone new, or otherwise not who they used to be... Family members experience profound pre-death grief akin to post-death bereavement as they experience *the loss of the person they know*... (2017, 70, emphasis added).

This research indicates that caretakers of those in the advanced stages of dementia often experience the literal loss of their loved one.

However, a sense of loss is not the *only* feature that characterizes the experiences of the loved ones of those in the late stages of dementia. Another important feature of this experience is the sense that one continues to love and care for their family member, who is very much alive. More than 16

million individuals in the United States care for people with Alzheimer's disease and other dementias without pay (Alzheimer's Association 2018). These caregivers provide significantly more care (in terms of the quantity of time they dedicate to caregiving and the range of activities they provide help with) than caregivers of people without dementia (Alzheimer's Association 2018, 387-388). These caregivers also experience more emotional and physical stress, higher rates of depression, and more difficulty with cognitive tasks than caregivers of people without dementia and non-caregivers (Alzheimer's Association 2018, 388-390).

Those who work on caregiver grief are alive to the tension between grieving a loved one and simultaneously caring for them. After the passage quoted above, Blandin and Pepin continue:

Yet their loved one is still alive...This creates a paradoxical disconnection between the physical and psychological losses, capturing the crux of ambiguity in the receding of the known self in dementia grief. (2017, 70)

Lindauer and Harvath also note the disconnect between psychological and physical loss when they contend that pre-death grief in cases of dementia is caused by "...the care recipient's psychological death, *which is asynchronous with physical death*..." (2014, 2203, emphasis added). And Noyes et al. argue that the discrepancy between psychological and physical loss makes the grief experienced by caregivers of those with dementia unique (2010, 12). Finally, Pat Sikes and Mell Hall (2018) completed a study in which they interviewed several children and young adults who have parents with dementia. Many of the excerpts from their interviews nicely capture the ambiguity surrounding individuals who are psychologically gone but physically present. For example:

... it's like there's two Mums and in your head you never quite let go of, but you're constantly grieving for the old Mum because she's sort of there but not...people ...just think actually you should be grateful that your Mum is still here and she's not dead and it's like well, it's really not that simple... (Elizabeth, 28) (Sikes & Hall 2018, 190)

Cases of ambiguous loss are heartbreaking. They also illuminate a fascinating feature of our judgments about persistence. In these cases, the pattern of care and concern seems to track distinct persistence relations. The loss of psychological continuity (or certain psychological features) in the

advanced stages of dementia causes many individuals to judge that their loved one is gone. Yet, the loved one's physical presence and the continued functioning of their "purely animal functions" (Olson 1997) gives rise to the sense that they continue to persist. In the preceding section, I reviewed evidence that indicates that our judgments about persistence track different persistence relations in cases that feature different practical concerns. In this section, I've presented evidence that we also make seemingly contradictory persistence-judgments in response to single cases—namely those that feature ambiguous loss. Given these two sets of research, it's unlikely that a monistic view will be able to fully accommodate the folk conception of persistence.

2.c. What to do about our practical concerns

In the next section, I'll present a view—the Subscript View—that can accommodate these findings. Before proceeding, however, I'd like to note two worries about constructing a view of identity over time with the aim of capturing our practical concerns.

First, it should be noted that the research discussed above, though illuminating, is preliminary. While the empirical work indicates that our persistence-judgments are informed by more than one relation, more work needs to be done to determine the exact nature of these relations. It could be that the relations that actually inform our persistence-judgments are very different from traditional persistence relations like psychological and biological continuity. In fact, though memory plays an important role in many psychological accounts of persistence, research indicates that *moral* properties are more central to our judgments about persistence than other psychological properties (Prinz & Nichols 2016; Strohminger & Nichols 2014, 2015).⁶ Strohminger and Nichols (2015) found that when it comes to certain neurodegenerative diseases, the loss of our moral faculties, as opposed to our

⁶ Research also indicates that moral qualities are more central to the folk conception of the self than other psychological properties (De Freitas et al. 2017a, 2017b; Newman et al. 2014).

memories, desires, and preferences, exerts the strongest influence on perceived identity over time.⁷ Kevin Tobia (2015, 2016) also found that moral deterioration affects our judgments about persistence, though, interestingly moral improvement does not. And Sarah Molouki and Daniel Bartels' work (2017) indicates that this asymmetry between improvement and deterioration in other types of change (personality, preferences, etc.) affects judgments about persistence as well, though the effect was strongest in cases of moral change.

These are all interesting and important findings, and work needs to be done to modify or replace traditional persistence relations to reflect this research. Thus, when constructing a pluralist view of personal identity, it will be important to leave it flexible enough to accommodate these future modifications and/or new relations. In developing the Subscript View, I refer to psychological and biological continuity because these relations are the most developed in the philosophical literature, but the view is entirely compatible with more refined versions of these relations, entirely new relations, and/or additional relations that reflect this research.

Second, one might wonder, *should* we incorporate these identity-related practical concerns into our theories of persistence in the first place? Many argue that we should not. Olson (1997), for example, takes questions concerning practical matters to be under the purview of ethicists while questions concerning persistence to be purely metaphysical matters.⁸ Others argue that it's just not possible to systematize these concerns. Williams (1970) notes that our equally strong commitment to

⁷ As discussed above, Starmans and Bloom argue that Strohminger and Nichols' study tracks judgments about similarity and not personal identity (2018). They also register their skepticism that extreme moral change causes people to believe that others cease to exist (2018, 567). For a defense of Strohminger and Nichols' results and the centrality of morality for persistence, see De Freitas et al. (forthcoming). And, for a response to De Freitas et al., see Starmans and Bloom (forthcoming).

⁸ Susan Wolf (1986) and, as Schechtman (2014) discusses, Christine Korsgaard (1989) defend this view as well. Such a stance represents a fundamentally different methodology in dealing with issues of personal identity than the one that has been assumed up to this point. It's beyond the scope of this paper to offer a full defense of treating our identity-related practical concerns and our theories of identity as in fact related, though others have mounted such arguments (Schechtman 2014; West 2008). The remainder of this essay focuses only on views that attempt to capture our identity-related practical concerns, although some of these views don't focus on identity and persistence as such.

contrary judgments of seemingly identical cases is baffling. And Ted Sider argues that: "A natural explanation is that ordinary thought contains two concepts of persisting persons, each responsible for a separate set of intuitions, neither of which is *our* canonical conception to the exclusion of the other" (2001, 197). And perhaps Sider is right that no *traditional* monistic persistence relation can ground or explain all of these evaluative practices and concerns. But it doesn't follow from this that *no* view of persistence can accommodate them. Philosophers have already begun to eschew the monistic persistence relations of traditional accounts in favor of more complex and novel approaches precisely in order to accommodate these practices (Schechtman 2014; Shoemaker 2016). In the next section, I follow these philosophers' approaches and present a novel, pluralist view of personal identity.

3. The Subscript View

On the Subscript View, there typically exist (at least) two selves, one psychological (self_p) and another biological (self_b).⁹ On this view, distinct survival relations obtain between these distinct selves: self_p survives psychologically—surviving_p—while self_b survives biologically—surviving_b. This is because these individuals are different kinds of entities and have distinct persistence conditions. According to the Subscript View, there is no singular, more basic persistence relation beyond surviving_p or surviving_b, and there is no singular, more basic self beyond self_p and self_b.

⁹ While I use the locution 'self' in this essay, I don't mean to invoke any particular view of the self. Rather, I use self_p and self_b to refer to individuals, understood as metaphysical entities, that persist psychologically and biologically respectively. Though the Subscript View is a pluralist view of "selves," it's much different from pluralist views found in the philosophical literature on the self. For example, David Velleman defends an aspectual view of the self, according to which the "self" refers not to metaphysical entities but rather to multiple reflexive guises under which aspects of a person are presented to themselves (Velleman 2006, 1). And though one of these guises is self-sameness over time, in "Self to Self," Velleman argues extensively that this has nothing to do with identity over time (2006, 170-202). On Velleman's view: "If a person could retrieve experiential memories that were stored by Napoleon at Austerlitz, then Napoleon at Austerlitz would be genuinely related to him as a past self" (2006, 6). But this doesn't entail that the person is identical to, or the same person as, Napoleon. As Velleman argues: "A person's past and future selves are those past and future persons who present a particular aspect to him, but they need not be the same person" (2006, 359, footnote 73). Thus, though the Subscript View and Velleman's aspectual view are both pluralist views of the "self," the former is a metaphysical view of identity over time while the latter is a view about the many reflexive guises we use to present aspects of ourselves to ourselves.

3.a. The Prima Facie Case for the Subscript View

The Subscript View can better accommodate the folk conception of identity over time than traditional approaches to personal identity. While the biological and psychological approaches can each accommodate a set of problem cases, neither view is able to accommodate them both. However, like the biological approach, the Subscript View can capture the intuition that we were once fetuses and can also survive in a PVS. I_b was a fetus even if I_p wasn't and I_b can enter a PVS even if I_p can't. And, like the psychological approach, the Subscript View can make sense of the intuition that we can survive psychology transplants—we_p can, though we_b cannot.

The Subscript View can also accommodate the empirical work on how we make judgments about persistence. These studies indicate that the folk form persistence-judgments in-line with multiple relations. Given that the Subscript View is committed to there being multiple kinds of persistence, the view can easily make sense of these results. The view can also fully accommodate the complicated pattern of care and concern that is characteristic of ambiguous loss. According to the Subscript View, individuals_b can persist in such cases while individuals_p cannot. This explains why we grieve the loss of a loved one while simultaneously caring for a loved one. On the Subscript View, we're grieving the loss of loved one_p and caring for loved one_b. The Subscript View's traditional monistic competitors are unable to offer as natural an explanation of ambiguous loss.

Those in the advanced stages of dementia have lost the robust psychological capacities that the psychological approach to personal identity requires for persistence (Locke 1975; Baker 2000). So, on the psychological approach, we perish in the advanced stages of dementia. The psychological approach can then capture the sense of grief we experience when a loved one enters the late stages of such neurodegenerative diseases. However, the psychological approach cannot easily make sense of the belief that we continue to care for our loved ones in these cases. Defenders of the psychological approach can argue that we care for the individual in the late stages of dementia because we (falsely) believe that the *person* we love stills exists deep down or perhaps because we've formed a sentimental attachment to the body that was once associated with the *person* we loved. But both of these explanations are debunking—neither can make literal sense of the belief that we continue to care for a loved one. So, the psychological approach will struggle to accommodate the ambiguous loss that is wrought by dementia.

In contrast, the biological approach can easily ground the judgment that we can persist in the advanced stages of dementia. After all, the late stages of dementia are precisely the kind of circumstances in which human organisms can find themselves. However, the biological approach will have difficulty making sense of the kind of grief experienced by the loved ones of those with such neurodegenerative disorders.¹⁰ On the biological approach, there is no relevant difference between these kinds of cases and paradigm cases of persistence—biological continuity obtains in exactly the same way in both.

Defenders of the biological approach can try to account for ambiguous loss in a variety of ways. They could argue that we grieve the loss of certain features of our loved one—their memories, personality traits, moral character, etc.—or that we grieve the loss of our relationship with our loved one.¹¹ No doubt, we do grieve the loss of these things when caring for a loved one in the advanced stages of dementia. But it would be a mistake to conclude that these are the *only* losses we grieve or that our grief can be reduced to these losses. Strohminger and Nichols' (2015) work illustrates that certain kinds of dementia threaten our persistence-judgments. And, as discussed above, many caretakers experience the sense that their loved one is dead (Lindauer & Harvath 2014; Doka 2004),

¹⁰ This is also true of physical views. Because individuals in the advanced stages of dementia continue to possess core psychological abilities, i.e. the capacity for consciousness, McMahan's and Unger's physical views are committed to individuals persisting in these cases. Though the physical and biological approaches point to different times at which we cease to persist—physical views draw the line at the loss of the capacity for consciousness and biological views draw the line at biological death—both views will struggle to make sense of ambiguous loss.

¹¹ Thanks to an anonymous referee for raising this objection.

gone (Marwit & Meuser 2002, 2005) or lost (Blandin & Pepin 2017). The biological approach theorists cannot make literal sense of such beliefs.

Of course, they could argue that both the researchers on caregiver grief and the caretakers themselves are speaking metaphorically when they refer to losing those in the advanced stages of dementia. After all, Marwit and Meuser's two items that refer to those with advanced dementia as gone place quotation marks around the word (2002, 762). While some uses of "death," "gone," and "loss" in the caregiver grief literature may be metaphorical, it's difficult to believe that all, or even a majority of them, are. For example, Lindauer and Harvath claim that caregiver grief is caused by "care recipient psychological death" and explicitly contrast psychological death with physical death (2014, 2203). It's unclear how one could interpret their claims as metaphorical or why one would be motivated to do so. Even Starmans and Bloom (2018), who think that some judgments we make about those with dementia don't actually track persistence, don't deny that we can make literal judgments about these individuals' failure to persist. In fact, as noted above, these authors make one such judgment (2018, 567).¹² Finally, to the extent that caregivers and researchers do speak metaphorically, this could be due to background assumptions about the truth of monism. Perhaps the participant in Sikes and Hall's study who noted that "it's like there's two Mums..." didn't mean she literally thought she had two mothers (2018, 190). But this could be because she thinks that it's only possible for her to have one. We often use metaphors to express ourselves when literal language won't do. The Subscript View can provide the vocabulary to capture an experience that previously couldn't be understood without metaphor, for on the Subscript View, it's perfectly possible to have two mothers-mother_p and

¹² Additionally, many of the materials in the empirical studies on persistence-judgments mirror the language used to describe caregiver grief. For example, the prompts in Tobia's study include the following wording: "...He thinks that after the accident, the original man named Phineas *does not exist anymore*; the man after the accident is *a different person*. To Bart, it seems like *one person died* (Phineas before the accident), and it is really a *different person entirely* that exists after the accident (the man after the accident)" (Tobia 2015, 398, emphasis added). If we think that studies like Tobia's (2015) can tell us anything about the folk's literal judgments about persistence, we should think that the literature on caregiver grief can do so as well.

mother_b.

While the psychological and biological approaches can each capture a subset of our practical concerns and some features of ambiguous loss, neither of these views can fully accommodate them. In contrast, the Subscript View can. The Subscript View's ability to make sense of these complex patterns of care and concern provides prima facie support for adopting the view.

3.b. Co-location and constitution

Even if the Subscript View best captures certain features of our commonsense conception of persistence, it faces a hurdle: The Subscript View entails that there typically exist two individuals where we once thought there was one. One might question how it can be that self_p and self_b occupy the same spatio-temporal region yet remain distinct objects. While it is a puzzle as to how two distinct objects can be co-located, it's a philosophically familiar puzzle. Normally, theorists address the problem of co-location by positing a credible relation between the two co-located objects. For example, Lynne Rudder Baker (2000, 2007) argues that human persons are constituted by, and not identical to, human animals. Since Baker proposes her analysis of constitution in the context of personal identity, it's well suited for the purposes of the subscript theorist as well.¹³

According to Baker, human animals constitute human persons. Similarly, the subscript theorist can argue that self_b constitutes, but is not identical to, self_p. On this view, there would be a close relationship between the biological and psychological individuals such that, though they aren't identical, self_p depends on self_b in an intimate way. This view is entirely compatible with the basic tenets of the Subscript View. The subscript theorist could also argue that something more basic, a hunk of physical matter (Hunk), constitutes both self_p and self_b. On this view, self_b and self_p are distinct

¹³ The Subscript View is also compatible with other accounts of constitution that allow co-location.

entities that are often co-located. I'll develop the Subscript View with this branching notion of constitution, but if one prefers a linear, or stacking, approach, it can easily be adopted.¹⁴

On Baker's analysis, constitution isn't identity; it is a contingent, irreflexive, and asymmetric relation (Baker 2007). The existence of whatever does the constituting needn't entail the existence of whatever is constituted. This seems right in the case of Hunk, self_p, and self_b. It is only in certain circumstances that a hunk of matter can constitute a living thing at all, let alone the complex biological and psychological creatures that we are. Constitution is also irreflexive; nothing can constitute itself, which again rings true of Hunk, self_p, and self_b. Constitution, according to Baker, is also asymmetric; if x constitutes y, then y cannot constitute x. Pretheoretically, it seems that self_p and self_b could not constitute Hunk, just as Baker thinks it's obvious that a statue cannot constitute a piece of marble (2007, 163).

Baker relies on the notion of primary-kind properties in her analysis of constitution. According to Baker, objects have their primary-kind properties essentially. An object cannot cease to have its primary-kind properties without ceasing to exist (2007, 159). On the Subscript View, self_p and self_b have different primary-kind properties. They are distinct kinds of entities and have different modal properties and persistence conditions. If certain essential psychological properties go out of existence, then self_p will cease to exist and there will be one less object in the world. And if certain essential biological properties go out of existence, then self_b will cease to exist and there will also be one less object in the world. The Subscript View is committed to the claim that creatures like us are more than one kind of thing at the most fundamental level. This is what allows the view to accommodate persistence-judgments that track distinct persistence relations and the complex pattern of concern

¹⁴ One might worry that branching constitution differs problematically from linear constitution. Though constitution is traditionally discussed as a one-to-one relation, there is nothing in the standard notion of constitution that precludes it from being a one-to-many relation. In fact, in her updated account of the Constitution View, Baker explicitly allows for branching constitution (2007, 164).

characteristic of ambiguous loss. This ontological pluralism is also what sets the Subscript View apart from other views that seek to capture our practical cares and concerns.

4. Alternative Approaches to Persistence and our Practical Concerns

The Subscript View is not the only view to eschew monistic persistence relations nor is it unique in its attempt to accommodate the wide range of our identity-related cares and concerns. For example, Schechtman (2014) incorporates a variety of persistence-relevant properties and relations into the Person Life View, her account of personal identity. And Shoemaker (2016) argues that all of our seemingly identity-related practical concerns can actually be explained in terms of a relation that has nothing to do with identity. In this section, I'll first present these alternative approaches to persistence and practical concerns. Then, I'll argue that though these views go much further than the traditional approaches to persistence in accounting for our many practical concerns, they cannot fully accommodate the all too common experience of ambiguous loss.

4.a. The Person Life View

What it takes to be a person and to persist as such can be stated simply on Schechtman's Person Life View: "To be a person is to live a 'person life'; persons are individuated by individuating person lives; and the duration of a single person is determined by the duration of a single person life" (2014, 110). Persons, those that live person lives, are the target of our person-related questions and concerns. And for a person to persist, for their person life to continue, they must continue to be a single target of our practical concerns (Schechtman 2014, 152). Person lives are characterized by a host of biological, psychological, and social features, but no feature is either necessary or sufficient for a typical person life (Schechtman 2014, 147).

The inclusion of multiple kinds of identity-relevant features and relations, and the rejection of necessary and sufficient conditions on diachronic identity, makes the Person Life View exceedingly flexible. The view is able to ground a diverse set of practical concerns that are rooted in both the

biological and psychological approaches to persistence. For example, it can easily make sense of our judgments about self-concern that track biological continuity and our judgments about moral responsibility that track psychological continuity. The Person Life View can also ground our intuitions in pairs of puzzle cases that the traditional views of personal identity cannot. Schechtman's view can accommodate the intuition that we could survive in a PVS *and* the intuition that we could survive a psychology transplant. Even though a host of psychological traits are lost when an individual enters a PVS, enough biological features are maintained such that the individual can remain a single locus of person-related concerns. And though biological continuity is lost when one's psychology becomes associated with a new body, psychological continuity is maintained and can allow the individual to continue to live a person life. In including a plurality of persistence-relevant properties in her account, Schechtman is able to advance beyond traditional monistic theorists in accommodating the folk conception of persistence.

4.b. Shoemaker on Ownership

Like Schechtman, Shoemaker is sensitive to the diversity of our practical concerns and is adamant that they can't all be grounded in a single persistence relation. But unlike Schechtman, Shoemaker is skeptical that *any* theory of personal identity could accommodate these concerns. Rather, he argues that all of our seemingly identity-related practical questions can actually be explained in terms of a relation that has nothing to do with identity—the ownership relation.

Shoemaker considers social treatment, responsibility, anticipation, self-concern, and compensation to illustrate how ownership grounds these concerns. While it's beyond the scope of this essay to examine Shoemaker's careful analysis of each of these practical concerns, it will be helpful to list the set of platitudes that Shoemaker relies on to capture the role ownership plays in these practices: I can be responsible only for my *own* actions (2016, 318), I am justified in anticipating some set of future experiences only if they are *mine* (2016, 320), I have a special sort of concern only for *my*self

(2016, 320), and I can truly be compensated with a benefit for a burden only if the burden underwent was my *own* (2016, 321). Shoemaker argues that traditional persistence relations are neither necessary nor sufficient for (or even relevant to) the role ownership plays in the context of these practical concerns. In this way, Shoemaker takes himself to defend the "Identity *Really* Doesn't Matter" view (2016, 325).

4.c. The Person Life View, Ownership, and Ambiguous Loss

Both Schechtman's and Shoemaker's views go much further than traditional monistic accounts in accommodating our practical concerns. However, neither of these views can fully make sense of the pattern of care that surrounds cases of ambiguous loss. Because both views provide a single answer—either yes or no—to the question of whether we persist (or whether ownership obtains), they render the commonsense experience of both grieving the loss of a loved one and caring for a loved one incoherent.

Like the biological approach, the Person Life View can easily ground the intuition that we persist in the advanced stages of dementia. Because having certain psychological features isn't necessary for persistence on the Person Life View, the view isn't committed to those suffering from dementia not being persons or relevantly continuous with persons. In fact, Schechtman takes the Person Life View's ability to ground the intuition that we persist in the advanced stages of dementia to be one of the clear advantages of the view (Schechtman 2014, 150).

However, also like the biological approach, the Person Life View can't easily accommodate the sense of loss that we experience when our loved ones enter the advanced stages of dementia. While the Person Life View can point to persistence-relevant features that are lost in these situations, the view is still committed to providing an exclusively affirmative answer to the question of whether we persist. Schechtman argues: "When someone looks at the Alzheimer's patient and claims 'Father is gone; that's not him,' she does not...truly see a brand new being, but rather the sad continuation of a once vigorous life—otherwise it would not be painful in just the way it is" (Schechtman 2014, 105). On the Person Life View, though it would be fitting to grieve many losses, it wouldn't be fitting to grieve the actual loss of a loved one. But, as argued in section 2.b., this runs contrary to Strohminger and Nichols' findings and much of the research on caregiver grief. Like the biological approach, the Person Life View cannot do justice to the intuition that there is a sense in which we *don't* survive in the advanced stages of dementia.

Unlike the Person Life View, Shoemaker would not attempt to explain ambiguous loss in terms of persistence-relevant properties. Rather, Shoemaker analyzes third-person reidentification in terms of ownership, as he does all other seemingly identity-related practical concerns. On Shoemaker's view, perhaps the apt platitude regarding third-person reidentification would be "I care about *my* loved ones." As Shoemaker argues:

To the extent I want to reidentify one of [my friends], then, this often involves establishing or ensuring that they have the same relation to me now that grounded my affective concern in the past. Depending on the nature of our friendship, then (i.e. what it is that warrants my affective concern), the relevant ownership relation may be delivered by (a) psychological continuity on their part, (b) one aspect of psychological (perhaps continuity of character continuity just or persistence of beliefs/desires/goals), (c) some combination of physical and psychological continuity, or (d) mere physical continuity (for those who are seriously shallow). (Shoemaker 2016, 323-324, footnote 33)

So, in cases of dementia, the question will be whether these individuals continue to be *our* loved ones, which we can determine by establishing whether they continue to bear the same relation to us that grounded our care for them in the past.

Though Shoemaker is a pluralist about ownership and acknowledges that different relations ground different kinds of friendship and love, in asking us to determine "*the* relevant ownership relation" (Shoemaker 2016, 324, footnote 33, emphasis added) that grounds our affective concern for a particular individual, he doesn't consider the possibility that we can re-identify, and continue to care for, a loved one in virtue of one relation, while simultaneously judging that our loved one no longer

exists in virtue of another relation. But the sense of ambiguous loss that permeates cases of advanced dementia indicates that situations like this do occur. In assuming that there must be a univocal answer to the question of whether an individual continues to be *our* loved one, Shoemaker fails to consider the possibility that we can judge that our loved one no longer exists while continuing to care for our loved one.

One might wonder why Shoemaker doesn't argue that we can reidentify our loved one in virtue of one relation (or set of relations) and judge that our loved one fails to persist in virtue of another relation (or set of relations). Given that Shoemaker is a pluralist in many respects, why isn't he a pluralist about loved ones, and individuals more generally? Shoemaker rejects this approach to third-person reidentification because he rejects pluralism about numerical identity:

...we cannot be pluralists about numerical identity; we can only be pluralists about ownership. If the numerical identity we are talking about is numerical identity of individuals like us, then the proposal just given would require that I am both identical with, and not identical with, some past or future individual. (Shoemaker 2016, 322).

On Shoemaker's view, pluralism about identity over time is incoherent—it's contradictory to judge that one's loved one is gone and to judge that they continue to persist. But the Subscript View has a perfectly coherent take on such pairs of judgments. In cases where biological continuity obtains and psychological continuity is destroyed, rather than arguing that the individual both is and is not identical with a past individual, the subscript theorist would argue that self_b survives_b while self_p does not survive_p. Not only is such a claim not contradictory, it's what allows the Subscript View to accommodate cases of ambiguous loss.

To conclude, Schechtman and Shoemaker expand on traditional approaches to identity over time by proposing views that provide a plurality of persistence and ownership-relevant properties. However, like traditional approaches to personal identity, these views also assume that the answer to questions about identity over time (or ownership) are binary—either we persist or perish (or, on Shoemaker's analysis, either a relevant ownership-relation obtains or it fails to.) But the folk are not just pluralists about what matters when it comes to persistence (or ownership); they're also pluralists about the kinds of entities we are at the most fundamental level—questions about identity over time admit of more than one answer.

5. Objections and Replies

In this final section, I will explore three objections to the Subscript View with the aim of both developing and clarifying the view.

5.a. Are we unified?

The original motivation for the Subscript View was that pluralism, and pluralism alone, can accommodate our identity-related practical concerns. In order to accommodate these concerns, the subscript theorist argues that where we thought there was one, there are in fact many. There exist several distinct selves, all with different modal properties and persistence conditions. This fracturing of the individual, though it allows the Subscript View to ground our identity-related concerns in a single theory of persistence, may render the view unable to accommodate our experience of others as *unified* individuals. Schechtman puts this point forcefully: "The claim that we do not need to conceive of an ultimate locus to which the full range of our questions and concerns about a person are addressed, however, does not ring true to the experience of how we relate to the people who make up our social world" (Schechtman 2014, 83). The fact that we experience those around us as unified agents, not distinct biological and psychological beings, could count against the Subscript View.

First, one might grant that we experience one another as single individuals, but this doesn't entail that we *care* very much about unity. Biological and psychological continuity usually obtain together and self_p and self_b are co-located most of the time. Though we tend to think of others as single individuals, this could be because it's simply convenient to do so. We rarely need to distinguish between self_p and self_b. With the exception of very few claims, whatever we say of the one will be true of the other. It's true of both my brother_p and brother_b that he is taller than me, works in finance, and

doesn't understand the value of philosophy for a life well-lived. But when discussing (or complaining about) him, it would be time-consuming and needless to specify that these things are true of *both* brother_p and brother_b. Though we tend to treat one another as single targets of concern, more work needs to be done to argue that this illustrates that we *value* unity and should prioritize it when theorizing about persistence.¹⁵

Second, it's not clear that we always experience others as unified individuals. Schechtman herself reflects on the fractured experience of our many selves to motivate her view:

In everyday life we use the word "person" in many different ways. Sometimes it means "human animal," sometimes "moral agent," sometimes "rational, self-conscious subject,"... Each of these conceptions of *person* has its own corresponding criterion of personal identity, and there is no reason to assume that we can find some single relation which underlies our judgments about the identity of a "person" in every context. (Schechtman 2014, 2)

And, in cases where a single persistence relation fails to obtain while another is maintained, our treatment tracks distinct psychological and biological individuals, not unified loci of concern. Nowhere is this clearer than our treatment of those in the late stages of dementia. While we don't explicitly address those with dementia as individuals_b and grieve their deaths_p, these beliefs are nevertheless reflected in our treatment of these individuals and the experience of ambiguous loss. Views that require unification, like the Person Life View, cannot provide a satisfying elucidation of these

¹⁵ Although, Shoemaker and Tobia (forthcoming) recently argued that: "While some experimental studies suggest that our identity intuitions sometimes fracture and track multiple and differently-grounded relations (e.g. Tierney et al. 2014), in most cases we are indeed tracking a unified locus, albeit with different psychological features" (27). However, Shoemaker and Tobia don't reference any particular study to support this claim and they don't address the work on caregiver grief and ambiguous loss in their essay. Additionally, it's not at all clear to me that the studies they do discuss (e.g. Strohminger & Nichols 2014; Tobia 2015; Molouki & Bartels 2017) illustrate that the folk's judgments about persistence track unified loci of concern. Much of this research indicates that psychological change, especially moral deterioration, threatens our persistence-judgments. But this is entirely consistent the folk also valuing, and making judgments consistent with, other kinds of persistence relations in other contexts. Shoemaker and Tobia's reasoning reflects the traditional approach to theorizing about persistence, i.e. seeking to determine which relation actually grounds persistence by reflecting on the practical implications of the loss of a particular relation. But, as I argued in section 2, this approach will rarely prove conclusive because our judgments conform to the different approaches to persistence in different cases.

phenomena. Unification views require that there be a single answer to the question of whether we persist, but, as we've seen, this question admits of many answers.

5.b. Who am T?

Schechtman's concerns about unification raise another problem for the Subscript View. What, if anything, is the referent of 'I,' 'me,' and 'you' on this view? If the subscript theorist radically revises our ontology to include two distinct selves, must she also radically revise how singular pronouns refer as well?

On the Subscript View, terms like 'I,' 'me,' and 'you' can refer to two distinct objects: self_p and self_b. Despite appearances, this is not a particularly radical claim. Perhaps because words like 'I,' 'me,' and 'you' function as singular pronouns in English, it may seem that they refer unambiguously to single objects in the world. But, as Parfit argues, this is often not the case:

But we can't usefully suppose either that we are the animal, or that we are the person, since we would then be supposing falsely that the words 'I' and 'we' must always refer to the same thing. Some uses of these words may refer to an animal, and others to a person. The names of nations have a similar ambiguity, since they may refer to a nation-state, as in the claim 'France declared war', or to a part of the Earth's surface, as in the claim 'France is roughly hexagonal.' We shouldn't claim that France must be either a nation-state or a part of the Earth's surface, though we don't know which. (Parfit 2012, 21)

Additionally, the subscript theorist can explain why our pronouns refer ambiguously. Because $self_p$ and $self_b$ are often co-located, there is usually no need to specify what kind of individual one refers to when one utters the term T or 'you.' But in many cases, we use T or 'you' to refer to either $self_p$ or $self_b$ exclusively. For example, when visiting an individual in a PVS, one can ask 'how are her vitals?' and it is clear that 'her' refers to only $self_b$ (since $self_p$ no long exists and doesn't have any vitals). And, if we imagine a case in which an individual's body is completely replaced with inorganic material such that biological continuity is destroyed while psychological continuity is maintained, that individual can wonder 'Where am I?'' where the referent of T is clearly $self_p$.

On the Subscript View, terms like 'I,' 'me,' and 'you' can successfully refer in a wider range of cases than if monism were true. If monism were true, these terms would refer to either self_p or self_b, but not both. So, these terms couldn't successfully refer both in cases where an individual is in a PVS and in cases where an individual's body is replaced with inorganic material. On the Subscript View, 'I,' 'me,' and 'you' refer to self_p, self_b, or both, given the context. Thus, these terms can successfully refer both in cases of PVS and in cases of inorganic matter body replacements. Though the Subscript View may be radical on many counts, there is nothing exceptionally radical about how our pronouns refer on the view. And, unlike monism, the Subscript View allows for terms like 'I' to refer successfully in a wide range of cases in which self_p and self_b are not co-located.

5.c. Will we proliferate?

When I introduced the Subscript View, I argued that there are typically (at least) two distinct individuals wherever we once thought there was one: self_b and self_p. But one might wonder what's to stop selves from proliferating on the Subscript View.¹⁶ The primary motivation in developing the Subscript View was to construct a view that could ground the plurality of our identity-related practical concerns. But our practical concerns are varied—what if our practices recommend that there exist not only self_p and self_b, but also parent and child selves, spouse and friend selves, boss and employee selves, etc.?

Though I take a view's ability to accommodate our many identity-related concerns to be an important desideratum when it comes to theorizing about persistence, it's far from the *only* desideratum. I proposed the existence of self_p and self_b not only because their existence can ground many of our practical concerns, but also because these particular kinds of entities have been studied extensively. Animalists like Olson have done a great deal of work exploring what it means to be a human animal and how such organisms can persist (1997, 2007). And neo-Lockeans like Baker have

¹⁶ Thanks to XXX for raising a particularly challenging version of this worry.

done the same with regards to persons and psychological continuity (Baker 2000, 2007). The fact that the theoretical puzzles surrounding the existence of biological and psychological individuals have received a great deal of attention counts in favor of including them in the Subscript View's ontology. As the empirical work on the folk conception of persistence develops, we may need to replace or modify the kinds of individuals and types of persistence relations included in the view. For example, adding the moral self (self_m), or modifying self_p and survival_p to capture the importance of moral features and the direction of moral change may soon be required. But modifying the Subscript View in response to a significant amount of empirical and philosophical work is not a harbinger for unlimited proliferation.

There are many grounds on which a subscript theorist can refuse to include a particular self in their ontology. While she can deny ontological entry to an entity whose existence does nothing to ground our practical concerns, she can also bar individuals whose inclusion would render the view incoherent or whose ontological status is extremely suspect. Even if it turns out that it will be impossible to capture *all* of our practical concerns by proposing the existence of a few distinct selves,¹⁷ and there are great theoretical costs to proliferation beyond mere monistic bias, it doesn't follow that we should give up on the Subscript View. Rather, we should seek to include as many discrete selves that can ground as many of our practical concerns as theoretically desirable. Even if we will ultimately be unable to accommodate all of our identity-related practical concerns in our theory of personal identity, it doesn't mean that we shouldn't try.

6. Conclusion: A Distinct View

¹⁷ It's not clear to me that attempting to capture our identity-related concerns will lead to a proliferation. The folk are working with a view of personal identity that helps them navigate the world. If proliferation of individuals wreaks havoc on our philosophical theories, presumably it would wreak havoc on the folk's theory as well. Although, see Strohminger et. al (2017) for an argument that the folk concept of "true self" cannot properly be conceived of as scientific concept.

I'll conclude by briefly highlighting the features of the Subscript View that distinguish it from other views. The subscript theorist argues that both $self_p$ and $self_b$ persist through time and are appropriate targets of judgments about personal identity. Though many are happy to accept co-location of objects like human animals and persons, no extent view accepts that both objects are relevant to personal identity and persistence. Olson, for example, grants that humans can also be persons, but he argues that being a person is irrelevant to persistence:

Perhaps we cannot properly call that vegetating animal a *person* since it has none of those psychological features that distinguish people from non-people...If so, that simply shows that you can continue to exist without being a person, just as you could continue to exist without being a philosopher, or a student, or a fancier of fast cars. (Olson 1997, 17)

For Olson, being a person (a self_p) is simply a phase—we are essentially animals and only accidently persons. Baker also accepts the existence of human animals and persons, though she argues that we are essentially persons, not animals: "On the Constitution View, I am an animal (in that I am wholly constituted by an animal), but I am not essentially an animal (in that I could be constituted by an inorganic body)" (Baker 2000, 226).

In contrast, on the Subscript View, we, at the most fundamental level, are more than one thing. Both self_p and self_b are able to persist, both self_p and self_b ground different identity-related practical concerns, and both self_p and self_b count as appropriate subjects in the study of personal identity. On the Subscript View, both Olson and Baker are partially correct—something essential is lost when either biological continuity or psychological continuity is lost. But to argue that either of these conditions is essential to identity over time isn't quite right; psychological continuity is essential for the survival of self_p and biological continuity is essential for the survival of self_b. To slightly modify Sider (2001), ordinary thought contains two concepts of persisting persons, each responsible for a separate set of intuitions, *both of which* are canonical conceptions and need not exclude the other.

Works Cited

- Alzheimer's Association. (2018) "2018 Alzheimer's Disease Facts and Figures" *Alzheimer's & Dementia* 14: 367-429.
- Baker, L.R. (2007) The Metaphysics of Everyday Life: An Essay in Practical Realism. Cambridge: Cambridge University Press.
- Baker, L.R. (2000) Persons and Bodies: A Constitution View. Cambridge: Cambridge University Press.
- Bartels, D., Kvaran, T., & Nichols, S. (2013) "Selfless Giving," Cognition 129: 392-403.
- Bartels, D. & Urminsky, O. (2011) "On Intertemporal Selfishness: The Perceived Instability of Identity Underlies Impatient Consumption," *Journal of Consumer Research* 38: 182–98.
- Bartels, D. & Rips, L. (2010) "Psychological Connectedness and Intertemporal Choice," Journal of Experimental Psychology: General 139: 49–69.
- Blandin, K. & Pepin, R. (2017) "Dementia Grief: A Theoretical Model of a Unique Grief Experience," Dementia 16: 67-78.
- Boss, P. (2004) "Ambiguous Loss Research, Theory, and Practice: Reflections after 9/11," *Journal of Marriage and Family* 66: 551-566.
- Boss, P. (1999) *Ambiguous Loss: Learning to Live with Unresolved Grief.* Cambridge, MA: Harvard University Press.
- De Freitas, J., Cikara, M., Grossmann, I., & Schlegel, R. (forthcoming) "Moral Goodness Is the Essence of Personal Identity," *Trends in Cognitive Science*.
- De Freitas, J., Tobia, K., Newman, G. & Knobe, J. (2017a) "Normative Judgments and Individual Essence," *Cognitive Science* 41: 382-402.
- De Freitas, J., Cikara, M., Grossman, I. & Schlegel, R. (2017b) "Origins of the Belief in Good True Selves," *Trends in Cognitive Science* 21: 634-636.
- Doka, K. (2004) "Grief and Dementia," in K. Doka (ed.), *Living with Grief: Alzheimer's Disease*. Washington, D.C.: Hospice Foundation of America.
- Korsgaard, C. (1989) "Personal Identity and the Unity of Agency: A Kantian Response to Parfit," *Philosophy and Public Affairs* 18: 101-32.
- Lindauer, A. & Harvath, T. A. (2014) "Pre-death Grief in the Context of Dementia Caregiving: An Analysis," *Journal of Advanced Nursing* 70: 2196-2207.
- Locke, J. (1975) An Essay Concerning Human Understanding, ed. P. H. Nidditch. Oxford: Clarendon Press.
- Marwit, S. & Meuser, T. (2005) "Development of a Short Form Inventory to Assess Grief in Caregivers of Dementia Patients," *Death Studies* 29: 191-205.

- Marwit, S. & Meuser, T. (2002) "Development and Initial Validation of an Inventory to Assess Grief in Caregivers of Persons with Alzheimer's Disease," *The Gerontologist* 42: 751-765.
- McMahan, J. (2002) The Ethics of Killing: Problems at the Margins of Life. New York: Oxford University Press.
- Molouki, S. & Bartels, D. (2017) "Personal Change and the Continuity of the Self," Cognitive Psychology 93: 1-17.
- Mott, C. (2018) "Statutes of Limitations and Personal Identity," in T. Lombrozo, J. Knobe & S. Nichols (eds.) Oxford Studies in Experimental Philosophy 2: 243-269.
- Newman, G., Bloom, P., & Knobe, J. (2014) "Value Judgments and the True Self," *Personality and Social Psychology Bulletin* 40: 203-216.
- Nichols, S., & Bruno, M. (2010) "Intuitions about Personal Identity: An Empirical Study," *Philosophical Psychology* 23: 293-312.
- Noyes, B., Hill, R., Hicken, B., Luptak, M., Rupper, R., Dailey, N. & Bair, B. (2010) "The Role of Grief in Dementia Caregiving," *American Journal of Alzheimer's Disease & Other Dementias* 25: 9-17.
- Olson, E. (2007) What are We? New York: Oxford University Press.
- Olson, E. (1997) The Human Animal: Personal Identity without Psychology. New York: Oxford University Press.
- Parfit, D. (2012) "We are Not Human Beings," Philosophy 87: 5-28.
- Parfit, D. (1984) Reasons and Persons. New York: Oxford University Press.
- Prinz, J & Nichols, S. (2016) "Diachronic Identity and the Moral Self," in J. Kiverstein (ed.) Handbook of the Social Mind. London: Routledge.
- Schechtman, M. (2014) Staying Alive: Personal Identity, Practical Concerns, and the Unity of a Life. New York: Oxford University Press.
- Shoemaker, D. (2016) "The Stony Metaphysical Heart of Animalism," in S. Blatti and P. Snowdon (eds.) Animalism. Oxford: Oxford University Press: 303-328.
- Shoemaker, D. & Tobia, K. (forthcoming) "Personal Identity," in J. Doris and The Moral Psychology Research Group (eds.) *The Moral Psychology Handbook*. Oxford: Oxford University Press.
- Sider, T. (2001) "Criteria of Personal Identity and the Limits of Conceptual Analysis," *Philosophical Perspectives* 15: 189-209.
- Sikes, P. & Hall, M. (2018) ""It was then that I thought 'whaat? This is not my Dad": The Implications of the 'Still the Same Person' Narrative for Children and Young People who Have a Parent

with Dementia," Dementia 17: 180-198.

Starmans, C. & Bloom, P. (forthcoming) "If You Become Evil, Do You Die?" Trends in Cognitive Science.

- Starmans, C. & Bloom, P. (2018) "Nothing Personal: What Psychologists Get Wrong about Identity," *Trends in Cognitive Science* 22: 566-568.
- Strohminger, N. & Nichols, S. (2015) "Neurodegeneration and Identity," Psychological Science.
- Strohminger, N. & Nichols, S. (2014) "The Essential Moral Self," Cognition 131: 159-171.
- Strohminger, N., Knobe, J. & G. Newman (2017) "The True Self: A Psychological Concept Distinct from the Self," *Perspectives on Psychological Science* 12: 551-560.
- Tierney, H., Howard, C., Kumar, V., Kvaran, T. & Nichols, S. (2014) "How Many of Us Are There?" in J. Sytsma (ed.) Advances in Experimental Philosophy of Mind. Bloomsbury Press.
- Tobia, K. (2016) "Personal Identity, Direction of Change, and Neuroethics," Neuroethics 9: 37-43.
- Tobia, K. (2015) "Personal Identity and the Phineas Gage Effect," Analysis 75: 396-405.
- Unger, P. (1990) Identity, Consciousness and Value. New York: Oxford University Press.
- West, C. (2008) "Personal Identity: Practical or Metaphysical?" in C. Mackenzie & K. Atkin (eds.) Practical Identity and Narrative Agency. New York, NY: Routledge.
- Williams, B. (1970) "The Self and the Future," The Philosophical Review 79: 161-180.
- Wolf, S. (1986) "Self-Interest and Interest in Selves," Ethics 96: 704-720.
- Velleman, D. (2006) Self to Self: Selected Essays. Cambridge: Cambridge University Press.