

**On the Self and its Identity:
a non-substantivist theory of linked bundles**

David Brooke Struck

McGill University, 2009

The substantivist theory of the mind, as presented by Descartes in his *Meditations*, has been criticized by thinkers like David Hume, Bernard Williams and Derek Parfit as a problematic view of personal identity. Descartes does not explicitly present the mind as a criterion for identity, but given that his view of a human being is that of a union between mind and body, the substantive notion of mind that he presents plays a central role in what it is to be a person. Inasmuch as being the same human being would mean having the same body and mind, the identity of the mind over time is crucial to a theory built on the Cartesian idea of substantive mind. The criticisms against such a conception have two primary targets: the metaphysical commitment of Descartes to a non-physical substance; our linguistic and moral practices that implicate such a substance. My intention in this paper is to present my own non-substantivist picture of personal identity, show how it avoids the two types of criticism that are traditionally leveled against substantivist notions, and explain why they do not concern my theory. I will lay out my own linked bundle theory, introduce some alternate theories of personal identity so that I can bring traditional objections into the discussion, and then finally measure my own theory against those objections.

Before I begin, I would like to draw a distinction between two separate yet intimately related issues at work in this discussion: the distinction between personal identity *qua* persistence through time, and *qua* the nature of the self. Personal identity in the former issue refers to numerical identity and how a person persists through time, and in the latter issue refers to who I am and what properties make me myself and not somebody else. Substantivism creates a strong bond between these two concepts, because

the non-physical Cartesian mind, as the seat of consciousness, contains the properties of who I am, and it is also what persists through time. In a non-substantivist picture, where there is not a persisting subject of experience, drawing this distinction means that there has to be some discussion of where and how my personal properties (or arise) that will be separate from persistence¹.

The non-substantivist theory of personal identity is that there is no simple and self-identical substance persisting through time that underlies all the experiences of an individual. Rather, following Hume, we acknowledge only the experiences themselves, as there is nothing given but those experiences. We are never given anything persistent in those experiences, and so we are not justified in postulating that there is something persistent that underlies them. Hume uses the analogy of a theatre, saying that we witness the scenes—that is to say, the experiences—as they fly by with “inconceivable rapidity,” but we are not justified in assuming a theatre—a non-physical self—that contains all these scenes because we never experience such a thing “nor have we the most distant notion of the place” (Hume 2000, 165). Rather, it is only the imagination that assumes such a self must underlie experience.

So, following Hume, non-substantivist bundle theory will begin with individual experiences as the foundation for the theory of personal identity. Taking one further step, and conserving the theatre analogy, we can say that an individual is delineated by the collection of experiences that constitute it, just as a play is comprised of scenes. However, few would be willing to say that any old combination of scenes constitutes a play (in any relevant sense), just as few would be willing to say any set of experiences constitutes an individual. Rather, there must be some kind of connection that exists between the scenes in order to define particular sets as plays rather than random assortments; we need a rule that picks out particular experiences as belonging to the same person. Given such a rule, we can pick out a proper bundle of experiences that constitutes a person.

Derek Parfit outlines two relationships that can hold between instances of experience: connectedness and continuity. Simply put, connectedness is how similar one experience is to another in terms of content, how much psychological overlap exists between them, and is therefore a matter of degree. For example, when I stand on Mount Royal and look out over the skyline, and then you do the same moments later, there is likely a high degree of connectedness² between those two experiences. It is based on content that experiences stand in relations of greater or lesser connectedness. Continuity is an all or nothing term signifying an uninterrupted and interlinked chain of connectedness. For example, A has a high degree of psychological connectedness with B, and B stands in the same relation to C, and so on until T. A and T may not have any psychological overlap at all, they could be entirely unconnected, but because they share an unbroken thread of intermediary connected steps, A and T are continuous with one another (Parfit 1971, 207). Continuity seems like a strong candidate for providing the rule we need to pick out particular experiences as those of a single individual. However, because continuity is based on connectedness, which is a matter of degree, it seems necessary to define what degree of connectedness is sufficient for it to “count” as a link in the continuity chain.³

Our intuitive notion of an individual persisting through time is that experiences are played out in a temporal sequence, like a line on a Cartesian plane. Experiences in the sequence are like points on the line, and the line, just like the sequence, can be divided into an infinite number of points⁴. Using this visual intuition, continuity of experience can be judged just as mathematical continuity of a function would be: using limits. As the temporal distance between two experiences is reduced to zero, so should the psychological connectedness between the two experiences reach infinity, i.e.: the experiences should be entirely congruent.

So, given Hume’s theory of an individual as a bundle of experiences, combined with Parfit’s theory of continuity providing a rule to pick out particular experiences to

create a properly delimited individual, we now have the non-substantivist linked bundle theory of persons existing through time. We can still speak of identity: as the bundle of experiences as a whole does not change through time, it can be called self-identical, even though the psychological content of the experiences is in constant motion⁵. I am having an experience right now, to which a set of other experiences is related by continuity, and that whole set taken together does not change through time, despite the fact that my experience yesterday was one of watching the hockey game, not one of writing this article as I am right now.

Given a non-substantivist theory of persons, a new semantics for sentences using person symbols ought to be elaborated. What does it mean, then, to say “I watched the hockey game yesterday,” given that there is no persisting substance doing the experiencing? Assume I speak this sentence in the present, at time T . The sentence simply implies that at time $T-1$ day, the corresponding experience in my continuous bundle was one of watching hockey⁶. Predicates that denote ongoing activities indicate a temporal range of experiences, e.g.: the statement "I visited Germany last week" means that between $T-one\ week$ and T , experiences in my corresponding bundle were of being in Germany.

In order to discuss the strengths and weaknesses of the linked bundle theory, I would like to present some objections that have been raised against other theories of personal identity and assess how my notion of non-substantivism can respond to them. I will also briefly present the other theories of personal identity against which those objections were originally raised.

The Cartesian substantivist notion is that there is a non-physical substance, known as the Cartesian mind, that is the subject of all our experiences (Descartes 2008, 17-24). It is conceptually separable from the body, persistent and unchanging through time, and that to which the “I” refers in semantic discussion. The Cartesian mind is comparable to the soul of Christian doctrine (if not actually the soul itself), and it provides the ground for

holding individuals morally responsible for their actions. Hume's criticism is that we never experience such a persistent subject of experiences, but rather have only the experiences themselves. He therefore denies that we are justified in supposing the existence of such a metaphysical entity (Hume 2000, 165). His criticism does not hold against my non-substantivist bundle theory, which is partially derived from his own, because my theory does not assert that there is such a subject, but rather only a set of experiences that constitutes a person.

Parfit presents a thought experiment to show that the notion of persons to a persistent substantive subject leads to contradictory intuitions (Parfit 1975, 199-203). He explores our intuitions by asking if we would consider me to be the same person if half of my brain were destroyed, but my psychology were to remain intact. I would say so. Following this, he asks us to imagine that half my brain is not destroyed, but rather surgically removed and put into another body indiscernible from the one I have now; that, in short, my body and psychology are duplicated. In which of these individuals is my identity conserved? To say that either is me *qua* persisting substantive subject, and not the other, would be nonsensical because they are (qualitatively) identical to one another. Neither has a discerning quality lacking in the other on which to ground such an identity claim. To say that my subject persists in neither is also problematic because we had originally said that my body with half my brain and all my psychology would still be me, and Parfit rightly asks: "How could a double success be a failure?" (Parfit 1971, 201) Only one possibility remains, and that is then to say that both are identical to my current self; but by the transitivity of identity, they would have to be identical with one another, and because they have at least one differing property, namely spatial location, then that is also impossible. Parfit's conclusion is that substantivism cannot deal with these conceptual questions, but furthermore maintains that in non-branching cases, the same conclusion applies: we have no reason to suppose that there is a persistent and identical substantive self that underlies all our experiences and justifies our claims about personal

identity. Rather, what justifies a claim that a future experience is mine is that it is continuous with my current experience.

Parfit bases his identity theory on this thought experiment, and my nonsubstantivist theory is partially built on his. However, let us just double check that the addition of the bundle notion to Parfit has not made the thought experiment problematic to my theory. So which of the resulting people is me? At the point of division, there would have begun to be two streams of experience where before there had only been one. (To use a visual analogy, it is as if the function⁷ on the Cartesian plane branched off into two arms.) Parfit claimed that the substantivist supposition that I must persist was false. However, given the linked bundle theory, we want to claim that the bundle persists of which my current experience is but a part, and it seems that we can. In fact, both resulting streams of experience are continuous with my current one. The Cartesian could not claim the persistence of personal identity because it was necessary that all the experiences belong to a persisting substantive self, which could not have differing properties. However, because my conception is that the experiences are merely associated by continuity, it is not a problem that two given experiences in the bundle have differing properties. Parfit's thought experiment may require us to accept that there can be branches in the line of continuity, and that several simultaneous experiences can be continuous with a common ancestor, but this is not logically incompatible with the linked bundle theory I am advancing.

Bernard Williams, in his paper "The Self and the Future," uses a rather interesting thought experiment to show substantivist intuitions to be problematic. He actually presents the same scenario of body transfer twice, but describes it differently each time. In the first instance, I retain all of my psychology and inhabit the (former) body of another individual. In the second, I retain my body, but have my entire psychology replaced by that of another individual (Williams 1970, 196-197). What is in fact going on is that two bodies are having their associated memories and psychology swapped. As far

as the substantivist is concerned, both of these situations are consistent with personal identity, and there is no way to determine which one would be an accurate description if two psychologies were to be swapped from one body to the other. Is the Cartesian self attached to the body, or to psychology? It seems as though there is no logically necessary connection to either, as both of the descriptions can be consistently understood as preserving substantive personal identity. In this case, the subject becomes merely formal, and cannot be said to have any properties such as personality. Explaining the connection between body and mind will also be a problem for the substantive theory.

For a bundle theory, Williams' thought experiment is a non-issue. Clearly the thought experiment of having my entire psychology replaced is inconsistent, because it is only in virtue of the psychological continuity of my experience that anything is mine. However, depending on the importance of the connection between body and mind, it may also be that inhabiting a new body would create a psychological discontinuity, and thus the experiences post-swap would not be mine either, being part of a new bundle.

It is very important for us to identify which experiences belong to which person. John Locke commented upon the importance of the self as a "forensic term" in attributing praise and blame (Locke 1828, 69), and so we can see that it is not merely a question of metaphysical curiosity that drives us to create theories of personal identity. Locke's criticism puts into doubt the bundle conception as presented by Hume. Hume remarks that even if there were a substantive self underlying experience, it would be useless for forensic purposes: we would never know where to ascribe praise or blame because we never experience the subject. Even so, we cannot punish people for past actions if those past actions are not theirs in any relevant sense, and we must therefore find a connecting thread within the bundle of experiences. Hume's conception here lacks power as a forensic term in a way that the linked bundle theory does not due to the contribution of continuity by Parfit.

At this point, it may seem that Parfit's notions alone are doing all the work in my

theory, and that my addition of Hume is irrelevant. However, Christine Korsgaard and Susan Wolf advance a criticism of Parfit that the addition of the bundle notion tidies up nicely. Their criticism is that our treatment of persons as agents does not mesh with Parfit's notion of momentary subjects of experience because such "time slices" are not the proper metaphysical unit for care for others (Wolf 1986, 709). Furthermore, metaphysical considerations do not affect our treatment of people as agents, as the theoretical and practical standpoints, drawn from Kant, are not derivatives of one another (Korsgaard 1989, 111). The addition of the bundle to Parfit's theory answers Wolf's concern by establishing selves as a collection of experiences. It need not be the case that relationships of care are fleeting, as she fears, because there is a persistence of the bundle as a whole, and not merely a momentary subject as Parfit maintained.

Korsgaard claims that in discourse about persons "[t]here is no metaphysical fact of the matter.... It may have a best answer, if the pragmatic considerations are decisive, but it does not have a true answer" (Korsgaard 1989, 104). Moreover, she asserts that "[t]here is a necessary connection between agency and unity which requires no metaphysical support" (Korsgaard 1989, 115). Perhaps Korsgaard is merely playing it safe in staying out of the metaphysical arena and focusing only on retaining morality, but she can establish her metaphysical support with a linked bundle theory, because it has the unity necessary for treating someone as an agent.

If indeed she is maintaining the fictionalist position that person discourse does not reflect a metaphysical reality, then she will have to sacrifice any possible truth in statements about persons as well, and that seems problematic. We want to be able to say that someone is either correct or incorrect when they say "I went to class this morning." Though the semantics of linked bundle theory are non-intuitive, I still believe that they reflect a very real metaphysics, and have objective truth conditions⁸. Korsgaard wants to retain the moral practices of the practical standpoint, but sacrifices the metaphysical grounding of agency, and perhaps unnecessarily so. She accepts the criticisms by Parfit

leveled against substantivism, but thinks that Parfit's positive project is incompatible with agency because the subject of experience is only momentary for him. The linked bundle theory presents the necessary unity for agency, and also provides a metaphysical grounding for it, which suggests that adopting a fictionalist standpoint with regard to the metaphysics of agency is unnecessary.

Given Parfit's picture, because there is no collective notion of a person, we are forced to accept that "I" am only momentary, something we do not necessarily want to do, as it has serious impacts on our practice. Given Hume's bundle, there is a similar problem trying to deal with what the "I" is, but for different reasons. It is clear enough that it refers to a bundle of experiences, but how that bundle is delineated remains undefined; it is unclear which experiences are part of the relevant bundle. In what way is it MY bundle that I am referring to? Cartesian substantivism provides an easy semantics to deal with the statement, but we are faced with the epistemological problem of trying to verify a statement about a substance we never experience, and faced with a metaphysics that is plagued by problematic thought experiments. The linked bundle theory is not without problems in this area; however, they seem to be the most manageable problems of the lot. The semantics are not as intuitive as those of the substantivist theory, but are still clearly up to the task of handling such statements, and providing objective truth conditions. There is also an epistemological problem for the linked bundle theory, because we must trust our memory to inform us about the preceding contents of the bundle. Although memory is both fallible and not directly available to others, it still seems less problematic than a Cartesian self, which is not even directly available to ANY experience.

The linked bundle theory has proven able to handle the problems of identity presented to the substantivist picture, the non-substantivism of both Parfit and Hume, and the fictionalism of Korsgaard and Wolf. However, I have not yet elucidated what the nonsubstantivist self actually is for bundle theory. I will use a conception of identity

presented by John Locke to introduce the necessary distinction between the identity of persons and the nature of the self.

John Locke's theory is based on memory: A is (identical to) B if and only if A remembers B as herself⁹. The problem with this conception is the limitation of memory. Assume the case that A remembers B, and B remembers C, but A does not remember C. Because A remembers B, and B remembers C, then by the transitivity of identity, A is identical to C. However, because A does not remember C, A is not identical to C. Obviously A cannot be both identical and non-identical to C, and so memory alone cannot be the criterion for identity. Given the linked bundle theory, if A is continuous with B, and B with C, then A is continuous with C, and they are thus the same person, regardless of memory. However, the fact that A and C are the same person, even though A does not have memory of being C, makes evident the difference between our identity and that of which we are aware.

There is a gap opened here between what one remembers and what actually happened, and this gap translates roughly into the gap between personal identity and the self. Under Locke's theory, one would be forced to accept the statements "I went to the park yesterday" and "I remember being at the park yesterday" as equivalent. I believe that the difference between these two statements is precisely the difference between identity and the nature of the self. "I went to the park yesterday," is a statement about an experience continuous with my current self and therefore about identity, whereas "I remember being at the park yesterday," is a statement about what is PRESENT IN my current experience and thus about the nature of the self. Experience is just this being present, and the self is an expression of presence. Inasmuch as any experience is mine, it is present, and it is only mine in its presence. Locke's problem in constructing his theory is that he conflates that which is currently present to me with that which is continuous with my current experience. To say that A remembers B is just to say that some elements of B's current experience are present to A.

This definition of the self as a capacity for reflexive self-reference is in line with the discussion of a non-substantivist self found in Robert Nozick's *Philosophical Explanations*. Reflexive self-reference is the ability to refer to oneself as "I," "me," and "mine" (Nozick 1981, 78). These terms are the linguistic reflection of the presence of experiences: I have the experiences that happen to me, and they are mine in their being present. Descartes said that he could doubt the content of his experience, but not doubt that he himself existed. However, the nature of that self is not necessarily one of being a substantive subject: the self as such an object can be doubted. (If this paper is convincing, you are doubting it right now.) Rather, Descartes could not properly doubt that he was having experiences, that objects, memories, sensations, etc, were being made present. The logical conclusion that he should have reached was that he could not doubt his consciousness as the having of experiences. If there is in fact an object that is the seat of experience, it is only by abstraction from the presence of experiences themselves that such a substance can be reached, and this conclusion is as yet problematic.

Nozick raises three main concerns about non-substantivist conceptions of persons (Nozick 1981, 110-114), which I will address given the above elaboration of a mechanics of personal identity and the nature of the self, remembering, of course, that this elaboration is merely a theory for the minimum logical requirement to explain identity and the self. The first concern is that in looking for the substantive subject, perhaps Hume was merely looking in the wrong place; perhaps there is in fact a seat of consciousness we have yet to discover. I do not believe this is a problem for the linked bundle theory. This non-substantivist theory serves to elaborate a logical framework for explaining personal identity and the self, abstaining from claims about how that framework is instantiated. The minimum requirement is that experiences are made present. If there are strong connections between this framework and a soul or Cartesian mind, it does not seem to present an immediate problem to the linked bundle theory.

The second concern is that we have trouble conceiving of a person totally

disconnected from a body, or any sort of embodiment. Again, the non-substantivist theory does not assert that the making present of experiences must be independent of the body, but merely that the making present itself is the necessary element of selfhood. If embodiment provides the mechanics by which experiences come to be present to us, the possibility of which I do not deny, then embodiment would play a central role in experience and selfhood. However, to this point, it does not seem that a logically necessary connection between the body and the making present of experience can be demonstrated. If a necessary connection does indeed exist between body and experience, it would still be compatible with the logical framework of the linked bundle.

It may be that there is a necessary connection between one continuous body, a linked bundle of experience, and a simple non-physical substance as the seat of consciousness. This conception would allay Nozick's first two concerns, and is not incompatible with the linked bundle theory. However, the connection between these things has not been shown to be logically necessary, and so I think it prudent to maintain a more pared-down theory.

Nozick's third and final concern, however, is about how we could understand a connection between our physical bodies and such a non-physical ethereal thing as experience¹⁰. This is indeed an interesting and considerable problem, and one not so easily solved by any theory of personal identity, I might add. If there is a necessary connection between soul, experience and body, how are the three actually connected? What does the wiring diagram look like? It was thought that perhaps it was the pineal gland in the brain that connected to the soul, and allowed the body to communicate with the soul, but as the soul and experiences are allegedly non-physical, it would seem odd for them to have a physical mechanical connection to the body. However, we are left scratching our heads trying to figure out what other type of connection could relate these things. It seems this problem will loom at least a while longer over discussions of self and identity, even though logically necessary connections between soul, body and experience

have yet to be shown.

Before concluding, I would like to discuss some ways that this framework can fit in with different discussions that have taken place (and are taking place still today) in philosophy. I believe that the distinction between identity and presence, certainly the difference between one's past and one's memory, is a strong gateway to discussions of the understanding of the self as discussed by Freud. Freud's theory of repressing elements of one's history (i.e. experiences within the continuous bundle) and creating a personal narrative (i.e. a consistent life story made present through memory) can be concretely discussed in the language presented by linked bundle theory. The issue of a self *qua* presence, and of the presence of the world, seems to map quite nicely onto Heidegger's discussion of Dasein and the worldhood of the world. Gadamer's discussions in *Truth & Method* explain how language functions as the medium in which the world becomes present to individuals.

The other minds problem is another interesting issue that can be concretely articulated using the language of the linked bundle theory. We only ever have our own world and our own experiences made present to us, but we treat others as if they have experiences made present as well, and hence the importance of distinguishing present TO WHOM. However, as we cannot ever share the experience of the other, it follows that AS FAR AS WE KNOW, all presence is ours, and hence we cannot say for certain whether others have consciousness or not (i.e.: whether they have experiences made present to them).

Some puzzling intuitions about moral problems can be elaborated using the language of linked bundles. For example, imagine a seventy-year-old man who stole a bicycle as a teenager. Do we punish the seventy-year-old man for the theft or not? My intuition says that he both is and is not the same person who stole the bicycle. Using the language of linked bundles, I can clearly elaborate that he is the same person in terms of continuity, but not the same person in terms of connectedness. The distinction here is

relevant because it articulates our mixed feelings about the situation. “He is still himself,” can be read as saying that he is the person who committed the crime, which is indicative of continuity, but we also maintain that “he really is not the same person he used to be,” which suggests a difference in the nature of his self, and is indicative of connectedness. In a system where punishment is corrective, intending to curb the problematic impulses of the thief, it would make no sense to punish the elderly man, as he likely has only a small degree of connectedness with his experiences as a teen. On the contrary, if our legal system is intended to bring people to justice for their actions through punishment, then he should be punished because he is continuous with that former self. Linked bundle theory is not intended to make normative prescriptions, but its language does allow us to concretely articulate our intuitions in order to better judge how they fit our normative principles.

I see the linked bundle theory as a very powerful one for three reasons. First, it provides a solution to the thought experiments and concerns raised by Hume, Parfit, Williams, Korsgaard and Wolf. It is a theory of personal identity and the self that overcomes challenges that have stood in the way of other such theories. Second, it leaves open the possibility of necessary connections between experience and the body/the Cartesian mind (or soul), without relying on them for its usefulness or consistency. In this way, the linked bundle theory should be able to adapt to a certain degree with respect to ongoing discussions about embodiment, metaphysics and theology. Third, the language associated with the non-substantivist notion of the self *qua* experience made present allows one to bring many seemingly disparate theories into contact with one another, as well as aid us in articulating our intuitions in practices that implicate the self.

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¹ For clarity's sake, the term "subject" will refer to a subject of experience, a substance. "Self" will refer to properties such as personality that make me who I am. "Person" and "individual" (at least in the nominative form) will be used interchangeably.

² Of course, there are minor differences such as the position of the sun in the sky, the direction of the wind, etc, and these are all extremely relevant for distinguishing one experience from another; it is in virtue of these slight differences that you and I have similar experiences and not identical ones.

³ Note that Parfit's own theory is substantivist: rather than maintaining a persistent subject for all of our experiences, he believed that each momentary experience has a nonpersisting subject. The relations of continuity and connectedness stand between momentary subjects, and not between experiences, but these relations seem to apply equal well to the experiences themselves.

⁴ Interesting to note, here, the difference between being given the line, and being given the infinite number of points that make it up. Hume can be read as suggesting that we are only given point-like experiences, but in fact it seems more like we are given a line, or at least a line segment. I certainly could not ever say that I have had one experience that was as clearly delimited as a point on a line, but rather that if my experiences are indeed such points, they are given to me already running together.

⁵ This is not to say that the bundle ever changes, and neither do the experiences individually, but rather that as time flows the bundle unfolds and so the experience that one has in the "now" is constantly changing.

⁶ This semantics is slightly different from those that Parfit would suggest, as he disagrees that continuity is a ground for identity (Parfit 1971, 207). His semantics would say that the "I," i.e., the current and momentary subject of this experience, is continuous with the momentary subject of a prior experience. However, no identity exists between these subjects, and subjects have no persistence, meaning his semantics would have to be formulated to compensate for that issue.

⁷ In this case, of course, what we are talking about is not a function but rather a relation,

as functions cannot ever assign multiple range values to a single value in the domain. However, using the word “relation” here would be most confusing, and I will therefore retain the word “function” even knowing that it does not properly apply. The analogy between our conception of persons and our conception of functions here is an interesting. Thanks to Andy Yu for reminding me of this.

⁸ If indeed the experience in my linked bundle at time T (where T is “this morning”) has the content of going to class, then the statement “I went to class this morning” is true.

⁹ To remember “as one’s self” seems a strange notion, but is actually quite straightforward: it is to remember that I undertook an action, as opposed to simply remembering that an action was undertaken, which would be similar to Parfit’s notion of q-memory. The distinction is fairly congruent with difference between the active and passive forms (at least in English).

¹⁰ Interesting to note that we only ever reach the body through experience. Explaining the physical world through experience or experience through the physical world is an extremely complex business, otherwise known as the realism-idealism debate, and this paper is no place to get into such a thing.