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Persimals

Steven Luper *Trinity University*, sluper@trinity.edu

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Persimals

What sort of thing, fundamentally, are you and I? For convenience, let us use the term *persimal* to refer to the kind of thing we are, whatever that kind turns out to be. Accordingly, the question is, What are persimals? One possible answer is that persimalhood consists in being a human animal, but many theorists, including Derek Parfit (1984, 2012) and Jeff McMahan (2002), not to mention John Locke (1975, book 2, chapter 27), reject this idea in favor of a radically different view, according to which persimalhood consists in having certain sorts of mental or psychological features. In this essay I will try to show that the animalist approach is defensible as against the mentalist approach. My efforts are modest; I will not attempt to provide conclusive grounds for preferring the former to the latter.

Persimalhood

What are we after when we ask what sort of thing you and I are most fundamentally? Unfortunately, I cannot offer a complete analysis of a fundamental kind. The best I can do is to set out one of its key earmarks.

Consider the kind *tree*. It seems plausible to say that if something is a tree then, necessarily, it exists only while it is a tree (it is essentially a tree) and it will continue to exist if and only if it remains the very same tree. This key feature of *tree* seems to be possessed by any fundamental kind. I will assume that every fundamental kind has it; that is, every fundamental kind K is such that if anything is of kind K then, necessarily, it exists only while it is a K (it is essentially a K) and it will continue to exist if and only if it remains the very same K. And I will reserve the term 'substance' for a concrete particular *of* a fundamental kind (compare Wiggins 1980--e.g., pp. 4-6).

In a trivial sense, being of any kind, even *beige thing*, helps make a thing what it is. But being of some fundamental kind bears on what a thing is in an especially intimate way. Since all things that are ever of fundamental kind K are K's over their entire existence, something that is not of some fundamental kind K can never *come* to be a K. So things can come (cease) to be of some fundamental kind only if thereby they come into (go out of) existence, and no kinds that things can *come* to be (after having already existed) are fundamental. *Butterfly* and *biped*, like *beige thing*, are examples of kinds that do not qualify as fundamental. If possessing property F is what constitutes being of fundamental kind K, then nothing that possesses F can exist without it, and acquiring F entails coming into existence.¹

Suppose, now, that, in asking what persimals are, we assume that *persimal* is a fundamental kind, and that you and I are substances. Then it is tempting indeed to say that persimalhood consists in being a human animal. Saying this would mean that, necessarily, I exist only while I am a human animal and remain in

¹Let us say that kind B is nested in kind A if and only if all B's are A's and some A's are not B's. Might some fundamental kind, B, be nested in another, A? This seems possible, but if A and B are fundamental kinds then nothing can be of kind A before it is of kind B (or after it ceases to be a B). For this reason, it is not obvious that *tree* and *organism* are nested fundamental kinds. It may be possible for something to be an organism before it is a tree (or after it is a tree). It may begin existence as an organism, and later become a tree by, and in virtue of, acquiring an elongated (or woody) stem. On this story, *tree* is nested in *organism*, but *tree* is not a fundamental kind. On a second story, something is a tree roughly by virtue of being an organism that has certain features that, in normal circumstances, lead things with those features to grow an elongated stem. Central to these will be certain genetic features (this would hold even in the case of chimera). While some organism. In that case *tree* and *organism* are both fundamental kinds, one nested within the other. Let us say that, on the second story, we employ a *potentialist* approach to classifying kinds of things, whereas on the first story we employ an *actualist* approach. Then on the potentialist approach some fundamental kinds may be nested, and certain plants may be of more than one fundamental kind. On the actualist approach, *organism* is the fundamental kind.

existence while and only while I am the same human animal, and the same is true of anything of the same fundamental kind as me. I will call this view about persimalhood *animalism*, but some clarification is in order. The view Paul Snowdon 1990 and Eric Olson 1997 call 'animalism' says simply that each of us is identical to a particular human animal (e.g., Olson 2007, p. 26). No claim is made about our fundamental nature. On that issue, Olson (2003, p. 3) says that "whether our being animals implies that we are essentially or most fundamentally animals depends on whether human animals are essentially or most fundamentally animals. If the animal that you are is essentially an animal, then so are you."

One strong point in favor of animalism is that *human animal* pretty clearly qualifies as a fundamental kind. When something ceases to be a human animal, it ceases to be altogether, and when something comes to be a human animal, it begins to exist. Here are some further powerful considerations: when we ask ourselves what makes something a persimal, the strongest candidates, besides the property of being a human animal, are probably the capacities on the following list: self-awareness, consciousness, rationality, moral agency, and speech. Notice that it is quite plausible to say, of any one of the capacities on this list, that human animals *acquire* it, which would be impossible if its possession constituted being a fundamental kind. It also seems impossible for something that is self-aware but *not* a human animal to acquire the features that constitute being a human animal, and the same goes for something that is conscious, rational and so forth.² These points provide a strong case for saying that persimalhood consists in being a human animal. In sum, that case is as follows:

- 1. When something becomes a human animal its existence begins; when it ceases to be that animal its existence ends.
- 2. The strongest candidates for what makes something a persimal, besides the property of being a human animal, are these: self-awareness, consciousness, rationality, moral agency, and speech.
- 3. Human animals *acquire* each of these properties, so having none of them constitutes being a fundamental kind.
- 4. Something that is self-aware (or conscious, rational, etc.) but *not* a human animal cannot become a human animal. (Sorry Pinocchio.)
- 5. So only one of the candidates for persimalhood is a fundamental kind, namely *human animal*.
- 6. But *persimal* is a fundamental kind.
- 7. So persimalhood consists in being a human animal.

Nevertheless, most theorists reject animalism, largely because it does not square with intuitive judgments about cases such as the following:

Cosmetic Transplantation: I get tired of being so homely, and opt for the ultimate in cosmetic surgery, a body transplant. During the procedure, the physicians hack away parts of my body, and send them away to be used by people who need organ replacements. After they cut away everything except my brain, they attach it to a handsome new body, whose dead brain has been removed. The surviving individual exploits his good looks and becomes a happy and prosperous movie star.

At least theoretically, it seems possible for me to survive this procedure and to walk away in a fine new body. It is also pretty doubtful that I can survive it if animalism is true. A human animal is an organism and it is far from clear that an organism can be pared down to an organ even if that organ is a brain.³ So if I *were* an organism, I would cease to exist before the procedure is completed.

If we are not organisms, what are we?

Perhaps persimalhood is a matter of having some set of mental or psychological features. I will use the term *mentalism* to refer to the view that the only attributes that determine what persimalhood consists in are mental (or psychological) attributes. For example, the view that persimalhood is constituted by the capacity for consciousness is a form of mentalism. When the attributes that determine what K-hood consists in are mental

²Suppose that a brain with the capacity for self-awareness is not an animal. Isn't it theoretically possible to make a human animal by combining such a brain with certain other body parts? Yes, but this is not a case of turning a self-aware brain into an animal.

³Van Inwagen (1990) argues that we can be pared down to brains. Would a human animal survive if we *pared away* its brain? I doubt it, but I will not attempt to defend my doubts here.

attributes, I will say that substances of kind K are *mental substances*. Then, according to mentalism, persimals are mental substances. Mentalism implies that the mental property that constitutes persimalhood determines what is conceptually possible for persimals. However, it does not imply that persimals lack physical attributes altogether, nor that no physical attributes are essential to them. I am not using the term 'mental substance' the way Descartes did. It may be a physical impossibility for something to have the mental property that constitutes persimalhood without having certain physical properties. Suppose that you and I could not be conscious unless we had certain physical features. Then if persimalhood were to consist in having the capacity for consciousness, we could not be persimals unless we had those features. Moreover, it is reasonable to assume that our continued existence would entail the retention of these features. Contrast creatures on planet X whose consciousness is made possible by some sort of nonphysical material. In their case, consciousness would not require any physical properties.

Parfit (1984, 2012) and McMahan (2002) offer accounts of what we are that may be understood as versions of mentalism. The version Parfit seems to accept, which I will here call *personism*, says that persimalhood consists in being a Lockean person, where something is a Lockean person if and only if has the capacity for self-awareness. The version McMahan appears to accept I will here call *mindism*. It says that persimalhood consists in being a mind, where something is a mind if and only if it has the capacity for consciousness. I take it that it is an open question whether a substance that is self-aware (or conscious) is essentially self-aware (or conscious). However, if the capacity for self-awareness (or consciousness) makes substances *persimals* (or some other fundamental kind of thing), then all substances with that capacity have it essentially.⁴

These forms of mentalism certainly square with our intuitions about Cosmetic Transplantation. According to Parfit and McMahan, I am not a human animal. I am a mental substance that would go with the brain were it moved in the way described in Cosmetic Transplantation. However, critics, including W. R. Carter (1982, p. 94) and John McDowell (1997, p. 237), charge that views like Parfit's and McMahan's, which imply that I am distinct from the animal whose body I am so intimate with, seem to imply that my thoughts have two distinct thinkers. Consider that animal. Call him Ishmael. According to Parfit and McMahan, I am a substance and he is a different substance. Apparently, however, these creatures are thinking the very same thoughts. This seems bizarre, but how can it be denied? Ishmael does, after all, have a normal, fully serviceable human brain, straining away, even as I type this essay. Parfit says that the key to solving the problem is McMahan's Embodied Part View (McMahan 2992, pp. 92-4; Parfit 2012, p. 14). The Embodied Part View says that I am a proper part of Ishmael, and I do Ishmael's thinking.⁵ By combining this view with mentalism, McMahan seems able to resist one of the most powerful objections to his position, while at the same time accommodating our intuitions about going with the brain.

Although various versions of mentalism square with the intuitive judgments most people form about certain cases such as Cosmetic Transplantation, while animalism does not, I am inclined to think that I am an animal and not a mental substance. In what follows I will criticize the version of mentalism offered by

⁴According to McMahan, "when we ask. . . what kind of entity we are, . . . we are inquiring after the substance sortal that indicates what we most fundamentally and essentially are. . . ." However, I am not certain that McMahan would accept the assumption that we are some *fundamental* kind of thing, as I understand such kinds to be. He thinks that what we are is entities of some kind K such that the feature F that K-ness consists in is essential to us. But he may want to leave open the possibility that while having that feature F makes *us* K's—it makes *us* what we are—other things could have or acquire F without being K's, since F is not essential to *them* (p. 7; compare pp. 89-91).

⁵Despite what he writes in "We Are Not Human Beings," Parfit denies that we are parts of animals. As he told me recently, his view is that we are "realized in" part of the brain, but not identical to any part of the brain. I guess that, on this view, the response to the thinking animal problem is that animals think by virtue of having a part in which a thinking thing is realized. Unfortunately, the view that persimals are "realized in" some part of the brain to which they are not identical leaves us with the question of what thinking things *are*.

McMahan. I will begin with some doubts about how McMahan uses the Embodied Part View to solve the thinking animal problem.

Ishmael's Thinking

I said that, according to McMahan's solution to the thinking animal problem, persimals are the thinking parts of human animals. Unfortunately, it is not entirely clear what his solution is supposed to imply about Ishmael's thinking. There are two ways to understand McMahan, and both seem to be open to criticism.

On one reading McMahan denies that Ishmael literally thinks; he only appears to think because he has a thinking part. Perhaps McMahan is hinting at this view when he says that human beings think "only in a derivative sense, only by virtue of having a conscious part" (p. 93). However, it is hard to see that this view is a solution to the problem, since it denies, with no explanation why, that Ishmael does the very thing that he appears to do: using his brain, he thinks. (McMahan might deny that Ishmael thinks on the grounds that the capacity to think is essential to anything that has it, but why should we accept the latter claim? If the allegation that Ishmael *is* not thinking strikes us as mysterious and in need of further explanation, won't we be all the more perplexed by the allegation that he cannot *possibly* think? Worse yet, how will we respond to the suggestion that *nothing* can exist before it acquires the capacity to think?) Moreover, if McMahan denies that Ishmael can think, he will need to respond to his own reasoning for the conclusion that human animals *can* think.

This brings us to a second way to understand McMahan. As far as I can tell what he means to say is that Ishmael literally thinks and that he does so by virtue of having a part-me-that does his thinking. So "there are two conscious entities where I am now (p. 92)." This, he says, is no more mysterious than the fact that a tree literally grows because one of its parts grows and a car makes noise because its horn does: "In the same sense in which the tree grows because its limb does, and in which the car honks because its horn does, my organism [Ismael] may be said to think, feel, and perceive because I do." (p. 92). As I will note later, according to McMahan, this thinking part of Ishmael is a piece of his brain. So one physical thing—Ishmael—is capable of thinking because a second physical thing—a part of his brain—is capable of thinking. However, although these claims about parts bestowing features upon wholes seem plausible, they are in tension with McMahan's view that the capacity for consciousness is what makes me the kind of being that I am. If this view is true, won't the capacity for consciousness make anything that has it the kind of being that it is, namely the same kind of being as I am? If so, it is an essential attribute of everything that has it, and in that case McMahan must deny that Ismael is capable of consciousness, which is a form of thinking, since plainly Ishmael's existence is not contingent upon his having this capacity. (So much the worse for McMahan's analogy between honking and thinking: if we took the view that honking is comparable to thinking, even though the latter is essential to anything that thinks, then everything with the capacity to honk would be essentially a horn, and we could not say that cars honk.)

Now let's turn to a different worry about McMahan's solution. McMahan combines the Embodied Part View with mindism. He calls this combination the Embodied *Mind* View. Now, if I am a mind and also a part of Ishmael, I am the part to which his mind is identical. If I do his thinking, it follows that what does Ishmael's thinking is the part of him that is identical to his mind. However, given McMahan's view about the part of Ishmael that is identical to his mind, it is possible that this part of Ishmael does very little of his thinking. To make this worry clear, I will need to say a bit about McMahan's way of understanding the mind and a bit about the sorts of things that count as "thinking."

According to McMahan, a mind is a substance whose constitutive attribute is the capacity for consciousness. He adds that a mind (at least, those minds we know of) is a physical thing whose parts include only those that contribute to its having its constitutive attribute. If we could build a robot that had a mechanical component that was capable of consciousness, that component (and not the whole robot) would be a mind. To individuate the robot's mind, we identify which component of the robot supplies the capacity for consciousness. That component does not include parts of the robot that do not help make consciousness possible. This component will remain the same mind over time as long as it (the robot component) remains intact and functional. Mutatis mutandis, what goes for these hypothetical robots goes for human animals. The component (or collection of components) of the brain that supplies the capacity for consciousness is the mind. It is the part

of the brain in which the "actual stuff of consciousness" is realized, and no other part. It does not include parts of the brain that function as "support systems (pp. 67, 85)." That "actual stuff" is roughly a "center" or "field" of consciousness. (But see section 5.4: here McMahan says that two or more minds could exist in precisely the same patch of neural tissue, which undermines the claim that minds can be individuated by the brain tissue in which they are realized. Despite this, for simplicity I will continue to assume that the mind is "the" part of the brain that supplies the capacity for consciousness.)

Consider this, the conscious part of the brain: working on its own, is it capable of doing the things to which the term 'thinking' refers? To decide, we will need at least a crude description of what counts as thought.

While part of the brain supplies the capacity for consciousness, presumably there is also a part that supplies the ability to reason, which includes, among other things, the ability to assess prospective beliefs in light of evidence. Additionally, a part of the brain is responsible for the formation of desire, pleasure and pain, and a part of the brain supplies the ability to retain and recall beliefs and desires. Call the part of the brain that is capable of consciousness the *Con*, the part that gives us desires, enjoyment and suffering *Drive*, the part of the brain that enables us to retain beliefs and desires *Memory*, and the part that supplies the capacity to believe and reason *Intellect*. We should also distinguish between the Memory, Intellect and Drive, which are parts of the brain, and their contents, which are not essential to these parts of the brain. Particular memories come and go; the Memory continues to exist despite this change in its contents. Similarly, the Drive continues to exist even though its contents—particular desires and particular episodes of pleasure and pain—come and go. The same goes for the Intellect and the beliefs that are its contents. For simplicity, call the unit consisting of the Memory, Intellect and Drive, the *Mid*. Then the point is that the Mid is distinct from its contents.

I gather that it is not clear how extensively these parts of the brain overlap, and which parts of each are contiguous. The Con in particular is difficult to locate, as McMahan points out:

Some scientists have speculated that there is a specific localized area of the brain in which consciousness is realized, while many of the objects of conscious awareness, such as memories, are physically stored elsewhere in the brain and episodically brought within the scope of consciousness by being somehow accessed by the mechanisms in the consciousness-generating area. If this is right, it is the functional continuity of this area of the brain that is the criterion of personal identity. . . .

Alternatively, consciousness might be a global function of the combined, simultaneous operations of many areas of the brain. . . . If this is right, it may be more difficult to distinguish between those areas of the brain in which consciousness is realized and those that are essentially just support systems. (McMahan 2002, p. 86; compare p. 88)

Especially on the first speculation that McMahan offers, the Mid may be located largely outside of the Con; that is, the Memory, the Intellect, and the Drive may each be located largely outside of the region of the brain containing the Con. Call the contention that the Mid is largely outside of the Con the *noncontainment thesis*, or *noncontainment* for short (call its denial the *containment thesis*). There is some evidence for the noncontainment thesis; I will discuss some of it later.

Now it is easy to see why it may be false that the mind (consciousness) of a human animal does its thinking: this just *is* false if the noncontainment thesis holds. Consider Ishmael again: while Ishmael's Con does the 'being aware' part of Ishmael's job for him, it does not do his enjoying, desiring, reasoning or remembering.

If I am Ishmael's Con, the consequences of noncontainment are strange indeed. While I do a part of his thinking for him (the consciousness part), just about all of it gets done using resources that I do not bring to bear, such as the Mid and its contents. Because Ishmael has the Intellect I draw upon, I cannot assess evidence myself. I can only help *him* assess evidence. And because he has the Drive and Memory that I use, I cannot desire or recollect things without him. Since I cannot do these things for myself, I cannot do them for Ishmael, either.⁶

⁶My objections to McMahan's view are closely related to some of Eric Olson's criticisms of "the brain view" in Olson 2007, Chapter 4.

Ishmael's Interests

When combined with noncontainment, the claim that I am Ishmael's Con has other worrisome consequences to consider. In particular, this combination implies that I lack interests altogether. Nothing benefits or harms me. To explain why, I must appeal to some assumptions about the nature of interests.

I will adopt a comparativist account of interests: on this view, whether something is in or against an individual's interests is ultimately a matter of how it bears on that individual's welfare; if something makes my overall welfare level higher than it otherwise would have been, it is in my interests; if it makes my overall welfare level lower than it would have been, it is against my interests. My overall welfare level is determined by the things that are intrinsically good for me, and the things that are intrinsically bad for me. For example, pleasure is intrinsically good for me, and pain is intrinsically bad for me. Other things being equal, the more pleasure I accrue the better off I am, while more pain makes me worse off. I would say that pleasure is not the only thing that is intrinsically good for me. The fulfillment of certain desires that I have is good for me too, and their being thwarted is bad. However, I will not attempt to specify which desires these are, and I will not give a complete list of the things that are intrinsically good. Suppose that we can assign a (positive) value to the things that are intrinsically welfare level during some period of time equals the sum of the intrinsic goods I then accrue, a positive value, together with the sum of the intrinsic evils I then accrue, a negative value.

To fare well or ill at a time, a creature must have certain features. When it has these at a time, I will say it is *responsive* at that time; otherwise I will say it is unresponsive. Some people are anhedonic: they lack the capacity to experience pleasure or pain; to that extent they are unresponsive. Now consider people who are not only anhedonic, they also cannot form desires; in that case they are even less responsive. If they lack the capacity to accrue any intrinsic goods or evils at all over some period of time they are completely unresponsive then. During that time, they lack a welfare level. If, like stones, they are never capable of accruing goods and evils, then nothing is in or against their interests.

I assume welfare is sentience-based. Things such as cars and trees lack sentience and hence have no interests and lack a welfare level. Oil changes help my car run, but do not affect its welfare. The fig tree in my yard may be killed with poison or an ax, but it also lacks a welfare level. Still, my tree is an organism. It exists, but existing is not in its interests.

With these assumptions about well-being in place, let us see if we can reconcile the claim that I am Ishmael's Con with the view that I am the thinking part of Ishmael. Now, given the latter view, it seems reasonable to assume that I am the part of Ishmael that is responsive. It also seems reasonable to assume that, in situ, the goods and evils I attain are accrued by Ishmael and vice versa. However, both of these assumptions are in jeopardy. In the absence of containment, I lack a Drive and Memory of my own, which precludes my accruing the goods that make for well-being. I am entirely unresponsive, so I cannot do the work of having interests for myself or for Ishmael. *Ishmael* has interests, since his Con is properly attached to his Mid, and presumably it is in large part the *contents* of his Mid that determine what his specific interests are. Ishmael thinks and has interests with my help, but the contribution I bring to the table is quite limited.

There are even stranger things to contemplate on the assumption that I am an unresponsive, Mid-less Con: I cannot set my own values, take on moral responsibilities, or shape my choices accordingly, which are the trademarks of moral agency. Yet these are things that most human animals are able to do during most of their lives. Hence unlike most human animals persimals like me are not due moral consideration.

Let's put aside these puzzling questions about our interests and moral status, and return to the point made at the end of the previous section, which was that we cannot use the Embodied Mind View to solve the thinking animal problem unless we make substantive assumptions about the structure of the brain—assumptions that might well be false. A natural response is: So what if we have to make these assumptions? Is this really a threat to proponents of the Embodied Mind View? Perhaps not, since there appear to be two ways in which they can defend their position. One is to deny the noncontainment thesis; that is, to assert the *containment thesis*: the Mid is part of the Con. The other is to say that I am more than a consciousness, and hence not limited to the forms of thinking available to Cons. Let's consider each reply.

Containment

If the Mid is part of the Con, then the Con has the Mid's capacities⁷ As a Con, I can do my thinking without relying on some device that is outside of myself.

So is the Mid inside the Con or not? The matter is, of course, an empirical issue, and a controversial one at that. However, there is some reason to question the containment thesis. It seems likely that most of the Mid is part of the neocortex, but some recent empirical research places the Con almost wholly within phylogenetically old brain structures (rather than in the cerebral cortex where most philosophers, including McMahan [2002, pp. 21, 93, 432], place it). In one study, "Returning from Oblivion" (Långsjö 2012; contrast Koch 2012), researchers sought to identify "the minimal neural correlates associated with a conscious state" using anesthetic agents and blood flow imaging. Their indicator of consciousness was "a motor response to a spoken command." (For reservations about this indicator, see Lau 2008.) According to them, a collection of old brain structures are activated when an anesthetized persons is restored to consciousness, namely the brainstem, thalamus, hypothalamus, and the anterior cingulate cortex or ACC (the cingulate cortex is a part of the limbic lobe that wraps around the corpus callosum). Strikingly, "the return to a conscious state was not accompanied by large changes in neocortical function (p. 4940)." Instead, old brain structures interact with the neocortex to enhance the contents of consciousness. Here is an excerpt from their report:

The recovery from anesthesia does not occur all at once, but rather it appears to occur in a bottom-up manner. When emerging from deep anesthesia there will first be signs of autonomic arousal, followed by a slow return of brainstem reflexes, eventually leading to reflexive or uncoordinated somatic movements that occur somewhat before subjects can willfully respond to simple commands. As shown in our results, only minimal cortical activity is necessary at this point. Thus, emergence of a conscious state, the essential foundation of consciousness..., precedes the full recovery of neocortical processing required for rich conscious experiences...

All of these data are in agreement with the experiences obtained from hydranencephalic children, who are devoid of nearly the entire cerebral cortex and yet still display conscious-like behavior (Merker, 2007). Although these children have clear deficits in experiencing the rich contents of consciousness, they undoubtedly are in a conscious state, supporting the idea that the subcortical areas identified in our study play a fundamental role in consciousness. Indeed, numerous studies indicate that consciousness as a process involving both the conscious state (Schiff and Plum, 2000; Lydic and Baghdoyan, 2005) and the contents of consciousness (Baars et al., 2003) likely arises from the interactions between cortical and subcortical mechanisms working through specific network connectivity within the brain (Baars, 1995; Tononi, 2004; Xie et al., 2011). . . .

Call the unit consisting of the brainstem, thalamus, hypothalamus, and the anterior cingulate cortex the Långsjö Quartet. What Långsjö and his colleagues concluded is that what I have been calling the Con is, more or less, the Långsjö Quartet.⁸ If they are correct, then perhaps the Con and the Mid can be delineated, albeit roughly. The latter is composed largely of new brain structures. Hence while the evidence is not conclusive, the containment thesis may well be false.

Of course, the containment thesis might turn out to be *true*. However, the mere existence of this possibility is at best cold comfort for those who would say that I am Ishmael's Con, since we will want to deny that I am a Con *even if* the containment thesis proves to be true.

We will want to deny that I am Ishmael's Con because I *know* that I am now desiring, reasoning about, and remembering things. I know that I am quite well off and that I have fared well for many years. I know I am a moral agent. Given my level of certainty about these claims, it would be a mistake to adopt an account of what

⁷I will ignore the fact that McMahan is none too sure that Ishmael (or Ishmael's brain as a whole) has his mind's capacities even though the latter is part of the former. Put another way: part of Ishmael's brain (the part identical to me) has capacities that cannot be attributed to his whole brain or to Ishmael even though it is part of both.

⁸George Mashour and Michael Alkire conclude, in a related study (2013), that "the basic neurophysiologic mechanisms supporting consciousness in humans are found at the earliest points of vertebrate brain evolution."

I am given which they might easily be false. If I am Ishmael's Con, then the truth of the claims would hinge on whether or not the containment thesis holds, and their truth would be as uncertain as that thesis itself. *At this very moment, I might be completely incapable of key forms of thinking such as reasoning about, desiring, or remembering things, and I might be entirely unable to fare well or ill.* We should reject any view that has these absurd consequences.⁹ Here is a related argument against the view that I am Ishmael's Con. Suppose that although Ishmael's Mid is inside his Con, this is not true of a few other human animals, such as the animal *you* are part of. Surely this would not imply that while I am capable of key forms of thinking, you are not! We surely do not want an account of persimalhood that makes it impossible for a persimal to think if, as it turns out, some of the apparatus required for thinking is outside the Con.

Am I More Than a Consciousness?

If the argument in the previous section holds water, we can conclude that I am not merely a Con, and we can reject any set of views that implies that I am. Suppose that we continue to individuate minds McMahan's way (pp. 67, 85-8), namely, by equating them with just that part of the body that supplies the capacity that makes things minds, so that all and only body parts that are integral to providing this capacity are part of the mind.¹⁰ Then to avoid the conclusion that I am a Con we must alter McMahan's account of what a mind is or reject his account of what I am. To hold on to the view that to be a persimal is to be a mind, we could say that to be a mind something must have some capacities in addition to consciousness. Then the mind can be equated with parts of the brain that may include more of the apparatus involved in thinking than the Con alone. For example, if we say that something is a mind if and only if it is not only capable of consciousness but also of desiring, enjoying, remembering and reasoning, then the mind would be 'realized in' a unit of the brain consisting of both the Con and the Mid. If that unit is what *I* am, then my capacities are not limited to those of Ishmael's Con.

McMahan could define the mind this way. However, he would then have to abandon mindism, given a powerful argument that he wields against personism. I will explain why after I sketch (and embroider) his argument.

It goes as follows: suppose Ishmael's capacity for self-awareness is destroyed by severe dementia, leaving behind something still capable of consciousness. What is it that has that capacity? Either it is Ishmael himself or it is not. If Ishmael is capable of consciousness, it would be inexplicable for him to be incapable of self-awareness. But if he is capable of self-awareness, it is idle to posit the existence of any mental substance as the bearer of that capacity. Moreover, it would follow that persimals cannot be those substances whose constitutive feature is self-awareness (if they were then anything that is self-aware is essentially self-aware yet Ishmael is not essentially self-aware). Now suppose that what still has the capacity for consciousness after Ishmael is severely demented is not Ishmael. In that case there must be creatures, presumably mental substances, who are strikingly similar to the mental substances which Parfit calls Lockean persons, in that, like them, these creatures are the subjects of a mental life. But to posit the existence of Lockean persons as well as the existence of such 'nearly-persons' seems ontologically profligate. Moreover, positing both puts us in tension with the view that persimals are those substances whose constitutive feature is self-awareness, as the latter implies that 'nearly-persons' who are hosted by Ishmael *before* self-awareness developed cannot possibly *become* self-aware, which is a mystery in its own right. For mentalists, it is best to commit only to the existence of the 'nearlypersons,' and to say that the 'nearly-persons' are what acquire and lose the capacity for self-awareness. In that case it is reasonable to conclude that these are what persimals are. (Of course, these 'nearly-persons' are just what McMahan calls minds.)

⁹I have not said that I would be able to engage in these forms of thought--desiring, reasoning, and so forth-regardless of whether the Mid is part of the Con. Given human physiology, perhaps thinking can occur only if the containment thesis holds.

¹⁰Eric Olson questions McMahan's assumption that the only body parts that are included in the mind are those that are integral to providing its definitive capacities. I see no way to defend McMahan's assumption, but the argument I offer in this section takes it for granted. Later, in appealing to considerations of parsimony, I will raise some doubts about mindism that do not rely on McMahan's assumption.

Now consider the implications for what counts as a mind: we just concluded that being what I am, being a persimal, does not entail having the capacity for self-awareness. Hence if McMahan were to say that the mind includes self-awareness as one of its constitutive (hence essential) features, his new account would imply that I cannot be (identical to) a mind.

A similar argument can be used against the claim that the capacity to desire (or to feel pleasure or pain), is one of the constitutive attributes of minds, assuming that persimals are minds. It goes as follows: Let us coin the term *desiring-minds* for those whose constitutive attributes are the capacity for consciousness *and* the capacity to desire. If Ishmael's Drive were destroyed by severe dementia, it would leave behind something that is capable of consciousness even though it is unable to care about anything, namely a 'nearly-person.' To posit the existence of these 'nearly-persons' as well as desiring-minds is ontologically profligate, and it forces us to reach the mysterious conclusion that 'nearly-persons' cannot become desiring-minds, assuming that the latter are persimals. It is best for mentalists to commit only to the existence of the 'nearly-persons,' and say that they have the capacity to desire as one of their accidental features. Similar remarks also apply to Ishmael's Intellect and Memory, and to his entire Mid. Indeed, it seems that nothing other than the capacity for consciousness is a constitutive feature of the mind, assuming that persimals are minds.¹¹

Am I Less Than a Consciousness?

In the previous section, I argued that if I am a mental substance it is best to deny that anything more than the capacity for consciousness is essential to me. Are there mental substances whose essential attributes do not include this capacity? If such substances exist, perhaps we can appeal to ontological parsimony to conclude that I *am* one. This would bolster the case against mindism.

What would a mental substance be like if it were not essentially capable of consciousness? Two possibilities come to mind. Perhaps it is essentially a disjunction of the capacity for consciousness and one or two other specific mental attributes (or it consists in having "enough" attributes; I assume this will require two or more). Another possibility is that it is essentially capable of at least *some* sort of mental activity. Let us use the term *mond* to refer to that substance whose constitutive attribute is the capacity for thought, or mental activity, itself. Unless it is a conceptual truth that the only mental activities are conscious, which is a matter on which I will take no stand, then the capacity for consciousness is not essential to monds; if they acquire it, it will be an accidental feature.

To resist the claim that I am a substance of the first, disjunctive, sort, we can appeal to the existence of the second sort, thus: take any putative disjunctive mental substance, say the one whose constitutive disjunctive attribute is the capacity to desire or to be conscious. It seems possible that Ishmael's dementia could leave behind no substance with this disjunctive feature even though it does leave behind something that is the subject

¹¹As Marya Schechtman (2014) has pointed out, McMahan could take another route in order to deny that the mind is just the consciousness module of the brain. He could say that the mind includes other modules that are suitably related to the consciousness module. He could take the view that a collection of brain parts constitutes a particular mind if and only if it includes a part that supplies the capacity for consciousness and each of the other parts in the collection supplies some auxiliary mental capacity and is suitably related to the part that supplies consciousness.

I will make just one point about this multimodule view: if we are going to say that the mind extends beyond the consciousness module and includes other body parts, how do we decide which parts to include and which to exclude? Presumably the principle for inclusion will be something like this: besides the consciousness module the mind includes all and only body parts that are able to modify the contents of consciousness. However, as Schechtman notes, it is not clear that by this principle the mind is limited to the brain. The principle seems to allow for the inclusion of other body parts, such as much of the nervous system, and even the eyes, as these do modify the contents of consciousness. Maybe this result would be tolerable to McMahan, but the blurrier the line between the mind and the rest of the animal the more tempting it will be to deny that what bears our psychological properties is a substance that is distinct from the animal.

of an unconscious mental life, something that is a mond.¹² Ontological parsimony suggests denying the existence of both mental substances, and the oddness of denying that a mond could come to have the disjunctive feature suggests saying that I am the mond and not the disjunctive substance.

Given this reasoning, together with our previous case for denying that anything other than consciousness is essential to persimals, it seems best for mentalists to conclude that to be a persimal *just is* to be a mond.¹³ But if there are unconscious mental processes (say, for example, unconscious desiring), then monds can be unconscious, and I came into existence when Ishmael's brain developed the capacity to perform mental processes. At first these were unconscious; in those days Ishmael and I lacked a mind. Later, they became conscious, and I gained a mind. On this story, you and I have a cozy relationship to all other sentient creatures on the planet: all are monds, all such monds are persimals, and all of them are (contingently) undetached animal parts.

Let us pause to take stock. According to mindists, I am a mind, a mental substance whose constitutive attribute is the capacity for consciousness; given McMahan's way of individuating minds, that makes me a batch of neurons that supplies the capacity for consciousness. However, this combination of views has the implausible implication that whether or not I have interests, and whether or not I can believe and remember things, depends on whether Mids are contained within Cons. Better to deny that I am a mind. Not being a consciousness leaves open the possibility that something other than consciousness is essential to me. It is consistent with saying that I am a Lockean person. But considerations of ontological parsimony weigh against this story. In fact, such considerations suggest that it is best for mentalists to say that I am simply a mond, a batch of neurons that can engage in mental processes but that may or may not be conscious.

But if considerations of ontological parsimony take us this far, perhaps we should go the whole hog; appealing to parsimony once again, it seems best to avoid positing mental substances altogether, to conclude that we are human animals, and to say that it is human animals that develop and lose mental capacities. Before we take this final step, however, we will need to consider various difficulties. I will briefly discuss two of these. First, we saw that mentalists have difficulty clarifying which sorts of things are capable of thought, and how these are related; can animalists do any better? Second, how can animalists resist the force of certain intuitive judgments, such as the intuition that we go with the brain if it is moved to a new body, as in Cosmetic Transplantation? I turn to these concerns, starting with the first.

Ishmael's Thinking Again

As I noted earlier, McMahan seems to say that Ishmael and part of his brain both think. I also pointed out that this view appears inconsistent with the assumption that the capacity to think is an essential attribute of everything that has it, since Ishmael's existence is not contingent upon his having this capacity. Now, animalists will not face *this* difficulty if they say that Ishmael thinks, as they can deny that his ability to think is essential to him, but what should they say about whether Ishmael's parts can think?¹⁴

Offhand, it seems reasonable for animalists to choose between two claims about what does a persimal's thinking. First, they could say that components of persimals can think without themselves being persimals. Some of Ishmael's components can think, and by virtue of this Ishmael can think, too, yet these components are not persimals in their own right. Second, animalists could say that while persimals can think by virtue of what some of their components do, none of their components can think.

On the first option, Ishmael's brain (or at least part of it) thinks, and, by virtue of this Ishmael does too. As McMahan notes, this claim seems to be as plausible as the view that a tree grows by virtue of having a part

¹²I am assuming that the capacity for mental activity itself is not one of the conjuncts.

¹³However, it is not clear that the assembly of all parts of the brain that supply mental capacities should be viewed as one mental substance rather than an assembly of several. (An octopus has a mond in each arm.) For further discussion see Olson 2007 section 4.6.

¹⁴Eric Olson (2007, section 9.3) shows that the view that parts of animals can think leads to a serious difficulty that he calls the "thinking-part problem."

that itself grows, and a car honks because its horn does. However, I suggest that this dual thinker view faces an insuperable difficulty. If Ishmael thinks by virtue of the fact that his brain thinks, it seems reasonable to assume that Ishmael's brain does the job of having *interests* for Ishmael by virtue of having interests of its own. Yet this view has absurd consequences. Here is what I mean.

If Ishmael's interests derive from those of his brain, it seems reasonable to assume that:

(a) Ishmael and his brain accrue the very same intrinsic goods and evils while his brain is part of him. Call this the *shared welfare thesis*. It also seems reasonable to add that:

(b) if, while in situ, Ishmael and his brain accrue the same intrinsic goods and evils, then, assessed in situ, its interests are the same as Ishmael's (i.e., something that happens to his brain while in situ is in its interests if and only if it is in Ishmael's interests then).

From (a) and (b) it follows that

(c) assessed in situ, the interests of Ishmael's brain are the same as Ishmael's.

However, their interests are *not* the same; contrary to what (c) says, what is best for Ishmael can clash with what is best for his brain (assuming it has interests at all). The point can be illustrated with the Cosmetic Transplantation case, mentioned earlier. Undergoing this procedure may be in the interests of Ishmael's brain (if it has interests at all), but it is clearly against the interests of Ishmael. The procedure will kill him, thus depriving him of the good days he would have enjoyed had his brain stayed put.

If (c) is false, which is at fault: (a) or (b)? Actually, it seems that both are false.

We can reject (b) on the grounds that Ishmael's brain would accrue different goods and evils than Ishmael were the former Transplanted.¹⁵

As for (a), the shared welfare thesis, it too seems objectionable, or it does if we accept some version of preferentialism, the view that fulfilling my desires is intrinsically good for me. For even if Ishmael's brain really can benefit from the fulfillment of desires, it is by no means clear that it will benefit from the fulfillment of desires concerning *Ishmael*.

Consider some desire Ishmael's brain presently has, say the desire to understand the interests of animals. Presumably this is the desire that Ishmael's *brain* should understand animal interests. However, we need not assume that all of the desires of Ishmael's brain will work this way. It seems possible for it to form desires *on Ishmael's behalf*, rather than on behalf of itself, the brain. By desiring something on behalf of Ishmael, my brain gives him his very own desires. To that end, it might follow a suggestion Parfit makes (2012, pp. 20-22), and coin a special term, say 'I_{Ishmael}', or 'Ismael-me,' to refer to Ishmael. It could let 'I_{brain}', or 'brain-me,' refer to itself. When Ishmael's brain thinks *brain-me wants to understand animals*, the desire is the brain's; specifically, it is the brain's desire that it understand animals. When Ishmael's brain thinks *Ishmael-me wants to understand animals*, the desire is Ishmael's. The latter and not the former is a case in which the brain desires something on behalf of Ishmael even though both the brain and Ishmael have the desire in the sense that it occurs within them.

A question now arises: Why say that Ishmael gets any benefit from the fulfillment of desires his brain forms on its *own* behalf? We could as easily say that Ishmael benefits only from the fulfillment of desires it forms on *his* behalf, and since it may ignore him, he may never have any desires of his own, and so never benefit from desire fulfillment at all. Similarly, if the only desires it forms are desires it forms on Ishmael's behalf, and it neglects itself, Ishmael seems to be the one who benefits from their fulfillment, not his brain. On this story, only human animals with brains that desire things specifically on behalf of their animal hosts benefit from desire fulfillment.

The upshot is that even if we accept the view that Ishmael's brain has interests, we must deny that Ishmael's own interests can be reduced to these, so it makes no sense to say that Ishmael has his interests by virtue of his brain's having its own interests.

The problem goes away on the view that Ishmael has his interests by virtue of things that happen in his brain, even though his brain has no interests of its own. What his brain does for Ishmael might be comparable, in salient ways, to what a bank employee does for the bank she works for: it is the bank that gives you your

¹⁵Earlier I noted that McMahan might deny that human beings literally think. If he did, he would deny the shared welfare thesis, since presumably he would deny that human beings have interests.

loan, not any of its employees, even though an employee fills out the forms and hands out the cash. Certain acts that are irreducibly attributable to whole things are nevertheless the work of components of those things. Perhaps all of Ismael's thinking, and not just his having interests, is like this. In particular, it seems best to attribute beliefs and desires to him, and not to his brain, even though his brain does the work.

Even if this approach to Ismael's thought can be made to work, animalists are not out of the woods. Well-known intuitions pose powerful obstacles to their view.

Travelling To a New Body

According to animalism, if Ishmael's brain is removed and attached to what remains of a different human animal after its brain is removed, I do not travel with Ishmael's brain. The newly assembled human animal is someone else. Call him "Squeedo." But our intuitions say that I do go. I *am* Squeedo. Why do we have that impression? Is there a way for animalists to explain it away?

Animalists can offer a two-part explanation. First there is the obvious: the brain makes it possible for me to be conscious and self-aware, and it remains intact, and fully operational, in the move to a new head (even though I do not make the trip). Second, I, who am about to undergo the procedure, am related to Squeedo in a way that now *feels* like ordinary survival; phenomenologically, my relationship to Squeedo closely resembles the relationship I ordinarily bear to myself from day to day. (This is particularly true if I do not realize that I am not Squeedo.) Especially salient is the fact that what happens to him and what he does bears on my welfare, in much the same way that, in ordinary circumstances, my welfare is affected by the fate and behavior of my future self. If I must die, it is better to be replaced by Squeedo than not. Consider that Squeedo's interests strongly overlap with mine. He inherits my projects, and his attitude about them is much like mine (especially if *he* believes he is me). Just as they once were mine, they become *his* projects, and he grasps them from inside: his attitude about achieving them is not one of kindness or compassion, as when we help a neighbor accomplish something in which we otherwise have no interest; instead, Squeedo pursues the projects as his own. Furthermore, right *now*—before my brain is moved—it is in my interests that these projects be brought to a successful completion, even though it is someone else—Squeedo—who will finish the job.¹⁶

Dicephaly

The tendency to associate ourselves with our brains is especially strong when we consider the case of dicephaly. However, I suggest that animalists can resist the challenge posed by this case.

Dicephaly occurs when the separation involved in twinning is incomplete. However, some dicephalic animals are not readily described as partially separated organisms, since the separation is too minimal. We seem forced to describe them as single organisms that have an extra head. Suppose one of them, a human animal named Dice, is in the same room as you and me, and there are no more of us in the room. How many of us are in the room? Animalists will say that there are three of us since three human animals are there: you, me, and Dice. Mindists will say that there are four of us, on the grounds that there are four minds there, counting the two, Si and Am, in Dice's heads. Since it is typical for us to gather population data by counting heads, many of us will be inclined to side with the mindists. So animalists seem to be in trouble.

Animalists might insist that despite appearances to the contrary *all* cases of dicephaly can be treated as partially separated organisms. To make this tactic as implausible as possible, McMahan describes the following example:

In this case, instead of two necks emerging from a single torso, there are two heads diverging from a common neck. But even the separation of the heads is incomplete. They are, we may imagine, fused at the base, though only in the back. There are two faces—two pairs of eyes, two mouths that function

¹⁶What I say here is a bit oversimplified; whether Squeedo can complete my projects depends on what they are. Suppose I want to conduct research that will lead to a cure for Lou Gehrig's disease. After I do key research, others could finish this project for me. They could not help if, by contrast, my project is to cure ALS—if what I want is that *I* be the one who brings forth the cure.

independently, and so on—and, more important, two cerebrums, each controlling its own face and the limbs on its side of the body. But the cerebrums diverge from a single brainstem. (2002, p. 38)
If Dice has contracted this extreme form of dicephaly, McMahan would say that he is clearly only one organism, not two that are partially separated (for reservations, see Blatti 2007). He is a two-headed human animal. McMahan would say that each cerebrum in Dice's heads hosts a mind of its own, assuming that each generates its own center of consciousness. Hence each hosts a persimal. Parfit agrees; he says (2012, p. 17), of the two heads on the shoulders of human animals like Dice, that "no one doubts that these are the heads of two different people."

I think that animalists should accept McMahan's verdict that the extreme form of dicephaly which he sketches makes Dice a two-headed human animal. Of course, animalists should and must reject McMahan's claim that Dice is one animal with two persimals as parts. However, I see no reason to think that their view is any less plausible than McMahan's: Dice is one animal and just one persimal.

But won't Si have beliefs and desires that are distinct from those of Am? Suppose that, as on McMahan's story, Dice has two centers of consciousness, and each of these centers has the capacity to do what it takes to form beliefs and desires. Let the one center be Si, and the other Am. Presumably the beliefs and desires formed by Si differ from those formed by Am. Don't Si and Am each have their own beliefs and desires? Won't they have their own interests? If so, musn't we conclude that each is a persimal? And if we do that, mustn't we say that Ishmael's single center of consciousness is a persimal too?

Better to turn this argument on its head. Just as Ishmael's brain does things by virtue of which Ishmael has beliefs, desires, and interests, without itself having these, so it goes with Dice's brains. The difference is that since Dice has two brains that do his thinking for him, he has two sets of beliefs and desires, and two perspectives in which these and feelings present themselves. Thus, for example, by virtue of the fact that one brain forms the belief that a cat is on the mat, and the other forms the belief that the mat is on the floor, Dice believes that a cat is on the mat and that the mat is on the floor. One persimal, Dice, has both sets of beliefs.¹⁷

I think this position is plausible, but I admit that it is not without complications. For example, as compared to ordinary people it is much harder for Dice to hold consistent beliefs, to have desires that do not clash, to develop a perspective on his life as a single creature, and a conception of the interests of that creature. To integrate the beliefs and to reconcile the desires formed using one center with those formed using the other, and to develop a single vision of himself and his interests, he literally must talk to, or correspond with, himself. And nothing guarantees that he will succeed or even try. Indeed, he might find that he has only half a mind to integrate his beliefs. Using one center of consciousness he might read McMahan and convince himself that he is Si, and, while using the other, he might study the animalist literature and convince himself that he is Dice!¹⁸

Steven Luper, Trinity U., 10-21-13

References

Baars, B. J., 1995, "Tutorial commentary: surprisingly small subcortical structures are needed for the state of waking consciousness, while cortical projection areas seem to provide perceptual contents of consciousness," *Conscious Cogn* 4:159–162.

Baars, BJ, Ramsøy TZ, Laureys S, 2003, "Brain, conscious experience and the observing self," *Trends Neurosci* 26:671–675.

¹⁷We can add that the default referent of the indexical "I," as involved in the beliefs and desires Dice forms using either of his centers of consciousness, is Dice. If, using either center, Dice forms the belief "I am an animal," then the belief formed is that Dice is an animal, and not that the center is an animal.

¹⁸I am grateful to Robert Curtis, Curtis Brown, Marya Schechtman and especially to Eric Olson for helpful comments and suggestions.

- Blatti, Stephan, 2007, "Animalism, Dicephalus, and Borderline Cases," *Philosophical Psychology* 20.5: 595-608.
- Carter, W. R., 1982, "Do Zygotes Become People?" Mind 93: 412-18.
- Koch 2012 http://www.klab.caltech.edu/~koch/CR/CR-Anesthesiology-12.pdf
- Långsjö, Jaakko W., et al., 2012, "Returning from Oblivion: Imaging the Neural Core of Consciousness," *The Journal of Neuroscience* 32.14, April, pp. 4935–4943.
- Lau, H., 2008, "Are we studying consciousness yet?" in Lawrence Weiskrantz & Martin Davies (eds.), *Frontiers* of Consciousness. Oxford University Press, 2008.
- Locke, John, 1975, Nidditch, Peter, ed., *Essay Concerning Human Understanding*, Oxford: Oxford University Press.
- Lydic, R., and Baghdoyan, H.A., 2005, "Sleep, anesthesiology, and the neurobiology of arousal state control," *Anesthesiology* 103:1268 –1295.
- Mashour, George A., and Alkire, Michael T., 2013, "Evolution of consciousness: Phylogeny, ontogeny, and emergence from general anesthesia," *Proceedings of the National Academy of Sciences of the United States of America* 110 (Supplement 2) 10357-10364.
- McDowell, John, 1997, Reductionism and the First Person', in *Reading Parfit*, edited by Jonathan Dancy (Blackwell).
- McMahan, Jeff, 2002, The Ethics of Killing: Problems at the Margins of Life, Oxford University Press.
- Merker, Bjorn, 2007, "Consciousness without a cerebral cortex: a challenge for neuroscience and medicine," *Behavioral and Brain Sciences* 30.01, February, pp. 63-81.
- Olson, Eric T., 1997, The Human Animal (Oxford University Press).
- Olson, Eric T., 2003, R. Martin and J. Barresi, eds., Personal Identity, Blackwell 2003: 318-34.
- Olson, Eric T., 2007, What Are We? A Study in Personal Ontology (Oxford University Press).
- Parfit, Derek, 1984, Reasons and Persons (Oxford: Oxford University Press).
- Parfit, Derek, 2012, "We are Not Human Beings," Philosophy 87: 5-28.
- Schechtman, Marya, 2014, This Issue, XXXXXXX
- Schiff, N.D., and Plum, Fred, 2000, "The role of arousal and "gating" systems in the neurology of impaired consciousness," *J Clin Neurophysiol* 17:438–452.
- Snowdon, Paul, 1990, 'Persons, Animals, and Ourselves', in *The Person and the Human Mind*, edited by Christopher Gill (Oxford University Press,).
- Tononi, G., 2004, "An information integration theory of consciousness," BMC Neurosci 5:42.
- Van Inwagen, Peter, 1990, Material Beings, Cornell: Cornell University Press.
- Wiggins, David, 1980, Sameness and Substance, Cambridge: Harvard University Press.
- Xie, G, Deschamps, A, Backman, SB, Fiset, P, Chartrand, D, Dagher, A, Plourde, G., 2011, "Critical involvement of the thalamus and precuneus during restoration of consciousness with physostigmine in humans during propofol anaesthesia: a positron emission tomography study," *Br J Anaesth* 106:548-557.