

IDENTITY MATTERS

I. Introduction

Personal Identity is the branch of metaphysics that inquires into what kind of being we are and what it takes for us to persist from one time to another. One way to approach the topic is to ask what is the referent of the pronoun 'I.' A person is the obvious answer for 'I' is a personal pronoun. This quick response just serves to elicit more nuanced questions: What traits make someone a person – is it mere consciousness or self-consciousness or something else? Moreover, are human persons essentially persons, i.e., thinking beings that will cease to exist when they lose a certain mental capacity? And if we are essentially persons, are we material or immaterial thinking things, or a compound of a material body and immaterial mind? Another possibility is that the pronoun picks out individuals that are persons for only a phase of their existence. Perhaps we are not essentially thinking beings but are necessarily living animals that begin our lives as mindless embryos, then become persons with the onset of the appropriate mental activity, and might someday end up in a permanent vegetative state.

The latter possibility suggests that the field or problem of Personal Identity has been misnamed for we may not be fundamentally persons. Our second question about personal identity has also been misnamed as the problem of Diachronic Identity, i.e., what makes x at T_1 identical to y at T_2 . Identity is a simple, indefinable property, hence there is nothing in virtue of which x and y are identical. As Lewis notes: 'There is never any problem about what makes something identical to itself. Nothing can fail to be. And there is never any problem about what makes two things identical.'¹ Consider that if x is identical with y in virtue of, say, the appropriate psychological relations, but y is just identical with itself, then x and y would have different properties and hence be distinct rather than identical.² According to Noonan, what is

really being asked about the misnamed problem of Diachronic Identity is kind membership. That is, specifying what conditions an object has to satisfy to be a K. This will involve asking what sort of changes could an individual of kind K undergo?³ For instance, could one obtain a different body or survive dramatic psychological changes?

Assuming we know what it takes for a person and an animal to survive, how do we determine whether we are fundamentally one rather than the other? Philosophers have traditionally relied upon thought experiments to draw out our commitments regarding our fundamental metaphysical nature. Locke distinguished a person from his body as well as his soul with the help of imaginary scenarios in which a person moved from one body or soul to another, in virtue of his consciousness so relocating. Locke's modern heirs usually consider themselves to be providing thought experiments that are scientifically more respectable as they avoid soul talk and instead restrict discussion to transferring brains, or parts crucial to cognition, from body to body.⁴ They might instruct their readers to imagine themselves as undergoing cerebrum transplants and ask them whether they would consider themselves identical to the post-transplant person with their pre-operation brain or to the individual with their pre-operation body. It is assumed that the individual for which readers phenomenologically experience a prudence-like concern would be the one to which they were identical. The dominant response is that the thought experiments reveal that we have switched bodies and so it is our psychology, not bodily life processes, that is essential to us.

It would be a mistake to ignore these thought experiments on the grounds that they are too farfetched, perhaps even impossible, to be taken seriously. We are not now epistemically situated to defend such a view of their impossibility. Moreover, philosophically sophisticated neurologists have provided detailed accounts of how they could occur.⁵ Anyway, the technical or

physical impossibility turns out to be irrelevant. If we have a strong conviction that we would not remain behind in a mindless state if our cerebrum was removed, that likely indicates that we believe our psychology is essential to us. So if our cerebrum was destroyed rather than transplanted, the former an all too real possibility, the loss of our psychology should mean our destruction. Thus strong reactions to what may be physically impossible can still inform us about more mundane persistence.

However, as often happens in discussions of thought experiments, a more nuanced hypothetical is put forth and interpreted in a manner that undermines the earlier conclusions. Parfit made this possible through his seminal claim that identity is not what matters in survival.⁶ What this bit of jargon means is that what we really care about is not that we continue to exist but only that our psychology does. Our concern that there exists a future being with one's psychology is not premised on the fact that we will be the subject of that psychology. Parfit conjectures that someone else coming to possess our psychology would be about as good for us as our continuing to exist as the thinker of our thoughts.⁷ To persuade us, Parfit begins by pointing out that if only one of our cerebral hemispheres survived the removal procedure, the other destroyed in the process, we would identify with the recipient of that remaining functioning hemisphere, just as we would identify in the absence of any fictional transplant with the maimed possessor of our reduced but still functioning cerebrum after a stroke destroys one of the hemispheres. But that identification can't be maintained if both our cerebral hemispheres are separated and successfully transplanted into distinct bodies. It would be arbitrary to identify ourselves with the person possessing one of the hemispheres realizing our psychology and it would be logically problematic to be identical to both cerebrum recipients if they were considered distinct persons. It thus can't be claimed that personal identity across time consists of

just the appropriate continuation of our psychology but must include a uniqueness stipulation, sometimes labeled a ‘no-branching’ clause. Nevertheless, Parfit suggests that we would care about both of our like-minded successors in much the same manner as we would about our own future self in the absence of fission.⁸ Although each has qualitatively the same psychology as we would have had if we had survived with just one functioning cerebral hemisphere, neither is identical to us because of the no-branching clause.⁹ Yet each cerebrum could have been possessed by a person identical to us in the absence of the other’s existence. Since what prevents the original person from being identical to one of its psychologically continuous successors is something extrinsic to its relationship with that successor, Parfit considers the no-branching clause to be trivial and thus concludes that identity can’t be what matters to us.¹⁰ While identity might consist of the appropriate psychological relations and a no-branching clause, what matters to us just consists of the psychological relations.

As a result of Parfit’s novel ideas, a cottage industry arose, some philosophers working to affirm and apply his claim about identity not mattering, others laboring to deny and explain away their appeal. One of the former is Eric Olson who puts the results of fission to work showing that the earlier discussed whole cerebrum transplants have been misinterpreted.¹¹ Our concern for the being that receives our undivided cerebrum should not be understood as providing any more metaphysical insight into our identity than such concern did in the fission scenario. We would stay behind as the mindless animal rather than move with the intact and functioning cerebrum. Practical questions about what matters to us and metaphysical questions regarding our persistence should be separated. The answer to the first will not enlighten us about the latter.

A number of philosophers fail to share Parfit and Olson’s intuitions about identity not mattering.¹² They insist that they want to survive into the future and find little comfort in a

merely qualitatively identical replacement. Identity, as Unger argues (1990), seems to be a precondition for much of what we value. It is not enough that their psychology continues, they want to be the subject of those future experiences, pleasures and achievements etc.¹³ Perhaps this attitude to identity mattering is even more evident when contemplating one's young son or daughter splitting because our concern for our children's well-being is more dependent upon their identity than their psychology. Our concern for them won't drop if their psychology changes dramatically as they develop. But I suspect that there would be a drop of concern if one's child fissions. Concern here seems to track identity. Your love and concern grew out of the individual being your child and will remain directed at whatever future being with whom s/he is identical. It seems more obvious here that identity matters than in cases where we come to know and care for someone in virtue of their personality. However, Nozick and Noonan suggest that even when considering just oneself, there will be a drop in concern if identity is not preserved. They suggest that Parfit's claim can't account for people's different reactions to his examples of simple and branch-line teletransportation.¹⁴ The former consists of our bodies being scanned, destroyed and the information sent to Mars where a qualitatively similar body is reassembled. Branching teletransportation involves one's earthly organism not being destroyed after scanning, but surviving long enough to talk to one's replica. Nozick suggests that if Parfit is right, then we should have the same concern for the replica on Mars in both cases. But in the branch-line case, our belief that we survive on Earth results in much less concern for the replica than in the first scenario, despite no difference in psychology.

What also makes the argument about identity not mattering suspect is that it draws upon a dubious explanation of the fission scenario.¹⁵ Hawley tries to explicate the intuition that there is something suspect about positing a no-branching clause where otherwise conditions for identity

would have been met. She is quite skeptical of individuals being dependent upon each other for their existence (or nonexistence) in the absence of a causal connection. So if the original (pre-fission) person would be the post-transplant person possessing the left hemisphere of the cerebrum if it wasn't for a psychologically similar competitor person possessing the right cerebral hemisphere, then the person with the right cerebral hemisphere can determine the existence of the person with the left hemisphere without any causal interaction.¹⁶ There would have been a different person with the left hemisphere if not for the existence of the person with the right likewise being psychologically continuous with the original person. So the person with the left hemisphere owes its existence to the presence of the person with the right hemisphere, and vice versa, but there are no causal connections between the person with left hemisphere and the person with the right half despite the existence of each playing a role in the creation or sustaining of the other. So without any causal support or interference, the possessors of the right and left hemispheres can determine the existence and identity of the other. Moreover, the original pre-division person goes out of existence if two persons possess the transplanted cerebral hemispheres, even though that individual is then physically indistinguishable from scenarios in which it survives with one hemisphere transplanted and the other destroyed.¹⁷

Philosophers are divided about whether it has been established that identity matters. If it doesn't, and prudence-like concern fails to track identity, thus undermining the ontological significance of the whole cerebrum transplant thought experiment, then what considerations would provide an answer to whether we are persons or organisms? Hudson appeals to 'a big picture, best candidate, general metaphysics defense.'¹⁸ How well does the metaphysics assumed by an account of personal identity deal with a host of problems - coincidence, vagueness, composition, temporal predication, transworld identity etc. Van Inwagen searches for a

compositional principle that could make the Xs (particles) compose a (composite) Y and concludes the only plausible account is that the Xs are caught up in the life of an organism.

More than anyone else, Olson transformed the debate by highlighting the problem of too many thinkers, a consequence of the larger puzzle of how there could be spatially coincident objects, two distinct things made of the same matter in the same place at the same time.¹⁹ He argued if people weren't animals, then there would be two thinkers where we want just one. In fact, making matters worse, besides the animal and the person thinking with the same brain, the brain itself may be an additional thinker. How well a theory does with the problem of too many thinkers is perhaps the closest we have to a criterion for selecting a theory of personal identity. Nothing else strikes at our self-conception as much as having to admit other beings thinking our thoughts. Any reason you had to think you were the person, so would the animal. Inevitably, one of you would be wrong, undercutting the other's claim to knowledge. And if an animal thought it was the person then it would seem that it couldn't qua animal be said to be an autonomous or free agent. The animal would fail to exercise the appropriate control and responsibility if it endorses actions thinking it was someone else.

So unwelcome are these extra thinkers, that metaphysicians have gone to incredible lengths to avoid them, accepting views that one suspects they never would have advocated in the absence of pressure from the problem of too many thinkers. This possibility drove Unger from materialism to immaterialism.²⁰ Others have sought to revive medieval philosophical and biological views of Aquinas that involve animals coming into and going out of existence merely with the acquisition or loss of rationality.²¹ Olson was compelled to deny the commonsense platitude that there exists such entities as brains and heads. However, McMahan, Persson, Hudson and maybe Nagel have instead identified us with roughly brain-size thinking parts within

an organism that neither we nor anyone else has likely ever seen or touched. Baker is led to claim that although the person and the animal are not identical, they are so intimately connected that we should say the person and the animal are one and the same person and also one and the same animal. 'Sameness' doesn't entail identity. She and Lewis claim that recognizing that we count by a relation other than identity takes the sting off non-identical thinkers of the same thoughts. Noonan actually accepts the proliferation of thinking creatures but tries to mitigate the confusion by pronoun revision, claiming that while the word 'I' is used by however many overlapping thinkers, it always refers to just one of them, i.e., the one with the maximal psychological persistence conditions.²² Four-dimensionalists avoid the spatially coincident thinking animal and person by claiming that the thought of the organism and person is produced by a brief stage that they share at any moment. Sider and Hawley actually endorse the claim that we are identical to an instantaneous stage that will only exist for a moment!

So it might seem that if the above sketch exhausts the most plausible views on offer, then there won't be a very intuitive answer to the question what kind of being are we. But that doesn't mean it won't be fruitful for readers to consider these accounts in more detail, weighing the pros and cons, perhaps coming to see one theory, on balance, as superior to the others.

II. Neo-Lockean Theories

'Neo-Lockean' is a label for any theory that understands us to persist across time by having the appropriate links between our mental states. Locke stressed memory, though not by name, writing: 'The self is that conscious thinking thing...which is concerned for itself as far as consciousness extends. Only by consciousness whereby it becomes concerned and accountably owns and imputes to itself past actions.'²³ His account seems to suffer a problem with backwards causation and multiple origins that bears on the too many thinkers problem. Assume you have

memories extending back to your early childhood. Then through either the natural process of forgetting, stroke or head trauma, you lose your earliest memory of something that happened to you. Let's say that this memory was of an experience of an event at T_1 (1977). Your earliest memory is now of a later time T_2 (1978). Given that Locke held: 'For whatever any substance has thought or done which I cannot recollect and by my consciousness make my own thought and action, it will no longer belong to me,'²⁴ then it would seem that you are not identical to a being that existed in 1977! If the earliest experience you can *now* recall is from 1978, then that means you have changed your origins! Thus an event in the near present, a memory loss could *cause* your first moment of existing in the past to change. Even if such a relation is not incoherent, it sounds like a very unwelcome sort of backward causation.

It might be thought the backward causation problem can be eliminated by adopting psychological continuity rather than direct psychological connections as the criterion for personal identity. Psychological connections mean that the same memories (desires, beliefs, intentions etc.) remain across time. Psychological continuity requires just overlapping chains of memory (or other mental states): at T_N (now) one can recall T_2 (1978) and at T_2 one could recall T_1 (1977) even though at T_N one can't recall the events of T_1 . Overlapping chains of memory (or intentions, beliefs, desires etc.) would seem to imply that there would be no loss of a person, no new origins, and no present event changing your first moment on the planet.

But it isn't clear that such a move is in the spirit of Locke for it lacks the intuitive appeal that one goes back in time as far as one's consciousness extends.²⁵ The importance of direct psychological connections rather than the overlapping chains of psychological continuity is evidenced in the claims of modern day neo-Lockeans like Parfit and Lewis.²⁶ They stress psychological connectedness more than continuity. Parfit writes 'of these two general relations,

connectedness is more important (than continuity) in both theory and practice.’ He mentions that we have a great regret for loss of memories of a good life, even if psychological continuity is not threatened. Likewise, for sustaining desires for those we love.²⁷ We want our life to have an overall unity, not be episodic, though such fluctuations are compatible with psychological continuity.²⁸ Lewis makes a similar point in his account of Methuselah: ‘It is incumbent on us to make it literally true that he will be a different person after one and one-half centuries or so.’²⁹

If a psychological identity criterion must involve some appeal to psychological connectedness not captured by psychological continuity, the threat of backward causation can be avoided by admitting a rather embarrassing overpopulation. If one believes there are a lot of temporally overlapping persons, as does Lewis, then a blow to the head eliminates one person whose earliest memory was of 1977, but doesn’t introduce a new person or change anyone’s origins. The second person already existed connected from now to T₂ (1978). But if there are many embedded thinkers, then we have a severe problem of too many thinkers.

So given the alternatives, it might seem worth accepting the psychological continuity account. However, that still leaves a mystery about the relationship between the person that Locke distinguished from the thinking substance (soul). Persons and souls would both seem to meet Locke’s definition of a person as a ‘Thinking being with reason and reflection that can consider itself as the same thinking being in different times and places.’³⁰ Shoemaker’s solution is to just identify them.³¹ However, this is not the only source of a too many thinkers problem. Olson has pressed the question that if we are persons that don’t come into existence until our brain has developed to where it can support a certain mental life, perhaps this not occurring until after birth, what happened to the fetus or newborn when the person came into existence? Surely the onset of thought couldn’t destroy the previously mindless animal. So the person and the

animal come to be co-located. But if the person uses its brain to think, why can't the animal do the same? Are there then two thinkers and two thoughts where we thought there was just one? And if the animal can think, isn't it a person as well by Locke's criterion, meaning there would be two persons where we thought there was just one? All of this might leave one hoping for a better way to understand the relationship between persons and animals.

III. Animalism

Animalism understands the human person and the human animal to be identical. The major appeal of animalism is that it avoids the spatially coincident thinkers discussed above. 'Person' is just a phase sortal of the organism. 'Person' is metaphysically no different from 'adolescent' and 'student' and 'bachelor,' terms that pick out individuals by traits that don't have anything to do with their persistence conditions. They can cease to exist as adolescents, teachers, bachelors and persons without going out of existence. What is essential to an animal's persistence is the continuation of biological processes constitutive of life.

The downside of animalism is that it doesn't recognize any ontological importance to our psychological capacities and fails to capture our intuitions in the transplant scenarios. The transplant can be handled, if at all, by abandoning the claim that identity matters and running afoul of the rationale behind the Only x and y rule.³² However, Olson's attack on the psychological accounts of our identity is not limited to just offsetting the transplant intuition with the Parfitian approach. He appeals to a function/substance distinction to determine whether we could be persons rather than animals.³³ He doubts that a person is a substantial kind. All the different persons (divine, human, robotic) suggest to Olson that the term 'person' functions more like 'locomotor' than as a substance sortal. Birds, cars, angels, and motorboats are all locomotors. But what could they have in common that makes them the same substance? Adding

an engine to a rowboat doesn't make the rowboat go out of existence, replaced by a locomotor. That sounds right.

However, there is something problematic about the substance/function distinction of Olson's - that organisms are substantial kinds and persons, like locomotors, are functional kinds. First, organisms strike me as instances of functional kinds – entropy resisters or metabolizers, they just don't display their function in their names as do computers and automobiles. Secondly, if any artifact can be a substance, an automobile seems to be good example. However, if a locomotor is a functional kind rather than substantial kind, then I am afraid that automobiles couldn't be substances. Yet replace the horse pulling a carriage with a motor, and substantial change may indeed have occurred, a new substance, the automobile, replacing its predecessor. Olson's example of adding an engine to a rowboat doesn't invite the same description of substantial change. Since the relationship of the carriage to the automobile and rowboat to powerboat seem analogous but elicit different judgments, more work needs to be done on what functional kinds aren't substantial kinds.

Ironically, animalism may also suffer a variation of a too many thinkers problem. However, these are problems shared with many, but not all of its materialist rivals. They involve the problem of the many thinkers due to the existence of vague boundaries; the problem of thinking parts of the animal like the brain and head;³⁴ and bizarre cases of conjoined twins sharing only a cerebrum with which they both think.

Animalists assume that we are composed of physical simples, particles smaller than atoms. Given the vagueness of which simples are those of our outermost boundary, there would be many equally good candidates for us. If we are composed of one set of particles rather than another set including say one more or one less atom, the other would also be a perfectly fine

candidate for being a thinking creature like ourselves. So overlapping us, completely or partially, would be many entities using our neurological equipment to think.³⁵

Animalists avoid the too many thinkers problem by claiming that there is only one animal that possesses a vague boundary in reality. The vagueness is not just due to our language being imprecise, i.e., we never finding it useful to set down stricter guidelines governing usage. Rather, objects are ‘smeared’ across the world.³⁶ There really isn’t a fact of the matter about their borders. It is not that there are many precise candidate objects with an exact number of atoms that we haven’t bothered giving a name, but there is only one object without an exact number of constituent atoms. Many other philosophers object to conceiving of the world as being vague. They have difficulty imagining what it could mean for objects to have an indeterminate number of parts. Perhaps even more difficult than comprehending vague borders is making sense of vague temporal beginnings and endings. If things could indeterminately exist, then we would have to make sense of something sort of existing and sort of not existing.³⁷ Opponents of worldly vagueness instead will often endorse unrestricted composition in which any two or more things have a sum. So there will be many very odd, scattered, gerrymandered objects. But trying to restrict composition will result in a principle of composition infected by vagueness, rendering it indeterminate how many things there were in the world.³⁸

Positing vagueness in the world won’t enable the animalist to get rid of all of her too many thinker problems. There was an actual case of conjoined fetal twins which shared a cerebrum but not a brainstem, nor any other vital organs involved in the life processes thought to individuate organisms.³⁹ Given that animalists tend to individuate animals in terms of life processes controlled by brainstems,⁴⁰ the just described conjoined twins would be two organisms sharing a cerebrum. If such twins had lived long enough to think, and if animals are considered

the subjects of thought, then there could be two thinkers sharing the same cerebrum and thus apparently thinking and feeling the same. Neither would be able to refer to itself or know that it was one rather than the other twin. While such cases of conjoined twins are rare, we can conceive of a possible world in which they are not uncommon. And claims about the nature of human persons and human organisms and their relationship should apply in every metaphysically possible world. We don't want an account of the relationship of organisms and their brains to work just for our actual world.

The brain itself poses a problem of an embedded thinker for the animalist. If the animal thinks in virtue of the brain, the brain would seem to strictly or nonderivatively be the thinker. It would be best to identify oneself with the being strictly thinking one's thoughts. Olson claims the problem of the thinking brain is the most troublesome for his position, but provides little relative advantage to his materialist rivals. His response is to deny the existence of the brain!⁴¹ There really aren't any brains, only atoms arranged brain-wise.

IV. Constitution Theories

Perhaps the most sophisticated response to animalism is that of Lynne Baker.⁴² She counters that when the relation between one entity and another that it constitutes is understood correctly, there will be no duplication of thinkers or thoughts. Thus there will be no extra thinkers. Nor will there be any worries about whether one is the person or the organism. Her theory is appealing because it saves the widespread intuition about our being essentially thinking creatures and advertises itself as doing so without suffering all of the problems that plague other accounts that posit a spatially coincident person and organism. Her constitution account can also be generalized to explain the objects of the everyday world. The reasoning behind animalism's identification of the person and animal, and the next section's account of persons as just brain-

size parts of animals, cannot explain the relationship of say the statue and the clay, a coin and its metal, or a river and its water etc.

Accounts of constitution frequently begin with the example of the statue and the lump of clay said to constitute it. Despite being physically no different, it is maintained that they are distinct entities. The lump could have existed before the statue came into existence. It didn't exist until the sculptor came along and molded the lump into say the shape of a famous politician that the statue came into existence. And the statue will be destroyed if it loses too much of its shape but the lump would persist through that change. However, if the statue has its hand replaced by a hand composed of a different type of material or just different clay, the statue would survive the 'repairs' but the original lump of clay would not. There would then be a different lump constituting the statue. So for such reasons it is argued that the statue and the lump of clay are distinct.

Baker claims that when one entity is constituting or constituted by another, each can borrow properties from the other. The entity which borrows a property has it derivatively, the other has it nonderivatively. The constituted entity can have properties nonderivatively if the object constituting it couldn't have those same properties without constituting it. For example, the statue is nonderivatively beautiful and valuable while the lump wouldn't possess such properties if it didn't constitute the statue. So the lump is beautiful and valuable derivatively. The constituting entity, on the other hand, could have a property nonderivatively if it could possess that property even when it didn't constitute another object. For example, the lump of clay nonderivatively possesses the property of weighing two thousand pounds. It would have that weight if it had never been shaped by the sculptor. And if the constituted entity (the statue) has a property that the constituting entity (the lump) could have without constituting anything, then the

former has it derivatively. The statue's possession of weight is an example of such a derivative property. There are two things, the statue and the lump, but they don't each weigh a separate ton forcing the scale to register four thousand pounds when the clay statue is placed upon it. The lump and the statue share the same weight. They possess the same token property of weighing two thousand pounds.

Baker believes that the constitution relation between persons and animal bodies is analogous to that of statues and lumps. A person is distinguished by her capacity for self-consciousness, what Baker calls a robust 'first-person perspective.' Possession of such a perspective entails a consciousness of oneself as a being with beliefs and desires. Baker believes that you and I are essentially persons. The animal that constitutes a person doesn't have the property of personhood essentially (and nonderivatively). It can exist without being self-conscious. When the animal was an embryo it was not a person. Yet in certain circumstances, the animal constitutes a person. When a person emerges, it is not a phase of the organism but a substance in its own right.

Baker maintains that when the animal constitutes the person there do not arise two fully separate thinking beings, each with its own mind and mental properties that are duplicates of the other's. Both the animal and person have the same mind and share the same desire and belief properties. It is just that one of them will have certain of these properties derivatively and the other will have those same properties nonderivatively. Baker also believes that the human animal is the subject of certain mental states and events independently of its constitution relation.⁴³ That is, the animal's undergoing such thoughts doesn't entail that it constitutes a person. These nonderivative moods, feelings, believings, desirings etc. will be called 'first-order' mental states or events. Events such as an animal's fear of the dark, investigation of a curious object, boredom

in the absence of certain stimuli, comfort around familiar voices, or anxiety in the presence of strange faces - are all examples of mental phenomena that an organism could have without self-consciousness. The person, on the other hand, is involved in such first-order mental events derivatively, borrowing the mental properties from the animal.

Baker argues that the animal is also a person when it comes to constitute the person. But this doesn't mean that there are two persons in the same place, one essentially a person and the other contingently. There is only one person. The property of personhood is derivatively possessed by the organism while held nonderivatively of the being which is essentially a person.⁴⁴

Only the entity that is nonderivatively a person can refer to itself by use of first person pronouns. When that entity says or thinks 'I,' it refers to itself. The spatially coincident animal also refers to the person by first person pronoun. The organism can't refer to itself qua animal by the first person pronoun. It lacks self-consciousness of itself as an organism. It can't think of itself as itself. 'I' does not work as an essential indexical for it. The only first-order thoughts it can reflect upon are those that are non-derivatively thought by the person. So when the constituted person thinks 'I am essentially a person', the animal doesn't think that thought falsely about itself but thinks it truly of the person. It seems built into the nature of the animal rather than a result of pronoun revision, a mere convention.

Baker's critics maintain she hasn't eliminated the problem of the thinking animal.⁴⁵ Why are its capacities less than the person? Its physical microstructure is no different from the person's. One would think if it has the same neurological structures as the person, then it should have the same mental life. Well, perhaps that is too reductionist. Relations are often relevant to something's existence and capabilities. A lump that eroded to look like someone is not a statue

but the physically identical intentional production is a sculpture. You and your atom for atom duplicate on twin earth could have different beliefs because you stand in different relations to the world. However appealing to history or relations doesn't seem to work since the animal and person could have come into existence in the same time. Why shouldn't the animal being able to refer to itself qua animal? How could it lack a capacity of the person when neither composition or relations seem to distinguish the two? The difference just must be brute, left unexplained. One would think that differences in psychological capacities has to have a neurological or relational difference.

Even if the constitution account avoids the problem of too many thinkers, it still must confront the criticism that it doesn't offer a principled account of when it occurs.⁴⁶ For instance, why doesn't mere sentience bring about a new constituted creature? Why should constitution only occur with the onset of self-consciousness? Is there a third entity, a merely sentient one, constituted by the animal and itself constituting the person? Or perhaps we are essentially sentient and only contingently self-conscious. Baker's condition that a new set of causal powers would arise when a new constituted entity comes into existence as opposed to an existing entity merely acquiring a new property, also seems to be met by the onset of mere sentience.⁴⁷

Moreover, thought experiments involving the loss of our personhood and the onset of a condition like that of late stage Alzheimer's disease often elicit intuitions that we would be the individuals in those unfortunate states. And the modal intuitions in the transplant scenarios also seem to be satisfied since one might think that the transplantation of an infant's brain or Alzheimer's patient brain, both devoid of the capacity for a robust first-person perspective, would be the transplantation of those very sentient beings.

Baker has more recently claimed that we persons come into existence with the emergence of mere sentience, probably before our birth.⁴⁸ She appeals to a rudimentary sense of self combined with what is normal development for the species. The latter excludes dogs and cats from being persons. But relying upon what is normal for the species is problematic because that could change with mutations. The species could, over time, become ‘dumbed down.’ That would mean our origins and whether newborns are persons would be determined by events that occur after our deaths!⁴⁹

V. Persons as Spatial Parts of Animals

There are theories that claim we are not essentially self-conscious persons for some of the reasons just given about transplants and prudential concern. Most advocates of the account claim that we don’t cease to exist until the mind is completely extinguished, not merely devoid of higher capabilities. All of this could be maintained by a modified constitution account. What is not compatible with constitution is claiming that we are each roughly a brain-sized part of the animal.⁵⁰ There are a number of considerations motivating the brain size person view (BSPV). The main reason is that the person is that part of the animal body which directly produces thought, the larger, embedding animal thinks merely derivatively in virtue of its person part that strictly thinks. Also motivating the view are problems posed by the spatial coincidence accepted by constitution theorists. If persons were but parts of organisms, then differences in their nature and persistence should be expected.

Also supporting the BSPV are strange cases of conjoined twins that make it difficult to maintain that persons are identical to organisms or even spatially coincident with organisms. One involves a case of twins that appears to be one animal with two heads.⁵¹ The thoughts of the two heads seem as distinct as yours and mine. Minds would seem to be unified by some sort of

internal causal conditions and access, but the two heads don't have such privileged or direct access to each other. Since there would appear to be two distinct persons, then they can't both be identical to the one animal, subverting the claim of animal/person identity advocated by van Inwagen and Olson.⁵²

The animalist has to treat such conjoined (dicephalic) twins as just one thinking individual cut off from itself, half of its thought not accessible to the other.⁵³ That will strike many readers as an implausible interpretation. They will find it more intuitive to treat each head as belonging to a different person. And as McMahan writes: 'because there is no reason to suppose that the dicephalic twins are a different kind of entity from ourselves, or that a different account of personal identity applies to them, we should further conclude that we are not animals either.'⁵⁴

Ironically, the conjoined twins scenario provides the animalist with the resources to explain away the initial appeal of such an approach which is that minds cut off from each other belong to different thinkers. Since the two heads belong to the same animal, then if the animal can think, it can think with both brains. We would describe this thinking animal as one individual whose mind is divided, its thoughts cut off from each other. So, surprisingly, the very scenario which the BSPV provides in support of the claim that the person is a substance distinct from the animal guarantees the existence of a creature with a divided mental life. Thus the advocates of the BSPV can't reject the animalist account of the dicephalus on the grounds that its positing a single thinker with a divided mind is implausible. Furthermore, the two-headed animal would appear to meet the self-consciousness criterion of being a person so advocates of the BSPV seem to have to accept that there can even be divided persons, not just animals with divided minds. Unless supporters of the BSPV have an argument that can deny thought to the human animal,

they will have to admit that their theory posits a thinking being cut off from its own thought, thus undercutting the initial appeal of their theory when contrasted with the animalist in its handling of the two-headed animal.

Persson and McMahan contend that the human animal only thinks in a derivative sense. So they might not be bothered by an animal having a divided mind derivatively, but draw the line at a being that thinks nonderivatively having a divided mind. To help the reader get a grasp on this idea of a divided thinker, McMahan offers the analogy of the horn and the car of which it is a part. There might be two noisy entities, the horn and the car, but there is really only one noisemaker, the horn. Likewise, there is really only one ‘thoughtmaker,’ the small person embedded within the animal.

Olson thinks the real problem with the BSPV is that it is unprincipled.⁵⁵ There is no reason to claim the brain’s parts and only its parts are directly involved in the production of thinking. If the heart is not directly involved with thought, why are the blood vessels in the brain? One might maintain that the thought is really produced by the firing of neurons. But not every part of the neuron is involved in firing messages, some serve other tasks like maintaining structural integrity or waste removal. Olson compares the difficulty to being directly involved with production of thought to being directly involved with the production of an artifact in a factory involving many workers, suppliers, managers, tools and materials. But I think there might be an unknowable fact of the matter with individuating artifacts and beliefs. To simply, say if too much of the matter composing the artifact and the brain has been different, the artifact and thought would have been replaced by a numerically distinct but qualitative duplicate.

However, even if Olson’s objection could be met, it would seem that BSPV only delays the return of the problem of spatially coincident thinkers.⁵⁶ If it is correct to maintain that the

human animal could survive being pared down to the size of the brain⁵⁷ – the animal would then be composed of every part of the brain and nothing else.⁵⁸ It is quite odd that the animal would then only be derivatively a thinker. This queerness could be reinforced if it were metaphysically possible for a functioning brain-size animal to be made first, and then head, neck, trunk and other appendages added later. It is very hard to explain why at the early stage only the brain-size person would be strictly (nonderivatively) the thinker. It seems that there would be at least two brain-size entities genuinely thinking the qualitatively same thoughts. If the animal then non-derivatively thinks, it is hard to follow the BSPV and later claim that when the animal became larger it no longer is really strictly a thinker but is only a thinker in some derivative sense. But even if that is so, there once were two spatially coincident non-derivative thinkers.

VI. Four-Dimensionalism

Positing a different kind of thinking part of the animal might avoid the just canvassed problems. These thinking parts would be temporal parts rather than spatial parts of animals. The idea is that people have parts extended in time as well as space. People would thus be more like events than previously thought. Just as an event like a baseball game that began an hour ago is not now wholly present, but has innings existing in the past and future, only a temporal part of you is present at this moment. Temporal parts are the distinctive component of Four-dimensionalism. Informally, a temporal part of an entity will exist only at a time and will then overlap all of the entity's other parts that exist at that time.⁵⁹ So your arm at this moment is not your instantaneous temporal part because it doesn't overlap all of your other parts. Once temporal parts are understood, Four-dimensionalism (4D) can be defined as the view that necessarily, each spatialtemporal object has a temporal part at every moment of its existence.⁶⁰ Three-dimensionalism (3D) denies that things persist in virtue of having temporal parts.

The idea of temporally extended 4D objects avoids the spatial coincidence of 3D objects that are ‘wholly present’ at every moment of their existence. The animal came into existence before the person, but they overlap for a good part of their existence, apparently sharing temporal parts. At any moment, only a shared temporal part of the animal and person are present so ‘they don’t crowd each other out.’⁶¹ Since the person and animal have different temporal boundaries, they don’t share all their parts in common, and thus there isn’t the mystery of how they could differ in mental, sortal or modal properties without differing in any parts. The animal and the brain, or the brain and the parts directly involved in the production of thought, would never become spatially coincident in the manner that proved to be problematic in the previous section. Reducing the size of the animal to that of the brain would only come to mean that they share a temporal part.

Since four-dimensionalists tend to accept unrestricted composition to avoid the vagueness of composition, identity and existence, there would be countless objects with thinking parts for some portion of their existence. The only non-arbitrary sum of parts to deserve the label ‘person’ would be the one with only thinking parts.⁶² The most common 4D version understands persons as sums or ‘worms’ made up of thinking instantaneous temporal parts known as stages. Even if composition was restricted to natural objects,⁶³ persons would be embedded within animals. Animals wouldn’t be persons since they had many temporal parts that didn’t think. The worm composed of thinking parts, thus thinks in virtue of its temporal parts thinking. Some of those parts are shared with the animal but there is only one stage thinking at any moment. Noonan-style pronoun revisionism may account for why the “I” applies to the person worm rather than the animal, a stage, or less than the maximal sum of stages.

However, just as it would be arbitrary to claim that a worm including mindless embryonic and corpse stages is the person, Hudson thinks it likewise arbitrary to claim a stage of the person includes all the parts of any of the animal's concurrent temporal parts. Arms and legs, for instance, are irrelevant to the production of thought. So the person will be "found under the skin" and thus not literally stage share with the animal.⁶⁴ The person will consist only of those parts of the animal that are directly involved with the production of thought. Hudson writes of persons: 'Presumably, then, they are those (spatially and temporally gappy) spacetime worms that are certain proper, temporal parts of the brain and central nervous system of the living human organisms.'⁶⁵ Since the roughly brainsize person is temporally extended, it avoids the problems of wholly present spatially coincident thinkers that plagued the 3D account of brain size persons. No larger entity can be pared down to the size of the thinking part and wholly coincide with the parts directly involved in the production of thought. Rather, on the 4D account, they would come to share some but not all of their identical temporal parts.

Other metaphysical puzzles such as brain fission and transplants appear, at first, not to be as problematic for the four-dimensionalist. Lewis and others claim that the worm theory doesn't run afoul of the Only x and y rule or that identity fails to matter because there were two person worms before and after fission.⁶⁶ However, there is a problem of how both worms can use the same pre-fission stage to refer to themselves since they are thinking with the same stage. Lewis must accept that the reference of 'I' is ambiguous as the stage sharing worms must get by with a 'we intention.' They have to think prior to fission that 'We hope that one of us survives.' But how could there be concern for self if one couldn't think about just one's own future? Sider claims that Lewis fails to preserve the platitude that identity matters for 'The goal was to say that identity matters but this requires what happens to another person cannot matter to me.'⁶⁷

If 4D worms only think in virtue of our stages thinking, then they don't strictly or nonderivatively think our thoughts. There is a strong pull to claim that we are identical to whatever strictly thinks our thoughts. Champions of stage theory like Hawley and Sider claim that their approach better handles the thought experiments. Positing only one person before fission means that discoveries aren't later made about how many people were there all along. And since two person worms aren't using the stage to think then there isn't a problem of a person referring or showing concern for himself.⁶⁸ However, since stages are momentary entities, a pre-fission stage is not identical to a post-fission stage, so one might wonder again about prudential concern and preserve the platitude of identity mattering.⁶⁹ Hawley's view is that persons don't persist in virtue of identity. Rather, different stages can be the same person if they are appropriately connected.⁷⁰ So I would not be identical to either of the post-fission stages, but I am the same person as both. Sameness of person doesn't entail identity.⁷¹ So if we care about identity, then the stage view fails to deliver. But if we care about sameness of the person in the absence of identity, then the stage view can handle fission.⁷²

Sider admits that the tenseless statement 'I am identical to a post-fission person with my left cerebral hemisphere is false.' However, he claims a statement like 'I will be the person with my transplanted left cerebral hemisphere' is true for I really have that property. What makes the above statement true is that there exists a person in the future who bears the temporal counterpart person relation to me (an analogue of the better known modal counterpart theory). 'The temporal counterpart relation is the same relation used by the worm theorist to unite the stages of spacetime worms.'⁷³ So, I, a stage, literally have the property of surviving fission and transplantation. I am not talking about someone else. The analysis of my having this property involves another object in the future, 'but I am the one with the temporal property.'⁷⁴ The

counterpart relation, unlike identity, is not transitive, so I can have two counterparts in the post-fission future that are not identical. But I will be both of them.

Even if Four-dimensionalists can make better sense of the practical concerns raised by fission and transplants, and can do so without running afoul of the Only x and y rule, they are still confronted with some moral problems since the animal and person could have conflicting interests. This will be true not only if persons and animals are worms of different durations but if the same stage is both the animal and the person for their temporal counterparts (and their interests) will diverge. Consider an experimental drug that may prevent the further decline into Alzheimer's disease, but will far more likely kill the users. The person, who goes out of existence anyway with the loss of self-consciousness, might think she has nothing to lose since either the disease or the drug's unwanted side effect will end her existence. However, it may be in the interest of the animal not to take the drug since it (or its temporal counterparts that are the 'same' animal) could survive with the minimal sentience of late stage Alzheimer's disease. One could imagine other scenarios in which the interests diverge. The person of the future may desire a brain transplant to a better body but that would doom the animal to a mindless existence. Or in a slightly less distant future, too many medical prosthetics might mean the preservation of the person but the replacement of the organic animal with a numerically distinct inorganic individual. Or the animal and person may both want to donate their organs at their deaths, or believe dignity demands a quick burial, but the possible different timing of their deaths means the similar interests of both can't be realized. One dies, or goes out of existence, when it loses its capacity for a first person perspective, the other with the irreversible cessation of life processes. If someone counters that the animal doesn't care about its identity, a la Parfit, the response should then be why should the person? And if neither identity or being the same person (in

Hawley's sense) matters, Four-dimensionalism loses much of its appeal with handling transplants and fission.

Of course, there will only be moral conflicts if stages and worms can think. But it is not obvious that they can. Worms are attributed thoughts in virtue of their stages. Stages are often construed as finely grained as change.⁷⁵ It is hard to conceive of how they could be the subjects of thought because they are too short-lived.⁷⁶ Stage theorists are well aware that they have to explain how such short-lived creatures could think. Hawley and Sider's answer is that the brief stage has the appropriate causal connections to other stages.⁷⁷ The claim that such 'lingering properties' as having conscious feels, thoughts of Vienna, digesting or growing are possessed in virtue of a stage being appropriately causally related to other stages.⁷⁸ So being conscious will be a relational property of a stage. But it is really a property of the stage and not just of the collection of causally related stages. In that way it is like being a parent. One can't be a parent without a child, but the property is not possessed by the pair of individuals – the parent and the child – but belong to the parent alone. The idea then is that as long as a stage is appropriately related to later and earlier stages, then a thought can be ascribed to that stage.

3D and 4D theorists will both accept that having beliefs may depend upon causal connections to the past. So the stage theorist will insist that thought is just more relational than previously recognized. A stage can think if it is appropriately related to other stages. Moreover, it truly has the beliefs, not the collection of stages. Some adherents of 3D will retort that they do not understand how the momentary stage could possess thoughts with content even if causally linked to other stages. They might claim to understand how something could come into existence and immediately have contents if it borrowed them from something that existed long enough to have thoughts. Or they might accept that swamp chemicals could coalesce and an individual pop

into existence with immediate beliefs for it has dispositions to manifest those beliefs. Even if such a creature was destroyed a moment after beginning to exist, it wasn't essentially a momentary being like the stage. Our 3D theorist will be reluctant to attribute dispositions to beings that necessarily can't manifest them. Likewise for the 3D aggregate of atoms that compose you at any moment, only to be somewhat scattered with your next breath. Such an aggregate seems to be arranged person-wise for too short of a time to think, even though it is causally connected to its successor aggregate. However, even if one is willing to extend beliefs to momentary objects, it is much harder to say they really feel pain. A momentary thing doesn't exist long enough to feel even a twinge. And it seems too far from our conception of enduring pain to claim that an instantaneous stage is in pain if it appropriately related to other stages. Pain doesn't seem relational in the way belief possession might be. It seems that only a longer lasting object could actually feel the pain.

Perhaps readers will find it a dialectical stalemate, there not being a causal or momentary disposition analogy that satisfies the 3D adherent, nor a large enough disanalogy to bother the 4D proponent. So let's try a different tact. Since Four-dimensionalists are fond of analogies between space and time,⁷⁹ a spatial example will be put forth to suggest that causal connections in the production of thought are insufficient to make something the subject of thought. Imagine some of your very small spatial parts, which must include some in the brain, that when causally interacting in the appropriate manner gives rise to thought. It seems safe to say that if certain neurons weren't causally connected to others, there won't be thought. But it doesn't follow that any of the particular neurons (or their parts) are thinking. They causally contribute to thought but none are themselves thoughts, or more importantly, the subject of thought. They are too small to be the thinker. To think otherwise is to be guilty of a fallacy of division. Likewise, appropriately

causally connected temporal stages may give rise to thought but such relations don't justify ascribing thought to any of the momentary stages. At best it suggests a longer temporal part consisting of the briefer stages doing the thinking. But that admission would be the downfall of any claim that identified us with a momentary stage for it is hard to believe that we are not thinkers. If it is correct to claim that stages cannot think, then if we were identical to such stages, we would be thoughtless creatures. Whatever its merits at solving other metaphysical problems, it is hard to take such an account seriously.

If stages don't last long enough to think, four-dimensionalists might just respond that the thinking parts should have a longer duration than stages.⁸⁰ Moreover, this would bring an additional problem of individuating thoughts and experiences. But even if stages can think, there will still be a version of the Unger problem of the thinking many for stages. Any stage will have a vague spatial boundary. Since the indeterminacy will be due to the limits of our language or knowledge and not due to worldly vagueness, there will be many plausible stage candidates. If one can think, so will the others.

Needed Research

Can stages think and feel? More work needs to be done explaining how having pains and beliefs could consist of being related to a series of short-lived entities. And if stages can't think, will worms be able to think? Perhaps a case can be made that they think derivatively in virtue of thinking segments that are longer than stages. The stage theory's account of persistence without identity also calls for more exploration. Can it do justice to the platitude that identity matters? Will substituting concern for the same person suffice, when sameness of person allows many non-identical stages to be the same person if appropriately related? And can either worm theory

or the stage theorist's account of temporal counterparts handle the moral conflicts that will arise given their abundant ontology?

The animalist's identification of the person and the animal might seem better suited to handle the moral and other dilemmas. But to defend it more work must be brought to bear on the animalist's distinctions between function and substantial kinds. The literature on natural kinds will perhaps offer some help here. And can the animalists with their restricted principle of composition avoid the world being vague or find a way to make that claim palatable? Could worldly vagueness be made attractive enough that it solves the problem of the thinking many? Assuming animalists can escape the quicksand of vagueness, or sink no faster than anyone else, could an animalist account be put forth that avoids relying upon the Parfitian thesis that identity doesn't matter? Can any 3D materialist account avoid running afoul of the Only x and y rule when dealing with fission? This is another area of research that is calling out for investigation. It may be that Baker's account of the first person perspective can. Perhaps her account of nonderivative properties and derivatively borrowing properties will be the best we can do for it may be that we can't have the objects of the ordinary world - chairs, money, mountains and persons - and avoid the gerrymandered explosion of objects that the 4D delivers, without spatially coincident objects. Pronoun revision also needs more exploration. It may be able to make the overlap of thinkers more acceptable. Or further research might reveal it to be one more instance of a too quick linguistic fix to a substantial metaphysical problem. More research also needs to be done on individuating thoughts if the BSPV is going to be able to defend the intuition that the person is the entity whose parts directly produce thought. Perhaps the BSPV can borrow (somewhat) the constitution account of derivative properties to avoid too many thinkers.

On the other hand, it might be that all the difficulties of materialist accounts to solve the too many thinkers problems should lead us to take a second look at soul theories. Perhaps future metaphysical research will force those in the philosophy of mind to reconsider a theory they thought discredited. In fact, recent work has suggested that soul theories may not have been mortally wounded by the problems of mind/body interaction and the neurological dependence of thought.⁸¹

¹ Lewis, D. (1986), The Plurality of Worlds. Oxford: Blackwell Press. 192-3.

² I owe this reductio to Nathan Salmon.

³ Noonan, H. (2003), Personal Identity. (revised edn). London: Routledge Press. 87-89, See also Sider, T. (2001), Four Dimensionalism: An Ontology of Persistence and Time. Oxford: Clarendon Press. 149.

⁴ Shoemaker, S. (1963), Self-Knowledge and Self-Identity. Ithaca: Cornell University Press. Unger, P. (1990), Consciousness, Identity and Value. Oxford: Oxford University Press. Shewmon, D.A. (1997), 'Recovery from "brain death": a neurologist's apologia.' Linacre Quarterly, 64, 30-96.

⁵ Shewmon also reports on brains removed from human fetuses aborted live by hysterotomy and sustained for over 90 minutes. And monkeys have undergone brain and head transplants with some success. Op. cit. 49.

⁶ Parfit, D. (1983), Reasons and Persons. Oxford: Oxford University Press.

⁷ Parfit. Op. cit. 279.

⁸ The phenomenology of concern seems to be the same as that of prudential concern.

⁹ Parfit. Op. cit. 262-63.

¹⁰ Parfit. Op. cit. 263.

¹¹ Olson, E. (1997), The Human Animal: Identity without Psychology. Oxford: Oxford University Press.

¹² Baker, L. (2000), Persons and Bodies: A Constitution View. 129-30. Unger. Op. cit. 211-94.

¹³ Baker adds that “our practices of apologizing, promise keeping, and intending become incoherent if we suppose our interest in identity is really only in psychological continuity. Op. cit. 129.

¹⁴ Noonan. Op. cit. 169-170. See also Unger’s account of ‘century fission.’ Op. cit. 268, and a critique in Hershenov, D. (2004), ‘Explaining away the appeal of the psychological approach to personal identity. Philosophy. 79, 445-72.

¹⁵ Hawley, K. (2005), ‘Fission, Fusion and Intrinsic Facts,’ Philosophy and Phenomenological Research, 71, (3), 602-21.

¹⁶ Swinburne lampooned this position suggesting that the original position should bribe a nurse before undergoing the procedure to ensure that one of the hemispheres didn’t survive removal thus ensuring his survival.

¹⁷ See also Noonan. Op. cit. 136.

¹⁸ Hudson, H. (2007), ‘I am not an animal!’ In Persons: Human and Divine. D. Zimmerman and P. van Inwagen (eds), Oxford: Oxford University Press. 217.

¹⁹ Shoemaker called this the problem of too many minds.

²⁰ See Unger. (1990), Op. cit. for the materialist conception of persons. His moves to a defense of dualism in his (2007), All the Power in the World. Oxford: Oxford University Press. 362-465.

²¹ Hershenov, D. (2008), ‘A hylomorphic account of thought experiments concerning personal identity.’ American Catholic Philosophical Quarterly, 82, (2), 481-502

²² Noonan. Op. cit. 211.

²³ Locke, J. (1975), An Essay Concerning Human Understanding. P Nidditch, (ed), Oxford University Press. 341.

²⁴ Locke. Op. cit. 345.

²⁵ Schechtman, M. (1996), The Constitution of Selves. Ithaca: Cornell University Press.

²⁶ Parfit. Op. cit. p. 206.

²⁷ Parfit. Op. cit. 300.

²⁸ Parfit. Op. cit. 301. Parfit adds that connections which are distinctive between people should be given more weight.

²⁹ Lewis, D. (1983), 'Survival and Identity,' Philosophical Papers I. Oxford: Oxford University Press. 66.

³⁰ Locke. Op. cit. 335.

³¹ Shoemaker. Op. cit. Noonan suggests pronoun revision to rescue Locke from Shoemaker's challenge, one made earlier by Reid and Butler. Op. cit.. 63

³² It is worth mentioning that there is another form of animalism, the hylomorphism of Aristotle and Aquinas that offers a way to capture the belief that we are rational animals and yet that we go with our transplanted brain. I explore how it construes transplants and the metaphysical costs of doing so in my (2008), Op. cit.

³³ Olson. Op. cit. 31-37.

³⁴ Olson, E. (2007), What Are We? A Study in Personal Ontology. Oxford: Oxford University Press. 216.

³⁵ Unger, P. (2007), Op. cit.

³⁶ Van Inwagen. Op. cit. 213-237.

³⁷ But see Baker for a defense of the contrary view based on the claim that things come in and go out of existence gradually. (2007), The Metaphysics of Everyday Life: An Essay in Practical Realism. Cambridge: Cambridge University Press. 123-27.

³⁸ Sider. Op. cit. 120-139. Lewis. (1986), Op. cit. 212-13.

³⁹ (2001) Ultrasound in Obstetrics and Gynecology. 289-90.

⁴⁰ Olson. (1997), Op. cit. 132-34, 140-43. Van Inwagen. Op. cit. 149-207.

⁴¹ Independent support for this approach is provided by van Inwagen's compositional principle that *Xs* compose a *Y* iff they are caught up in a life. This is not as arbitrary (and disjunctive) a compositional principle as there would have to be to include cerebra, heads and hand complements.

⁴² See also Shoemaker's constitution account. He argues that animals can't think at all because they have the wrong persistence conditions. (1999), 'Self, body and coincidence,' The Proceedings of the Aristotelian Society: Special Volume, 73, 287-306.

⁴³ Baker. (2000), Op. cit. 61-62, 68, 101-105.

⁴⁴ Baker protests that those who think that there are two persons are conceiving of the two beings in the constitution relation as if they were fully separate entities that just happen to be in the same place at the same time. Such a perspective overlooks the unity relation that a constituted object has to that which constitutes it. There is more to constitution than just spatial coincidence. While constitution is not identity, it is not full separateness either. Baker insists that the constitution relation makes it possible for two things to be the same *F* without being identical. To claim that *x* and *y* are the same *F* should be understood as stating that either *x* and *y* stand in a constitution relation to each other, or they are identical to each other.

⁴⁵ Olson. (2007), Op. cit.. 60-65. Zimmerman, D. (2002) ‘The constitution of persons by bodies: a critique of lynne rudder baker’s theory of material constitution.’ Philosophical Topics, 30, (1), 295-339.

⁴⁶ Olson. (2007), Op. cit. 65-71.

⁴⁷ Baker. (2000), Op. cit. 41.

⁴⁸ Baker. (2007), Op. cit. 75-82.

⁴⁹ The modern species concept that emphasizes reproductive community could also lead to an individual animal’s species membership being determined by events that occur after its demise.

⁵⁰ McMahan, Persson, Chisholm, Hudson (discussed in section VI) and perhaps Nagel. Parfit makes such claims about Nagel in his (1983), Op. cit. 273, 469. Chisholm is also motivated by considerations of mereological essentialism.

⁵¹ McMahan, J. (2002), The Ethics of Killing: Problems at the Margins of Life. Oxford: Oxford University Press. 35-39, 60-61, 87-88. Persson, I. (1999), ‘Our identity and the separability of persons and organisms.’ Dialogue, 38, 525-27.

⁵² The second case was explored in the animalist section involves what appears to be two organisms sharing only a single cerebrum and thus sharing a mind. That might mean too many thinkers for the animalist but not for the BSPV which just posits one thinker attached to a pair of bodies.

⁵³ The animalist could try to support his treatment of the dicephalus as the same thinker cut off from himself, by pointing out that few of us would accept the seeming analogous claim of Locke that Sleeping Socrates and Waking Socrates are distinct persons. The advocate of BSPV might respond that, unlike Sleeping Socrates and Waking Socrates, the dicephalic minds have different locations, or think at the same time, or one can be destroyed without the other, or they could each

learn separately and acquire concepts differently. I offer an animalist response in my (2004), 'Countering the appeal of the psychological approach to personal identity.' Philosophy. 79, 445-72.

⁵⁴ McMahan. Op. cit. p. 39.

⁵⁵ Olson. (2007), Op. cit. 91-98.

⁵⁶ Persson and McMahan's accounts may fall prey to informal fallacies of composition and division for it is not clear that they can have the person and the organism derivatively possess each other's properties. The problem of too many thinkers may reemerge with the person thinking "I am essentially a person" and the organism thinking the same thought derivatively. The organism will be thinking something false since it is not essentially a person. So Noonan-style pronoun revisionism is needed.

⁵⁷ A view held by Olson (1997), op. cit. 45, 133, van Inwagen. Op. cit. 172-181, Merricks, T. (2001), Objects and Persons. Oxford, Oxford University Press. 52, 136. Shewmon. Op. cit. 48-50.

⁵⁸ Incidentally, if readers believe that the minimal thinking being is just part of the brain and thus smaller than the smallest, maimed brain-size animal, the problem can still be reproduced with the brain and its minimal thinking part, rather than the animal and the brain. Brains can change their size.

⁵⁹ Something is a temporal part of x during interval T if and only if i) the object exists at but only at times in T ii) it is part of x at every time during T iii) and at every moment during T it overlaps everything that is part of x at that moment. Sider. Op. cit. 59.

⁶⁰ Sider. Op. cit. 59.

⁶¹ Sider. Op. cit. 156.

⁶² Hudson, H. (2001), A Materialist Metaphysics of the Human Person. Ithaca: Cornell University Press. 122-28.

⁶³ Hawley, K. (2001), How Things Persist. Oxford: Clarendon Press. 90-94. Both the person and the animal would have temporal parts linked through the immanent causation that would distinguish natural entities from the gerrymandered sums.

⁶⁴ Hudson. (2001), Op. cit. 143.

⁶⁵ Hudson, (2001), Op. cit. 147.

⁶⁶ Lewis. (1983), Op. Cit.

⁶⁷ Sider. Op. cit. 203.

⁶⁸ How do we refer to a momentary object? Hawley points out that the stage theorist doesn't suffer here any difficulty that that the 3D can avoid when predicating properties of an object at any moment. (2001), Op. cit. 56-60.

⁶⁹ And it might have animal counterparts whose interests are opposed to its person counterparts as we saw in note

⁷⁰ Hawley. (2001), Op. cit. 62.

⁷¹ There will actually be continuum many people prior and post fission. Hawley and Sider admit that diachronic counting this is a problem of their view, just one outweighed by its merits.

⁷² For other advantages of the stage in dealing with the standard thought experiments see Hawley op. cit. 130-31, 206-07.

⁷³ Sider. Op. cit. 194.

⁷⁴ Sider. Op. cit. 195.

⁷⁵ Hawley. (2001), Op. cit. 51.

⁷⁶ Schechtman. Op. cit.

⁷⁷ Sider. Op. cit. 196-97. Hawley. (2001), Op. cit. 55.

⁷⁸ Hawley. (2001), Op. cit. 53-57. Sider. Op. cit. 188-208.

⁷⁹ ‘The more the analogy holds, the more entitled we are to expect it to hold in new areas. We thereby should expect the part-whole relation to behave with respect to time as it does with respect to space.’ Sider. Op. cit. 87.

⁸⁰ If persons are such extended thinking segments, that will mean that stage theory loses one of its advantages over worm theory in that it allows continuants (the ordinary objects that we have named) to have their temporary intrinsic properties simpliciter. This problem of temporary intrinsics, due to Lewis (1986), is that such properties as shape would have to be construed as disguised relations to time on the 3D approach to avoid enduring entities having the contradictory properties of being bent and straight. But the 4D worm would have intrinsic properties and avoid contradiction and relations to times in virtue of its temporal parts having such properties. Yet this doesn’t give the worm intrinsic properties simpliciter. However, if we are stages, then we would have such properties simpliciter, not in virtue of anything else having them. But if the person segment that thinks has smaller stages as parts, then the person will have other temporary intrinsics derivatively in virtue of his component stages having them simpliciter.

⁸¹ Plantinga, A. (2007) ‘Materialism and christian belief,’ in Persons: Human and Divine, D. Zimmerman and P. van Inwagen, (eds), Oxford: Oxford University Press. 99-141.