

Unrestricted animalism and the too many candidates problem

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Published online: 29 April 2014
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Abstract Standard animalists are committed to a stringent form of restricted composition, thereby denying the existence of brains, hands, and other proper parts of an organism (they also deny the existence of inanimate, composite objects). One reason for positing this near-nihilistic ontology comes from various challenges to animalism such as the Thinking Parts Argument, the Unity Argument, and the Argument from the Problem of the Many. In this paper, I show that these putatively distinct arguments are all instances of a more general problem, which I call the ‘Too Many Candidates Problem’ (or ‘TMC’ for short). Given my formulation of the problem, it is evident that standard animalists are mistaken in believing that restricting composition (and denying the existence of the proper parts of organisms) is the only solution. I show that there is another option for solving the TMC. The advantage of such a position, which I call ‘unrestricted animalism’, is that it is compatible with (a temporally-relativized version of) unrestricted composition and the existence of brains and other proper parts of an organism. I conclude by sketching several strategies one can take regarding this latter solution to the TMC.

Keywords Animalism · Composition · Personal ontology

Many find it uncontroversial that there exist biological organisms of the species *homo sapiens*, which are mereologically complex objects.¹ What is controversial is the claim that human persons such as you and I are numerically identical with such

¹ Ontological and compositional nihilists, and perhaps some idealists, may disagree.

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organisms—a view commonly labeled as ‘animalism’. Some of the dissenters instead argue that we bear some other relation that closely links us to animals, such that we are causally related to, constituted by, or are proper parts of animals (this of course is not exhaustive).

Recently Eric Olson, one of the leading proponents of animalism, has offered what he takes to be the most serious challenge to animalism—viz., the Thinking Parts Argument—a problem he thinks is more threatening than cerebrum transplant or brain-state transfer cases.² Other arguments against animalism (or materialism more broadly) have also been advanced, having to do with reasons why a composite material object (such as an animal) cannot be the bearer of conscious states. Two examples are the Unity Argument (Lowe 2010; Foster 2001) and the Argument from the Problem of the Many (Unger 2004; Zimmerman 2010). The diversity of arguments here makes it seem as though that there are distinct reasons to reject animalism, but I will show that these arguments are all instances of a more general problem, which I will call the ‘*Too Many Candidates Problem*’, or ‘TMC’ for short.³ As I present it, the TMC can be formulated as an inconsistent set of propositions, each of which are intuitive and independently plausible.

One way of responding to the Thinking Parts Argument is by adopting a stringent form of restricted composition, such that the only material objects that exist are organisms and material simples (i.e., material objects that have no proper parts). Not only are there no statues and rocks, but there are also no brains and hearts (instead, there are a plurality of objects—say, fundamental particles—that are arranged statue-wise, rock-wise, brain-wise, and so forth). This near-nihilistic ontology is common among the more prominent animalists. Some of them uphold this view on the basis of arguments independent of personal ontology. For example, van Inwagen (1990) claims that such an ontology follows from the only plausible answer to the Special Composition Question (which asks for the necessary and sufficient conditions for when a plurality of objects compose some object), and Merricks (2001) offers the Overdetermination Argument that purports to show the causal redundancy of non-conscious,⁴ macrophysical objects—thereby providing us reason to deny their existence.⁵ I suspect that these two reasons are not persuasive, for mereological universalism seems to me to be a viable answer to the Special Composition Question,

² Brueckner and Buford (2009) offer another critique of animalism, claiming that the Thinking Animals Argument employs a problematic epistemological principle. For a response to their worry, see my (Yang 2013a).

³ The TMC, of course, resembles the “too many thinkers” problem as applied to animalism (as opposed to being a problem for constitution views or psychological continuity theories of personal identity). However, my label of ‘TMC’ designates the problem as I set it up below (where not all “too many thinkers”-type problems would fit).

⁴ Merricks (2001) is non-committal about the existence of non-conscious organisms.

⁵ Another reason that standard animalists give for denying the existence of proper parts of organisms is because they reject the doctrine of arbitrary, undetached parts (DAUP), cf. van Inwagen (1981) and Olson (1995). Solving the problem of material constitution is their primary reason for denying DAUP, though I take it that such a solution is no more plausible than many of the other possible positions (e.g., colocationism, perdurantism, etc.) and may in fact be less plausible given that such a view denies the existence of proper parts of organisms such as brains and hands.

and I have elsewhere criticized the Overdetermination Argument (Yang 2013b). So I take the TMC to be the primary, if not only, reason for animalists to restrict composition. Olson goes so far in claiming that personal ontology and composition are intimately bound together such that “we can just about answer the question of what we are by giving a theory of composition, and we can just about work out when composition occurs on the basis of what we are” (Olson 2007, p. 233).⁶ For Olson, the upshot of this near-nihilistic ontology that denies the existence of statues and brains is that it provides a way for the animalist to respond to the Thinking Parts Argument. I will call such a view, one that combines animalism and the near-nihilistic form of restricted composition, ‘standard animalism’. If I am right that the TMC is the underlying problem of the Thinking Parts Argument, then standard animalists also have an available response to other instances of the TMC.

Nevertheless, my presentation of the TMC shows that standard animalists have been mistaken in thinking that the only viable solution is to constrain the possible accounts of composition that can be adopted by animalists. Formulating the problem in the way that I do, it becomes apparent that there is another option for the animalist to take, one that has not been widely endorsed nor extensively explored. The advantage of this alternative approach is that the animalist is not forced into rejecting (a temporally-relativized version of) unrestricted composition or denying the existence of statues and brains. That is, those wishing to maintain the existence of arbitrary mereological sums, ordinary objects, or proper parts of organisms can do so without rejecting animalism. I will call this position ‘unrestricted animalism’.

In the first part of the paper, I begin by laying out the anti-animalist arguments mentioned earlier, and I show that the underlying problem for each of them is the TMC; thus, a solution to the TMC provides a uniform solution to each argument. Moreover, my formulation of the TMC clearly displays the possible options that are available for the animalist. The second part of the paper focuses on the two approaches the animalist can take. I offer first the standard animalist response to the TMC and explain why I wish to avoid it. I then present the alternative response—unrestricted animalism—concluding with several possible strategies one can take regarding this solution to the TMC. At the very least, I hope to have made unrestricted animalism an available alternative that is worthy of further consideration and development.

1 Anti-animalist arguments and the TMC

1.1 The thinking parts argument

Let us begin by first considering the “master argument” for animalism, the Thinking Animals Argument, which finds its clearest formulation from Olson (2003):

⁶ Olson suggests that there is a link between mereological universalism and a temporal-parts theory of persons, compositional nihilism and personal nihilism, and restricted composition and animalism—though he does not take the link to be that of entailment, only that adopting one most plausibly yields the other.

- (TAA1) There is a human animal in my chair.
 (TAA2) If something is a human animal in my chair, it is thinking.
 (TAA3) I am the one and only thinking being in my chair.
 (TAA4) Therefore, I am a human animal.

However, Olson has also offered a powerful challenge to his own view. This challenge does not specify where the Thinking Animals Argument goes wrong; rather, it present a structurally analogous argument—the Thinking Parts Argument⁷—that yields an anti-animalist conclusion. Let ‘left-hand complement’ stand for my body minus my left-hand. We can now formulate the argument to show the structural similarity:

- (TPA1) There is a left-hand complement in my chair.
 (TPA2) If something is a left-hand complement in my chair, it is thinking.
 (TPA3) I am the one and only thinking being in my chair.
 (TPA4) Therefore, I am a left-hand complement.

If one is willing to accept the existence of my left-hand, then one should have no problem with accepting the existence of a left-hand complement. But why should we suppose that such an object can think? Some animalists may state that animals are the subjects of thoughts in virtue of having brains as proper parts. If so, then any object that has my brain as a part will be a possible subject of my thoughts. The problem can therefore be further amplified if we substitute ‘head’, ‘upper-half’, ‘brain’ and so forth in place of ‘left-hand complement’ in the argument above. Such parallel arguments would conclude that I am one of these objects, each of which is distinct from the animal in my chair; and there seems to be no reason for us to prefer our identification with animals as opposed to heads, brains, left-hand complements, and other possible candidates.⁸ Olson concludes that the Thinking Parts Argument is “considerably more troubling than the familiar objections to animalism...far more serious than animalism’s unintuitive consequences in brain-transplant cases” (2007, p. 216).

Now other arguments have also been offered against animalism, arguments that bear a family resemblance to the Thinking Parts Argument.⁹ After briefly presenting each argument, I show that underlying these putatively distinct arguments is a single problem—the TMC.

1.2 The unity argument

Let us next consider the Unity Argument. Several philosophers have advanced different versions of this argument, but I will focus on E.J. Lowe’s formulation.¹⁰

⁷ Olson (2007, pp. 215–219). See also Merricks (2001, pp. 47–53).

⁸ There may even be some reason to prefer one of these “smaller” candidates, cf. Hudson’s (2007).

⁹ Some of these arguments target materialism about human persons more generally, which would still show the falsity of animalism. By ‘materialism’, I mean only to talk about substances or objects and not in terms of properties, states, events, and so forth.

¹⁰ Foster (2001), Hasker (2010), and Plantinga (2007) have made similar arguments (though Plantinga’s version focuses more on the thought experiment of Leibniz’s mill).

Now Lowe advances the Unity Argument in support of Non-Cartesian Substance Dualism, which claims that the subject of mental states is not identical to my body (hence, substance dualism), though the subject of mental states can also be the literal bearer of physical properties (hence, non-Cartesian). The Unity Argument is simple and clear, one that is obviously valid and, at least *prima facie*, has plausible premises. Following Lowe, we can formulate the argument as follows:

- (UA1) I am the subject of all and only my own mental states.
- (UA2) Neither my body as a whole nor any part of it can be the subject of all and only my own mental states.¹¹
- (UA3) So, I am not numerically identical to my body or any part of it.

Premise (UA1) is hard to deny, so the argument rests on defending premise (UA2). What are the reasons for believing it to be true?

Consider Lowe's main defense of (UA2).¹² Let 'B' stand for my body as a whole, 'O' for my body minus a fingertip, and 'T' for my thoughts. He then states:

Suppose, now, that it is proposed that I am identical with B, and hence that B is the subject of the thoughts T. Then we can ask: on what grounds can B be regarded as the subject of T *in preference to* O, given that T do not depend upon B's including the part—the finger tip—that O does not include? Isn't the material difference between B and O simply *irrelevant* to the case that can be made in favour of either of them qualifying as the subject of T? But in that case, we must either say that *both B and O* are subjects of T, or else that *neither* of them are. We cannot say the former, however, because B and O are numerically distinct objects, whereas the thoughts T have just *one* subject—*myself*. We may conclude, hence, that neither B nor O is a subject of T and thus that I, who am the subject of T, am identical with neither of them (2010, p. 450).

Since we can substitute for 'O' many of the parts of my body that are person-candidates (such as my brain, the upper-half, etc.), none of the parts of my body can be the subject of my thoughts, and hence I am not identical to any of them.¹³ What is evident is that Lowe's justification for (UA2) relies on assumptions that bear a resemblance to considerations found in the Thinking Parts Argument. Before examining the common assumptions, I turn now to one final argument.

1.3 The argument from the problem of the many

The following anti-animalist argument takes its starting point from worries that arise from the so-called Problem of the Many, made famous by Unger (1980). Though

¹¹ The use of 'body' is a contentious one, especially by animalists (cf. van Inwagen 1980; Olson 2006). However, I will use 'body' synonymously with 'animal', which van Inwagen sometimes does (cf. van Inwagen 2007).

¹² Lowe actually provides two arguments on behalf of (UA2), but I leave aside his other argument since it requires accepting mereological essentialism, which is a contentious thesis that I reject.

¹³ See also John Foster (2001, pp. 209–210) for a similar argument.

Unger initially used such considerations to promote a version of compositional nihilism, his later work advances a similar problem to support the rejection of materialism about human persons in favor of substance dualism (Unger 2004, 2006). Unger's argument can be reconstructed as follows.¹⁴:

- (PM1) If I am a material object, then there are many subjects¹⁵ in my chair.
- (PM2) There is exactly one subject in my chair.
- (PM3) So, I am not a material object.

Unger's justification for (PM1) relies on the Problem of the Many. For one formulation of it, let us consider David Lewis' perspicuous description of the problem:

Think of a cloud—just one cloud, and around it a clear blue sky. Seen from the ground, the cloud may seem to have a sharp boundary. Not so. The cloud is a swarm of water droplets. At the outskirts of the cloud, the density of the droplets falls off. Eventually they are so few and far between that we may hesitate to say that the outlying droplets are still part of the cloud at all; perhaps we might better say only that they are near the cloud. But the transition is gradual. Many surfaces are equally good candidates to be the boundary of the cloud. Therefore many aggregates of droplets, some more inclusive and some less inclusive (and some inclusive in different ways than others), are equally good candidates to be the cloud. Since they have equal claim, how can we say that the cloud is one of these aggregates rather than another? But if all of them count as clouds, then we have many clouds rather than one. And if none of them count, each one being ruled out because of the competition from the others, then we have no cloud. How is it, then, that we have just one cloud? And yet we do. (Lewis 1993, p. 164)

Similarly, suppose that we have a conscious material object such as my body sitting in my chair. There also exists another object that differs from my body by excluding a single particle, say one that is located in my left-hand. It appears that they both have an equal claim to being a subject (in Bynoe and Jones' sense) since the material difference between these two objects is insignificant with respect to being conscious. But if both are conscious, then we have many conscious beings given that there are a whole host of different aggregates of particles around the vicinity of my chair, some of these aggregates being more inclusive and others less inclusive (the more inclusive aggregates would include some particles that are just outside what we might pre-theoretically take to be the boundary of my body, and the less inclusive aggregates would be proper parts of my body). So if I am a material object (and it doesn't matter whether I am an organism, brain, cerebrum, etc.), then there are many, many objects that are also subject-candidates. But Unger agrees with the

¹⁴ I follow Bynoe and Jones' (2013) reconstruction of Unger's argument.

¹⁵ Bynoe and Jones use 'subjects' to signify objects that are conscious in the way that we are (2013, p. 110).

animalist that there can only be a single subject located in my chair. Thus, I am not a material object and therefore not an animal.¹⁶

1.4 The too many candidates problem

It should be evident that these challenges to animalism bear a strong resemblance to each other. The goal of this section is to clearly state the common worry that underlies these arguments. To specify the problem, let R be the spatial region in which I am exactly located (where my use of ‘exact location’ follows closely to Parsons 2007).¹⁷ Now animalists are committed to the following two propositions:

¹⁶ Zimmerman (2010) has offered another defense of (PM1) that also relies on the Problem of the Many. Let us suppose that conscious mental states are fundamental phenomenal states in the way that property dualists often describe. After rejecting an ‘act-object’ theory of phenomenal states, Zimmerman claims that property dualists should espouse adverbialism such that when there is a red object in front of some subject, that subject is, to follow Chisholm’s terminology, being appeared to red-ly. Following Gilbert Harman’s metaphor, these phenomenal states are like ‘mental paint’ that must be applied on some object; and given adverbialism, the mental paint is applied on the subject herself.

Now any material object that is a plausible candidate for being the subject of phenomenal states—candidates such as organisms, brains, cerebra, etc.—will have vague spatial boundaries. Since adverbialism “implies that the thing with the phenomenal property is a subject of experience, a conscious being”, our question is over which object the “mental paint” should be applied (Zimmerman 2010, p. 139). Rejecting epistemicism, Zimmerman asserts that the indeterminacy of whether some particle at the fuzzy boundaries of the object is “in” or “out” is a matter of our semantic indecision with respect to the application of certain terms such as ‘organism’, ‘brain’ and so forth. He goes on to say,

We speak of a human body or brain as though there were just one physical object in the vicinity, when in fact there are many largely overlapping, perfectly precise things, none of which has been specified with enough precision by us to qualify as the one-and-only object of reference...as with clouds and mountains, the vagueness of bodies and brains is accounted for by pointing out that there are many equally eligible candidates for being ‘the body’ and ‘the brain’, and we have failed to do enough to determine which one we are talking about. And I shall assume that, if some property is not had by *all* the eligible candidates for being the brain, organism, table, etc., then it is wrong to say that the brain, organism, or table definitely has the property (ibid., 140).

Zimmerman also asserts what he calls the “law of qualia generation”, such that “whenever some neurons are organized and behaving like so—e.g. like the ones in my brain right now—something-or-other will be caused to have such-and-such fundamental phenomenal property” (ibid., 141). He goes on to state that from adverbialism, if I am a conscious material object that is afflicted with the kind of vagueness we have been considering, then “the laws governing the generation of qualia must ensure that every eligible candidate for being me has this perfectly precise property” (ibid., 142). So there will be many material objects that are non-natural—in the sense that they do not “carve nature at its joints”—that are candidates for being conscious, such as my upper-half or the object composed only of my brain and lower-half. I’ll ignore the other details of his argument since I believe enough has been provided for my purposes. What is important is that both Unger and Zimmerman claim that there are a whole host of material objects within the vicinity of my chair that are eligible candidates for being the subjects of my conscious states. Given (PM1) and the rest of Unger’s original argument, we can conclude that conscious beings such as you and I are not material objects, and so we are not animals.

¹⁷ For ease of exposition, we can assume that I do not have any vague boundaries. If we want to make room for vagueness, we can say that R is the region that includes all the particles that are determinately and indeterminately a proper part of the animal in my chair, or we can say that region R is the region that is occupied by all those particles as well as all the particles that are within an inch of my putative boundaries (e.g., skin). That would take care of worries about vagueness, especially since we can stipulate that there are no other human beings within that region.

- (A1) There is an x such that x is a composite material object that is exactly located¹⁸ in R and x is conscious.¹⁹
- (A2) For any x and y , if x is a material object that is located in R and is conscious and y is a material object that is located in R and is conscious, then $x = y$.

(A1) follows from premises (TAA1) and (TAA2) of the Thinking Animals Argument, and (A2) is another way of formulating the “one and only one thinker” claim found in premise (TAA3). That there is a conscious object (viz., the human organism) in my chair and that there can only be a single thinker here are both fairly intuitive (or so I think), which is why the Thinking Animals Argument at least has some initial appeal.

In order to generate the worry underlying each of the anti-animalist arguments we considered earlier, we need to claim that there exists another object in R that is a competing candidate for being the conscious object. This claim involves two distinct assumptions. Recall that in the particular arguments considered earlier, there is an assumption of the existence of some material object such as a left-hand complement or upper-half that is exactly located in a region that is “smaller” than the region that the animal exactly occupies.²⁰ Now not every proper part of the animal will be a candidate for being conscious (such as lower-halves, legs, or a cell in my right-toe). What is usually stated as a reason for thinking of upper-halves, heads, and brains as competing candidates is that they include the brain as a (proper or improper) part. These objects, along with the animal, have the same cognitive equipment required for generating conscious thought. So we can formulate the assumption as follows:

Object-Part: There is an x such that x is a composite material object and is exactly located in a proper sub-region of R such that the sub-region is occupied by a brain²¹ (or x is exactly located in a region R^* where R^* overlaps R , $R^* \neq R$, and R^* is occupied by a brain).²²

¹⁸ If we want to permit vagueness and we let ‘ R ’ stand for a boundary that includes both those particles that are determinately and indeterminately a part of the animal, then we can say that there is a composite material object that is *entirely located* (or even *weakly located*) in R , in the sense given by Parsons (2007).

¹⁹ Again to make the set-up a bit simpler, I will assume that the boundaries of an animal and the number of particles that compose an animal are not vague but precise. For my response to worries involving vagueness, especially worries arising from Zimmerman (2010), see footnote 37.

²⁰ The object need not be a smaller object, as the Argument from the Problem of the Many indicates a whole host of overlapping arguments, some of which may be the same-size (i.e., is composed of the same number of particles) or larger than whatever “swarm of particles” we stipulate as composing the animal. Again for simplicity sake, I will focus the discussion on a smaller object that is a proper part of the object that is exactly located in R .

²¹ Or occupied by those particles that are arranged brain-wise or would compose a brain if they composed anything at all.

²² The parenthetical qualification is to cover cases involving the Problem of the Many in which the competing material object is not a proper part of the animal but an object that is “more inclusive” and so is partially composed of particles near the boundaries and which are not themselves proper parts (or determinately proper parts) of the animal. Again for ease of exposition, I will leave these cases aside and focus on cases that involve objects that are (determinately) proper parts of the animal.

To state things a bit more concretely, let ‘S’ designate the object that is exactly located in R (i.e., ‘S’ designates what we pre-theoretically take to be the animal), and let ‘S*’ designate the “smaller” object that is exactly located in a proper sub-region of R. S* is not exactly located in R since there is some sub-region of R that does not overlap S*—the region that is exactly occupied by whatever object that, when joined with S*, composes S. Since S* is a proper part of S, it follows that S is not identical to S* (which follows from the definition of ‘proper part’).

What are the reasons for accepting *Object-Part*? One reason might be the acceptance of the Doctrine of Arbitrary Undetached Parts (or ‘DAUP’ for short), which states that for every material object located in some region R, there is a material object that is located in every (occupiable) sub-region of R (van Inwagen 1981, p. 123). Another reason is the acceptance of mereological universalism or unrestricted composition, which states that whenever there are non-overlapping objects, there is a sum of those objects.²³ Additionally, if one is willing to accept the existence of some of the proper parts of organisms, such as hearts and left-hands, then it is difficult to see how one could accept the existence of such objects yet deny the existence of other proper parts of organisms such as left-hand complements, heads, and brains. Thus, anyone that accepts either DAUP, unrestricted composition, or the existence of hearts and hands will have reason to accept *Object-Part*.

Let us move to the last assumption needed to generate the problem. In the anti-animalist arguments, the distinct object that exists in R is a candidate for being conscious. This seems fairly plausible since any reason to think that the animal is conscious provides us with the same reason for thinking that any proper part (that includes the brain) is conscious (since they both have the same equipment required for being conscious), and so it seems that we cannot merely assert that the animal is conscious whereas the upper-half or head is not. Moreover, it is difficult to see how the absence of a left-hand or a single particle can make a difference to whether something is conscious or not. So the final assumption can be formulated as follows:

Competitor: For all x, if x is a material object that is exactly located in R and is conscious, then for any y, if y is a material object that is exactly located in a sub-region of R such that the sub-region is occupied by a brain (or whatever objects that contribute to x’s being conscious), then y is conscious.

But once we have (A1), (A2), *Object-Part* and *Competitor*, we run into serious trouble. From (A1), there is a conscious object, viz. S, in R. Given *Object-Part*, there is another object S* that is a proper part of S (where S* has the brain or the particles that would compose a brain as a part), and so S is not identical to S*. *Competitor* yields that S* is conscious given that S is conscious. But from (A2) it follows that if S and S* are conscious, then S is identical to S*. Contradiction!

²³ These principles would have to be temporally-relativized given that animalism is typically associated with three-dimensionalism, which is incompatible with a non-temporally-relativized version of unrestricted composition. For considerations concerning a four-dimensional or perdurantist version of animalism, see Hershenov (forthcoming).

It is this very problem that I'm calling 'the TMC'. All four of the propositions are independently plausible and yet taken together yield a contradiction. (A1) and (A2) are compatible with *Object-Part* as long as the proper part fails to be conscious; and (A1) and (A2) are compatible with *Competitor* as long as there is no such object such as upper-halves, heads, brains, and the like. *Object-Part* and *Competitor* are compatible with (A1) as long as there can be more than one conscious object in R, and they are compatible with (A2) if either O does not exist or is not conscious.

Returning to the three anti-animalist arguments considered earlier, it is evident that each argument involves *Object-Part* in its acceptance of objects such as a left-hand complement or an object that is composed of all my proper parts minus a single particle. *Competitor* is also an uncontested assumption, given that (following Lowe 2010, p. 450) the "material difference" is "simply irrelevant" whether one and not the other object in R is conscious. Finally, each argument assumes (A2), that there can be only be one conscious subject in R. So given, the acceptance of (A2), *Object-Part*, and *Competitor*, each argument requires that we deny (A1) by denying that the object exactly located in R is conscious. Since whatever I am, I am a conscious being, it follows that I am not identical to the animal in R.

2 Unrestricted animalism and the TMC

At the very least, what I hope to have shown so far is that these putatively distinct arguments that yield the denial of a key animalist tenet all turn out to be instances of a single, general problem. The upshot of the discussion is that my formulation of the problem shows exactly what the available options are for the animalist; and any solution the animalist takes to the TMC will thereby provide a solution to each of the anti-animalist arguments. Next I turn to some possible replies that can be made on behalf of animalism.

2.1 Denying object-part

Given the animalist commitments in (A1) and (A2), there are only two options for the animalist to take regarding the TMC: either deny *Object-Part* or deny *Competitor*. Standard animalists have taken the former strategy and so deny the existence of left-hand complements, upper-halves, brains, and so forth. van Inwagen (1981) and Olson (1995) have explicitly rejected DAUP given considerations involving the problem of material constitution. Moreover, van Inwagen (1990) denies unrestricted composition since he argues that mereological universalism fails to provide an adequate answer to the Special Composition Question. He believes that the only viable answer to the Special Composition Question is:

Life: For some y , the x s compose y if and only if the activity of the x s constitute a life.

If *Life* is the only plausible answer, then organisms and material simples are the only material objects that exist, and hence there are no objects such as statues and rocks

as well as left-hand complements, upper-halves, and all the other possible person-candidates that are proper parts of the animal (or that significantly overlap the animal).²⁴ What is clear is that animalists have typically attempted to deny *Object-Part* by a variety of means. As a general moral, Olson states that “there is an intimate connection between the question of what we are and the question of when composition takes place or what material objects there are” (2007, p. 229), and he claims that animalism requires restricting composition (in such a way that denies *Object-Part*). Thus, standard animalists severely constrain the possible range of mereological frameworks that they can accept.

Pace Olson and the other standard animalists, I do not think animalism is necessarily wed to any particular theory of composition, or at least I should hope not. Otherwise, any reason to accept unrestricted composition or to accept the existence of ordinary objects (such as planets, mountains, statues, baseballs, etc.) would be reason to deny animalism.²⁵ Furthermore, denying *Object-Part* requires not only rejecting the existence of strange objects such as left-hand complements and upper-halves but also familiar objects such as heads and brains. And if we have reason to deny the existence of heads and brains, it seems that we would also have to deny the existence of hearts and hands. If the only way of maintaining animalism is the rejection of the existence of objects such as brains, hearts, and hands, then such a denial may count as a *reductio* against animalism. Standard animalists can maintain that every account of personal ontology yields some counter-intuitive results (which I agree), but I would prefer an account of human persons that retained the existence of my brain or my hands—especially if one takes the latter to be a Moorean fact! Hoping to avoid such consequences, I aim to sever the link between animalism and restricted composition, especially since I am sympathetic both to animalism and to a three-dimensional variant of unrestricted composition (such that parthood is relativized to some time or some spatiotemporal region).²⁶

2.2 Denying competitor

So standard animalists concede *Competitor*, which is why they seem to be anxious in denying the existence of objects such as the proper parts of animals—for if such objects did exist, they would be competing candidates for being the conscious object in R. Olson does not even question the acceptance of *Competitor*, for he takes the Thinking Parts Argument to “imply that if anything thinks our thoughts and performs our actions, many beings of different sizes do so: organisms, heads, brains, and many other such things” (Olson 2007, p. 216). Rather than challenging such an assumption, he opts for denying *Object-Part* which he considers as the only solution

²⁴ Trenton Merricks is another animalist that denies *Object-Part*. He offers an argument that is just another instance of the TMC (2001, pp. 94–95), but Merricks uses it to deny the existence of the proper parts of an organism.

²⁵ For arguments on behalf of unrestricted composition, see Rea (1998) and van Cleve (2008).

²⁶ Though one can also perhaps combine animalism and the typical form of unrestricted composition where parthood is not relativized to some time or spatio-temporal region, cf. Hershenov (forthcoming).

for the animalist—hence the need to link animalism with a strict version of restricted composition.

By showing that such arguments like the Thinking Parts Argument are merely instances of the TMC, it becomes clear that there is another position for the animalist to take, which is to deny *Competitor* and retain *Object-Part*,²⁷ an alternative neglected by most animalists.²⁸ According to this response to the TMC, the animalist can maintain that the human animal is conscious whereas none of its proper parts are.²⁹ In what follows, I sketch several strategies that the animalist can take regarding this solution to the TMC.

2.2.1 *Biting the bullet*

Setting up the problem as an inconsistent set of propositions, any solution to the TMC requires that we deny at least one of them. As we've seen, these anti-animalist arguments that employ the assumptions of the TMC simply take for granted the plausibility of *Object-Part*, *Competitor*, and (A2), and thereby deny (A1). But given the initial plausibility of (A1), merely asserting the other three propositions does not provide persuasive reasons for denying (A1). In fact, I take the TMC to be a problem that is analogous with the Problem of Material Constitution, especially in the way that Rea (1995) has set it up. The latter problem also arises in various guises (e.g., the Ship of Theseus, the Growing Paradox, Tib and Tibbles, Statue and Lump, etc.), where each case involves an inconsistent set of five propositions that are independently plausible. So any solution to the Problem of Material Constitution will require biting the bullet and accepting some counter-intuitive claim, such as the co-location of material objects, the denial of the existence of some familiar objects (such as statues and ships) or even all composite objects, or the denial of the necessity of identity. The TMC can be construed in the same way, especially since all four of the propositions that generate the worry are independently plausible and intuitively motivated.

Whichever proposition of the TMC one rejects, there will be counter-intuitive results. If we reject (A1), we end up with either no animals or with animals that do not think (and Olson has argued that if human organisms do not think, then we should also believe that no organisms such as chimps, dolphins, and dogs think, which is a high price to pay). If we reject (A2), then there are a lot more conscious beings than we supposed there are.³⁰ The denial of *Object-Part* requires that we deny the existence of not only strange objects such as left-hand complements and

²⁷ The animalist can also deny both *Competitor* and *Object-Part*, but I leave such a possibility aside.

²⁸ Some exceptions may be Bailey (Forthcoming) and Madden (2012), though they do not explicitly endorse such a move.

²⁹ Nor are any of the objects that significantly overlap the animal so as to include the particles that compose or would compose the brain, such objects being entertained in the Problem of the Many Argument.

³⁰ Hawthorne and McGonigal (2008) may accept this result since they believe it serves as a way of defending an epistemicism account of vagueness. But the problem of "Too Many Thinkers" has led some to accept (A2).

upper-halves but also of brains and heads. Finally, the denial of *Competitor* is difficult to sustain given the insignificance of the “material difference” between competing person-candidates—the proponent of *Competitor* can, after all, ask how the possession of my left-hand can make the difference from being conscious or not.

Thus, the animalist can deny *Competitor* on the basis of her acceptance of (A1), (A2), and *Object-Part*, and simply embrace the counter-intuitive result while also admitting that any option results in other counter-intuitive claims. The anti-animalist arguments offered above, then, fare no better than the animalist strategy to bite the bullet: merely accept three of the propositions of the TMC and reject the remaining one. Since any view will have strange results, animalism is no worse off than its rivals when it comes to the TMC. Although I take this strategy to be an adequate response to the TMC, the animalist would do even better if additional justification for denying *Competitor* could be provided, especially since it is a putatively plausible thesis.

2.2.2 Maximality

Another strategy is to treat the property of being conscious as a *maximal* property in the following sense:

Max: For any x , if x is conscious, then there is no y such that x is a proper part of y and y is conscious.

Merricks (2003) accepts the maximality of being conscious, and it is also endorsed by some non-animalists such as Hudson (2001) and Sider (2003).³¹ Given (A1), *Max* rules out that a conscious animal is a proper part of any conscious object. But it also rules out having any proper parts that are themselves conscious (otherwise those objects would violate *Max*). So if we take the animal to be the conscious object, then none of its proper parts can be conscious. Thus, *Max* provides the animalist with reason for denying *Competitor*.

It is natural for detractors to complain that such a move would be ad hoc, since merely positing *Max* provides no explanation for why it should be the case that conscious objects cannot be proper parts of other conscious objects. However, the animalist can note that it is not merely animalists who accept this principle. Hudson, who believes that we are a four-dimensional brains (to put his 4D-Partism over simplistically), also accepts *Max*; thus, the acceptance of *Max* is not a last resort or desperate maneuver for animalists since other accounts of personal ontology incorporate this principle in their metaphysical views too. However, I am sympathetic to the demand for an explanation regarding why being conscious is a maximal property. Moreover, this strategy by itself does not offer any reason why we should treat the animal as the conscious object as opposed to the head or brain. For if the brain is a conscious object, then by *Max* the animal would not be. If the strategy that relies on *Max* is to be effective, more must be said.

³¹ Strictly, Hudson takes the property of *being a human person* as maximal. For additional discussion on maximality, see Burke (1994) and Sider (2003).

2.2.3 *Life and thought*

The final strategy I propose—which I call ‘the Life-Thought strategy’ or ‘LT’—is one that can be adopted by the proponent of *Max*, though it can also be advanced in its own right. Moreover, LT needs only to utilize the resources available to standard animalists, thereby giving reasons for any animalist to subscribe to the unrestricted version.

The basic strategy is to connect life and thought. It is an Aristotelian insight that what makes animals and humans alive or “have a life” is also that which makes them capable of having sensations and thought. Traditionally, it is the form or structure that is regarded as performing such a task. However, we need not adopt hylomorphism to do so.³² For there are relevant connections between our biological and psychological capacities, especially since many of the latter capacities must be cited to provide a full explanation of certain biological activities and processes. So if we can find the object that we properly ascribe as having a life, then we can attribute that object with also being the bearer of conscious states.

As I’ve suggested, this move can be made even from the resources available to standard animalists. According to van Inwagen, the only proper parts that exist are the proper parts of an organism (which are the only mereologically complex objects that exist). Here is van Inwagen’s analysis of ‘proper part’:

x is a proper part of y iff y is an organism and x is caught up in the life of y
(van Inwagen 1990, p. 94).

For an object to be “caught up in a life” is for that object to be a member of some collection of material objects (say, particles or cells) that constitute a self-maintaining, well-individuated, jealous event. Any object that is a proper part of an organism contributes to certain goal-directed activities of the organism such as the metabolic process or the depolarization of cellular membranes. William Jaworski has compared van Inwagen’s mereological account to the method of “functional analysis” employed by biologists and engineers, which is the method of

³² Combining hylomorphism and animalism might also yield another version of unrestricted animalism, cf Toner (2011). Hylomorphism is often associated with an Aristotelian theory of substance, such that the human organism is a substance but none of its proper parts are (which follows from what is traditionally called the “unicity” of substantial forms). Hence, none of the proper parts of an organism is a candidate for being the conscious person since none of them are substances (on the assumption that only substances can be such candidates). Thus, hylomorphic animalism denies *Competitor* since it is not the material difference that matters but rather the *formal* differences that determines whether an object is conscious or not. Though I am sympathetic with such an approach, I do not commend it in the body of the paper since my aim is to be more ecumenical so as to include animalists of any stripe—not merely those who want to accept such a robust Aristotelian metaphysics. Moreover, there are lingering concerns, such as explaining why the organism should count as a substance whereas its proper parts do not (and there is a vast literature that tries to make sense of substantiality in terms of “independence” or “unity” criterion). I suspect that my final strategy of LT can also be adopted by hylomorphic animalists while bypassing the controversy over the correct criterion of substantiality.

Another reason I avoid discussing hylomorphism is that it typically denies conscious states to objects that have no life, and so proponents would claim that it is impossible for super-computers to ever think. I am not here advancing anything so strong; only that conscious states are linked with the biological functions of an organism.

understanding complex systems “by analyzing their activities into subactivities performed by subsystems” (Jaworski 2011, p. 276).³³ So we can empirically discover which objects are proper parts of an organism by finding out whether they act in such a way that contributes to the overall activity of the larger system. In fact, organisms will exhibit a multi-layered, hierarchical level of organization such that a proper part of an organism may not contribute to the organism as a whole but rather contributes to the activities of another object which itself contributes to the activities of the whole organism. For instance, an electron may not contribute to the activity of the organism as a whole, but it does contribute to the activity of a phospholipid molecule attracting water molecules (or being distributed along with other electrons in an atom). And the phospholipid molecule contributes to the cell membrane, and so on until we reach the activities of the organism as a whole (ibid., 277).

What the “functional analysis” conception of parthood assumes is that there is a single largest system—viz., the organism—whose subsystems contribute to its function and activities or to other subsystems of the organism.³⁴ The “life” (as van Inwagen means it) will then be the group of activities that properly belong to the organism, and we can maintain that there is at most a single life present in the region given that there is a single largest system for which all the activities of the various sub-systems contribute. Thus, the proper parts of the organism will also be caught up in a life, and not in a distinct life but one and the same life that properly belongs to the organism as a whole (and not to any of its proper parts).³⁵ Supposing that there is a left-hand complement of the organism in R , both the organism and the left-hand complement exhibit the same life (since there is one end toward which the activities of their proper parts contribute), but life should be strictly assigned to the organism as a whole since the left-hand complement will leave out some of the activities of that same life, namely the sub-activities of the single life-event that occur in the left-hand of the organism.

Now conscious states also contribute to the overall system, and so we should assign such states to the organism as a whole.³⁶ It is the organism, and not any of its proper parts, that is the better candidate for being the bearer of conscious states. Thus we can deny *Competitor*, for the proper parts of an organism are not

³³ Thus, what Jaworski means by “functional analysis” is quite different than what is meant by it from the typical functionalist view in philosophy of mind.

³⁴ Of course this supposes that the organism does not engage in activities that contribute to an even larger system, a system that may be treated seriously by social scientists or existence monists (leading some to treat “the World” as a whole as the only substance). A full defense of this view must then show a distinction between the kinds of activities that contribute to an organism and the kinds of activities that contribute to a less-unified entity such as a society or the World. Again, I don’t take what I’ve written here as a full-blown defense; I am merely sketching one possible, and hopefully coherent, account for the animalist to adopt in order to avoid the TMC.

³⁵ Concerning the Problem of the Many, Hudson (2001) notes an “exclusion problem” and a “selection problem”. The strategy being offered here resolves the exclusion problem since there is a single life, and it resolves the selection problem since that life is best attributed to the organism as a whole.

³⁶ For example, kinesthetic awareness (or proprioception) is a conscious state (e.g., the conscious awareness of my posture) that involves the organism as a whole.

competing candidates for being the life-bearer and therefore are not competing candidates for being the bearer of my conscious states.³⁷

Although I take all three strategies of denying *Competitor* as adequate responses to the TMC (provided additional explanation and defense), my own preference is for this final approach. Of course there is need for further development, but it does appear to be a promising strategy that has advantages the animalist should take seriously. First of all, unlike the strategy of biting the bullet, LT does provide some reason for denying *Competitor* other than merely citing its incompatibility with the other propositions of the TMC. Secondly, unlike the appeal to *Max*, LT's rejection of *Competitor* is not ad hoc since the basic insight of connecting life and thought can be motivated independent of the TMC.

Additionally, unrestricted animalism in general avoids the unwanted consequence of rejecting the existence of familiar objects such as brains and hands. Nor must the unrestricted animalist be forced into a particular theory of composition to retain her position, and so animalists have the option of being mereological universalists (as long as they adopt temporally-restricted axioms). Given these advantages, unrestricted animalism—and especially LT—deserves further consideration as an available position in personal ontology.

3 Conclusion

I have shown that the Thinking Parts Argument, the Unity Argument, and the Argument from the Problem of Many have a common worry underlying them, viz.

³⁷ There remains a worry that is most apparent in the Problem of the Many Argument. It may be indeterminate whether some of the particles located at the putative boundaries of the organism are genuine parts of the organism. What can the current strategy say in response? I can think of two replies. First, we can say that there are some proper parts or subsystems that determinately contribute to the organism, and so they are genuine proper parts of the organism. But for some of these outliers, it is indeterminate whether they contribute to the activities of the organism or a sub-system of the organism, and hence it is indeterminate whether it is a proper part or not. So the first response would be, following van Inwagen, to suggest that the boundaries of an organism are vague (and to accept the consequences that follow such as vague identity and vague existence). This is compatible with unrestricted composition, since for every collection of particles in R, there is an object located in R, but none of them will be the organism. There is a single organism in R, an object that has fuzzy boundaries. We would then have to modify [A1] since the organism would not be “exactly located” in any region. However, I suggested in footnote 17 that we can make R a region that is larger than the organism such as the region that extends an inch out from my putative boundaries (e.g., skin). Construing R in this way, we can modify [A1] by claiming that the conscious object is *entirely located* (and not *exactly located*) in R (in the sense found in Parsons 2007).

Another reply is to say that the boundaries are super-precise; some of these outliers determinately contribute to the overall activity of the organism and some of them do not. This second response, then, can claim that it is a matter of empirical ignorance that we cannot determinately state whether a particle on the boundary is or is not contributing the overall activity of the organism (especially if we take seriously the idea that the parts of a substance are those that contribute to its overall activity). This does not amount to epistemicism, since epistemicism claims that we can never be in a position to state where the cut-off line is. The response I'm suggesting claims that we are in no position to do so now, but perhaps as the empirical sciences become more sophisticated, we may be able to state for each particle whether it contributes to the activities of the organism (or one of its sub-systems or sub-activities) or not.

the TMC. Given the way I set up the TMC, we have seen that standard animalists would deny *Object-Part*. But more importantly is that my formulation of the problem shows that there is another option for the animalist to take, which is to reject *Competitor*. I have presented three different ways of taking this strategy. There may of course be other approaches to denying *Competitor* that I have not considered, and such alternatives may be worth exploring, especially if animalists want to remain mereologically open.

Acknowledgments For helpful comments or discussion, I thank Steve Davis, Amy Kind, Dustin Locke, Alex Rajczi, Peter Thielke, those who attended a talk of an earlier draft at Gonzaga University and Spring Hill College, and an anonymous reviewer. I am especially indebted to Tony Brueckner (who recently passed away) for his insightful comments, for the many hours we spent discussing this topic, and for his kind and patient mentorship.

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