

# Animals with Soul

Joshua C. Thurow<sup>1</sup>

Published online: 28 February 2018 © Springer Science+Business Media B.V., part of Springer Nature 2018

Abstract I argue that ensouled animalism—the view that we are identical to animals that have immaterial souls as parts—has a pair of advantages over its two nearest rivals, materialistic animalism and pure dualism. Contra pure dualism, ensouled animalism can explain how physical predications can be literally true of us. Contra materialistic animalism, ensouled animalism can explain how animals can survive death (without resorting to body snatching or body fissioning). Furthermore, ensouled animalism has these advantages without creating any problems beyond those already faced by animalism and by belief in souls. However, some animalists, including Eric Olson, think that animals cannot have immaterial parts. I present a sufficient condition for animal parthood that implies animals can have immaterial parts. Ensouled animalism is not only possible, but also doubly attractive.

Keywords Animalism · Soul · Personal identity · Survival

## Introduction

In the contemporary literature on the nature of human persons animalism—the view that we human persons are each identical to an animal—is in ascendancy. Pure dualism, or immaterialism—the view that we human persons are each identical to an immaterial mental substance (which we can call 'soul')—is fighting hard to stay in the game. In this paper, I will argue that believers in souls can make their view more plausible by adopting animalism. Believers in souls can reject pure dualism—that is, they can deny that human persons are identical to souls; instead, they can say that human persons are identical to ensouled animals. An ensouled animal is an animal that has a soul as a part. Let's call the view that we human persons are each identical to an ensouled animal—*ensouled animalism*.

Joshua C. Thurow Joshua.thurow@utsa.edu

<sup>&</sup>lt;sup>1</sup> University of Texas at San Antonio, One UTSA Circle, San Antonio, TX 78249, USA

Ensouled animalism is a variety of animalism. It says that human persons are animals, but adds that human persons happen to have an immaterial part—the soul. Ensouled animalism, as I define it, is neutral about whether human persons essentially have souls. Thus, there are two varieties of ensouled animalism: contingently ensouled animalism, according to which human persons contingently (de re) have souls, and essentially ensouled animalism, according to which human persons essentially (de re) have souls. The core elements of both varieties of ensouled animalism are as follows: (i) each human person is identical to an animal and (ii) each human person has a soul.

I will argue that ensouled animalism is in two respects a dialectically attractive view. Believers in souls have reason to accept it because it helps them explain how physical predications can literally be true of us—e.g., that I am 5'7". Animalists have reason to accept at least contingently ensouled animalism because it can explain in a fairly straightforward way how humans can survive death. I will not argue that ensouled animalism as a theory of what we are; tall orders for a short paper. My goal is simply to argue that ensouled animalism has these attractive features: it can explain how physical predications can literally be true of us and it can straightforwardly explain how we can survive death.

Of course, it could turn out that combining animalism with the belief that we have a soul yields some special problems, and these problems could swamp the attractive features. I shall argue that this is not the case. Ensouled animalism plainly takes on board whatever problems animalism has and whatever problems arise from belief that we have a soul, but I do not believe that the combination of these two views produces any additional problems. I will make my case by examining some arguments of Eric Olson's that might suggest there are such special problems.

To have the abovementioned dialectically attractive features, ensouled animalism must be at least possible. However, animalism is always (as far as I can tell) presented as a materialist view of human persons.<sup>1</sup> This may be because animalists all in fact do not believe in souls. But, there may be a deeper reason. Eric Olson has claimed that even if humans had immaterial souls, the soul would not be part of the animal. I shall argue, contrary to Olson, that an animal can have a soul as a part.

Before moving on to my main task, I want to briefly indicate how ensouled animalism relates to similar views. Ensouled animalism is a species of what Olson calls compound dualism. According to compound dualism, a human person is identical to a compound of a soul and a body. Compound dualists, such as Richard Swinburne, are not clear about the nature of this compound. If a compound dualist says that the compound is identical to an animal, then her view is equivalent to ensouled animalism.

Ensouled animalism is distinct from hylomorphic views, such as Aquinas's, according to which a human person is identical to an animal, which is a composite of matter and immaterial form.<sup>2</sup> I do not take the soul to be an immaterial form. I take the soul to

<sup>&</sup>lt;sup>1</sup> See, e.g., Blatti (2014)—a prominent encyclopedia survey—and Olson (2007) and van Inwagen (1990)—the two most prominent animalists writing today. Johansson (2007) tries to crisply define the animalist thesis and counterexamples many candidate definitions with scenarios in which some people are immaterial souls that bear various relations to a human animal. But even he—whose counterexampling methods have primed him—never even considers the possibility that an animal might have an immaterial part.

<sup>&</sup>lt;sup>2</sup> For discussion of Aquinas' view, and hylomorphism more generally, see Johnston (2006), Leftow (2001), Stump (2003), and Toner (2011).

be an immaterial substance—a substance in just the same way we can say that a hand, a heart, and an electron are substances.

## **Ensouled Animals Are Possible**

I begin by arguing that ensouled animalism is possible—that is, it is broadly logically possible<sup>3</sup> for an animal to be an object made of both material parts and an immaterial soul as a part. I will assume that it is broadly logically possible for there to exist immaterial souls (i.e., immaterial thinking substances) and for those souls to causally interact with matter.<sup>4</sup>

Hylomorphism aside, this possibility has rarely been even considered in the contemporary philosophical discussion of what we are. Eric Olson is one of the few to give it any consideration, and he seems to reject the possibility. Olson defines 'animal' as 'what biologists mean by it: animals are biological organisms, along with plants, bacteria, protists, and fungi. Animals are what zoologists study' (2007: 27). He continues, 'animals, including human animals, have more or less the same metaphysical nature as other biological organisms' (2007:27). He then lists a number of characteristics that he takes biological organisms to all possess. One of those characteristics is that organisms are 'made up entirely of matter: they have no immaterial or nonphysical parts' (2007: 27). Furthermore, even if humans had immaterial souls, Olson thinks that the soul would not be part of the animal. 'Descartes thought that each normal human animal was somehow attached to an immaterial substance that is necessary for a thing to think rationally, but not necessary for it to be alive in the biological sense. If this were true, I take it that the animal would be the material thing, and not the object made up of the material thing and the immaterial one' (2007: 27-8).

Since in this passage Olson aims to state what an animal by nature is, he seems to assert the following two claims:

(P1) It is not possible for an animal to have an immaterial part.

(P2) It is not possible for an animal to have an immaterial part that is necessary for the exercise of rational thought, but not necessary for the animal to live.

P1 entails that ensouled animalism must be false. P2 does not have that entailment; it merely implies that animals cannot have immaterial parts *of a certain sort*. But, P2 would rule out certain forms of ensouled animalism. I shall argue for a sufficient condition for an object to be part of an animal that will imply that P2 (and thus also P1) is false. The condition will thus imply that immaterial objects can be parts of animals.

<sup>&</sup>lt;sup>3</sup> In Plantinga's (1974: 1–2) sense.

<sup>&</sup>lt;sup>4</sup> For defense, see Price (1965), Taliaferro (1994), Swinburne (1997), and Swinburne (2013). It is fair to assume this here without argument in part because I do not have the space to defend it, but mostly because without this assumption in place, the issue of whether ensouled animalism is attractive would not even arise. If the reader still protests, he or she can interpret me as arguing for a conditional claim: if immaterial souls that can causally interact with matter exist, then ensouled animalism is dialectically attractive in two respects.

Here is my proposed sufficient condition:

(C) If object O enables animal l of kind k to perform one of the functions that is characteristic of k and O is well-integrated with other objects that enable l to perform functions characteristic of k, then O is a part of l.

Being 'well-integrated' is a somewhat rough-and-ready notion that will be clarified further below. O is well-integrated with N just in case O and N causally affect one another in significant ways, including by enabling each other to contribute what they do to the organism's characteristic functions.

Note well that C presents a sufficient condition for an object to be a part of an animal, but not a necessary condition. There may well be parts of an animal—for example, vestigial structures like the appendix—that do not meet this condition. Note also that there may by objects that do not clearly satisfy or fail to satisfy this condition. This might be true for an object if it is not clear that it is well-integrated with other objects. The notion of being well-integrated admits of degrees and the borderline between being well-integrated and not being well-integrated is surely vague. There are three possibilities for objects that fall on this borderline, either (i) they are definitely parts of the animal because they satisfy some other sufficient condition for being a part of the animal; (ii) they definitely are not parts of the animal because they do not satisfy some necessary condition for being a part of an animal; or (iii) it is vague whether they are parts of the animal.

Condition C is supported by several reasons. First, it forges a highly intuitive connection between the parts of an organism and the functions of an organism. The functions of the organism are important, perhaps essential, features of the organism, and so it makes a lot of sense that any structures that enable the organism to perform its characteristic functions would be parts of the organism. Surely, objects that enable the organism to carry out its characteristic functions are the best candidates for being parts of the organism. Second, C accurately classifies many objects as parts of organisms. All of an organism's main organs count as parts, according to C, because these organs (e.g., the heart, lungs, liver, pancreas, and reproductive organs in the case of a human) enable the organism to carry out functions that are characteristic of the kind of organism that it is, and each of these organs is well-integrated with the others (e.g., the heart pumps blood to the lungs, which pulls oxygen from the atmosphere into the bloodstream). Third, C provides a very plausible explanation for why these organs are parts of the organism. Fourth, C offers a plausible explanation for how food becomes a part of an organism. At first, when food is consumed, it seems not to be a part of the organism. The food is merely inside the organism. However, once the food is digested, the parts of the food that are transformed into nutrients and are used by the body for energy become part of the organism. These bits of food become parts because they, as nutrients, now enable the organism to perform some of its characteristic functions.

Does C count too many things as parts of animals? In particular, does C imply that space, gravity, the sun, and God (if God exists) are all parts of animals? All of these things enable animals to perform characteristic functions and also seem at first glance well-integrated with other objects that enable animals to perform characteristic functions. My reply is that each of these things is not well-integrated with the parts of animals. For x to be well-integrated (in the intended sense) with y, x and y have to be causally integrated. That is, x and y causally affect each other in significant ways.

Although space, gravity, and the sun all have significant causal impact on the continued existence and function of the parts of animals, the parts of animals have virtually no causal impact on the existence and operation of space, gravity, and the sun. Human animals could cease to exist entirely and space, gravity, and the sun would go on doing what they do pretty much without change. Space, gravity, and the sun are better regarded as important (perhaps necessary in some sense) background conditions for the existence and proper functioning of the parts of animals. Although God (if God exists) is affected in some significant ways by animals (e.g., his future plans for the human race depend in part on what individual humans choose to do), he is not affected to such a degree that he counts as well-integrated with the parts of animals. Our decisions affect God to a far lesser degree than they affect other humans, and human animals do not affect each other in ways and to the degree that is sufficient for one animal to have another as a part.<sup>5</sup>

Condition C<sup>6</sup> entails that it is possible for an animal to have an immaterial part that is necessary for the exercise of rational thought, but not necessary for the animal to live (that is, C entails that P2 and P1 are both false). Imagine a biological organism that I will call a somasukie. A somasukie is like a human in that it is a biological organism that has as one of its characteristic functions the ability to engage in rational thought (e.g., theoretical reflection, making logical inferences, decision-making, planning, evaluating the rationality of beliefs and decisions, etc.). But a somasukie also has<sup>7</sup> an immaterial soul that is necessary for its being able to engage in rational thought. The somasukie's soul is intimately integrated with its body.<sup>8</sup> The soul's desires, beliefs, and intentions cause the somasukie's body to move in various ways and the soul is affected by what happens to the body (it feels pain in response to pin pricks, for example). The soul and body are just as causally sensitive to each other as our own human mind and body are. Furthermore, the somasukie's soul will not function properly if its brain is not functioning properly. For example, severe damage to the brain can prevent the soul from being able to have conscious experiences, or prevent it from engaging in rational deliberation and decision-making, or result in memory loss. Finally, although its soul is necessary for its exercise of rational thought, it is not necessary for the somasukie to

<sup>&</sup>lt;sup>5</sup> Here is one more case that may raise a wrinkle for C. Imagine a person who had a terrible accident and is now being kept alive by a series of machines, each of which is devoted to maintaining a different biological function—one machine pumps the patient's blood, another breathes, another functions as a kidney, and so forth. Suppose also that all of the machines are connected with each other and so each are sensitive to what the others are doing for the patient, C seems to imply that these machines would be part of the patient, which conflicts with common intuitions. I will later argue that animals can acquire prosthetic parts, so I believe there will be cases like the one discussed here where the machines might well become parts of the patient. Suppose these machines become a permanent part of the patient's life—he depends upon them at all times for his continued existence. In that case, I think intuition is not clearly against the claim that these machines become part of the patient. However, in a case where the machines are merely temporary aids to his recovery, I think the intuition is firmer. So, perhaps C needs to be slightly modified to require also that O either serve in its function for an extended period of time or, better, that O has as part of its function that it is dedicated to serving animal l in its function for an extended period of time. This change does not affect my argument that C implies that P2 is false since of course an immaterial soul could, as part of its function, be dedicated to maintaining thought for its animal for an extended period of time. Thanks to Mark Murphy for the case discussed here. <sup>6</sup> Together with the assumption that it is broadly logically possible for there to exist immaterial souls that can interact with matter.

<sup>&</sup>lt;sup>7</sup> So as not to beg any questions at this stage, by 'has,' I mean 'possesses' rather than 'has as a part.'

<sup>&</sup>lt;sup>8</sup> The sort of integration I describe is inspired by Charles Taliaferro's (1994) 'integrative dualism,' as well as by Robinson (1989) and Hasker (1999).

live; a destroyed or severely damaged soul would not lead to death, although it would produce a persistent vegetative state.

Given our assumption that it is possible for there to exist immaterial souls that interact with matter, a somasukie seems like a possible being. Condition C entails that the somasukie's soul is one of its parts because the soul enables the somasukie to perform one of its characteristic functions (thinking rationally) and the soul is well-integrated with other objects that enable it to perform characteristic functions. The soul is well-integrated because it directs the motion and behavior of many of the other parts of the body, much as materialists think that the brain does for us, and its functioning is dependent upon the proper functioning of the many of the animal's material parts. So, P2 and P1 are false; it is possible for an animal to have an immaterial object as a part.<sup>9</sup>

Let us now turn to consider a few objections to this argument. First, one might argue that C is false because only material objects can be parts of animals. But, why think that only material objects can be parts of animals? In the absence of a reason, this argument flatly begs the question (since its premise simply denies my conclusion). So, let us consider a couple arguments that only material objects can be parts of animals.

The first argument goes as follows: animals are essentially material things and so must have only material parts. It is quite plausible that animals are essentially material for it seems that any purely immaterial thing could not be an animal.<sup>10</sup> But, the inference commits a form of the fallacy of division. A thing's being essentially x does not imply that all of its parts are x. A human person is essentially capable of rational thought (let us suppose, for the sake of argument), but it does not follow that a human hand is capable of rational thought. In addition, a thing could be essentially material and have an immaterial part. If a thing that had an immaterial part also had many material parts and would cease to exist if all of its material parts.<sup>11</sup>

One might argue that condition C is false because it is intuitively obvious that an animal must have only material parts. If this a priori intuition is sufficiently strong, then it could be used to run a modus tollens argument that C is false. However, it is not at all clear that there is a widespread, clear intuition that animals must have only material parts. I report that I fail to have this intuition. I do have an intuition that animals must have material parts (although I shall later question this intuition), but not that animals must have only material parts. It is quite possible that some people confuse the former intuition with the latter. However, I do not want to rest much on this admittedly speculative suggestion. There is reason for thinking that the force, such as it is, of the

<sup>&</sup>lt;sup>9</sup> One might wonder: is rational thought a function of the somasukie—the organism—or a function of its soul? I need the former to establish my possibility claim, but it looks like the somasukie's soul bears its mental states, which suggests that at most I have got the latter. I will discuss this worry more in the next section. But it is worth noting that the very same problem faces materialist animalists—rational thought is a characteristic function of a human, but the brain does the thinking and bears the human's mental states. I will later argue that ensouled animalism has no harder time with this problem than materialist animalism.

<sup>&</sup>lt;sup>10</sup> I assume that animals are essentially animals as I take it that the 'what are we' question is to be answered with an account of our essence (and animalism is an answer to this question). But even if this assumption is false and instead the corresponding de dicto claim is true—i.e., necessarily, animals are material—we still cannot infer that an animal must have only material parts (for the reasons given in the main text, with minor variations).

<sup>&</sup>lt;sup>11</sup> Clearly, the argument would fare no better if 'animals are essentially material things' is replaced with 'animals are essentially organic things.'

a priori intuition that animals must have only material parts is diminished or countered by a common a priori intuition that conflicts with this intuition. For instance, it seems that it is possible for animals to have prosthetic parts. Surely some prostheses are not parts—think of a pirate's peg leg, or Captain Hook's hook—but, it is possible for a prosthesis to become a part of an animal. The pirate's peg leg and Captain Hook's hook function roughly as a leg and a hand function, but they do not function well-enough to count as replacements of the original parts and are not sufficiently well-integrated with the other parts of the animal to be a part. Artificial veins seem like clear cases of prosthetic parts. In principle, it seems possible for a human to have an artificial heart (however difficult it may be in practice to construct one that lasts). A great example from science fiction is Luke Skywalker's mechanical hand, which functions nearly as smoothly as a normal hand and is controlled by his thoughts and desires much like a normal hand.

Now, whether a prosthesis is a part of an animal does not seem to depend essentially on what the prosthesis is made of. Artificial veins could be made of many different kinds of materials. What matters is that an artificial vein must perform the functions of a vein. The same lesson holds with respect to Luke's hand. It does not matter what Luke's artificial hand is made of-it could be made of flesh, various plastics, metal, or some combination of all of the above. What matters is that Luke's hand functions well as a hand and is well-integrated with other parts of the animal. Functional constraints may place material constraints—it may be that in fact, only certain sorts of materials will do the job—but, these material constraints are not essential constraints on what kinds of materials can be part of an animal. So, as long as an object O can function as the part of the animal it is to replace (and be sufficiently well-integrated), it can be a part of the animal. If having the proper function and being sufficiently well-integrated are sufficient for a prosthesis to replace part A of an animal and be a part of an animal, then A's having the appropriate function and being well-integrated explains why it is a part of an animal. It would be arbitrary for a sufficient condition for animal parthood to apply to prosthetic replacements for object A and yet not apply to A itself. Since an immaterial object could well fulfill whatever function an animal has for performing rational thought and be sufficiently well-integrated with the other parts of the animal, an immaterial object could be part of an animal. So, the intuition that animals can have prosthetic parts implies, through a clear line of reasoning, that immaterial objects can be parts of an animal. Thus, the a priori intuition that animals can have prosthetic parts conflicts with and casts doubt on the intuition that animals must have only material parts. The case for C and the intuition that animals can have prosthetic parts together make a strong case that animals can have immaterial parts, including immaterial souls that are responsible for thought.

#### **Objections to Ensouled Animalism**

I have argued that animals can have immaterial parts, including souls; thus, ensouled animalism is at least possibly true. But, does ensouled animalism run into any special problems beyond those already faced by its commitment to animalism and to the belief that we have a soul? Olson (2001, 2007) has leveled a number of objections against compound dualism, and thus against ensouled animalism (since ensouled animalism is

a variety of compound dualism). These objections might seem to show that ensouled animalism does run into special problems. I argue that they do not. These objections are really manifestations of objections to animalism more generally, not objections that specifically target ensouled animalism.

The first objection is what Olson calls the *thinking-soul problem* (2007: 169). Assume that an animal has an immaterial soul as a part and that the animal's soul does the thinking. The problem can be run a couple of different ways. First, if the soul does the thinking, then the soul thinks. But, the animal also thinks, and the animal is not identical to the soul (because they have different persistence conditions). Both the animal and the soul think the same thoughts, though. So, wherever there is an animal with an immaterial soul that does the thinking, there are two numerically distinct, overlapping individuals thinking the same thoughts. This seems absurd. The second way of running the problem is somewhat different. If the soul is what does the thinking, then the animal is not what thinks in the truest sense, for the animal would then think in virtue of the soul thinking. But, a person is the thing that thinks in the truest sense. So, the person is not identical to the animal, but is identical to the soul. But, if animalism is a true theory of personal identity, then it must be that the animal is what thinks in the truest sense, so an animal cannot be composed of an immaterial soul that thinks in the truest sense.

The thinking-soul problem is not really an objection specifically for ensouled animalism; rather, it is a manifestation of a more general problem for animalism as a theory of personal identity. Materialist animalist views face a structurally identical problem. For, on materialist animalist views, animals that are persons have a brain (or, some material thing that functions like a brain) and the brain is what generates thought. So, wherever there is a materialist animal that thinks there is a brain that thinks, and the animal is not identical to the brain. Furthermore, it looks like the brain is what thinks in the truest sense. So, the exact same problem arises. The only difference is that the problem is generated by having a material thinking part rather than having an immaterial thinking part. So, whether or not the thinking part is material seems irrelevant to the problem. The problem arises from having any kind of part that does the thinking. We might call this the *thinking part problem* (Olson 2007: 215 ff). All animalist views that take humans to have a thinking part face this problem. The thinking part problem is an objection to animalism as a general theory; the thinking-soul problem is just the thinking part problem applied to a specific sort of animalist theory. The thinking part problem might be a nasty problem for animalism as a general view of personal identity, but it does not present ensouled animalism with a unique difficulty.

Although the problem is not unique to ensouled animalism (as compared to animalism more broadly), might it be harder for ensouled animalism to solve (again, as compared to other versions of animalism)? I think not, for ensouled animalism can employ just as effectively some of the solutions animalists have offered to this problem. Here is one solution: brains do not really do our thinking because there is no principled way to distinguish between what parts are involved in thinking and what parts are not involved in thinking for 'a great deal that goes on outside the brain contributes vitally to thinking' (Olson 2007:93) (even though it is true that if the brain were removed from the body and properly maintained, thinking would occur). Ensouled animalism can employ this solution too, for a defender of this view can grant that 'a great deal that goes on outside the brain contributes vitally to our thinking.' Indeed, *the very same*  *non-brain properties* that the animalist thinks contribute vitally to our thinking will be contributing whatever it is they contribute even if ensouled animalism is true because the ensouled animalist does not differ from a materialist animalist in how the brain interacts with non-brain material parts. Furthermore, the properties of the brain will contribute vitally to thinking on some versions of ensouled animalism. Integrative dualists<sup>12</sup> are quite willing to say that the brain needs to function in a certain way in order for the soul to have certain thoughts—and not just because the soul needs the brain to deliver information. It may be that *the soul's thinking* is itself dependent on the proper functioning of the brain—think again of the somasukie described earlier.<sup>13</sup>

The somasukie's soul was said to have desires, beliefs, and intentions. These properties are included in a broad class of mental properties that dualists sometimes call 'pure' (Swinburne 2013: 68); they inhere in the soul and having them does not logically entail having any physical property. One might wonder: is the thinking part problem still a problem with regard to pure mental properties? After all, there is a principled way to distinguish what parts of me are involved in the having of such properties. But we also want to say that the animal has these mental properties. So once again, we have two substances having the same mental properties, and the soul rather than the animal looks to be the substance that has these mental properties in the truest sense.

I think one way to answer this objection is to recognize that the animal has these mental properties—in the truest sense—through the activities of its soul. We need to distinguish between A having P *merely in virtue* of a part of A having P and A having P *through* a part of A having P. A good example of the former is the honking of a bike merely in virtue of its bike horn. The bike honks at an inattentive passerby, but the bike honks merely in virtue of its horn honking. The bike thus honks in a derivative sense; what is truly, most fundamentally, doing the honking is the horn. McMahan (2002:92) gives us a good example of the latter: a tree growing through its branch growing. The tree does not grow in a merely derivative sense; it grows in a true, fundamental sense. It grows through the growth of its branch. Here's another way to put it: the tree grows by having its branch grow.

What is the difference underlying this distinction? We said that the tree grows by having its branch grow. Notice that it is wrong to say that the bike honks by having its horn honk. The bike does not direct or manage the horn's honking. Any correlations between the bike's activity and the horn's honking is due to a common cause (the driver). But the tree does direct or manage the growth of its branch. I do not mean to say that the tree has intentions; all I am saying is that the branch is well-integrated (in the same sense as in principle C) with the tree in such a way that other properties and functions of the non-branch parts of the tree are directed toward and enable the growth of the branch. So the difference underlying the distinction seems to be this: A has P through (rather than merely in virtue of) its part B having P if A and B are well-

<sup>&</sup>lt;sup>12</sup> Taliaferro (1994). See also Robinson (1989), Hasker (1999).

<sup>&</sup>lt;sup>13</sup> Olson also describes an epistemic solution to the problem (2007: 218), which I think an ensouled dualist could just as well accept. Parfit (2012) suggests another solution (although ultimately, he thinks the solution favors a non-animalist view): animals think in virtue of having a part that thinks. Clearly, ensouled animalists can endorse this solution as well. Indeed, Swinburne (2013: 236) endorses this very solution in defense of his version of compound dualism.

integrated and the functions and abilities of the non-B parts of A bring about and <sup>14</sup> enable B to have P.

It is clear, then, that an ensouled animal thinks through its soul. For according to the ensouled dualism I have described—as illustrated with the somasukie—the animal's non-soul parts are well-integrated with the soul. And some of those non-soul parts bring about and enable the soul to carry out its function because (again, according to the version of dualism I have outlined) brain activity brings about activity in the soul and enables the soul to function properly. Since the animal thinks through its soul, the animal is the true fundamental thinker. The soul has mental properties in a derivative sense even though those properties inhere in the soul. A property's inhering in x is thus distinct from x's being the subject of x. So when painfulness inheres in the soul, the animal feels pain. The soul feels pain in a derivative sense because it is not the true subject of the pain. That it is not the true subject of the mental state is even clearer for propositional attitudes. Suppose the thought, 'I am in pain' inheres in the soul. 'I' refers to the animal since the animal is thinking through the soul. Thus the animal is the true subject of the mental state; the animal, but not the soul, believes 'I am in pain.'<sup>15</sup>

The second objection is what Olson calls the *problem of disembodied survival* (2007: 169–70). Immaterial souls seem able to survive the death of their associated bodies while maintaining many of their mental states. Should such an event occur, it looks like the person would survive as a disembodied soul. But, such survival is not possible for ensouled animals since the ensouled animal has its soul as a part and no entity can become identical to one of its parts. So, a person who has a soul as a part must really be identical to her soul, not to an ensouled animal.

Once again, this problem is really a manifestation of a more general objection to animalism as a theory of personal identity. Materialist animalists face a structurally identical problem: materialist animals have brains and it looks like brains can survive the death of their associated bodies (as long as they are maintained properly) while maintaining many of their mental states and the ability to think. Should such an event occur, it looks like the person would survive as a brain. But, such survival is not possible for animals since the brain is part of the animal and no entity can become identical to one of its parts. So, a person who has a brain as a part must really be identical to her brain, not to an animal.<sup>16</sup> In short, this problem arises whenever an animal has a small part (that is, a part that occupies a small volume of the animal as a whole) that could think even if it were separated from the rest of the animal. It does not matter whether that small part is material (a brain) or immaterial (a thinking soul). We might have another nasty problem for animalism as a general view about personal identity, but we do not have an argument that ensouled animalism faces a special difficulty.

<sup>&</sup>lt;sup>14</sup> Maybe 'or' is sufficient, but this does not matter for our purposes.

<sup>&</sup>lt;sup>15</sup> Here is another reply to the objection. Mental states are not to be attributed to the soul, but to the agent and the agent is the animal. The soul does stuff, but the activities of the soul are not the mental state. The mental state is attributed to the animal and the animal has that mental state in virtue of the activities of the soul (and perhaps parts of its body). Mental states do not even inhere in the soul of an ensouled animal. They inhere in the entire agent, the animal.

<sup>&</sup>lt;sup>16</sup> Parfit (2012) is one of the most recent expositions of this sort of argument against animalism. See also Van Inwagen (1990), McMahan (2002), and Olson (2007) for other treatments of this argument.

We can once again ask: yes, but does ensouled animalism have a harder time with this problem than materialist animalism? Not clearly. Ensouled animalists have things to say in response. For instance, the ensouled animalist can say that (i) the animal is composed of a bunch of simples (material and immaterial) arranged and interacting in a certain sort of way, (ii) the animal is not identical to any single simple or mass of simples, (iii) the animal can survive the addition or subtraction of some (perhaps many) simples, and (iv) in principle the animal could survive being pared down to having just one simple—its immaterial soul. If that were to happen, the ensouled animal would be composed of just one simple but would not be identical to that simple. As long as it is possible for an entity to be composed of, but not identical to, just one simple (and I, at least, do not find this possibility especially implausible) then the response I have presented is possible and would avoid the objection.<sup>17</sup>

It must be granted that materialist animalism has one response to both of these problems that is not available to ensouled animalism: denying that there are any parts of us that think (Olson 2007: 218, 221). The materialist animalist can say that brains do not exist—there are particles arranged brain-wise, but there is no composite brain. As van Inwagen puts it, the brain is a 'virtual object' (1990: 172). Therefore, there is no brain to do our thinking and no brain for me to be pared down to. The ensouled animalist cannot say that there is no immaterial soul, for an immaterial soul is supposed to be a simple object. An immaterial soul cannot be a mere virtual object because virtual objects are (virtually) composed of simples (or maybe are made of gunk or stuff)—but of course, a metaphysically simple object cannot be composed of simples or made of gunk.

However, if my earlier argument that it is possible for an animal to have an immaterial soul is correct, then this response will not fully answer the two problems even for the materialist animalist. For, if my argument is correct, then the materialist animalist has to grant that there can be animals that have immaterial souls as parts. In those possible 'worlds' that contain ensouled animals, there must be some solution to the two problems and this response—denying that there are any parts of us that think— is not available. So unless he wants to deny that souls can possibly exist or deny that there can be ensouled animals (and both of these denials seem implausible and thus costly), even the materialist animalist must grant that there is some other solution to these problems that is available to the ensouled animalist. The materialist animalist and the ensouled animalist are thus in the same dialectical boat with respect to these problems; both imply that there must be some solution to these problems for the ensouled animalist.<sup>18</sup>

<sup>&</sup>lt;sup>17</sup> Swinburne (2013: 36) endorses just such a response in defense of his version of compound dualism.

<sup>&</sup>lt;sup>18</sup> Even if the argument of this paragraph were flawed and materialist animalism really did have an additional way of completely solving these problems, it would not clearly follow that ensouled animalism has a harder time with these problems if we interpret 'harder time with' to mean 'is less likely to be able to successfully resolve.' An extra layer of armor does not necessarily add extra protection. If the extra layer is flimsy or if the attack would have been stopped by the other layers, then the extra layer does not add any extra protection—i.e., an attack is not made any less likely to succeed given the extra layer. It is debatable, to say the least, both how plausible the 'deny there are any thinking parts' response is and whether the other replies are sufficient to turn aside the problems. So, even if materialist dualism had this additional way of completing solving these problems, it is very far from clear that ensouled dualism has a harder time with these problems than materialist dualism. Therefore, these problems do not give us clear reason or grounds for contesting my primary thesis, which is that ensouled animalism is dialectically attractive for animalists and pure dualists.

## The Advantages of Ensouled Animalism: Predication and Afterlife

If what I have argued so far is correct, then ensouled animalism is both possible and appears free of special worries beyond those that come with its commitment to animalism and to the claim that we have a soul. If the paper ended here, ensouled animalism might appear to be nothing more than a philosophical curiosity. Does the view have any philosophical virtues? In this concluding section, I shall argue that it has two: one that makes it attractive from the standpoint of believers in souls and another that makes it attractive from the standpoint of animalism.<sup>19</sup>

The first attractive feature is that physical predications can literally be true of ensouled animals. This virtue is commonly highlighted in discussions of compound dualism (Olson 2007: 168, Swinburne 1997: 145–6). According to ensouled animalism, we are animals with both physical and nonphysical parts. So some properties of our physical parts can be just as much properties of us as are the properties of our nonphysical parts. 'I am 5'7"' is literally true because my body is 5'7" tall and my body is part of me. 'I tripped over the rock' can be literally true of me because my body, which is part of me, tripped over the rock. These sentences cannot be literally true on a pure dualist view according to which we are identical to immaterial souls. For then, we have no physical parts; our bodies are at best highly responsive vehicles through which we act. Pure dualists might give paraphrases of sentences containing physical predications, but this seems to be a cost. Ensouled animalism does not pay it, and thus has an advantage for those who accept that we have souls.

The second attractive feature is that ensouled animalism can allow for a possibility that some animalists would want to allow: survival of death. Materialist animalists have had a hard time explaining how we could survive death. van Inwagen (1978) has suggested that a material animal could survive death if, at the moment of death, God were to whisk it away to heaven, heal it fully in heaven, and leave behind a dead replica of its body. Zimmerman (1999, 2010) and Corcoran (2001) have suggested that upon death, an animal could fission into two type-identical animals, one alive and one dead, and God could (once again) whisk away the living one to heaven. These two scenarios may well show that there is a sense in which material animals can survive death. But these scenarios are unsatisfying. Both seem to involve God engaging in massive deception, and both seem to conflict with biblical stories of resurrection that some animalists might want to account for (Johnston 2010: 93–106). In addition, in neither scenario does the surviving individual die—the 'survivor's' life continues uninterrupt-ed. So, these are not cases of material animals surviving death.

Setting these scenarios aside, most philosophers<sup>20</sup> have argued that life after death is impossible on a materialist animalist view.<sup>21</sup> To survive death, a material animal would

<sup>&</sup>lt;sup>19</sup> Please note that I am not arguing that ensouled animalism is overall the best view or that it has no costs. It acquires whatever costs are associated with animalism and dualism. And perhaps certain arguments for dualism or animalism would not support this particular view. I am arguing only that ensouled animalism has the two mentioned advantages, that it is possible, and that it introduces no new problems beyond those already possessed by animalism and dualism more generally.

<sup>&</sup>lt;sup>20</sup> Although see Mavrodes (1977), Merricks (1999), Merricks (2001), and Merricks (2009) for dissenting views.

<sup>&</sup>lt;sup>21</sup> Assuming an animal's corpse is, as Johnston puts it, 'stone-cold'—i.e., 'there has been a dissolution of the natural bases of the processes that once constituted the life of the body' (Johnston 2010: 95). Bodies that are not stone-cold can be revived by medical treatments and so, in a sense, survive after death.

have to have its parts reassembled (again, setting aside the body snatching and fission accounts). However, 'survival by reassembly' faces three main problems.<sup>22</sup> First is the old cannibal problem.<sup>23</sup> It is possible for a given piece of matter to have been part of different bodies at different times. Since that piece of matter cannot occupy more than one distinct body at the same time, it is not possible for both of the animals who had such a part at their death to be resurrected.

Second, it seems very plausible that whatever 'has been totally destroyed has ceased to exist and cannot exist again' (Olson 2010: 53); call this claim the *Irreversibility Principle*. To illustrate, if the Mona Lisa is completely destroyed in a fire, then if we were to trace down every particle that went into the original Mona Lisa and reconstruct it entirely from these particles, then we would not get the Mona Lisa back. We would simply have a really well-done copy. When animals die and their corpses rot, they are totally destroyed and thus cannot exist again.<sup>24</sup>

Third, plausible theories of persistence over time entail that, for an object to persist, it must cause itself to continue to exist. This sort of causal relationship is called 'immanent causation' (Zimmerman 1997). If an animal A dies and its parts are later reassembled into a living organism O, O is not immanently causally related to A. Whoever reassembled A's parts to make O caused O to exist; A did not cause O to exist; thus, O is not immanently causally related to A. Thus, an animal cannot survive death through reassembly.<sup>25</sup>

So, it is hard to see how materialist animals could survive death. But, initially, it seems that ensouled animals cannot survive death either. The animal cannot live on as a disembodied soul because a disembodied soul simply is not an animal. The soul has no organic, material parts and so cannot be an animal. If we are animals, we thus cannot survive as disembodied souls. So to survive death such an animal would have to be reassembled. But then, surviving such reassembly faces all of the above objections.

Contrary to these worries, I believe that ensouled animals can survive death in the sense that they can continue their existence after being reassembled or reconstituted. I will presently argue for this claim and then later turn to address the tricky question of whether the animal can exist in the intermediate state in which its soul is disembodied. I begin my argument with two cases, which will be used to motivate my explanation for how ensouled animals can survive death. First, consider an ordinary watch and an ordinary tent. These items are regularly disassembled and reassembled and it seems clear that the watch and the tent survive such a process. Furthermore, such items can survive a very long time while disassembled; many people use their tents only occasionally, leaving their disassembled parts to gather dust in the garage most of the time. Second, consider a plant that can regenerate. Some plants can be cut down very

<sup>&</sup>lt;sup>22</sup> Mark Johnston (2010: 32–40) has recently given a fourth reason—the problem of perimortem duplicates. This is a challenging problem that would require more space than I have here to address. I hope to address it in future work.

<sup>&</sup>lt;sup>23</sup> See Davis (2000) for philosophical discussion of this objection and Bynum (1995) for an historical account of how this objection arose and how early church fathers attempted to deal with it.

<sup>&</sup>lt;sup>24</sup> This sort of argument has been given by many philosophers including van Inwagen (1978) and Baker (2007).

 $<sup>^{25}</sup>$  Olson (2010) lays down the building blocks for such an argument, although strictly he uses immanent causation to object to using psychological continuity theories to explain how life after death is possible.

far, leaving roots and a trunk, and yet still regrow to continue their lives. Such plants can survive the loss of many of their physical parts.

I want to suggest that an ensouled animal can be something like a tent and a regenerating plant. After an animal dies, its soul continues to exist and the soul can later recombine with some matter—perhaps even some of its original matter—to compose a human. The recomposed human being would be identical to the earlier human being that was composed of the same soul.<sup>26</sup>

One might retort: what about the irreversibility principle? The death of an ensouled animal differs from disassembling a watch because the latter leaves the complicated parts intact, whereas in death, all of the complicated parts, such as organs, completely decay. If we completely destroyed the watch, then it also could not be brought back by bringing its parts back together.

However, if animals contain an immaterial soul that is responsible for some higher order thinking, then the death and decay of a human is in some ways more like the disassembly of a watch. When a watch is disassembled, many of its key components are left intact, thus maintaining their abilities to perform important functional roles in the watch (once they are appropriately reconnected with the other watch parts). The fact that the watch's disassembled parts maintain these abilities seems to explain why the watch can survive being disassembled (a similar point also holds for the tent). When an ensouled animal dies and decays, one of its important parts—namely, the soul—maintains its ability to perform important functional roles of a human. The soul maintains many of the person's thoughts, personality, and desires. It contains memory traces of its body. Indeed, we could imagine a soul that contained a sort of program for reconstituting its body at a future time. Upon activation, this program would actively proceed to gather and combine appropriate material to reconstitute the person's body.<sup>27</sup>

A soul like this would maintain key human functional roles, and if the survival of parts of x that maintain key functional roles explains why x can continue to exist after being reassembled, then it looks like humans with such souls can continue to exist after being reassembled or reconstituted. Furthermore, we can now see that the third objection above from immanent causation does not cause problems for the survival of an ensouled animal. If one's soul survived and maintained many of its abilities and such a soul had a program for reconstituting its body, resulting in an animal, then when such a program was activated, the soul immanently causes the later animal. And since the soul is immanently causally related to its earlier animal, there is an immanent causal relation between an ensouled animal before it dies and after it is reassembled or reconstituted.<sup>28</sup> Note as well that the cannibalism problem does not arise for ensouled animals since such animals do not need to maintain all of their physical parts to survive (like the regenerating plants mentioned above).

<sup>&</sup>lt;sup>26</sup> I remain neutral about how much, if any, material continuity is required for the recomposed human to be identical to the original human. Clearly, however, complete material continuity is not required. We can see this by analogy with the watch and the regenerating plant—a reconstituted watch need not have all the same parts as the original in order to be identical to the original (e.g., we could replace the watchband while keeping the same watch). A similar point holds for regenerating plants.

<sup>&</sup>lt;sup>27</sup> Indeed, if we assume that souls have this sort of program, then the picture of survival described here has affinities with the Pauline seed metaphor for resurrection (see 1 Cor. 15 and Bynum 1995).

<sup>&</sup>lt;sup>28</sup> van Dyke (2007) gives a similar argument for how Aquinas's soul creates an immanent causal connection between the pre-death human and the resurrected human.

The most difficult problem that this account of survival faces is to provide a coherent and plausible account of what is going on in the interim period between the death of the ensouled animal and its reassembly or reconstitution. Initially (as noted earlier), it seems that in this period, the animal does not exist. But if the soul exists and still thinks, then the soul is a person. This soul is, mentally, very similar to and psychologically continuous with the original animal, but is not identical to the original animal. So, it seems like this account must say that after death of the animal A, A ceases to exist for a while and some other person, B, comes into existence. Then, at resurrection, A comes back into existence and, presumably (to avoid overlapping objects), B ceases to exist. This seems quite implausible.

However, it is not clear that this is a problem specifically for this account of survival, for materialist animalist views face a similar problem that has come to be known as the remnant-person problem (Johnston 2007, Parfit 2012, Olson 2015): what should be said about a situation in which a brain has been separated from its body for a time while its body is being repaired? In this situation, the animal, if it exists, is not identical to the brain, but the brain maintains mental states (let us imagine, because it is hooked up to some machine that allows it to do so). So, the brain at least constitutes a person that is not identical to the original animal. What happens when the brain is reinstalled in the repaired body? Does the original animal come back into existence? What happens to the person that was constituted by the mere brain? The problems seem parallel, and so it seems more accurate to say that we have here yet another problem for animalism as a general theory of what we are rather than a problem specifically for this account of survival of ensouled animals. Remember that my goal has been to argue that ensouled animalism has certain advantages-including that it is able to explain how animals can survive death-without producing any additional problems beyond those already possessed by its commitment to animalism and to the claim that we have souls. Since the present problem arises for animalism more generally, it does not prevent me from achieving my goal.

Nevertheless, the question remains: how should we think of ensouled animals in the interim state? Even if I do not need to answer this question to achieve my goal in this paper, ensouled animalism would be more plausible if we had an answer. One possible, and, I think, plausible answer is this: an animal can survive temporarily while having only immaterial parts. Perhaps as long as the soul survives, maintains many of its functional roles, and possesses an ability to reconstitute the animal's body, then it rightly can be said that the animal survives while composed only of an immaterial soul. Some support for this view may come from the analogy with regenerating plants. Such a plant that is cut down loses many of its parts, but maintains many of its key functional abilities and thus is rightly said to survive before it has fully regenerated. An animal that is cut down to its soul is like a plant that, despite being severely cut back, can still regenerate. Further support comes from a plausible argument that the animal's life continues in the interim state. Given our earlier arguments, a soul was part of the animal before it died. Since the soul carries out key functional roles of the animal, the activities of the soul must then have been caught up in the life of the animal. Furthermore, if—during the interim state—the soul maintains mental activity and also has the capacity to reconstitute a body, then the activity of the soul seems to maintain the self-regulating and self-organizing capacity of a life.<sup>29</sup> The soul's activities and capacities can continue without interruption (despite some serious trauma)

<sup>&</sup>lt;sup>29</sup> See van Inwagen (1990: 87) and Olson (2007: 28) for descriptions of this capacity of animal life.

all through the death of the animal's body. It seems plausible that if the soul's activity constitutes a core functional role of an animal, its activity constitutes a key part of the animal's life and if that activity continues uninterrupted—especially if it also has the capacity to remake the animal's body—then the animal's life continues (even if its life is impaired by lacking a body). And, an animal persists if and only if its life continues (van Inwagen 1990: 145ff, Olson 2007: 29).<sup>30</sup>

Admittedly, such a view about the interim state<sup>31</sup> would conflict with the intuition mentioned above in the 'Objections to Ensouled Animalism' section that animals must have material parts and with van Inwagen and Olson's claim that animal lives are biological events involving biological activity.<sup>32</sup> But, maybe, this is at most a minor problem since, on this view, something very close to that intuition is true: fully functioning animals must have material parts and full, unimpaired animal lives must involve biological activity. In addition, maybe most views are going to have to violate intuition in some way to avoid the remnant-person problem; Olson (2015) has argued that many views about what we are suffer from this problem and that it has no obvious solution.

### Conclusion

Animals are more flexible sorts of things than many animalists have thought. Animals can have immaterial parts. An animal could have an immaterial soul that is responsible for higher order thinking. Furthermore, once we see that animals can have immaterial parts, we can see how animals could survive death without resorting to either body snatching or bodily fissioning.

I have not argued that *we* are ensouled animals (i.e., animals with an immaterial soul), but I have argued that the view that we are ensouled animals has two attractive features. To those who believe in souls, ensouled animalism would explain how various physical predications can be true of us. To those who believe we are animals, ensouled animalism provides an attractive and straightforward account of how animals could survive death. Furthermore, ensouled animalism gets these benefits without producing any difficulties not already separately possessed by animalism and belief in souls. A view with these features seems well worth consideration and development.

Acknowledgements Thanks to Thom Atkinson, Mike Almeida, Mark Murphy, anonymous referees, and an audience at the 2014 Eastern SCP meeting for their helpful advice on this paper. I dedicate this paper to the memory of my grandfather Gary Karenz.

<sup>&</sup>lt;sup>30</sup> Note that I am not assuming a psychological continuity theory of personal identity. I assume rather that continuity of life is sufficient for identity across time of animals and I argue that when a soul of an ensouled animal survives death and maintains a certain set of properties, then the animal's life continues.

<sup>&</sup>lt;sup>31</sup> Eberl (Consistent hylomorphism: answering challenges to survivalism, presented at the Interim State Writing Workship, McCall, ID, 2015, forthcoming) defends a very similar view about the interim state, although his view is a version of hylomorphism. Toner (2011) critiques such a hylomorphic view.

<sup>&</sup>lt;sup>32</sup> Assuming the 'are' expresses identity, which I think they clearly intend. See van Inwagen (1990): 83–90 and Olson 2007: 28–9.

## References

- Baker, L. R. (2007). Persons and the metaphysics of the resurrection. Religious Studies, 43(3), 333-348.
- Blatti, Stephen (2014). Animalism, The Stanford Encyclopedia of Philosophy (summer edition), Edward N. Zalta (ed.), URL <a href="http://plato.stanford.edu/archives/sum2014/entries/animalism/">http://plato.stanford.edu/archives/sum2014/entries/animalism/</a>.
- Bynum, C. W. (1995). The resurrection of the body in Western Christianity 200–1336. New York: Columbia University Press.
- Corcoran, K. (2001). Physical persons and postmortem survival without temporal gaps. In K. Corcoran (Ed.), Soul, body, and survival. Ithaca: Cornell University Press.
- Davis, S. T. (2000). Philosophy and life after death: The questions and the options. In B. Davies (Ed.), *Philosophy of religion*. Oxford: Oxford University Press.
- Hasker, W. (1999). The Emergent Self. Ithaca: Cornell University Press.
- Johannson, J. (2007). What is animalism? Ratio (new series), 20(2), 194-205.
- Johnston, M. (2006). Hylomorphism. Journal of Philosophy, 103(12), 652-698.
- Johnston, M. (2007). 'Human beings' revisited: My body is not an animal. Oxford Studies in Metaphysics, 3, 33–74.
- Johnston, M. (2010). Surviving death. Princeton: Princeton University Press.
- Leftow, B. (2001). Souls dipped in dust. In K. Corcoran (Ed.), Soul, body and survival. Ithaca: Cornell University Press.
- Mavrodes, G. (1977). The life everlasting and the bodily criterion of identity. Nous, 11, 27-39.
- McMahan, J. (2002). The ethics of killing. New York: Oxford University Press.
- Merricks, T. (1999). The resurrection of the body and the life everlasting. In M. Murray (Ed.), Reason for the hope within. Eerdmans: Grand Rapids.
- Merricks, T. (2001). How to live forever without saving your soul: physicalism and immortality. In K. Corcoran (Ed.), Soul, body and survival. Ithaca: Cornell University Press.
- Merricks, T. (2009). The resurrection of the body. In T. Flint & M. Rea (Eds.), The Oxford Handbook of Philosophical Theology. Oxford: Oxford University Press.
- Olson, E. (2001). A compound of two substances. In K. Corcoran (Ed.), *Soul, body and survival*. Ithaca: Cornell University Press.
- Olson, E. (2007). What are we? Oxford: Oxford University Press.
- Olson, Eric (2010). Immanent causation and life after death, in G. Gasser (ed.), *Personal Identity and Resurrection*. Farnham: Ashgate.
- Olson, E. (2015). Animalism and the remnant-person problem. In J. Fonseca & J. Goncalves (Eds.), *Philosophical Perspectives on the Self.* Bern: Peter Lang.
- Parfit, D. (2012). We are not human beings. Philosophy, 87, 5-28.
- Plantinga, A. (1974). The nature of necessity. New York: Oxford University Press.
- Price, H. H. (1965). Survival and the idea of 'another world'. In Smythies (Ed.), *Brain and Mind*. New York: Humanities Press.
- Robinson, H. (1989). A dualist account of embodiment. In Smythies & Beloff (Eds.), The Case for Dualism. Charlottesville: University of Virginia Press.
- Stump, E. (2003). Aquinas. New York: Routledge.
- Swinburne, R. (1997). The evolution of the soul, rev. ed. Oxford: Oxford University Press.
- Swinburne, R. (2013). Mind, brain, and free will. Oxford: Oxford University Press.
- Taliaferro, C. (1994). Consciousness and the mind of God. Cambridge: Cambridge University Press.
- Toner, P. (2011). Hylemorphic animalism. Philosophical Studies, 155, 65-81.
- van Dyke, C. (2007). Human identity, human causal relations, and the principle of non-repeatability: Thomas Aquinas on the bodily resurrection. *Religious Studies*, 43, 373–394.
- van Inwagen, P. (1978). The possibility of resurrection. International Journal for Philosophy of Religion, 9, 114–121.
- van Inwagen, P. (1990). Material beings. Ithaca: Cornell University Press.
- Zimmerman, D. (1999). The compatibility of materialism and survival: the "falling elevator" model. Faith and Philosophy, 16, 194–212.
- Zimmerman, D. (1997). Immanent causation. Philosophical Perspectives, 11, 433-471.
- Zimmerman, D. (2010). Bodily resurrection: the falling elevator model revisited. In G. Gasser (ed.), Personal Identity and Resurrection. Farnham: Ashgate.