


ORIGINAL ARTICLE

## The modal argument and Bailey's contingent physicalism: a rejoinder

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### Abstract

Philosophy is experiencing a resurgence of property (PD) and generic substance dualism (SD). One important argument for SD that has played a role in this resurgence is some version of a modal argument. Until recently, premise (3) of the argument (Possibly, I exist, and no wholly physical objects exist.) has garnered most of the attention by critics. However, more recently, the focus has also been on (2) (Wholly physical objects are essentially, wholly, and intrinsically physical and wholly spiritual substances are essentially, wholly, and intrinsically immaterial.). Andrew Bailey has provided one of the best criticisms of (2) on offer. In what follows, I present and clarify one form of the argument and defend premise (2) by responding to important defeaters proffered by Andrew Bailey and his contingent physicalism.

**Keywords:** modal argument; contingent physicalism; Andrew Bailey; *via negativa*; categories; mereological aggregates

Philosophy is experiencing a resurgence of property and generic substance dualism.<sup>1</sup> Generic substance dualism (hereafter, substance dualism) is the view according to which (i) there is a substantial soul (self, ego, substantial form) that is wholly immaterial; (ii) the soul is not identical to its physical body; and (iii) the soul is that which grounds personal identity for human persons. This view is meant to include Haskerian souls, historic and classical hylomorphism in which the substantial soul is identical to the soul, and Cartesian dualism. It also includes those versions of substance dualism according to which the human person is a composite of body and soul as long as those versions conform to the characterization above. Thus, Richard Swinburne's Cartesian substance dualism would be included in generic substance dualism. More on this later.

One important argument for substance dualism that has played a role in this resurgence is some version or other of a modal argument (Moreland (2014)). Until recently, premise (3) of the argument ('Possibly, I exist, and no wholly physical objects exist') has garnered most of the attention by critics. However, more recently, the focus has been on (2) ('Wholly physical objects are essentially, wholly, and intrinsically physical and wholly spiritual substances are essentially, wholly, and intrinsically immaterial') In what follows, I present and clarify one form of the argument and defend premise (2) by responding to important defeaters proffered by Andrew Bailey.

## A modal argument for generic substance dualism

### Statement of the argument

The modal argument has its roots in Descartes (*Meditations* 2 and 6, especially in 6). Since then, several different modal arguments have been formulated, but I shall focus on one specific form. I am not implying that other forms are not appropriate; it's just not my purpose to survey various versions and instead, by presenting my own form of the argument, I can focus on a specific premise that has recently come under attack. Here is the argument:

- (1) The Indiscernibility of Identicals &  $(x = y) \rightarrow (x = y)$ .
- (2) Wholly physical objects are essentially, wholly, and intrinsically physical and wholly spiritual substances are essentially, wholly, and intrinsically immaterial.
- (3) Possibly, I exist, and no wholly physical objects exist.
- (4) My physical body is a wholly physical object.
- (5) Therefore, possibly, I exist without my physical body existing.
- (6) Therefore, it is not the case that I am essentially, wholly, and intrinsically my body or any wholly physical object.
- (7) I am essentially, wholly, and intrinsically either a wholly physical object or wholly spiritual substance.
- (8) Therefore, I am essentially, wholly, and intrinsically a wholly spiritual substance.

### Clarification of the argument

Certain clarifications are in order. In (1), 'x' and 'y' take Kripkean Rigid Designators or Swinburnian Informative Rigid Designators as substitutions. Thus, (1) expresses *de re* and not *de dicto* reference and modality. I will take up a defence of the essentialist part of (2) below, but here I want to clarify 'intrinsically'. This is meant to capture the idea that what makes a wholly physical object physical are the physical natures of the constituents – e.g. properties, property-instances, relations, relation-instances, parts, stuff, or events/processes – that 'make up' a wholly physical object, that are inherent in its being. With proper substitution, the same goes for a wholly spiritual substance. Finally, I take 'is a constituent of' to be unanalysable and primitive.

In (3), (4) and following, 'I', 'wholly physical object', and 'my physical body' are *de re* rigid designators.<sup>2</sup> I don't like using 'my physical body', because 'my' is an indexical possessive adjective, and I agree with those who take the nominative pronoun 'I' and the possessive adjective 'my' to be (pure) indexicals. *Secunda facie*, they seem to be unique kinds of rigid designators: singular referring terms that refer to *sui generis*, irreducible non-physical (in these two cases, mental) entities.<sup>3</sup> Thus, designating something as 'my body' is already to adopt a mental ontology as an 'aspect' of the referent. But I set this issue aside, and for convenience, and in conformity with standard statements of modal arguments for substance dualism, I shall retain 'my physical body'. Finally, along with many philosophers, I take terms such as 'I' and 'my' to be implements of direct reference and, when used to express beliefs, for example that I am tired, they express *de re* (sometimes called *de se*) beliefs.

Regarding (7), if we limit our domain of discourse to strictly physicalist views and various substance-dualist views of the subject of consciousness, the I, and of the physical body, then (7) is an exhaustive dilemma. If we remove such a limitation, (7) still captures the live options for most who support or reject the modal argument(s), so I set aside other options, e.g. contemporary idealism and panpsychism, for convenience.

It could be argued that (7) is more controversial than I am claiming. It has been suggested to me in particular that Richard Swinburne would be ruled out by (7) since he

thinks we are composites of body and soul. But this claim misrepresents Swinburne, who explicitly states: ‘Each human being *on earth* consists of two parts, a body and a soul – the soul being the essential part, and the body a contingent part.’ (italics mine).<sup>4</sup> His is a version of complex dualism that is consistent with (7). Note his qualification *on earth*. Though he does not wish to comment on it here, Swinburne is retaining the metaphysical possibility of disembodied existence after death, and that is the function of ‘on earth’.

Still, Swinburne does affirm that body and soul are ‘parts’ of an embodied person and this may imply he would not accept (7) as I state it. I have two responses to this problem. First, Descartes sometimes talked as though the body is an accidental part of the person, but he also said that the body was not a part of the person.<sup>5</sup> In the latter, the body is depicted as a different object from the person (the soul) to which the person has a direct causal relation. Many, if not most, contemporary Cartesians take this view, and it would be open to Swinburne to retain his Cartesian dualism and accept this option. This would be a small adjustment to his anthropology.

But suppose the critic is correct and Swinburne would reject (7). I don’t think this would be very significant to my project. By simply adjusting premises (2) and (7) such that ‘wholly’ is removed in connection to ‘spiritual substance(s)’, we get ‘spiritual substances are essentially and intrinsically immaterial’ in (2) and ‘I am essentially and intrinsically either a wholly physical object or a spiritual substance’ in (7) and in the conclusion (‘I am essentially and intrinsically a spiritual substance’). I think this new formulation of the modal argument is relevantly similar to mine, and it could easily be employed in defeating Bailey’s contingent physicalism.

Admittedly, (7) would not be acceptable to complex advocates who hold that a human person is essentially identical to a body-soul complex. But such advocates would eschew the modal argument anyway, so I am not concerned that they would reject (7).

What about classic, historical hylomorphism? A major contemporary advocate of this view is Ed Feser (2018, 88–101).<sup>6</sup> On this view, a human being consists of a subsistent soul (aka substantial form) and prime matter. Moreover, in one of two ways, the soul grounds the endurance of the human after death:

*Corruptionism*: At death, the human being ceases to exist, but the soul continues and adequately grounds personal identity.

*Survivalism*: A human being literally survives death in a diminished state and is constituted by one entity—the soul.

I am not concerned to take sides on this debate. My purpose here is to show that classic, historical hylomorphism is not ruled out by (7).

I conclude that (7) is acceptable for my purposes. So, let us grant (7) and our limited focus for the sake of argument.

I am assuming (1), (4) and (7). (5) follows from (3) and (4), (6) follows from (2) and (5), and (8) follows from (6) and (7). (2) and (3) are the main premises subject to attack. In what follows, I defend (2) against defeaters raised by Andrew Bailey. Before we proceed, there is an important distinction that will be relevant to portions of Bailey’s view and my responses:

*Separable Part*:  $x$  is a separable part of some whole  $W$ , iff, (i)  $x$  is a particular, (ii)  $x$  is a part of  $W$ , and (iii) it is possible for  $x$  to exist without being a part of  $W$ .

*Inseparable Part*:  $x$  is an inseparable part of some whole  $W$ , iff, (i)  $x$  is a particular, (ii)  $x$  is a part of  $W$ , and (iii) it is not possible for  $x$  to exist without being a part of  $W$ .

With this in mind, let us examine Bailey’s position.

## Bailey's contingent physicalism and premise (2)

### Four features of Bailey's position against (2)

Andrew Bailey embraces contingent physicalism, and he offers a very interesting, unique approach to defending it.<sup>7</sup> Here are four main features of Bailey's view.

- (1) Bailey on the Categories. In developing his set of ontological categories, Bailey locates himself squarely within 'the grand tradition of ontological categorizing' (Bailey (2021), 20) and is 'doing old-fashioned categorial ontologizing' (*ibid.*, 21). Accordingly, he seeks a realist set of categories that specifies 'at the highest level of abstraction how reality divides' (*ibid.*, 5). The categories he employs are these: Level I: Thing; Level II: Abstract Property and Concrete Object; Level III: branching out of Concrete Object are Material Object and Immaterial Object; Level IV: branching out of Material Object are Thinking Material Object and Unthinking Material Object; branching out of Immaterial Object are Thinking Immaterial Object and Unthinking Immaterial Object. Finally, a curious feature of Bailey's categories is that in at least some cases, members belong to their category contingently such that they could change categories. Specifically, items in Thinking Material Object in one world belong to Thinking Immaterial Object in another world.
- (2) Bailey's characterization of Wholly Material and Wholly Immaterial Objects. While acknowledging that he lacks 'rigorous definitions of the key ideas here – mentality, material object, human person, spirit', he offers remarks about them that he takes to be adequate for his purposes. For Bailey,  $x$  is a wholly material object *iff* at some level or other  $x$  is composed of items (separable parts?) with narrow physical properties (those figuring into fundamental physics) none of which thinks (*ibid.*, 10–11). As far as I can tell, Bailey entirely characterizes a spirit by way of the *via negativa*, namely, as an incorporeal or immaterial object.

However, in one place he says that spirits are such that at every level they have parts (or are themselves things) that either think or are not characterized by fundamental physics. Since it seems that the only kind of part with which Bailey is familiar is a separable part, by granting the possibility that a spirit has parts, indeed, thinking parts, his view is at odds with most dualists, including me, about the simplicity of a spirit.<sup>8</sup> In any case, I don't know how important this depiction is because in virtually all other cases, he uses 'immaterial' or 'incorporeal' thing. In fact, on the same page as the depiction just mentioned, Bailey returns to his usual pattern and tells the reader that from that point on, he will use 'wholly immaterial' or 'wholly incorporeal' thing for what it is to be a spirit.

- (3) Bailey's Thought Experiment in defence of Contingent Physicalism: According to Bailey, our nature is highly contingent (9) and, more specifically, in the actual world we are wholly material objects, yet there is a possible world in which we are wholly immaterial objects. He invites us to consider the following thought experiment (p. 14): Imagine that Bradley, a living organism, has at some very low level a multitude of tiny physical parts we'll call atoms. Through a complex network of integrated and united causal dispositions, the atoms compose Bradley. In general, a sufficient condition for some atom  $x$  to be a part of a living organism  $O$  is for  $x$  to play a functional role in  $O$ 's complex network of causal relations.

One day, God annihilates one of Bradley's atoms and replaces it with an angelic surrogate that is functionally equivalent with the replaced atom and, thus, exhibits the integration and unity to count as a part of Bradley. God continually reiterates this process, atom by atom, angel by angel, until after a few months, the transformation is complete. Since angels are wholly immaterial objects, Bradley is now, at some low level, entirely composed of immaterial parts, and thus, Bradley is a wholly immaterial object. Throughout the process, Bradley sustains absolute Leibnizian identity.

- (4) Bailey's Assumptions: Bailey lays out four assumptions on which his argument rests (Bailey (2021), 14). Three of them are relevant to our discussion.
- (i) Causal interaction makes for parthood. If something assumes an atom's role in a complex network of causal relations, it becomes part of the greater whole just as the atom was.
  - (ii) If something is, at some very low level, composed entirely of wholly immaterial thinking beings, then it is itself wholly immaterial.
  - (iii) Something can survive the replacement of one part with a surrogate that exactly duplicates that part's causal role.

### *Three problems with Bailey's position*

What should we make of Bailey's argument? It is surely a fun, creative, and interesting bit of philosophy. But in my view, there are several problems with it, and, in the end, I judge it a failure to establish the truth or plausibility of contingent physicalism. Here are three general problems with Bailey's position.

First, Bailey's depiction of living organisms, especially human persons, is question-begging and, most likely, false in the actual world. Bailey appears to be presenting a view of living organisms as they are in the actual world. I say this for two reasons. First, he claims that his categories, especially those with human persons as items, present truths about us (Bailey (2021), 5), specifically, contingent truths that are actually true of us even though they could have been false (6). And by pointing to a node, you say 'that's our place in this world' (*ibid.*, 6).

In this way, Bailey begs the question against many substance dualists and staunch hylomorphists by assuming material composition without arguing for it.<sup>9</sup> Bailey's thought experiment is intended to show that a wholly material being could become a wholly immaterial being. Since he is a physicalist – specifically, an animalist of some sort – he holds that we are actually wholly material objects.<sup>10</sup> In his thought experiment, he is not merely assuming that if we were wholly material objects, this assumption is compatible with the metaphysical possibility that we are wholly immaterial objects. Perhaps this weaker assumption is all Bailey needs to show, but it is not what he is assuming. Thus, his actual argument begs the question as I have claimed.

And while his thought experiment is diachronic in that a wholly material object *becomes* a wholly immaterial object, given its speculative nature, I think the real point of the experiment, especially as a defeater of a modal argument for substance dualism, is that just because there is a possible world in which we are wholly immaterial, it does not follow that in the actual world we are not wholly material.

If I am right about this, then Bailey begs the question against many dualists like me in his depiction of the soul or of biological organisms. Many (especially Cartesian) substance dualists do not grant that we are identical to living organisms. Rather, we are simple souls. Moreover, staunch hylomorphic dualists do not think that living organisms are composed of separable parts; rather, they are substances that have no such parts (though

they have inseparable parts) and, thus, a compositional, part-whole approach to organisms is wrong.

As noted above, Bailey's depiction of living organisms is an expression of some version of animalism. Bailey does not so much as mention in a footnote that there are problems with his depiction and alternatives to it. Nor does he interact with the explosion of literature in recent years defending a Neo-Aristotelian view of living organisms.<sup>11</sup> Thus, his appropriation of that depiction is question-begging and far too quick. And if the revival of Aristotelian biology is on the right track, Bailey's view of organisms is false in the actual world. We need an argument here, especially since his thought experiment and other relevant claims are presented as capturing the truth in the actual world.<sup>12</sup>

Second, Bailey's living organisms are mereological aggregates (MAs). Accordingly, they inherit a number of successful defeaters for such aggregates and for his appropriation of them in building his case. A MA is a weakly unified collection of separable parts that stand in external relation-instances to other such parts. They and their parts exhibit efficient causality and play no functional role (nor exemplify irreducible teleology) which is intrinsic to the wholes or their parts, and are depicted, at least in the actual world, as exhibiting part priority, usually, micro-physical part priority. By 'weakly unified' I mean (i) synchronically, the parts exist and have their identity independently from the whole of which they are parts and, thus, the whole is merely a collection of parts standing in certain external (e.g. causal) relation-instances. On a sliding scale from mere heaps (e.g. a heap of sand) to classic Aristotelian substances, mereological aggregates fall towards the heap end of the scale; (ii) diachronically, arguably, MAs are subject to mereological essentialism constraints regarding endurance and perdurance.<sup>13</sup>

Many philosophers would object to the claim that mereological essentialism applies to MAs. I agree that mereological essentialism does not apply to living organisms, but that's because I do not regard organisms as MAs. To see why MAs are subject to mereological essentialism, let us assume that First-Bradley is an MA and do an ontological inventory of his constituents. First, he is composed of a specific aggregate of separable parts. Second, he is composed, not of a relational structure which is a type; rather, he is composed of a relational-structure token consisting of an aggregate whose members are the external relation-instances (e.g. efficient-causal relation-instances) between or among the separable parts.

However, both aggregates are in constant flux diachronically speaking. Some would respond that if part replacement is slow and gradual, identity obtains. But how could two aggregates be identical if they have different members? The time factor seems to be ontologically irrelevant. Perhaps this response is thinking about assimilation time, roughly, the time it takes for an organism to assimilate new parts. If replacement takes place within the assimilation time, then identity is retained. But this response fails for the following reason. MAs do not grow by assimilation; they (allegedly) increase by addition and as the paradox of increase shows, this is a problem for purported MAs irrespective of the rate of speed of addition. There must be something more to an organism for it to engage in assimilation. And Bailey's depiction of Bradley does not provide that more.

But Bailey may have a way out by introducing his version of animalism at this point. So far as I can tell, Bailey has never clarified precisely what are the necessary and sufficient conditions for a differently composed organism at different times to be a genuine continuant. In the literature of animalism, there are two prominent versions of these conditions as expressions of biological animalism.<sup>14</sup>

Peter van Inwagen states the biological persistence of an organism in the form of a principle he calls *Life*. Let the  $x$ s and the  $y$ s be all and only the atomic simples that constitute an organism at times  $t_1$  and  $t_2$ , respectively.

*LIFE*: if the activities of  $x_s$  at  $t_1$  constitutes a life, and the activities of  $y_s$  at  $t_2$  constitutes a life, then the organism that the  $x_s$  compose at  $t_1$  is the organism that the  $y_s$  compose at  $t_2$  if and only if the life constituted by the activity of the  $x_s$  at  $t_1$ , is the life constituted by the activity of the  $y_s$  at  $t_2$ . (van Inwagen (1990), 145)

Though there are slight differences between van Inwagen and Eric Olson, they are not important in our context. According to Olson:

'Necessarily, if  $x$  is a human person at  $t$  and  $y$  exists at  $t^*$ ,  $x = y$  iff and because  $x$ 's biological life at  $t = y$ 's biological life at  $t^*$ .'<sup>15</sup> (Olson (1997a), 52)

Since Bailey studied under and has been heavily influenced by van Inwagen, it is likely that he adopts van Inwagen's way of putting things. But since Olson's view is relevantly similar, it would also serve as a candidate for Bailey.

Will an appeal to (biological) life provide a way out for organisms to avoid being subjected to mereological essentialism? I think not. Notice that this appeal to life is supposed to provide an adequate ground for organisms to endure while undergoing part replacement. The problem is that life is not robust enough to serve as such a ground. More precisely, life at a particular time is the sum of an organism's living activities at that time. But for two reasons, life is just as much a series of MAs in constant flux as are the parts and relation-instances. An organism's living activities are constantly changing, for example in growth and maturing, from sleep to rapid moving, when a part of the organism's body is lost. Moreover, even if we granted that an organism's living activities were in complete stasis over time, given part replacement, the type of living activities might be constant under our assumption, but the token activities would come and go as the parts whose activities they are come and go. So 'life' is subject to the same difficulties that render the parts and relation-instances mereological aggregates.

One final point. While I agree that composition is not identity, it will not do to claim that the composite whole just is that which sustains identity through part replacement. As I have tried to show above, with MAs the existence of the composite is ontologically dependent on its constituents (parts, relation-instances, living activities). Different constituents, different composites. If someone disagrees with this direction of dependence for MAs, we need an account of exactly how it could be that an MA has the appropriate autonomy and independence with respect to its constituents to be an enduring continuant. I am not acquainted with any successful account that provides this while retaining the object's status as an MA.

I take Bailey's characterization of living organisms to render them MAs, though I do not believe that was his intent. He would most likely reject my view on this. However, I claim that they are MAs because (i) Bradley is his paradigm case, and it is clear that from First-Bradley (who is wholly material) to Final-Bradley (who is wholly immaterial) the collection of parts throughout the transformation involve separable ones; (ii) the causal relations must be external if the relata (the separable parts) retain their identity whether or not they are in the whole or standing in these relations; (iii) Bailey claims that the parts play a functional role, but his metaphysics of living organisms disallows them to do so literally. MAs are like artefacts: they (or their parts) may be described with functional concepts, but these are ways of *taking* the relevant entities, of describing them *as if* they exhibited functionality. The employment of such concepts does not literally ascribe intrinsic functional roles or teleology to the MAs or their parts. Remember, the relevant 'complex network of causal relations' is constituted by and only by efficient causal relations. No part actually plays a role in such a network.

If this is correct, then Bailey's employment of his criterion for parthood ('Causal interaction makes for parthood. If something assumes an atom's role in a complex network of (efficient) causal relations, it becomes part of the greater whole just as the atom was') is not possible since there are no functional roles the parts literally play.

And even if somehow Bradley helps himself to literal, intrinsic functional roles, such as intrinsic teleology, not only would this appear to be an odd *ad hoc* move, it would also render it difficult to claim that living organisms qua MAs (or animals) are wholly material objects. I know of no one who treats intrinsic teleology as physical; consequently, physicalists avoid attributing such to wholly material objects, preferring instead to give a physically acceptable reduction (e.g. aetiological) of teleology. Moreover, the paradigm cases of functional roles are cultural artefacts (being a quarterback, a dollar bill, etc.) that are constituted as such by the intention(s) of the artefact's inventor or by the culture in which the artefact is located and identified. Thus, it is hard to see how a functional role is physical.

If one responded by depicting a functional role in terms of intrinsic teleology, then such teleology, and the metaphysical commitments within which teleology makes the most sense (e.g. substantial forms, inseparable parts) imply that living organisms are not, in fact, wholly material objects.

There is a possible response available to Bailey:<sup>16</sup> one could deny that Bailey's thought experiment requires that the parts in question exhibit any intrinsic function or teleology. Bailey need only say that if one of Bradley's parts is replaced by a different object which enters into the same causal relations entered into by the part being replaced, then the new object is now among Bradley's parts. Intrinsic function or teleology need not play a role in the thought experiment. The 'causal role' of some object in this case need not refer to function or teleology but can simply refer to the place of a part in a web of causal relations.

The problem here is that Bailey is vague in what he means by 'role'. But this rejoinder seems to place Bailey on the horns of a dilemma. Either he takes 'role' to involve intrinsic functionality or he would accept the reduction simply to a new part entering into mere efficient-causal relations that are the same as the replaced part. In my view, the former is the most natural way to understand Bailey and this interpretation prevents 'role' from being an unneeded place holder. If this understanding is correct, then my arguments provide defeaters for his view.

If he intends 'role' in the reductive sense, he should have been clear about that. Still, this alternative is problematic. It faces the objections mentioned above in providing a plausible account of Bailey that avoids mereological essentialism. On this view, Bradley's parts and external relation-instances, including their activities, are MAs in constant flux. This problem is masked by the objector's claim that the new part 'enters into the same causal relations' as the replaced part. But this is not an accurate analysis of the situation. To succeed, this phrase must employ the same *type* of causal relations. But sameness of type does not individuate the particular causal relations that constitute Bradley, especially at different times. For that, one must employ the same *token* causal relations, but as we have seen, this is not sufficient to warrant the endurance of Bradley since all of the token causal relations that relate non-identical relata are in flux throughout part replacement.

Third, several aspects of Bailey's thought experiment render it a failure. I offer four such aspects. To begin with, Bradley is a MA and, as such, is subject to mereological constraints. Thus, from the first part replacement to the wholly immaterial Final-Bradley, we have a succession of different wholes which are not identical to the wholly material First-Bradley. So, the thought experiment is otiose.

Second, Bailey's thought experiment makes explicit why a wholly physical object in the actual world and a wholly spiritual substance in another possible world simply cannot be



identical. Fundamentally, it seems unintelligible how complex objects  $x$  and  $y$  could be identical (in this or across worlds) if they share no proper constituents. How could the angel Gabriel in one world be a frog's body in another when they share no proper constituents? To clarify, a complex object is one with two or more proper constituents. A proper constituent of some object  $x$  is an entity that would be included in an ontological assay/inventory of all and only those entities that are 'within/enter into the being of' or that 'make up'  $x$ . I take 'Proper constituent' to be primitive; it includes parts, properties/property-instances, intrinsic relations/relation-instances, structure/structure-instances, and events/processes.

For Bailey, one's body in the actual world is a wholly physical object and in another world a wholly immaterial object. There is nothing shared between a wholly physical object and a wholly spiritual substance or wholly immaterial object that could ground or account for their identity.

Look at it another way. If a wholly physical object is wholly physical contingently, then physicality is accidental to it (e.g. to one's body). But if a proper constituent (or structural arrangement of such) is accidental to an entity  $e$ , then  $e$  could exist without it. Drawing insights from other relevant cases, I conclude: the object *has* the accidental proper constituent(s) in the actual world and, thus, in another world where that proper constituent is lacking, the object exists yet lacks the accidental proper constituent. Thus, the object is what *has* and is *not identical to* that constituent. The same would be true of an accidental proper-constituent cluster. So, the object must be something 'over and above' that cluster, it has different clusters in different worlds, and it retains identity in both worlds. The object's identity is independent of its contingent features since *it* can exist without those features.

Applied to one's body, if it is to retain identity in different worlds (and not merely involve counterparts), then there is more to one's body than physicality or immateriality. It cannot be a wholly physical object or wholly spiritual substance. One's body *has* physicality and then immateriality accidentally. But one's body must have its essential identity located in something additional to these accidental aspects in order to be the same entity in each of the relevant possible worlds to make sense of what remains the same and has one and now the other accidental proper-constituent clusters.

In my view, granting that composition is not identity, the best objection to the argument of the last three paragraphs is one according to which it is simply the composite itself, e.g. the body as a wholly physical object, that grounds identity through the envisioned part replacement. There is nothing mysterious about this and, accordingly, there is no need to search for some additional ground for identity here.

I responded to this kind of objection above, but I want to proffer additional considerations here. Limiting our focus to MAs and their inseparable parts, the dependence/grounding of the former in the latter is of two sorts, essentially<sub>1</sub> grounded and rigid existentially grounded (Inman (2019), 62–71):

*Essentially<sub>1</sub> Grounded:* (IG)  $x$  is essentially<sub>1</sub> grounded in  $y =_{\text{def.}}$  there is a two-place predicate 'F' such that it is part of the identity of  $x$  that  $x$  is related by F to  $y$ .

*Rigid Existentially Grounded:* (RG)  $x$  is rigidly grounded in  $y =_{\text{def.}}$  ( $\exists x \rightarrow \exists y$ ).

IG goes beyond existence grounding by specifying what is necessary for  $x$  to exist as the kind of thing it is. RG states that the existence of  $x$  depends on a specific entity ( $y$ ).

Applied to MAs,  $x$  is the composite (e.g. the wholly physical body),  $y$  is all and only  $x$ 's separable parts, and F is a predicate that expresses the part-whole relation. According to IG, if the  $y$ s add or lose a separable part, then  $x$  no longer stands in the part-whole relation to the  $y$ s. Call the new collection of all and only  $x$ s separable parts the  $z$ s. IG shows us why

$x$  loses its identity when the  $y$ s are replaced with the  $z$ s. Consequently, the composite cannot ground identity through part replacement since in such replacement the composite itself does not endure.

While I am setting aside considerations of external relation types and instances, it is worth briefly mentioning that with the replacement of the  $y$ s with the  $z$ s,  $x$  actually stands in a different instance of the part-whole relation to the  $z$ s than it did to the  $y$ s. This is another reason why the composite does not endure and cannot ground the sought-after entity that resolves the difficulty I am raising.

RG straightforwardly entails the same conclusion. If it is necessarily the case that the existence of  $x$  entails the existence of the  $y$ s, then when the  $y$ s are replaced with the  $z$ s,  $x$  no longer exists. Remember, a MA is a complex whole that is existentially dependent on its separable parts. Those parts are independent of the MA of which they are parts for their identity and existence. For example, the parts of a car are independent in this sense. When they are assembled such that they stand in the relevantly ordered set of relation-instances, the car exists as a complex entity dependent on those parts as IG and RG specify.

It would be difficult to reject IG and RG as expressions of the way a MA relates to its separable parts. If one does reject these principles, then we are owed a better analysis of MAs. As things stand, in light of IG and RG, it seems that the mere assertion that the complex whole just is the enduring continuant through part replacement is not adequate.

Moreover, since Bradley retains identity through a process of progressively changing from a wholly physical object to a wholly immaterial object, it is relevant to recall a point about accidental change that traces back to Aristotle. An analogy with Aristotelian accidental change is appropriate and illuminating. Consider a dog changing from being black to grey. For this to be change and not successive replacement involving ceasing-to-be and coming-to-be, there must be some entity that is self-identical throughout the change and that had blackness and now has greyness. That entity is 'over and above' the colour-properties and grounds the identity of the dog through that change. But in Bailey's thought experiment, one looks in vain for any metaphysical ground for identity.

Keep in mind that this is just an analogy to show that there must be something that remains identical through genuine change besides the constituents that change. In the analogy, that something is obviously the dog itself. My own view of living organisms is a version of classic, historical, hylomorphism that entails that they are not composed of separable parts, so it is not possible for a dog to undergo a change of them.<sup>17</sup> But my view also entails that a dog can retain diachronic identity through a change of accidental constituents, such as accidental properties, but my view of these matters is not relevant to my critique of Bailey.

It won't do for someone to respond that identity is primitive, and no such ground is needed. But surely, when it comes to complex objects, we are owed at least some sort of account of how such an identity could be brute. Not all brute primitives are created equal. I can see how a constituentless bare particular's self-identity could be brute, but complex objects are another matter altogether.

The following objection has been raised against this argument: even supposing that something must ground the identity of the composite object, why must this involve some parts which are essential to that object? For example, the identity may be grounded in *these* parts at one time, and some different parts at some other time. Alternatively, the identity may be grounded in the existence of the composite.

I have already shown why a composite construed as a MA cannot serve as a ground for identity. Given (IG) and (RG), along with the parts being separable ones, MAs are derived, dependent entities whose parts ground the existence and identity of the MA. Dependency runs from bottom to top, not the other way around.

But what about the idea that an MA's identity could be grounded in these parts at one time and other parts at a different time? To see why this won't work, it is important to recognize the nature and function of ontological individuation in this context. While there is more to an object than its individuator – (e.g. a haecceity, bare particular, or some sort of primitive thisness) the individuator is a necessary constituent for the identity of the whole it individuates. An individuator does not merely ground an object's particularity. It also ground its specific individuation as *this* and not *that* particular. Consider two humans, Ashley and Allison, who share all of their pure properties in common. It is the particular individuator of each that grounds their specific individuality. This is why Aristotle called a substance a *this such*. Its suchness is the substance's essence. Its thisness is what grounds the substance as that very substance and not another with the same essence.

In general, different individuator, different object. Thus, the individuator is a necessary constituent of a particular object. If we grant that the separable parts are what individuate a MA, then if the parts change, you have a different object.

In sum, it just seems false that a wholly material object in this world could be identical to a wholly immaterial object in some possible world because the two objects have nothing whatsoever in common to ground or make sense of their identity. Rather than the two objects being exhaustively (wholly) constituted by their material or immaterial constituents, if 'they' retain identity, it seems that their physicality and materiality are possessed by something contingently, and that something is what remains the same. It *has* physicality in one world and immateriality in another. In this case, the supposed identity between the objects cannot be primitive.

As noted above, Bailey's thought experiment makes explicit why this is a problem. Remember, First-Bradley is a wholly material object. How so? Well, given Bailey's compositional approach to analysing Bradley, all of his separable parts are physical as are all the external causal relation-instances exemplified between and among them (and his living activities). We may add physical properties that characterize these parts and relations, and, perhaps, the whole they compose, and physical (efficiently causal) activities of the parts, as long as everything employed in the analysis is physical. Besides these constituents, there doesn't seem to be anything else to Bradley. Now think of Final-Bradley, a wholly immaterial object. Every constituent of Final-Bradley must be immaterial, such as his angelic parts, and the exertion of active power to push and pull other angels.<sup>18</sup>

Now ask: what possible entity do First and Last-Bradley have in common that either grounds their identity or is the item that just is identical in the two stages? There is no answer to this question and, thus, no way of providing a metaphysical account of their identity. That identity is a mere assertion and, as noted, cannot be asserted as primitive with propriety.

If I am correct about all this, then while genuine Aristotelian substances which have (i) inseparable parts/modes (but are not composed of separable parts) are the sorts of things that can literally be constituted by intrinsic teleology and have (ii) inseparable parts essentially characterized by their intrinsic functional roles in the whole. Bailey's living organisms qua MA are capable of neither. They are like artefacts with *as if* and not real, intrinsic functional roles. This becomes clear when Bradley starts having more and more angelic parts. Note, that when an angel becomes a part of Bradley, it does not undergo substantial change and get its identity as an inseparable part from the teleological role it plays. Indeed, that role is not an intrinsic, constituting essence of the angel. Instead, the angel is *told what to do* and acts accordingly. The angel is not literally a functional entity whose role is part of its essence and identity. Rather, it functions *as if* it played a role.

This is importantly analogous to the way the parts of an artefact 'function' in a whole, for example the parts of a car's engine. The engine's parts engage in mere efficient

causation and do not literally play any functional role. But the car's inventor designed the parts and by doing so, 'told the parts' as it were, to behave via efficient causation in a way that an observer could act *as if* the part played a functional role. Maybe this is so in a loose and popular sense, but not in a strict, philosophical sense.

Third, the thought experiment is inconsistent with widely accepted Maximality Principles. The notion of maximality is an important one, and there seem to be two different, but closely related, maximality principles relevant to assessing Bailey's thought experiment. I cite two physicalists who embrace one or both principles. The first is embraced by Hud Hudson and the second by Bailey himself (Hudson (2001), 121; Bailey (2014), 145–160).

*Individual Maximality (IM):*  $x$  is an individual maximal object just in case, necessarily,  $x$  is an  $F$  and there are no proper parts  $p$  of  $x$  that are  $F$ s.

*Property Maximality (PM):* A property  $P$  is maximal iff necessarily, for any  $x$  that is  $P$ , there is no  $y$  such that  $y$  is a proper part of  $x$  and  $y$  is  $P$ .

IM is Hudson's way of stating the principle, and takes as substitutions for  $x$  human persons, persons, and living human organisms. For example, IM implies that if  $x$  is a person, then  $x$  has no proper parts that are persons. PM is stated precisely as Bailey presents it and his main example of a maximal property is being conscious. *C-Maximality* seems to follow:

*C-Maximality:* Consciousness is maximal iff necessarily, for any  $x$  that is conscious, there is no particular  $y$ , such that  $y$  is a proper part of  $x$ , and  $y$  is conscious.

It should be clear that all the iterated Bradleys after First Bradley violate IM (assuming Bradley is a person throughout the transformation process and that angels are persons, then the iterated Bradleys are persons (or the iterated Bradley is a person) and have persons as proper parts). The thought experiment also violates Bailey's own statement of PM which, remember, is a necessary truth. Assuming that Bradley is conscious at every stage of the process, in all stages besides First-Bradley, he is conscious and has proper parts (angels) that are also conscious. By violating IM, PM, and *C-Maximality* entailed by it, it would seem that Bailey's thought experiment is in deep trouble, even by his own ontological commitments.

Not all philosophers accept these principles, though most do. Most importantly, Bailey accepts PM and uses consciousness as the paradigm-case property that conforms to it. It might be argued that Bailey could adjust his thought experiment so that immaterial objects that are neither persons nor conscious beings gradually replace the parts of Bradley's body. In response, it is hard to see what sort of immaterial objects the critic has in mind. However, even if a candidate immaterial object were identified, *sans* consciousness, it is both difficult to see how it would play the role of angels in the Bradley thought experiment and, in any case, it is important to Bailey's thought experiment that the replacement parts have consciousness. This is because the thought experiment is meant to be a rejoinder to (2) of the modal argument. Accordingly, Bailey needs it to be the case that Bradley is wholly immaterial in some possible world and wholly physical in the actual world for his thought experiment to achieve its purpose as a defeater. To achieve this aim, he explicitly employs conscious beings as the replacement parts for First-Bradley. Until Bailey explicitly changes the thought experiment in the way our hypothetical objector suggests, it is pure speculation as to whether Bailey would adopt the proffered alternative.

Fourth, Bailey defends an implausible view of categories, yet he needs this view to do important work in defending contingent physicalism. As noted above, in developing his ontological categories, Bailey locates himself squarely in the realist camp and claims to be doing old-fashioned categorial ontologizing in the grand tradition of such activity. However, there are two features of his categories that seem to be quite problematic: (1) the contingency of (at least some) items relative to their categories and (2) the identification of important nodes in purely negative terms. Both of these features are important for Bradley's defence of contingent physicalism. Let's examine these in order.

Regarding (1), for various reasons, such as to defeat the modal argument for substance dualism by claiming we are, possibly, disembodied, Bailey needs to employ contingent physicalism. He accomplishes this in two ways. First, his presentation of categories isolates their modality – the necessity/contingency of items belonging to their category – and he claims that contingency prevails, at least in the subcategories of Thinking Material Object and Thinking Immaterial Object. Second, his thought experiment about Bradley's transformation is used. If I understand him correctly, the contingency of the relevant subcategories is the ontological and epistemic grounds for the intelligibility of the thought experiment.

Unfortunately, categorial contingency is an extremely odd view that requires substantial warrant to be accepted. It faces a severe burden of proof. To my knowledge, no realist about categories in the history of philosophy up to the present has even considered, much less advanced, such a view.<sup>19</sup> It is widely acknowledged that the great realists about the categories (Aristotle (1963); Bergman (1967), 4–27, 101, 141; Butchvarov (1995), 122–247; Chisholm (1989), 162–168; Chisholm (1996); Grossmann (1983), 3–18; Grossmann (1992), 1–3, 46–47, 91; Loux and Crisp (2017), 10–15; Lowe (2006), 3–23; Hoffman and Rosenkrantz (1994), 14–21; Hoffman and Rosenkrantz (1997), 46–50) all held that members of categories necessarily belonged to them.<sup>20</sup>

I am not simply collecting votes here. Rather, these and all the other realist philosophers of whom I know agreed on the very nature of what it was to develop a set of categories and what a category was. The goal was to discover a set of exhaustive, (often) mutually exclusive (except for the transcendentals), most basic divisions of reality into which all entities necessarily and essentially fell. A category was constituted by what its members shared essentially in common, and a category often provided essential or necessary and sufficient truth conditions for something to belong to it. Given this near unanimous understanding among categorial realists, as close to unanimity as one finds in philosophy, the idea of separating out a modal question from one's set of categories would be otiose. The modality of membership – necessity – was already implicit in the very notion of what it was to be a category in the first place.

Bailey seems to be virtually alone in his approach. This does not automatically render his view of categories unjustified. But surely, if he is going to break with such a homogenous pack, he owes us at least a brief account of why his approach is justified and why the majority view can be abandoned. But Bailey fails to offer such an account. He simply asserts his categorial contingency thesis.

This fact is made even more troubling by something Bailey himself affirms (Bailey (2021), 5).<sup>21</sup> In discussing the development of categories as an aid in probing the metaphysics of human nature and answering the question of what we are, Bailey rightly distinguishes the categorial approach from other approaches that provide true answers, but of the wrong kind to count as categorial, such as that we are each no more than 4,300 years old, have at least one great-grandparent, and so on. These answers fail because they classify us in virtue of contingent features or features that don't get at the specific, deepest notion of what kind of thing we are. However, it seems that Bailey's contingent categorial membership fails in just this sort of way.

Regarding (2) (using purely negative descriptions of different subcategories), Bailey rejects an argument for substance dualism based on the fact that we have a clear, adequate concept of being a soul or spirit, for example when we say that God is a spirit (Bailey (2020), 16–22; cf. Moreland (2013), 35–43). Briefly, the argument claims that we have clear concept of a soul/spirit, and for that to be the case, we need a distinct positive concept of such. If thinking matter is metaphysically possible, then the properties that constitute consciousness can characterize either a material object or a spirit. Thus, we cannot appeal to those properties for a distinct positive concept of either. Regarding a conscious material object, we have distinct positive concepts about what makes it physical, but we lack such for a spirit. Characterizing a spirit is either vacuous or by way of negation, and neither provides us with what we actually possess, namely, a distinct positive concept of a spirit. Thus, thinking matter is impossible.

At this point, it may be useful to provide a relevant discussion about the adequacy of a wholly negative characterization of a spirit offered by Joshua Hoffman and Gary S. Rosenkrantz. They define a soul ‘as a non-spatial substance that has mental properties’. Next, they consider this objection that the very concept of a soul is unintelligible:

A first argument protests that the nature of a soul cannot be fully explained without describing it in *negative terms*, i.e., as *unlocated*. We reply that there are intelligible *physical* entities whose nature cannot be fully explained unless they are described in negative terms. For example, to fully explain the nature of a photon, a photon must be described as having *zero* rest mass (i.e., as *not* having rest mass). Of course, the basic nature of a photon includes certain other, *positive* attributes. But the same is true of the basic nature of a soul. It includes such positive attributes as *being a substance* and *being conscious* (or *being capable of consciousness*). So, if it is argued that souls are unintelligible because their basic nature is *wholly* negative, then such an argument is **unsound**. (Hoffman and Rosenkrantz (2002), 42–43; italics and bold theirs)

Two points are important. (1) They seem to assume that if a concept (or entity?) is wholly negative, then it is unintelligible. They go on to say that souls are explained (described? conceptualized?) in positive terms and, thus, are at least partially positive. It is this positive characterization that renders the concept of a soul intelligible. (2) The content of that positive conception captures the basic nature (kindness) of a soul and includes the categorial feature of being a substance and the essential properties of mentality/consciousness (which are used interchangeably).

Obviously, if successful, this argument would be bad news for Bailey. So, he provides defeaters for this sort of argument. Evaluating Bailey’s counterargument is not relevant here. But one key defeater he raises is pertinent to my defence of (2). Bailey claims that the Positive Requirement (one needs a distinct positive concept of something to have a clear, adequate concept of it) is false and provides a counterexample to it. He claims that we have an adequate concept of the abstract, but no positive concept of it. Our concept is by way of the *via negativa*.

I have two responses to this counterargument. First, it is false. We do, in fact, have a positive concept of being abstract or, more importantly, of abstract things – being abstract is being necessary, being outside space and time, necessarily standing in such and such internal relations to certain entities (e.g. necessarily, redness stands in the internal relation ‘darker than’ to yellowness). And we can cite distinct positive features of abstract objects, for example that the number two is essentially even, it is a whole integer that stands in an internal mathematical relation between the numbers one and three, and so on.

Second, the most employed strategy in describing abstractness is by way of listing examples of abstract objects, such as various logical relations, properties, numbers. Each member of the list has positive characteristics that are the basis of satisfying the Positive Requirement.

Bailey also claims that we can easily say what, for example, a material or immaterial object is even if it is characterized by way of the *via negativa*. How? According to the Chart Ontologist, one can say what something is by pointing to the relevant node on the chart of categories. Thus, to say what a spirit is requires only that one point to the node Thinking Immaterial Object.

Again, I think this solution fails. While I cannot enter into a discussion of the pros and cons of the *via negativa*, I note that in my view, one must know something positive about what an entity is before one can say what it is not. The *via negativa* fails in this regard and, without positive knowledge, it leads to scepticism about the nature of the object characterized merely in a negative way.

Moreover, Bailey's strategy seems merely to kick the can down the road. In solving the problem of not being able to say what a spirit is without having a positive concept of a spirit, Bailey claims that by pointing to the node Thinking Immaterial Object, that adequately says what it is to be a spirit. But it seems clear that the node exhibits the same problem of lacking a positive concept of 'immaterial' as did the characterization of a spirit as an immaterial or incorporeal spirit that is not material. Unless I am missing something, I don't see a solution here to the initial concern. Until I do, I must judge this strategy to be a failure.

#### *An addition response to Bailey's via negativa*

Before leaving this topic, there is an additional consideration that I believe presents serious difficulties with Bailey's claim that pointing to a purely negative node – Thinking Immaterial Object – is all one needs to do to know what a soul/spirit is. Adolf Reinach has observed that we often make these four judgements (Reinach (1982), 315–377):

- (i) Positive Judgement about a Positive State of Affairs: (It is the case that rose *r* is red.)
- (ii) Negative Judgement about a Positive State of Affairs: (It is not the case that rose *r* is red.)
- (iii) Positive Judgement about a Negative State of Affairs: (It is the case that rose *r* is non-red.)
- (iv) Negative Judgement about a Negative State of Affairs: (It is not the case that rose *r* is non-red.)

In all four cases, a conscious side is in some way related to an objective side. Let's focus on (ii) and (iii). According to Reinach, there are two specific preconditions, two position-takings for being justified in asserting (ii). *The psychological precondition*: There is an intellectual position-taking about some other state of affairs (we apprehend *r*'s being yellow) that is in conflict with the original state of affairs (*r*'s being red). *The epistemic fundament*: In approaching the original state of affairs (*r*'s being red) in light of the second state of affairs (*r*'s being yellow) and grasping the conflict, the later appears in a new light, namely, as having an evidential character relative to the former. On this basis, we are justified in affirming (ii) (It is not the case that *r* is red.).

In order to avoid quantifying over negative states of affairs as in (iii), Stephen Mumford argues that in all cases of (iii), we reduce them to (ii), placing the negativity on the consciousness side (Mumford (2007), 45–71). Applied to Bailey, if we take Thinking Immaterial

Object to be a negative judgement about a positive state of affairs (In some world  $w$  with thinking things, it is false that a material thing is thinking in  $w$  (or it is false that Thinking Material Object has members in  $w$ )), then we aren't capturing Bailey's view that pointing to a purely negative node – Thinking Immaterial Object – is all one needs to do to know what a soul/spirit is. As far as I can tell, Bailey's pointing strategy is not a mere expression of negativity, but a positive assertion if it is going to capture 'what a spirit/soul is'.

So, we need to examine (iii). For the sake of argument, let us grant the existence of negative states of affairs. Regarding positive judgements about negative states of affairs, Reinach again claims that such judgements have two preconditions: (1) *a psychological precondition*: focus on the negative state of affairs as such (3 is not smaller than 2) and put it into doubt. (2) *an epistemic fundament (foundation for the positive judgement)*: the apprehension of another, positive state of affairs (3 is larger than 2) such that the two states of affairs are necessarily 'bound up' together and the latter is the epistemic foundation for the former.

If (iii) is what Bailey is expressing in his node-pointing strategy, then what is this positive epistemic foundation for the judgement 'in  $w$ , it is true that there are thinking things that are non-material (or it is true that there are items in Thinking Immaterial Object)'? He needs a positive state of affairs to be 'bound up' with 'immaterial'. But given his *via negativa* approach, this is precisely what Bailey cannot provide.

Bailey could respond that my argument begs the question against his approach. But even if the readers disagree with the details of Reinach's analysis, I believe we learn something from it: negative judgements and negative states of affairs are privations or absences, and one cannot understand or have an epistemic fundament for them without possessing an understanding, especially an evidential one, of the associated positivity.

Someone could raise the following objection to my critique of (1) (the contingency of (at least some) items relative to their categories): the worry about whether category membership could be contingent is merely a verbal dispute over the word 'category'. Or, at most, Bailey's attempt to situate his use of the term 'category' within a philosophical tradition that treats category membership as necessary is misplaced. This doesn't seem to have any bearing on the soundness of Bailey's argument for contingent physicalism.

By way of response, I think the first claim is just false. The issue is no mere verbal one, and the claim that Bailey simply locates his understanding of the categories in a different tradition seems also to be false. Bailey explicitly claims he is a realist regarding the categories, and since Aristotle, the entire point of developing a realist set of categories entails that categorial members are such essentially. They were taken to provide the ultimate classifications that carve reality at its essential joints. If Bailey wants to claim to be a realist yet distance himself from this ubiquitous tradition, we need a substantial argument for this.

Moreover, there is nothing that could be called a tradition that is both realist and has categorial members that are contingent. If one wants to appeal to Quine and others who are constructivist re categories, fine. But these approaches are not realist. Moreover, as I pointed out, Bailey explicitly rejects several cases in which things are grouped by contingent features.

Nor is this issue irrelevant to Bailey's case for contingent physicalism. Admittedly, it does not exhaust that case and I have provided defeaters for the other aspects of his project. But he clearly employs his understanding of the categories such that the relevant ones have members contingently to show that his view is supported by a realist approach to categories. The contingency of the relevant subcategories is an important ontological and epistemic ground for the intelligibility of the thought experiment.

Someone could also raise the following objection to my second critique of Bailey ((2) the identification of important nodes in purely negative terms): Bailey may simply respond that some ways of grouping objects together are more joint carving than other



ways of grouping objects together, but that the more joint carving classifications may in some cases be contingent.

I don't think this response succeeds. Besides the fact that it is just a speculation, this not what a realist about categories holds. Adopting realism and this understanding of categories do not sit well together. Realists have always understood their development of categories to be grounded in the fact that particular substances, properties, relations, events, and so on have natures or essences. These serve as the ontological basis for category membership.

Moreover, 'being more joint carving' is ambiguous and, accordingly, faces a significant problem: why are the categories Thinking Material Object and Thinking Immaterial Object acceptable 'realist' ones, but being 4,300 years old, having at least one great-grandparent, and a host of others are not? We need some sort of criterion, some set of necessary and sufficient conditions to answer this question and Bailey does not provide such. Without such, one could accuse Bailey of being arbitrary in what does and does not count as a legitimate category. Remember, the acceptable and unacceptable categories he mentions all have their members contingently. So that cannot be used to answer this quandary.

In conclusion, I have presented and clarified a modal argument for generic substance dualism and defended premise (2) against Andrew Bailey's contingent physicalism. And as far as I can see, (2) remains undefeated.

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## Notes

1. See Koons and Bealer (2010).
2. For a treatment of the importance of recognizing that these are *de re* and not *de dicto* expressions, see Meixner (2016), 17–34. See especially *ibid.*, 24–25.
3. See Madell (1981); Madell (2015).
4. Swinburne (2012), 105–122. The quote is on page 120. To my knowledge, the only contemporary substance dualist who embraces soul-stuff is Richard Swinburne, a position he has subsequently abandoned. Swinburne (1986), 153–155; cf. Swinburne (2013), 33–38.
5. See Swinburne (1986), 46 footnote 1 for information documenting both statements.
6. Cf. Koons (2014), 151–177.
7. See also Bailey (2017). Cf. Moreland (2013), 35–43.
8. In this regard, Bailey's view is a close cousin to classic Mormon anthropology. See Moreland (2002), 243–270.
9. A staunch hylomorphist holds to a classic Aristotelian concept of a substance according to which a substantial form cannot be reduced to a relational structure, it is what unified the substance such that it is not composed of separable parts (though it does have inseparable parts/modes), and it grounds/guides the teleological development of living organisms qua substances. Staunch hylomorphism stands in contrast with Faint-hearted hylomorphism according to which substantial form is reduced to a relational structure (usually constituted by external relations), and living organisms are 'built up' ultimately out of their microphysical parts. Though Faint-hearted hylomorphists may disagree, their view seems to depict organisms as mereological aggregates bereft of immanent teleology. For more on this, see Koons (2014), 151–177.
10. See Bailey and Elsywyk (2021), 405–429; Bailey (2017), 2315–2328. I am not claiming that Bailey's animalism is exhaustively captured by the material-composition of organisms, including humans. But his view does entail this.
11. See Owen (2021); Oderberg (2011), 85–111; Webster and Goodwin (1996); Denton *et al.* (2013), 31–52; Goodwin (1994).
12. My use of 'organicism' in these pages is quite different from Bailey's usage. For him, 'organicism' seems to be equivalent to 'animalism'. See Bailey (2016), 453–470.
13. I cannot argue this point here. For a defence of this claim, see Moreland (2018), 110–113.
14. I am indebted to Brandon Rickabaugh for pointing this out to me.
15. See also, Olson (1997a), 138; Olson (1997b), 106; Olson (2007), 29.

16. I am grateful to an anonymous referee for suggesting this to me.
17. See Moreland (2018), 102–122.
18. Bailey does qualify his views as follows. First-Bradley is a wholly material object in that at some very low level he is composed entirely of physical atoms. At higher levels, he still has cells and organs. We assume these are physical as well. Final-Bradley is wholly immaterial in that at some very low level he is composed entirely of wholly immaterial objects, namely, angels. But at higher levels, he retains cells and organs. We see how First-Bailey is wholly material since his cells and organs are wholly physical, being composed entirely by wholly physical atoms. But if Final-Bradley's cells and organs are like First-Bradley's, then Final-Bradley is not wholly immaterial, having physical cells and organs. Bailey recognized this problem and rightly pointed out that the cells and organs of Final-Bradley are wholly immaterial, being entirely composed of wholly immaterial parts (angels). See Bailey (2021), 16.
19. For a possible exception to this claim, see Westerhoff (2005).
20. I am not settled on exactly where Peter van Inwagen comes down on this issue. Many things he says indicate he is a realist about the categories and holds that membership is necessary (though some categories are contingent in that they have members in some worlds and are empty in others). On the other hand, while he claims that ontological categories must in some sense be modally robust, he claims that he has yet to spell out precisely what this means. See van Inwagen (2014), 183–201.
21. Bailey (2021), 5.

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