

MIND–BODY DUALISM

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PROPERTY DUALISM AND SUBSTANCE DUALISM

I attempt to rebut Dean Zimmerman's novel argument (2010), which he presents in support of substance dualism, for the conclusion that, in spite of its popularity, the combination of property dualism with substance materialism represents a precarious position in the philosophy of mind. I take issue with Zimmerman's contention that the vagueness of 'garden variety' material objects such as brains or bodies makes them unsuitable candidates for the possession of phenomenal properties. I also argue that the 'speculative materialism' that is available to a substance materialist property dualist who abandons the identification of persons with such garden variety objects is significantly more attractive than Zimmerman allows. Although I do not attempt to refute its substance dualist rival, I conclude that the combination of property dualism with substance materialism can withstand Zimmerman's objections.

I

Dean Zimmerman (2010) argues that, in spite of its popularity, the combination of property dualism with substance materialism represents a precarious position in the philosophy of mind. While he does not attempt to refute the position, he argues that it faces severe difficulties in the face of the fact that the 'garden variety' candidates for being a material thing that is conscious are vague. According to Zimmerman, the substance materialist who espouses property dualism is forced to embrace a 'speculative materialism' that is no more plausible than emergentist substance dualism. Although he recognizes that his argument might be employed as a *modus tollens* against property dualism, Zimmerman presents it as an advocate of substance dualism. His ingenious and provocative paper is, in part, an invitation to those philosophers who remain convinced by the arguments for property dualism to take the further step of embracing the currently far less popular thesis of substance dualism.

Zimmerman's argument from property dualism to substance dualism proceeds in three main stages:

Stage 1: From materialist property dualism to adverbialism. First, Zimmerman (2010, §III) argues that the substance materialist who is a property dualist (henceforth 'the materialist property dualist') will find it difficult to defend an act-object theory of sensation. But if the act-object theory is rejected, the materialist property dualist is deprived of the option of attributing the fundamental phenomenal properties (qualia) that are required by property dualism to an object of which the experiencing subject is aware, rather than to the experiencing subject itself. The materialist property dualist must then adopt adverbialism, according to which 'the subject of phenomenal experience is the very thing that bears the qualia' (Zimmerman 2010, p. 133).

Stage 2: From materialist property dualism (plus adverbialism) to speculative materialism. In a crucial section (§VII), Zimmerman argues that the adverbialist property dualist can remain a substance materialist only by denying what he calls 'garden variety materialism'—roughly, the view that conscious subjects are—or at least coincide with—familiar ('garden variety') material objects such as a body or a brain. Instead, the adverbialist property dualist can remain a materialist only by embracing a 'speculative materialism' that involves 'dark speculations about the true location and physical nature of persons' (p. 145).

Stage 3: Speculative materialism versus emergentist substance dualism. Finally (§§VII–VIII), Zimmerman points out that speculative materialism has a rival in emergentist substance dualism, and argues that speculative materialism is sufficiently unattractive to make its substance dualist rival worthy of serious consideration by adverbialist property dualists.

Interesting though it is, I shall not discuss stage 1 of Zimmerman's argument. I shall assume that he is right in supposing that the materialist who is a property dualist should also be an adverbialist, rather than an act-object theorist.

In this paper, I shall focus on stages 2 and 3 of Zimmerman's case for substance dualism. First, I try to raise a difficulty for Zimmer-

man's argument that the adverbialist property dualist must abandon garden variety materialism. I am not persuaded that Zimmerman's 'argument from vagueness' succeeds in establishing that the adverbialist property dualist cannot identify persons (as experiencing subjects) with familiar material objects such as human organisms.

Secondly, I am not persuaded that, even if the adverbialist property dualist does have to abandon garden variety materialism in favour of speculative materialism, this is such a bad thing. I shall raise some doubts about whether speculative materialism is as unattractive a position as Zimmerman claims, and also question its alleged inferiority to garden variety materialism. (Obviously, the more acceptable is speculative materialism, the less persuasive is Zimmerman's attempt to convert the property dualist to substance dualism.)

On these two grounds, I am not convinced that Zimmerman has established his case for substance dualism as a rival to the combination of property dualism with substance materialism. Nevertheless, although I think that materialist property dualists have the resources to resist the arguments of Zimmerman's paper, this is not to say that the materialist property dualist occupies an intellectually satisfactory position. There are, of course, more traditional arguments for substance dualism to which Zimmerman could appeal, some of which also invoke the vagueness of material objects such as brains and bodies as causing difficulties for substance materialism. In addition, although it is not the focus of Zimmerman's paper, there is the following issue: the question whether, if one has gone so far as to accept property dualism, one really has a principled reason for refusing to accept substance dualism as well. I conclude my paper with some brief remarks about this issue.

II

Zimmerman's Argument from Vagueness (Against Garden Variety Materialism). As Zimmerman says (2010, p. 136), it seems that a substance materialist must respond to the question, 'What sort of thing am I?' with the answer, 'A material thing, a thing made entirely of parts that could constitute rocks, stars, or some other utterly unthinking thing'. But this leaves it open what kind of material thing I am. There are, Zimmerman claims, more and less plausible

candidates for this role, the more plausible being ‘familiar’ or ‘garden variety’ physical objects.

More specifically, in the category of physical objects, the ‘most plausible candidates for being a thinker such as I am’ (according to Zimmerman) will be found among the ‘natural parts’ of a living body—or at least among things that have the same size or shape as one of these natural parts¹—where these natural parts include things like

a single atom within a strand of DNA, the heart, the kidneys, the spine, an individual blood cell, the respiratory system, the brain, the cerebrum, a single cerebral hemisphere, and the complete organism (that ‘improper part’ that includes every other). (Zimmerman 2010, pp. 136–7)

Obviously, though, not all such natural parts are plausible materialist candidates for being a thinker such as I am. A plausible candidate ‘must also include all the parts upon which our ability to think most immediately depends’ (p. 137). The upshot is that the primary candidates are

the complete organism I refer to as ‘my body’, the entire nervous system within it, the brain, the cerebrum, and perhaps one or the other single hemisphere of that cerebrum. (p. 137)

‘*Garden variety materialism*’ is then characterized as ‘the thesis that each human person is one of these natural parts (or that each person currently has the same size and shape as one of these natural parts)’ (p. 137).²

Zimmerman proceeds to argue that garden variety materialism faces severe difficulties as a result of the fact that the garden variety objects with which it identifies human persons are vague in their spatial and temporal boundaries. Specifically, he argues that, because of the vagueness of such objects (including bodies and brains), garden variety materialism is not available to the property dualist who ac-

¹ This qualification is introduced to accommodate versions of materialism that distinguish human persons from human organisms on the grounds of their allegedly different persistence conditions, but nevertheless hold that human persons coincide with, and perhaps are constituted by, human organisms. (See Zimmerman 2010, p. 137 n.18.) The qualification is important, but for simplicity I shall often take it as read in what follows.

² The qualification in parentheses is introduced for the reasons explained in the previous note.

cepts an adverbialist account of phenomenal properties. Hence, on the assumption (supported by the arguments in §III of his paper) that a materialist property dualist must be an adverbialist about phenomenal properties, he concludes that the materialist property dualist must reject garden variety materialism. To remain a materialist, the property dualist must thus abandon the attempt to identify human persons with familiar physical objects such as bodies or brains (or physical objects coincident with these³), and resort to ‘speculative materialism’ in the search for substitute materialist candidates, of a more exotic kind, for identification with human persons.

But why should we think that the vagueness of garden variety objects (GVOs) requires the adverbialist property dualist to abandon garden variety materialism in favour of speculative materialism? Zimmerman’s crucial argument, presented in §VII of his paper, relies, in part, on the following considerations:

- (C1) If adverbialism is true, phenomenal properties (qualia) belong to the experiencing subject (and not to an object experienced).
- (C2) If garden variety materialism is true, the experiencing subject is a garden variety object (GVO), such as a body or a brain, an object whose boundaries are vague.
- (C3) If property dualism is true, (at least some) phenomenal properties are fundamental, natural, precise properties, whose generation is governed by fundamental ‘laws of qualia generation’.
- (C4) The relevant laws of qualia generation take the form of saying that when some specified brain activity occurs (e.g. a certain kind of behaviour of neurons), ‘something-or-other will be caused to have such-and-such fundamental phenomenal property’ (Zimmerman 2010, p. 141).
- (C5) The vagueness of GVOs implies that there is a multiplicity of equally eligible, precise candidates for being a given GVO, and a supervalueationist account of the truth of vague sentences is correct (Zimmerman 2010, §VI).

Zimmerman argues that the upshot of these considerations is that a

³ Cf. notes 1 and 2 above.

GVO such as a brain or a body cannot be the bearer of phenomenal properties, even if the laws of qualia generation are what he terms ‘prodigal’, meaning that ‘the natural process of qualia generation ... [is such that] the brain generates very many instances of each phenomenal type, one for each of very many distinct but overlapping physical objects’ (Zimmerman 2010, p. 142).

I shall not question any of the theses (C1)–(C5) above. But I shall question Zimmerman’s reasoning from these considerations to his conclusion that a GVO is not a plausible candidate for the bearer of phenomenal properties.

The portion of Zimmerman’s argument that principally concerns me may be outlined as follows. I shall call it ‘The Argument from Vagueness’:⁴

- (1) If adverbialist property dualism is true, there are laws of qualia generation that govern the generation of fundamental (precise) phenomenal properties, and select certain objects as the bearers of these properties. (Zimmerman 2010, p. 141)
- (2) ‘Given adverbialism, whatever has this phenomenal property will be a conscious subject—one that feels a very precise pain, senses a very precise smell, etc.’ (p. 141)

However,

- (3) If a garden variety object (GVO) such as a brain or a body has this phenomenal property, then (given the vagueness of such GVOs and the assumption of supervaluationism) the laws of qualia generation must select, as the bearers of the precise phenomenal properties, *all and only* the eligible precise candidates for being that GVO. (p. 142)
- (4) It is very unlikely that the laws of qualia generation will deliver this result, even if the laws of qualia generation are ‘prodigal’ (where the ‘prodigality’ assumption is itself questionable). (pp. 142, 144)

Therefore:

⁴ See the following note.

- (5) If adverbialist property dualism is true, then even if the person or conscious subject is a material object, it is (at least) highly unlikely that that material object is a GVO.⁵

It follows that:

- (6) If adverbialist property dualism is true, garden variety materialism is (at least) extremely implausible.

In the next section, I take issue with this argument.

III

Against the Argument from Vagueness. My objection to Zimmerman's Argument from Vagueness concerns premiss (3). As I have indicated, I shall not question the treatment of vagueness that is invoked in this premiss. I shall accept that if a GVO is vague, this is because there is a multiplicity of precise equally eligible candidates for being the GVO. I shall also accept that if the GVO is to be conscious, or is to have a particular precise phenomenal property, then all of the precise candidates for being the GVO must be conscious, or have that property.

My objection is to an *additional* assumption that appears to lie behind premiss (3). Premiss (3) appears to assume that, if adverbialism is true, then a GVO cannot have one of the relevant precise phenomenal properties (and hence cannot be a person or conscious subject) unless either:

- (a) the GVO is itself ‘directly selected’ by the laws of qualia generation to be the unique bearer of the precise phenomenal property (which is impossible, given that the GVO is vague); or

⁵ Zimmerman has a further argument, based on considerations of higher-order vagueness, that even if the laws of qualia generation were to select (as is highly unlikely) all and only the eligible candidates for being the GVO, that still wouldn't support the identification of the GVO with the conscious subject (2010, p. 144). As a result of this further argument, he would strengthen the conclusion (5) to a conclusion to the effect that we can rule out completely (rather than merely regarding as highly unlikely) the thesis that the person or conscious subject is a GVO. The conclusion (6) would then be similarly strengthened. For reasons that will become apparent, I shall start by ignoring this additional argument.

- (b) all and only the precise candidates for being the GVO are ‘directly selected’ by the laws of qualia generation to be the bearers of the precise phenomenal property (which is highly unlikely, even if the laws of qualia generation are ‘prodigal’).

But I don’t see why (a) and (b) should be supposed to be exhaustive. Why couldn’t the GVO be a person or conscious subject ‘derivatively’ (or ‘indirectly’), in the following way: by having a *proper part* that is directly selected by the laws of qualia generation to be the bearer of the precise phenomenal property? There are many cases where a thing has a property (derivatively) in virtue of having a part that has that property. So why shouldn’t such ‘part–whole inheritance’ apply to the case of the possession of phenomenal properties by a GVO such as a body or a brain? Moreover, the vagueness of the GVO presents no obstacle to this proposed third option, as long as all the precise candidates for being the GVO possess the part in question.⁶

If this objection is cogent, then Zimmerman’s Argument from Vagueness is undermined. For the Argument from Vagueness that I have described turns crucially on the fact (premiss (4)) that if there are laws of qualia generation, it is highly unlikely that those laws will select ‘*all and only* the precise objects that are eligible candidates for being what we mean by “organism” or “brain”’ (Zimmerman 2010, p. 142). As Zimmerman nicely puts it:

The fundamental physical laws governing qualia generation, even if they are prodigal in the number of instances produced, should not be expected to choose precise objects in exactly the same way that our everyday terms for brains and bodies choose many objects; that would be to attribute to nature itself a touching deference to our linguistic practices and to our rough-and-ready concepts. (p. 142)

This seems undeniably correct—as long as ‘choose’ means ‘directly choose’. But if I am right, no such amazing coincidence—no such touching deference on the part of nature to our practices and

⁶ Of course, not all properties obey a ‘part–whole inheritance rule’. No object is triangular in virtue of having a proper part that is triangular. And (although this case is more complicated) an egg is not good in virtue of being good in parts. My point is simply that, in the absence of some compelling argument to the contrary, we should take seriously the idea that a mental property such as *possessing qualia* (or *being conscious*, or *thinking*) may be inherited by an object in virtue of the possession of this property by one of the object’s proper parts.

concepts—is required in order for a GVO such as a body or a brain to be the possessor of a phenomenal property. Instead, as long as the laws of qualia generation choose, as a recipient of the phenomenal property, some precise object that the GVO has (and all the precise eligible candidates for being the GVO have) as a part, then the GVO (and all the precise candidates) may ‘inherit’ the phenomenal property from this part. On this picture, the GVO can possess the property even though the laws of qualia generation, whether prodigal or not, remain entirely blind, when selecting their objects, to the distinctions that are drawn by our linguistic practices and rough and ready concepts. Suppose, for example, that the laws of qualia generation choose some precise portion of my brain to be the recipient of the phenomenal property of, say, feeling a very precise pain, or sensing a very precise smell. If so, then I may nevertheless be a GVO (e.g. a human body) that feels that precise pain, or senses that precise smell, in virtue of the fact that I have, as a part of me, the portion of the brain that is targeted by the laws to be the direct recipient of the phenomenal property. It is no obstacle to this that the boundaries of the set of precise candidates for being the GVO that I am are almost certain to fail to match the boundaries of any set of precise objects directly selected by the laws of qualia generation. In other words, the idea that a commitment to adverbialist laws of qualia generation requires accepting that *my* boundaries are set by a special ‘sharp halo’ (Zimmerman’s term), surrounding all and only the precise objects that are selected (directly) by these natural laws, is entirely dispensed with.

Moreover, if my objection is cogent, it undermines not only the Argument from Vagueness that I have set out above (which relies on premiss (4)) but also a further argument that Zimmerman gives: that even if the conditions set by premiss (3) were satisfied (through some amazing fluke) it would *still* be illegitimate to identify the GVO with the person or conscious subject. For his further argument depends on an appeal to the fact that the boundaries of the GVO exhibit higher-order vagueness, which would be ‘obliterated by precise facts about which physical objects have adverbial qualia’ (Zimmerman 2010, p. 144). If my objection works, then the fact (if it is a fact) that the laws of qualia generation must be absolutely precise in their (direct) selection of physical objects to be the bearers of qualia is no obstacle to a vague GVO’s possessing the qualia indirectly. For if I am right, then, for reasons already given, this requires no exact

match between the boundaries of the GVO and the boundaries of the objects selected directly by the laws of qualia generation.

My proposal for saving garden variety materialism from Zimmerman's Argument from Vagueness does, however, face several significant objections.

The most obvious objection is that my proposal appears to produce a proliferation of thinking subjects that threatens to undermine the GVO's entitlement to be identified with me. Suppose that, pursuing the line I've suggested, we say that a GVO such as a human organism is a person, and a conscious subject (and bearer of adverbial qualia), in virtue of the fact that some precise part of its brain is (directly) selected by the laws of qualia generation as the bearer of the adverbial qualia. Haven't we now got *two* conscious subjects (the GVO and its proper part) when we wanted only one? Moreover, if we have to choose between them, doesn't the proper part have a stronger claim to be the person than does the GVO, given that the proper part has the adverbial qualia 'directly' and the GVO only 'derivatively'?

However, I think that it would be rash to suppose that this objection to my proposal is decisive. The objection looks like a version of a familiar 'too many thinkers' or 'too many minds' objection to which several popular theories of the nature of persons are vulnerable, including the Lockean or neo-Lockean view that a person is a thinker with psychological identity conditions that are distinct from those of a human animal, and the view that a person is a four-dimensional entity composed of temporal parts.⁷ I take it that one should be cautious, at least given the current state of the debate, about assuming that the fact that a theory of the nature of persons is vulnerable to a 'too many thinkers' objection is a knock-down argument against it.⁸

In addition, there is a further, *ad hominem*, point. If my suggestion for saving garden variety materialism from the Argument from Vagueness by appeal to a 'part–whole inheritance principle' is vul-

⁷ See Noonan (2003, ch. 3, §6; ch. 11, §5); also Olson (2008, §6).

⁸ A further point is that if Zimmerman were to object to my proposal by invoking the 'too many thinkers' objection, one might wonder why he did not invoke the objection at an earlier point in his argument, since on his account of vagueness a vague GVO can be a thinker only in virtue of the existence of a multiplicity of precise candidates for being the GVO, all of which (or whom?) are thinkers. However, I don't press this point, since perhaps the fact that the multiplicity of precise candidates invoked by the account of vagueness are supposed to be equally good candidates may be regarded as a significant difference between that case and the case under consideration.

nerable to a ‘too many thinkers’ objection, some versions of substance dualism with which Zimmerman expresses some sympathy appear equally vulnerable. At the start of his paper, Zimmerman characterizes substance dualism very broadly, to include any theory that holds that ‘for every person who thinks or has experiences, there is a thing—a soul or spiritual substance—that lacks many or most of the physical properties characteristic of non-thinking material objects ... and that this soul is ... in one way or another responsible for the person’s mental life’ (2010, pp. 119–20). But any version of substance dualism that says, as many do, that although an immaterial soul is the immediate or ultimate bearer of consciousness, the *person* is not identical with the soul, but rather with some composite of the soul and the body, appears to confront a version of the ‘too many thinkers objection’ that is exactly parallel to the one that confronts my proposal for the defence of garden variety materialism.⁹

A second objection to my proposal is that the ‘part–whole inheritance principle’ upon which my argument relies generates absurd consequences. Unless I introduce some suitable restriction on the principle (which had better not be ad hoc), then if the GVO has a phenomenal property *Q* in virtue of having a part that has *Q*, then any larger thing of which the GVO is a part will also have *Q*, which seems absurd. My response to this is that although I don’t have the exact remedy to hand, it seems reasonable to suppose that some suitable restriction on the part–whole inheritance principle is available that will avoid absurdity. (After all, for example, although we say that my body is injured in virtue of the fact that my foot is injured, we don’t feel obliged thereby to say that every larger whole of which my body is a part is injured.)

Finally, Zimmerman suggests that if the laws of qualia generation are prodigal, but include, in their selection, precise material things that have boundaries that go outside the boundaries of any eligible precise candidates for being my brain or body, then it is illegitimate to identify me with my brain or my body (even if all the eligible precise candidates for being my brain and body are also included in the

⁹ For example, Swinburne (1997, p. 145): ‘On the dualist account the whole man has the properties he does because his constituent parts have the properties they do. I weigh ten stone because my body does; I imagine a cat because my soul does’. And John Foster (1991, ch. 8) distinguishes between non-physical basic subjects (‘persons₁’) and ‘the dual nature entities created by the special attachment of these subjects to bodies’ (‘persons₂’), a distinction that generates, at least on the face of it, a ‘too many thinkers’ problem for his version of substance dualism.

selection). Although I might in this case legitimately be identified with a vague object corresponding to the ‘halo’ drawn by the laws of qualia generation, this vague object would be larger than my brain or body. Moreover, given the indifference of the natural laws to our everyday concepts, we could not reasonably expect this larger object itself to be a GVO,¹⁰ so garden variety materialism would be false (Zimmerman 2010, pp. 143–4).

I have to admit that the possibility here envisaged by Zimmerman does present a challenge to my proposed defence of garden variety materialism that (unlike the possibility that the laws of qualia generation might directly select only *smaller* objects than my brain or body) cannot be overcome just by invoking a version of the part–whole inheritance principle. For if this possibility were realized, it would introduce a rival for being me that is *larger* than my brain or body.

Nevertheless, the damage that this suggestion can do to my proposed defence of garden variety materialism is limited. Contrary to Zimmerman’s verdict, we need not concede that the existence of the larger object would automatically refute the claim of the (smaller) GVO to be me, as long as we accept, as I have urged that we should, that a ‘too many thinkers’ problem need not be fatal to a theory of the nature of persons. What *would* be a serious problem for my proposal would be a situation in which the laws of qualia generation directly select, as bearers of the phenomenal properties, *only* objects that have boundaries that go outside the GVO that the garden variety materialist proposes for identification with me. For this would have the consequence that the GVO would fail to satisfy the conditions for being a conscious subject, even derivatively. However, I question whether this possibility has to be taken seriously, at least as a threat to the view that I am identical with a GVO that is as large as a human body. Given that we are taking it for granted that adverbial qualia are generated by the activity of the brain (Zimmerman 2010, p. 141), it seems bizarre to suppose that the laws might directly select, as the recipients of the qualia, *only* physical objects that are larger than, or have boundaries that go outside the spatial extent of, the whole human body. In this connection, it is noteworthy that when Zimmerman discusses, in connection with ‘speculative materialism’, the question of which physical objects the laws of

¹⁰ This point is not explicitly made by Zimmerman, but it seems reasonable to treat it as an assumption of his argument.

qualia generation might be expected to select as the bearers of phenomenal properties, he explicitly considers only objects that are *smaller* in their spatial extent than the entire brain or body (Zimmerman 2010, pp. 144–5).¹¹

IV

What's Wrong with Speculative Materialism? If I am right, the prospects for garden variety materialism may be somewhat brighter than Zimmerman suggests. Even if adverbialist property dualism is true, we need not accept that if I am a physical object, I must be one whose boundaries correspond to those of the object or objects that are selected by the laws of qualia generation as the *immediate* recipients of phenomenal properties. If so, then, at least as far as the considerations that Zimmerman has advanced in his Argument from Vagueness go, I—the person—might yet be a physical thing with the size and shape of a familiar object (with vague boundaries) such as a human body or a brain after all.

However, suppose that, in spite of my challenge to his Argument from Vagueness, Zimmerman is right in thinking that garden variety materialism is an untenable position for an adverbialist property dualist. Would the consequences be as dire as Zimmerman suggests that they are? What is so bad about the speculative materialism that, according to Zimmerman, the adverbialist property dualist who wishes to remain a materialist would then have to adopt? Indeed, what is so *good* about the garden variety materialism that Zimmerman regards as the vastly preferable option for the materialist, and as a position that the materialist should be reluctant to abandon?

Several different strands seem to be discernible in Zimmerman's proposal that it is garden variety materialism, rather than speculative materialism, that should be the materialist's preferred option in opposition to substance dualism.

(A) Zimmerman (2010, pp. 136–7) suggests that the identification of a person with a GVO such as a body, or a brain, or a cerebrum, or one of the other 'natural parts' that he mentions (or with an object

¹¹ Zimmerman also says that the relevant physical object or objects would be 'presumably somewhere in the vicinity of [the] brain' (2010, p. 143).

coincident with one of these¹²), has a *plausibility* that is lacking in the identification of the person with certain other physical things (such as Chisholm's theory that we are tiny physical particles lodged somewhere in our brains). However, I am sceptical about this suggestion. The identification of a person with a bodily part such as the cerebrum, or one of the cerebral hemispheres, or even the whole brain, seems to have no particular recommendation to common sense, independently of the combination of empirical discoveries and philosophical arguments that would be invoked to justify the identification. Most ordinary folk would surely be very surprised to learn—and reluctant to accept—that they are wholly located within their skulls, for example. The upshot appears to be a dilemma for Zimmerman. Either he must concede that many versions of garden variety materialism are themselves 'implausible' (perhaps all except those that identify the human person with a physical thing that has the size or shape of the human body) or else he is employing a sense of 'plausible' in which a materialist identification of the person with a natural part of the body may count as 'plausible' even if (like the identification of the person with the brain or the cerebrum) it would be shocking and surprising to common sense. If Zimmerman takes the first horn of the dilemma, then this casts doubt on the significance of his attempt to dislodge the materialist from the position of garden variety materialism, since it becomes unclear what benefit the materialist would be sacrificing by abandoning the identification of the person with a GVO. On the other hand, if Zimmerman takes the second horn of the dilemma, then it becomes unclear why the speculative materialist who, on theoretical grounds, identifies a person with a physical object that is not a GVO (for example, a portion of the brain that is not a 'natural part') should be regarded as adopting an 'implausible' theory.

(B) Zimmerman's discussion suggests a second, and apparently independent, reason for supposing that a materialist should be reluctant to abandon the identification of the person with a GVO: namely, that a GVO (such as an organism or a brain or even a single hemisphere of the brain) is a 'thing that already has a place in our commonsense conception of the world' (2010, p. 137). However, this suggestion is also problematic, for at least two reasons. First, it is unclear why, if speculative materialism were to identify a person

¹² On the qualification concerning coincident entities, see note 1 above.

with a thing (or alleged thing) that does *not* satisfy the criterion of being one of the objects that common sense recognizes (perhaps because its boundaries are demarcated in a way that is foreign to the commonsense conception of an object) this should be counted a serious objection to speculative materialism. (Is it because the ontology of common sense is to be granted a privileged status in determining what there is? Or for some other reason?) Secondly, though, there seems to be no reason to think that speculative materialism, as Zimmerman characterizes it, must lead to the identification of a person with an object that does not belong to the common-sense category of physical objects. Zimmerman (2010, p. 145) countenances the idea that speculative materialism might lead to the identification of a person with a cell or atom or molecule in the brain, for example. But cells and molecules, at least, appear to be perfectly good candidates, by commonsense standards, for being physical objects, even though they do not belong to the narrower category of commonsense physical objects to which ‘garden variety materialism’ is, by definition, restricted.¹³

(c) Perhaps, then, what is problematic about speculative materialism, in contrast to garden variety materialism, is precisely that it *is* speculative, making the material object that I am ‘a matter of theoretical speculation, determined by laws linking brain activity with a particular physical object or objects, presumably somewhere in the vicinity of my brain’ (Zimmerman 2010, p. 143). Again, though, there seems no reason why the materialist should be troubled by this. On the hypothesis that I am a material thing, why should we expect to know, in advance of theoretical speculation, exactly which material thing I am? In any case, if this is genuinely problematic, then it seems that it is equally problematic for some versions of garden variety materialism, for reasons that I have already touched on. Those ‘garden variety materialists’ who identify the person with a natural part of the brain (such as one of the cerebral hemispheres), or even with the whole brain, cannot sensibly have supposed that the identification could be established in advance of a certain amount of theorizing about the relation between the brain and conscious experience.¹⁴ And although there may be a difference of de-

¹³ See the characterization of ‘garden variety materialism’ on p. 137 of Zimmerman’s paper, which I have quoted in §II above.

¹⁴ See, for example, Mackie (1976, ch. 6) and Nagel (1986, ch. III, §3).

gree between the extent to which theoretical speculation is or was involved in the adoption of these ‘brain’ versions of garden variety materialism and its role in so-called speculative materialism, I do not see that it amounts to a difference in kind.

(D) It might be objected that this misses the point. Perhaps Zimmerman’s main contention, in emphasizing the speculative nature of speculative materialism, is not that speculative materialism is thereby made less attractive than garden variety materialism, but rather that, once it is accepted that it is a matter of theoretical speculation what we are, it would be dogmatic to insist that, whatever we are, we must be material things. Instead, the non-dogmatic adverbialist property dualist materialist should take seriously the rival, emergent dualist, hypothesis that the laws of qualia generation generate a new subject for the phenomenal properties as well as the properties themselves:

The emergent dualist is bound to point out that another possibility remains: the possibility that, as in other circumstances in which a new fundamental property is exemplified, the phenomenal states come with a new subject. And of course this is exactly what the dualist believes to be the case. Once there is neural activity sufficient to generate consciousness, a subject for that consciousness is also generated. Given the perfect naturalness of the properties that are newly instantiated, one should suppose that any subject of such properties is itself as natural in kind as a fundamental particle. (Zimmerman 2010, p. 146)

That this is Zimmerman’s principal contention is suggested by his claim that ‘those willing to engage in [the theoretical speculations of speculative materialism] are not in a position to scoff at the speculations of the emergent dualists’ (p. 145), and by passages such as the following:

The substance dualist alternative [to speculative materialism] is to suppose that phenomenal states come with their own natural kind of subject, like new fundamental particles. Property dualists ought to accept this as ... a speculative hypothesis worth taking seriously, especially if there are no promising leads in the search for a physical alternative. (Zimmerman 2010, p. 147)

Crucial, however, to Zimmerman’s contention that the adverbialist property dualist should take seriously the emergentist dualist alternative to speculative materialism, appears to be the suggestion that

there are ‘no promising leads’ in the search for a physical alternative. Zimmerman (2010, pp. 144–5) complains that ‘no natural candidates present themselves’ as the ‘precisely demarcated physical entities to receive the adverbialist’s phenomenal states’, and that speculative materialism confronts a puzzle—a ‘pairing problem’—about why, if the laws of qualia generation select certain physical entities to be the bearers of newly generated phenomenal properties, they select just the entities that they do and not others. Unless backed by this suggestion, the charge of dogmatism against the speculative materialist would seem to be unfounded.

(E) This brings us to a final reason why one might suppose that speculative materialism represents a precarious position. The problem would not be that speculative materialism departs from common sense or plausibility in its selection of materialist candidates for being persons, nor that it makes it a matter of speculation which material objects we are. The alleged problem would be, rather, that, considered as a scientific hypothesis, speculative materialism lacks credibility, because of the ‘pairing problem’ mentioned above. Moreover, if this objection to speculative materialism were successful, then my attempt, in §III above, to rescue garden variety materialism from Zimmerman’s Argument from Vagueness would be a failure after all. For if the hypothesis that the laws of qualia generation select any physical objects *at all* as the bearers of phenomenal properties is undermined, then this is fatal to my proposal that a garden variety object such as a human body could be the bearer of a phenomenal property derivatively, by having a physical part that is selected by the laws of qualia generation as an immediate bearer of the property.

Fortunately for the defender of adverbialist property dualism, however, it is not clear that the ‘pairing problem’ represents a decisive objection to speculative materialism, nor does Zimmerman suggest that it does (2010, p. 145). And as Zimmerman concedes, the emergent dualist’s rival speculative hypothesis leaves unanswered many questions about the ‘mechanism by which brains generate souls’ (p. 146). As a result, we need not accept that only a dogmatic materialist will resist Zimmerman’s claim that the speculative forms of materialism available to the property dualist are such that ‘none of [them], at this point, looks more likely to be true than the more modest versions of emergent dualism defended by contemporary substance dualists’ (p. 119).

V

Emergent Properties and Emergent Substances. According to Zimmerman, the property dualism to which the adverbialist is committed appears to be a form of emergentism. Phenomenal properties are additional, fundamental, properties, over and above (and not supervenient on) ordinary physical properties, and these novel, fundamental, properties are generated by the physical activity of the brain. The question arises why one who accepts that there are emergent non-physical properties of this kind should be resistant to the proposal that, in addition to the emergent non-physical properties, there is also an emergent non-physical substance or soul that possesses them. Has a property dualist any principled reason to resist this move? If one is willing to accept that brains generate such novel mental properties, has one any good reason to be sceptical about the suggestion that brains also generate novel and fundamental entities—souls—that are the possessors of these properties?

It might be suggested that it is an advantage of property dualism, compared with substance dualism, that substance dualism would conflict with the principle of the causal closure of the physical in a way that property dualism need not. However, this seems unwarranted. For either the novel properties do causal work, or they do not. If the former, then property dualism threatens to conflict with the causal closure of the physical, regardless of whether it is accompanied by substance dualism. But if the novel properties do *no* causal work, and are purely epiphenomenal, then the question arises why the substance that the emergentist substance dualist postulates should not be equally epiphenomenal, if its role is simply to be the bearer of the epiphenomenal properties.

Nevertheless, there is something to be said in favour of the ontologically more conservative view that accepts that there are genuinely novel phenomenal properties, but remains at least resistant to the idea that there are, in addition, genuinely novel substances that bear the properties. Just by itself, the introduction of novel substances—souls—to be the bearers of the phenomenal properties leaves it quite open what the nature of these additional entities is, apart from their role as the bearers of the properties—and, of course, the fact that their novelty qualifies them for the title of ‘non-physical’. So even if the materialist property dualist has no right to dismiss out of hand the hypothesis that there might be novel entities that play this

role, how seriously the materialist needs to take the substance dualist's rival hypothesis must, in the end, depend in part on whether the dualist can give a credible account of the nature of the novel entities to which emergent substance dualism is committed. But I see no reason to believe that Zimmerman would dispute this point.

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