

# MATERIALISM AND MENTAL MANYISM

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The Mental Problem of the Many suggests that Materialism implies Mental Manyism: if human beings are material objects, then there are millions of conscious human subjects wherever we thought there was just one. Previous discussions of this problem focus on Mental Manyism, and whether it is substantially harder to live with than ordinary Manyism (about clouds, chairs, trees, etc.). But even if it is, that'll count against materialism only if none of the other solutions to the Problem of the Many solves the Mental Problem of the Many. If some other solution works, then Materialism won't imply Mental Manyism after all.

I contend that Materialism does in fact imply Mental Manyism. Here I argue that two of the leading solutions to the Problem of the Many — supervaluationism and vague objecthood — fail to address the Mental Problem of the Many, *even if* they succeed in addressing the ordinary Problem of the Many. It turns out that we (and consciousness) are a special case in more ways relevant to this problem than just one.

## 1. Introduction

Peter Unger (1980) introduced us to the Problem of the Many. Garden variety macroscopic objects like clouds, tables, trees, and so on lack sharp and clear boundaries. So rather than there being just one collection of particles that's a good candidate for composing the cloud which I'm looking at, there are actually millions of massively overlapping but distinct collections of particles that are all equally good candidates to each compose a cloud. Recast as an argument, its conclusion is that *if* there are clouds, tables, trees, etc., then there are millions of each wherever we thought there was only one. Either Nihilism or Manyism.

Many shrug their shoulders when learning of the conclusion. Maybe strictly speaking there *are* millions of clouds where we thought there was only one. Maybe

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strictly speaking there are *no* clouds. But who cares? We can get along in the world just the same. The strict truth about the number of clouds in the sky makes no practical, moral, or experiential difference. What's more, Manyism isn't even counter-intuitive, if we distinguish between counting by identity and counting by almost-identity (Lewis 1993). What's intuitive is that when counting in the everyday way—i.e. by almost-identity—there's just a few clouds up there in the sky right now. The fact that when we count in a *stricter* way we get a much higher number is perfectly consistent with *that*.

Bottom line: we can treat the conclusion of the argument as nothing but an innocuous metaphysical curiosity.

A few decades later, Unger (2004) upped the ante. Suppose materialism about human beings is true: human beings are material objects. Which material objects? Well, the only material objects that are decent candidates for being human beings are garden variety macroscopic objects, such as human organisms and human brains. So then human beings are like clouds, in all the ways relevant to the Problem of the Many. But human beings have mental lives: they're conscious subjects. This gives rise to the so-called *Mental Problem of the Many*, which issues in *this* conclusion: if materialism is true, then there are millions of *conscious human subjects* wherever we thought there was just one.

*That* conclusion seems far less innocuous, and much less of a merely metaphysical curiosity, than the conclusion of the original argument. If materialism is false, then either there are no human beings, or there are, but they have souls. Either way, that's a *big deal*, and would arguably have serious practical and moral implications.<sup>1</sup> And if there are millions of conscious human subjects wherever we thought there was just one, that too would arguably have serious practical and moral implications.<sup>2</sup> Every conscious human subject has her own set of interests to be reckoned with, and we'd have to reckon with all of them. It would mean that when deciding between kidney donor recipients, all else being equal we should donate to the one with the greater *surface area*, since we'd thereby be saving more conscious human beings (Simon 2017a).<sup>3</sup> It would mean that in deciding *whether*

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1. On the practical implications of us not existing, see Olson (2007: §8.7). On some possible moral implications of our having souls, see Harrison (2016), Bailey and Rasmussen (2016), and Rasmussen and Bailey (2021) on intrinsic/infinite moral worth, and, on free will, Cover and O'Leary-Hawthorne (1996). Not to mention, having a soul in the here and now is very plausibly a precondition for a disembodied afterlife.

2. See Hudson (2001), Unger (2004), Simon (2017a), and Segal (2023).

3. Roelofs (2022) replies that the Hedonic Beneficence principle to which Simon is appealing—i.e., if two options are otherwise equal, and one relieves the pain of more experiencers, then one ought to take that option—is true only if interpreted so that counting is done by 'almost identity' rather than 'strict identity,' and so doesn't have the implication for the many overlapping conscious beings that Simon is claiming it has. I for one don't understand why we should think

to donate a kidney at all, there'd be an ethical consideration *against* donating *as weighty* as I'd have under the following condition: millions of others will automatically suffer whatever discomfort I do, and in the unlikely event that I incur death or serious injury, millions of others will likewise suffer death or serious injury.<sup>4</sup> And, it would make any decision whether to bungee jump as morally charged as the decision to do so under the following condition: millions of others will enjoy the same great thrill as I do, but if I incur death or serious injury, then they will too (Segal 2023). These are all rather shocking implications. The conditional conclusion—that if materialism is true, then there are millions of conscious human subjects wherever we thought there was just one—can't be so easily shrugged off.

Indeed, the idea that there are millions of conscious human subjects wherever we thought there was just one might reasonably be thought so absurd that The Mental Problem of the Many can be turned into an argument against materialism.<sup>5</sup> Of course, the Mental Problem of the Many *has* been turned into an argument against materialism. That's precisely what Unger did with it (Unger 2004; 2005).<sup>6</sup> However, he never carefully laid out the premises of the original Problem of the Many (construed as an argument), let alone the Mental Problem of the Many. Allow me to present a version of the Mental Problem of the Many, construed as a two-step argument against materialism, to serve as a reference point.

I'm a metaphysically typical human being—my metaphysical nature is the same as every other human being—so I've taken the liberty of formulating the argument in the first-person. My reason for doing so will become apparent in due course.

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that counting should be done by 'almost identity' rather than 'strict identity' for the purposes of determining the most beneficent course of action. Roelofs says that 'everyday morality' is silent on whether we should count by almost identity or strict identity, since we ordinarily assume that they coincide. But my conviction that we should count by strict identity is not based on its being a consequence of our everyday morality; it's based on it being overwhelmingly plausible once the question is raised.

4. I'd also have a countervailing ethical consideration as weighty as I'd have under the condition that in the event that the kidney transplant is a success, I will have saved millions. But that does nothing to make this consequence more credible.

5. And if the idea that human beings don't exist is thought absurd enough, the Mental Problem of the Many can be pressed further into an argument *for* immaterialism—for the view that there are human beings, and every human being has at least some immaterial part. But I will set aside that extra step, and focus throughout on whether the Mental Problem of the Many succeeds as an argument against materialism. Figuring out whether we exist is a project for another time. See van Inwagen (1990: ch. 12), Olson (2007: Ch. 8), and Sider (2013).

6. See also Zimmerman 2010 for a related but somewhat different argument against materialism based on the phenomenon at the heart of the Problem of the Many.

### Anti-Materialist Argument from the Many:

#### 1. Materialism Implies Mental Manyism

- (a) If I am material, then there is some collection of particles, the me-particles, that compose me. (**Precise Composition**)
- (b) If the me-particles compose me, then there are very many collections of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., distinct from each other and from the me-particles, which, respectively, compose objects  $Me_1$ ,  $Me_2$ , etc., each object of which differs (in its parts) from every other one and from me by at most a few particles. (**Compositional Parity**)
- (c) If there are very many collections of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., distinct from each other and from the me-particles, which, respectively, compose objects  $Me_1$ ,  $Me_2$ , etc., each object of which differs (in its parts) from every other one and from me by at most a few particles, then (since I am conscious)  $Me_1$ ,  $Me_2$ , etc. are all (also) conscious, and distinct from one another and from me. (**Consciousness Parity**)
- (d) If  $Me_1$ ,  $Me_2$ , etc. are all conscious, and distinct from one another and from me, then there are very many conscious beings where I am. (**Counting by Identity**)  
Therefore,
- (e) If I am material, then there are very many conscious beings where I am.

#### 2. Mental Manyism is False

- (f) It's not the case that there are very many conscious beings where I am.

Therefore,

#### 3. Materialism is False

- (g) It's not the case that I am material.

Not much attention has been paid to this argument.<sup>7</sup> Perhaps that's because materialism is so entrenched that anti-materialist arguments aren't taken very seriously.<sup>8</sup> I take this argument very seriously. I think it's one of the most compelling philosophical arguments out there. But not enough has been done to defend its premises. Nearly all the discussion has focused on whether 'Mental

7. For some exceptions, see Bynoe and Jones (2013), Simon (2017a), and Roelofs (2022).

8. See Lycan (2009).

Manyism' is viable.<sup>9</sup> But even if you think, as I do, that it *isn't* viable, that all by itself won't give you much reason to deny materialism—not unless you think that Manyism is the right response to the *general* Problem of the Many. And from what I can tell very few philosophers think that it is. Most philosophers who have a view on the Problem of the Many think there's some solution *other* than embracing Manyism (or Nihilism). It's natural to think those solutions will work just as well to undermine this argument *from* materialism *to* manyism. Unless we can show that all of those other solutions also fail specifically when it comes to *us*, this argument won't move the needle very much on the question of materialism.<sup>10</sup>

I hope to show exactly that. Not regarding *all* of the other solutions. Space doesn't permit such a comprehensive treatment. And more importantly, a few of the other solutions *would* solve the Mental Problem of the Many—and would parry the Anti-Materialist Argument from the Many—if they succeeded in solving the plain-old Problem of the Many.<sup>11</sup> But they're rather difficult to maintain.<sup>12</sup> So, I will focus on two of the most promising (non-Manyist, non-Nihilist) replies: supervenience and vague objecthood. My contention is that even if one of them succeeds as a response to the Problem of the Many, it's *much harder* for them to undermine the Anti-Materialist Argument from the Many.

In order to show how much harder it is to address the Mental Problem of the Many, I'm going to lay out an argumentative recasting of the Problem of the Many—what I'll call the "Nihilist Argument from the Many"—that is structurally identical to the Anti-Materialist Argument. This will allow us to compare directly how they fare in the face of the proposed solutions.

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9. Hudson (2001: §1.4–1.5), Sutton (2014), and Roelofs (2022). There has also been some discussion of whether immaterialism (or some specific version of immaterialism) falls prey to a similar argument (Hudson 2001: 20–21; Bynoe and Jones 2013; Hershenov 2022). I'll just note that even if that parallel argument succeeds, it doesn't thereby save materialism. It might be that the rational conclusion to draw from this whole discussion is that materialism and immaterialism are both false, because we don't exist at all. See fn 5.

10. To be sure, *this* (Unger-style) argument is not the only one that tries to make trouble for materialism (or specific versions of materialism) by pointing to alleged overpopulation problems. There is the so-called Thinking Parts Problem for most versions of materialism (see Olson 1995; Kovacs 2010; Sutton 2014; Kovacs 2016; Madden 2016; Tzinman 2021), the so-called Thinking Animal Problem for non-animalist versions of materialism (see Carter 1988; Snowden 1990; Olson 2007: §2.3), and still others. Even if, contrary to what I argue, the Mental Problem of the Many turns out not to be a problem for materialism, one of these other problems might still be. My discussion throughout is confined to the Unger-style Mental Problem of the Many, and the other alleged problems need their own treatment.

11. I'm thinking of 'Constitutionalist' responses (Lowe 1982; 1995; Johnston 1992; Jones 2015) that deny premise (a), 'Brutalist' responses (Markosian 1998) that deny premise (b), and a 'Partist' response (Hudson 2001) that denies the last conjunct of the consequent of (c). For helpful surveys of responses to the Problem of the Many, see Hudson (2001: ch. 1) and Weatherson (2016).

12. For criticism of Constitutionalism, see Lewis (1993) and Hudson (2001: 32–33). For criticism of Brutalism, see Horgan (1993).

Suppose I point in the direction of a paradigmatic tree—that is, if anything is a tree, there is a tree over *there*—and I say, “Let’s call that tree over there, ‘Arby’.”

Then the following argument is intended to show that it’s not the case that Arby is a tree, and so that there are no trees after all:

### Nihilist Argument from the Many

#### 1. Arboreal Realism Implies Arboreal Manyism

- (a) If Arby is a tree, then there is some collection of particles, the Arby-particles, that compose Arby. (**Precise Composition**)
  - (b) If the Arby-particles compose Arby, then there are very many collections of particles, the Arby<sub>1</sub>-particles, the Arby<sub>2</sub>-particles, etc., distinct from each other and from the Arby-particles, which, respectively, compose objects, Arby<sub>1</sub>, Arby<sub>2</sub>, etc., each object of which differs (in its parts) from every other one and from Arby by at most a few particles. (**Compositional Parity**)
  - (c) If there are very many collections of particles, the Arby<sub>1</sub>-particles, the Arby<sub>2</sub>-particles, etc., distinct from each other and from the Arby-particles, which, respectively, compose objects, Arby<sub>1</sub>, Arby<sub>2</sub>, etc., each object of which differs (in its parts) from every other one and from Arby by at most a few particles, then (if Arby is a tree, then) Arby<sub>1</sub>, Arby<sub>2</sub>, etc. are all (also) trees, and distinct from one another and from Arby. (**Arboreal Parity**)
  - (d) If Arby<sub>1</sub>, Arby<sub>2</sub>, etc. are all trees, and distinct from one another and from Arby, then there are very many trees where Arby is. (**Counting by Identity**)
- Therefore,
- (e) If Arby is a tree, then there are very many trees where Arby is.

#### 2. Arboreal Manyism is False

- (f) It’s not the case that there are very many trees where Arby is.

Therefore,

#### 3. Arboreal Realism is False

- (g) It’s not the case that Arby is a tree.

The arguments are now on the table. Before we turn to the task of examining responses to the Nihilist Argument in order to see if they hold up against the Anti-Materialist Argument, we need to keep in mind several points. First, because my focus is not on whether Mental Manyism is *true*, but on whether it follows from Materialism, I’m going to spot myself the falsity of Mental Manyism. That is,

I'm going to assume that it's not the case that there are very many conscious beings where I am. And I'm going to take that denial to be justified by the absurd moral and practical implications that Mental Manyism has been argued to have. Consequently, any solution that leaves us with roughly the same kind and degree of moral or practical absurdity as Mental Manyism will be considered objectionable on those grounds.

Second, I'm going to make some assumptions, one or more of which *physicalists* (about the mental) might initially find objectionable. In particular, I'm going to assume that (1) 'x is phenomenally conscious' is precise—there are no borderline cases of phenomenal consciousness; (2) consciousness is intrinsic—whether a thing is phenomenally conscious doesn't constitutively depend on what is going on with its surroundings; (3) my own first-personal thought has a determinate referent. (To be more exact, I'm nowhere going to assume that *all* of these claims are true. When responding to supervenience, I will assume the *disjunction* of the three claims. And when responding to the vague object view, I will just assume (1).) As I'll explain, I don't think physicalists *need* find these assumptions objectionable. And on top of that, my target in this paper is *materialism* (about us), which in no way entails *physicalism* (about the mental)—we might be wholly material objects that have some non-physical properties. That being said, some materialists have physicalist proclivities, and some physicalists might well have a tendency toward thinking of consciousness as vague and extrinsic (and against the possibility of first-personal thought, or against *determinate* first-personal thought). Since I don't want to catch anyone by surprise, I'm putting these assumptions up front. I will do more in due course to justify the assumptions. But I'd also be satisfied simply demonstrating the conditionals with those assumptions as antecedents. That would suffice to show that a materialist is going to be stuck with Mental Manyism unless she takes on some very specific and theoretically loaded additional commitments—ones that aren't already "baked in" to materialism, and ones which *we* needn't take on just in order to provide a non-Nihilist non-Manyist response to the *Nihilist Argument*.

With those points in mind we can now turn to the solutions.

## 2. Supervenience

Some philosophers have suggested a supervenience response to the Nihilist Argument (Lewis 1993; McGee and McLaughlin 2000). Where any tree is, the response goes, there are indeed countless tree-shaped massively overlapping objects. Each is an equally good candidate for being a tree. But the term 'tree' is vague; for each of the tree-shaped objects, on some admissible way of precisifying

the term, that object is in its extension, and on many such ways it isn't. So each of the tree-shaped objects is only indeterminately a tree. Nonetheless, there are so-called penumbral connections between the overlapping tree candidates: any admissible precisification of the term will assign *exactly* one such object to its extension. So, there are indeed very many  $\text{Arby}_n$ 's where Arby is, but none is *definitely* a tree; and it's nonetheless definitely the case that there is exactly one tree where Arby is.

The name 'Arby' is likewise vague. For each  $\text{Arby}_n$ , on some admissible way of precisifying the name 'Arby,' that object is its referent, and on many such ways it isn't. Each  $\text{Arby}_n$  is only indeterminately Arby. The penumbral connections, however, guarantee that any admissible precisification of the name 'Arby' will assign *exactly* one such object as its referent. Thus, it's definitely the case that Arby is just one thing, not many.

Moreover, the question of which precisifications are admissible is answered holistically. Any admissible precisification that assigns some particular object to serve as the referent of 'Arby' must also assign that object to the extension of the term 'tree.' And so, it's also *definitely* the case that Arby is tree.

If all this is right, then premise (c) of the Nihilist Argument is false. While it's *definitely* the case that Arby is a tree, it's *definitely not* the case that  $\text{Arby}_1$  is a tree, and  $\text{Arby}_2$  is a tree, and so on.

This is in many ways a very elegant solution. None of the many  $\text{Arby}_n$ 's is a definite tree. So we avoid the need for an arbitrary *selection* principle: as if it would make any metaphysical sense for there to be exactly one of the  $\text{Arby}_n$ 's that's a definite tree. Likewise, we can still hold on to the very powerful thought that anything that's tree-indistinguishable from a *definite* tree is itself a tree.<sup>13</sup>

## 2.1. Supervaluationism and Us

There's much to say about the supervaluationist response and whether it succeeds as a response to the Nihilist Argument.<sup>14</sup> My contention here is that even if it succeeds as a response to the Nihilist Argument, it's *much harder* to mount the same response to the Anti-Materialist Argument. Premise (c) of the Anti-Materialist Argument is on much firmer ground than its counterpart in the Nihilist Argument, for at least three reasons: two have to do with a difference in the predicate ('x is conscious' vs. 'x is a tree'), the third with a difference in the subject ('I' vs. 'Arby').

13. See Weatherson (2016: §7.3).

14. See Weatherson (2016; 2003: §7.3).



Let's start with the predicate. The predicate 'x is conscious' is meant to express the property of being *phenomenally* conscious—of being such that *there's some way it's like* to be that thing. Understood thus, it certainly doesn't *seem* to be vague—and doesn't *appear* to admit of multiple precisifications—in the way that 'x is a tree' does. On the face of it at least, for anything whatsoever, either that thing is definitely conscious or that thing is definitely not-conscious.<sup>15</sup> Either it's *lights on* inside, or it's *lights out*. Even a very dim or fuzzy light is a light. Of course sometimes we get woozy, or lightheaded. But that's not a case in which it's indeterminate whether we're conscious. It's perfectly determinate that we're conscious when we feel woozy. We feel woozy after all, and determinately so. It's the *character* of our experience that's fuzzy, not its *existence*.

We can further support the intuitive determinacy of phenomenal consciousness with a number of arguments. Some philosophers have pointed out that even after giving the matter a lot of thought we can't *imagine* a situation in which someone or something is only borderline phenomenally conscious; usually we take such a failure of imaginability to be evidence that the situation in question is impossible.<sup>16</sup>

A much more sophisticated argument along these lines relies on the idea that a necessary condition for a predicate to have a borderline case is that sufficiently competent users of the predicate are positioned to understand what makes it a borderline case—but that in the case of 'phenomenally conscious' that condition doesn't obtain.<sup>17</sup> Thus, Simon (2017b: 2112) defends what he calls the 'Positive Characterization Thesis,' which says that "for every borderline case there is an explanation of why that case is borderline in terms of norms that apply to that case in light of what else is true about 'it'." And he further argues that (if zombies are conceivable, then) there can be no positive characterizations of borderline cases of 'phenomenally conscious.'

Finally, we might note that for any vague predicate F it's possible for something to be definitely F, possible for something to be definitely non-F, and possible for something to be neither definitely F nor definitely non-F; but then any vague predicate F must be *gradable*, in the sense that one thing can be more or less (of an) F than another thing. Thus, you can be more or less bald than another fellow. You might say to your child, while pointing at the Boab Prison Tree, "Believe it or not, that's *just as much of a tree* as the one in our backyard." And contrariwise, some shrub in the early evolutionary history of trees might indeed be *less of a tree* than the one in your front yard. But you can't be more or less

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15. See Antony (2006; 2008), Perkins and Bayne (2013), and Simon (2017b) for discussion and defense. For a list of philosophers who agree that this is intuitively the case, see Simon (2017b: fn 4).

16. See Schwitzgebel (2023), who presents but criticizes this argument.

17. See Antony (2008) and Simon (2017b).

conscious.<sup>18</sup> At least not if we're using "x is conscious" to just mean "x is such that there is some way it's like to be that thing." Of course, a conscious being could be more or less *aware of*, and have greater or lesser *access to*, its own states or to the states of other things. But there's no greater or lesser way it's like to be something, in the relevant sense.<sup>19</sup>

So nothing is indeterminately conscious, in the intended sense of that term. (Of course that's consistent with there being subject-predicate sentences, 'A is conscious,' which are only indeterminate in truth value, because the subject term that replaces 'A' might be vague.) Since *nothing* is indeterminately conscious, none of the  $Me_n$ 's is indeterminately conscious. If none are definitely conscious, then each one is definitely not conscious. But then it's definitely *not* the case that there is a conscious being here. That's not the result we want—and not a result that would allow us to reject (c). If, on the other hand, at least one is definitely conscious, then all of them are definitely conscious—because of the powerful thought, which I already mentioned, which even the supervaluationist wants to retain: anything that's consciousness-indistinguishable from a *definitely* conscious being is itself definitely conscious. Again, that's not the result we want—and not a result that would allow us to reject (c). Back to square one.

Second point about the predicate, 'x is conscious': even if it were vague, and admitted multiple precisifications, it's not plausible that the needed penumbral connection exists. There's nothing about the *semantics* of the term 'conscious' that precludes there being two or more distinct but massively overlapping conscious beings. Perhaps there are *sortal* terms, like 'person,' whose semantics precludes there being two or more distinct but massively overlapping persons.<sup>20</sup> But 'conscious' isn't like that. It's relevantly like 'bald' and like 'blue.' Nothing in the

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18. Don't we sometimes say that someone is gradually regaining consciousness? Yes, but what that means is just that she's gradually attaining a state of relative *stability* in her conscious life, that her conscious experiences are becoming longer-lasting and more coherent.

19. A referee raised the interesting question of whether a supervaluationist response to Arguments from the Many really requires that the relevant predicate be gradable. After all, isn't it part of the description of the case—and of the underlying thought behind the supervaluationist reply—that none of the many  $Arby_n$ 's is any *more* qualified to be a tree than any of the others? The referee is correct that (according to the supervaluationist solution at least) none of the  $Arby_n$ 's is more of a tree than any of the other  $Arby_n$ 's. But that doesn't mean that the supervaluationist solution will work even for cases where the predicate in play isn't gradable; it just means that we won't find the comparative truths ("this thing is more of a tree than that," for example) regarding the many overlapping things themselves. Each such thing could still be less of a tree than a *definite* tree—such as a tree with perfectly clear boundaries. I don't see how we could *escape* the conclusion that each of the  $Arby_n$ 's will in fact be less of a tree than any definite tree, given that each of the  $Arby_n$ 's is only indeterminately a tree. If, on the other hand, the predicate in play *isn't* gradable, then, assuming it's possible for something to be a definite F, it won't be the case that each of the many overlapping things is only indeterminately F, and then there's no way for the supervaluationist solution to get off the ground.

20. See Hudson (2001: 18–19).

semantics of those terms precludes massively overlapping things from all being bald, or all being blue. At least one sufficient reason for that is that each of those features (**baldness** and **blueness**) is very plausibly intrinsic, and so its instantiation makes no absolutely necessary demands on its environment. But it would make such demands if it were an analytic truth that no two distinct blue (bald) beings massively overlap. By the same token, **consciousness** is very plausibly intrinsic. Indeed, I can't think of a clearer instance of an intrinsic property than the property, **being such that there's some way it's like to be that thing**.<sup>21</sup> And so *its* instantiation makes no absolutely necessary demands on its environment. But it would make such demands if it were an analytic truth that no two distinct conscious beings massively overlap.

So the central predicate term in the Anti-Materialist argument is 'special.' But so is the subject term. 'Arby' was our name for that tree over there. According to supervaluationism, the name inherits the vagueness of the demonstrative term used to fix its referent. And the vagueness of the name 'Arby' blocks the inference of

(C) There is something (over there) that's definitely a tree.

from

(A) Definitely, Arby is a tree.

If 'Arby' were perfectly precise—admitting of just one precisification—then we *would* be entitled to infer (C) from (A); and the supervaluationist semantics would vindicate that.

For, from (A) we'd be entitled to infer

(B) Arby is definitely a tree.<sup>22</sup>

According to the supervaluationist semantics, (A) is true only if, for every admissible precisification of the 'Arby'/'tree' pair, the referent assigned to the former is a member of the extension assigned to the latter. Now suppose that 'Arby'

21. See Hawthorne (2004). For further discussion, see Mørch (2019).

22. To be clear, (B) is intended in such a way as to straightforwardly license the inference of (C) from (B), and so is *not* meant to be a mere notational variant of (A). In (A) (and other sentences of the form 'Definitely a is F'), 'definitely' functions as a sentential operator, while in (B) (and other sentences of the form 'a is definitely F') it functions as a predicate-forming operator. The correct semantics for the two operators will depend on the correct theory of vagueness, and in fn 23 I will make clear what I take to be the natural semantics for the predicate-forming operator given supervaluationism. But it's not to be assumed in general that a sentence of one of the forms is semantically equivalent to its counterpart of the other form.

has only *one* admissible precisification. Then it would follow from (A) (given the supervaluationist semantics) that for every admissible precisification of 'tree,' the (one and only) referent of 'Arby' is a member of it. But then it would follow that Arby is definitely a tree.<sup>23</sup> (Indeed, it would follow that *definitely*, Arby is definitely a tree.) That is, (B) would follow from (A). And (C) follows from (B). Of course, supervaluationists wish to accept (A) but deny (C). They can legitimately do that only because 'Arby' is vague. If it were perfectly precise, then the conclusion would follow ineluctably.

But that's exactly the situation I'm in regarding my being conscious. If anything is clear to me, it's that:

(A') Definitely, I am conscious.

I'm thinking and believing (A') right now. But the first-person pronoun as it features in that thought admits of no precisification: when I think that thought, the function of the first-person pronoun is to allow for *self*-reference and *self*-predication. Whenever *anyone* thinks a first-person thought, the function of the first-pronoun they employ is to allow for self-reference and self-predication.

So then I am indeed entitled to infer (if I need to infer this at all)

(B') I am definitely conscious.

From which I'm entitled to infer,

(C') There is something (over here) that's definitely conscious.

And now I'm back to square one again. Since one of us is definitely conscious, all of us are definitely conscious, again because of the powerful thought that even the supervaluationist wants to retain: anything that's consciousness-indistinguishable from something *definitely* conscious is itself definitely conscious. If it's true that definitely I am conscious, then there are very many definitely conscious beings where I am.

## 2.2. *Physicalism to the Rescue?*

For all these reasons, premise (c) of the Anti-Materialism Argument is much harder to deny than premise (c) of the Nihilist Argument. Much harder, but admittedly

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23. Here's a natural supervaluationist semantics for the predicate-forming operator, 'definitely F': an object satisfies the open sentence, 'x is definitely F' just in case it is a member of every admissible precisification of 'F.' Since Arby is a member of every admissible precisification of 'tree,' Arby satisfies the open sentence, 'x is definitely a tree,' and so (B) comes out true.

not impossible. As I noted in §1, some philosophers might take physicalism about the mental to entail that phenomenal consciousness is vague and extrinsic. After all, it seems plausible that any *physical* property with which we might identify phenomenal consciousness (or to which we might ‘reduce’ it) is going to be both vague and extrinsic.<sup>24</sup> And while the vagueness and extrinsicness of consciousness are widely acknowledged as counterintuitive and costly, some philosophers might also be prepared to bear those costs in order to buy a theory as elegant as physicalism.<sup>25</sup> Likewise, some philosophers might take physicalism to entail the denial of determinate first-personal thought. And while they might acknowledge that the denial of determinate first-personal thought is counterintuitive and costly, they might also be prepared to bear that cost in order to buy a theory as elegant as physicalism.

Now, it’s worth first recalling a point I briefly mentioned in §1: physicalism (about the mental) is not entailed by materialism (about human beings). One can consistently think that mental features are irreducible (or not reducible to physical features) but that we human beings have only material parts. So, even if my argument assumes some things that no *physicalist* would reasonably grant—which, as I will argue presently, it doesn’t in fact do—that wouldn’t mean that my argument *begs the question* in any problematic way. The argument I’m defending is an anti-*materialist* argument, not an anti-*physicalist* argument.

But even more to the point, it’s not at all obvious that my assumptions (together with any substitutes that could work just as well) are in fact ruled out by physicalism.

Some physicalists have indeed been prepared to simply bite the bullet on the vagueness and extrinsicness of consciousness—without any concessions to the other side.<sup>26</sup> But other, pretty ardent physicalists, have at least partially conceded—and their partial concession is good enough for my argument to succeed. Thus: Michael Tye (2021) argues on physicalist grounds that consciousness can be vague. But even Tye agrees that there is a *non-vague* property that is a central constituent of consciousness—which he calls “consciousness\*” —that is just a matter of there being some way it’s like to be that thing. I won’t quibble about which property is picked out by our term ‘conscious,’ because I don’t need to. We could put the whole Anti-Materialist Argument in terms of consciousness\*, and it would be just as persuasive as the original. Notice that if there are very many conscious\* beings where I am, then we presumably all have the same powers, and all have the same interests. So there being so many conscious\* beings where I am would have the

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24. See Antony (2008), Simon (2017b), Tye (2021), and Schwitzgebel (2023) on vagueness, and Sider (2003) on extrinsicness.

25. See Tye (2021), Schwitzgebel (2023), and Sider (2003).

26. See Hall (2022) and Schwitzgebel (2023).

same practical and moral implications as there being so many conscious beings. And remember, I'm spotting myself the falsity of Mental Manyism on the basis of the absurd moral and practical implications that Mental Manyism has been argued to have.

Likewise, Ted Sider (2003) argues on the grounds of microphysical supervenience that consciousness is extrinsic. But even Sider agrees that there is an intrinsic property that is a central constituent of consciousness—which he calls “consciousness\*” (sound familiar?)—that is a matter of there being some way it's like to be that thing.<sup>27</sup> Again, I won't quibble about which property is picked out by our term ‘conscious,’ because again, I don't need to. We could put the whole Anti-Materialist Argument in terms of *Sider's* consciousness\*, and it would be just as persuasive as the original. At least it's as persuasive given that I'm spotting myself the falsity of Mental Manyism on the basis of the absurd moral and practical implications that Mental Manyism has been argued to have.

When it comes to the assumption that the first-person pronoun is precise, the bearing of physicalism is even less clear. Some philosophers have indeed argued that if mental properties are physical properties—and so our token mental states are simply physical states—then massively overlapping human thinkers literally share numerically identical thoughts. And so they have further argued that any first-personal thought that an overlapping thinker has lacks a determinate referent, it referring ambiguously to all of the thinkers with whom she overlaps.<sup>28</sup>

But now: it's far from obvious that overlapping thinkers do share numerically the same thoughts, even granting physicalism. Perhaps thoughts are individuated at least in part by thinkers. Distinct thinkers would automatically give us distinct thoughts. Whether that's true presumably depends on what thoughts *are*, which presumably depends in turn on the nature of states and events more generally. If, for example, Jaegwon Kim (1976) is right that events and states in general are just *property exemplifications*—and that no two objects can be in numerically the same state—then no two thinkers could literally share a mental state, such as a particular thought. Contrary to the impression one gets from some of the literature on the thoughts of overlapping thinkers, the nature and identity conditions of states are open metaphysical issues.

It's also far from obvious that first-person thoughts *just as such* have whatever referent they do. Perhaps, it's *thinker/first-person-thought complexes*, or just *thinkers* (on a given occasion of having a first-person thought), who do so. Then there'd be no reason that *each* of the massively overlapping thinkers couldn't

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27. Or at least that's how I understand what he's saying. He concedes that “a single atom cannot make a difference between the full range of conscious experiences I enjoy and having the consciousness of a doorknob!” (Sider 2003: 147). This is also how Merricks (2001) understands him.

28. See Sutton (2014) and Roelofs (2022).

use the *same* thought to refer unambiguously to herself—again, even assuming physicalism.

This suggests two places to get off the physicalist train that leads to massively overlapping thinkers having no determinate first-person thoughts. First, we might deny that they could share the very same thought. Second, we might contend that even if they do share the very same thought, each one can still think first-personally about herself and only herself. Neither of these two alternatives is obviously right, just as neither is obviously wrong. But a physicalist will be hard-pressed to deny both. If they *do* deny both, then they'll be forced to deny that certain evidently thinkable thoughts are in fact thinkable. Suppose God tells me right now that he's going to eliminate all of the  $Me_n$ 's except for  $Me_{45}$  (and except for any  $Me_n$ , if such there be, that is a proper part of  $Me_{45}$ ). That is: God is going to annihilate any particle  $P$  such that for some  $i \neq 45$ ,  $P$  is among the  $Me_i$ -particles but not among the  $Me_{45}$ -particles. God leaves every other particle (including all of the  $Me_{45}$ -particles) intact. Effectively, this turns  $Me_{45}$  into an "unaccompanied" human organism (any humanoid object with which it overlaps is a proper part of it). It seems obvious that I could hope, in a way that's not obviously empty, that I'm  $Me_{45}$  (or one of the  $Me_n$ 's that's a proper part of  $Me_{45}$ ). It also seems obvious that I could have the worrying thought—in a way that's not obviously misplaced—"Oh no, the probability that I am  $Me_{45}$  (or one of the  $Me_n$ 's that's a proper part of  $Me_{45}$ ) is pretty low! I'm probably doomed!'. (Pretend God said that to *you*, and try this out.) But if the multitude in my chair all share the very same first-personal thoughts, and those thoughts ambiguously refers to all of us, then the only hopes and fears I can manage to have make little sense.

Moreover, the denial that overlapping thinkers can have determinate first-person thoughts would make one's ability to think about oneself bizarrely extrinsic. Suppose we started with a situation in which the boundaries of human organisms were perfectly precise.<sup>29</sup> Consider one such organism who was happily thinking about himself. And then suppose God decided to have some fun, and so sprinkled some atoms at the boundaries of human organisms, thereby making them all very fuzzy. Without touching or otherwise altering the parts of the fellow who was getting along just fine thinking about himself, God would have thereby rendered it *impossible* for him to do so. This seems incredible. How could one's ability to think about oneself *constitutively* depend on anything but what's going on with *oneself*?

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29. Ignore any other route to Too Many Thinkers (see fn 1). Note that if there are other routes to Too Many Thinkers that are independent of considerations about vagueness, then I'd have a much simpler and quicker way to get to my main conclusion, viz. that even if there is some (non-nihilist, non-manyist) solution to the general Problem of the Many, the materialist is still going to be saddled with Mental Manyism.

The bottom line: mounting a supervenience response to the Anti-Materialist argument requires a bunch of commitments that are individually implausible—and none of which is straightforwardly entailed by physicalism, let alone by materialism. Taken together, these commitments amount to turning a blind eye to some of the most basic things we know about ourselves from the inside. In any case, what I claim is just this: it's *much harder* to deny premise (c) of the Anti-Materialist Argument than to deny premise (c) of the Nihilist Argument. So much is clear, I hope.

### 3. Vague Objects

This brings us to another solution, which, like supervenience, draws on a broader approach to the general phenomenon of vagueness. The crux of Peter van Inwagen's (1990: ch. 17) solution is the claim that trees and dogs and human organisms (he doesn't believe in clouds or tables. . .) are all *vague objects*.<sup>30</sup> That's not to say they only kinda sorta *exist*. It's to say that there are some things that are only kinda sorta *parts* of them. So there is some one thing over there, Arby, that's definitely a tree. But there *is* no collection of particles (or of other objects, other than Arby himself) that *definitely* compose him. That is, there is some *thing* over there, *y*, that is definitely a tree, and nothing over there other than *y* is a tree, and yet it's not the case that there are any *xs* such that *definitely*: each of the *xs* is part of *y* and anything that overlaps *y* overlaps at least one of the *xs* and none of the *xs* overlap.

For, alongside all of the particles that are definitely parts of Arby and those that are definitely not parts of Arby, there are those particles such that it's indeterminate whether they're parts of Arby. So, take any collection of particles. If it includes none but those that are definitely parts of Arby, then it won't definitely compose Arby, since it won't be the case that definitely anything that overlaps Arby overlaps at least one of the particles in the collection. On the other hand, if it includes all of those that are either definitely or indeterminately parts of Arby, then it won't be the case that definitely they're all parts of Arby. And if it includes some but not all of those that are indeterminately parts of Arby, then it'll fail on *both* grounds to definitely compose Arby: it might, so to speak, be missing some particles, and it might have too many.

The claim that trees and dogs and human organisms are all vague objects bears rather straightforwardly on the Nihilist Argument. If that claim is true, then

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30. I'm ignoring his introduction of uncountably many degrees of vagueness—between “absolutely positively yes parts” and “absolutely positively not parts”—since I don't think it'll matter for whether the response succeeds.



premise (a) of the Nihilist Argument is false—at least if it's understood in such a way that the argument doesn't equivocate. For, while Arby is a tree—indeed, while Arby is a definite tree—there is no collection of particles that *definitely* compose Arby. Putting the point in quantificational terms, so it's clear this has nothing to do with any vagueness in the name 'Arby': there is a definite tree—and hence a definitely composite object—over there, such that no particular collection of particles definitely composes it.

There's much to say about the vague object response and whether it succeeds as a response to the Nihilist Argument.<sup>31</sup> My contention here is that even if it succeeds as a response to the Nihilist Argument, it encounters a serious problem when deployed as a reply to the Anti-Materialist Argument. I'm going to develop this problem in two stages. First, I'm going to assume a version of the vague object view that van Inwagen doesn't actually endorse, and argue that it does nothing to address the problem for materialism. We still end up with too many conscious beings. Then I'm going to argue regarding the second version of the vague object view—the one that van Inwagen *does* endorse—that even if it does *something* to address the problem for materialism, it doesn't do nearly enough.

The vague object reply to the Anti-Materialist Argument denies premise (a): it says that while I am wholly material, there is no collection of particles that definitely composes me. I am a vague object. Just like Arby and Fido. There's no way to answer the question we might pose to the materialist: "*Which* material thing am I?" Or, at least, there's no way to answer that question by specifying which particles compose me. (And this isn't as problematic for the materialist as one might think. There simply *is* no way to sort all the particles into those that are parts of me and those that aren't parts of me, since there will be many borderline particles, which are only indeterminately part of me.) But we can still ask: *are there in addition* to Arby and Fido and me, precise macroscopic objects—that is, macroscopic objects that aren't vague—some of them arboreal, some of them canine, and some of them humanoid? The claim that some trees and dogs and human organisms are vague objects—even the claim that *all* trees and dogs and human organisms are vague objects—is consistent both with a "yes" answer to that question and with a "no." For there could be, along with Arby, say, very many arboreal precise objects, none of which are trees.

Let's call the view that *all* macroscopic objects are vague (and there are macroscopic objects), the *pure vague object view*. This is the version of the vague object view that van Inwagen endorses. And let's call the view that there are macroscopic objects of both sorts, vague and precise (indeed, that there are all of the 'precisifications' of the vague object), the *hybrid vague object view*. This is the version of the

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31. See, inter alia, McGee and McLaughlin (2000) and Hudson (2001).

vague object view that Lewis (1993) entertains.<sup>32</sup> (He ultimately rejects it. But not in favor of the pure vague object view.)

### 3.1. *The Hybrid View*

Start with the hybrid vague object view. On this view, I am a vague object, and alongside me there are also all of the humanoid precise objects that I named in premise (b):  $Me_1$ ,  $Me_2$ , etc. If this is to provide any relief to a materialist, then it's going to have to be the case that while *I* am conscious, none of these precise objects is conscious.<sup>33</sup> And you might think that this isn't terribly implausible. Indeed, this claim about the 'lack of consciousness of the many precise objects' might be much *more* plausible than analogous claims regarding the lack of cloudhood, treehood, or humanity of the many precise objects. After all, as Lewis (1993) points out, it's very odd to think that none of the arboreal precise objects overlapping Arby is in fact a tree. There's nothing *impossible* about a precise tree—just imagine if the world had been much less fuzzy than it is. And it's unclear how the presence of one *vague* tree could spoil the precise object's treehood. So if alongside the vague objects there are also precise ones, you'll probably still have the many trees, and human organisms too. But when it comes to consciousness, there *could* just be some contingent law that prevents anything but a vague object from being conscious. It's not out of the question—at least if you're dualist enough about consciousness. And so although we might all have to concede that there are many human organisms where I am, the materialist need not concede that there are many conscious beings where I am. Only one of the very many humans organisms here—the one that's a vague object—will be conscious.

Unfortunately for materialism, I think this *is* out of the question. The reason it's out of the question consists in the conjunction of a compelling principle about indeterminate identity, and the claim I made earlier, that consciousness is never vague.

Note first that if I am a vague object who exists along with all of the precise humanoid objects over here, it's hard to avoid the conclusion that for each such object it's indeterminate whether I'm *identical* with it. Consider  $Me_{23}$ , which

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32. Since the context of my discussion is the dispute between materialism and its rivals, and substance dualism is one of those rivals, I avoid Lewis's term 'dualism' so as not to sow any confusion.

33. Otherwise, we can replace premises (a) and (b) with a single conditional premise, whose antecedent is the antecedent of (a) and whose consequent is the consequent of (b). The argument will still establish the falsity of materialism, even though the original premise (a) is false. What's needed to salvage materialism is the falsity of (c).

is composed of the  $Me_{23}$ -particles. Now, it's not definitely the case that I *am* composed of the  $Me_{23}$ -particles, but it's also not definitely *not* the case that I am composed of those particles. If that *were* definitely not the case, it would have to be either definite that one of the  $Me_{23}$ -particles is not part of me, or definite that something overlaps me but doesn't overlap any of the  $Me_{23}$ -particles, neither of which is the case. (I will return shortly to the argument contained in the previous sentence.) So it's indeterminate whether  $Me_{23}$  and I are composed of the very same particles. Setting aside the possibility of distinct objects composed of the very same particles—in other words, assuming mereological extensionality—it'll be indeterminate whether  $Me_{23}$  and I are identical.<sup>34</sup> And the same goes for all of the  $Me_n$ 's. Each one is indeterminately identical with me.

But now, as van Inwagen himself says about the interaction between indeterminate identity and property possession:

Suppose that it really is indefinite whether  $x$  is identical with  $y$ . Suppose that  $y$  definitely has the property  $F$ . Can it really be definitely false that  $x$  has the property  $F$ ? (1990: 253)

Or as we might put it: if two things aren't definitely distinct, then could it be that the one definitely has some property that the other definitely lacks? It seems not, as van Inwagen argues, for then they would be definitely distinct. At least suitably qualified, this seems as evident as Leibniz's Law for determinate identity.<sup>35</sup> Let's call this claim 'Leibniz's Law for Indeterminacy':

**Leibniz's Law for Indeterminacy (LLI)** For any  $x$  and  $y$  and property  $F$ , if it's indeterminate whether  $x$  is identical with  $y$ , and  $x$  definitely has  $F$ , then it's not the case that  $y$  definitely lacks  $F$ .

So for any property I definitely have, none of the  $Me_n$ 's definitely lacks it. It's at least indeterminate whether it has that property. But now recall the claim

34. As I already noted (fn 11), I'm not addressing the "constitutionalist response," which as it's ordinarily developed (an exception is Lowe 2002) would deny extensionality.

35. I would qualify this principle in a way that van Inwagen doesn't, so as to escape the claws of Evans's (1978) well-known argument against indeterminate identity. Because van Inwagen accepts an unqualified version of the principle, while still accepting that there are cases of indeterminate identity, he is forced to deny certain instances of the schema: " $a$  definitely lacks the property, **being indefinitely identical with  $a$** " (van Inwagen 1990: 254). This seems a very heavy price, and I'd prefer to simply restrict Leibniz's Law for Indeterminacy to properties that aren't "vagueness involving" (where a property  $P$  is vagueness-involving just in case it is the property, **being definitely  $G$** , or the property, **being definitely not  $G$** , or the property **being indeterminately  $G$**  [for some substitution of a predicate for " $G$ "]). See Segal (2023: §2.13)

I made above about the determinacy of consciousness, this time formulated in property-terms.<sup>36</sup>

**Consciousness Is Not Vague** For any  $x$ , either  $x$  definitely has the property, **being conscious**, or  $x$  definitely lacks the property, **being conscious**.

There isn't anything that's kinda sorta conscious, and so there isn't anything that only kinda sorta has the property, **being conscious**. But then it's easy to see that we can derive that each of the  $Me_n$ 's is conscious after all—indeed, definitely conscious.

### Trickle Down Mentality

1. Definitely I am conscious.  
So,
2. Definitely I have the property, **being conscious**. (from 1)  
So,
3. I definitely have the property, **being conscious**. (from 2, given that 'I' is precise<sup>37</sup>)
4. For any  $y$ , if  $y$  is one of the  $Me_n$ 's, then it is indeterminate whether I am identical with  $y$ . (materialist vague object view + axiom of extensionality)
5. For any  $y$ , if it's indeterminate whether I am identical with  $y$ , and I definitely have the property **being conscious**, then it's not the case that  $y$  definitely lacks the property **being conscious**. (instance of LLI)  
So,
6. For any  $y$ , if  $y$  is one of the  $Me_n$ 's, then it's not the case that  $y$  definitely lacks the property **being conscious**. (3, 4, 5)
7. For any  $y$  either  $y$  definitely has the property, **being conscious**, or  $y$  definitely lacks the property, **being conscious**. (**Consciousness Isn't Vague**)  
So,
8. For any  $y$ , if  $y$  is one of the  $Me_n$ 's, then  $y$  definitely has the property **being conscious**. (from 6,7)  
So,

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36. I've formulated it in property-terms so that it can 'connect up' with LLI, which is best formulated in property-terms for the very same reasons that Leibniz's Law itself is best formulated in property-terms.

37. I argued earlier that *everyone*, including a physicalist supervenientist, should accept that. But here I don't need to rely on that argument. Since on the vague object view I am a vague object, and there's exactly one vague object here, there's no room for vagueness or imprecision: 'I' refers to the one and only vague object.

9. For any  $y$ , if  $y$  is one of the  $Me_n$ 's, then  $y$  is definitely conscious. (from 8)  
So,
10. There are very many definitely conscious beings where I am. (from 9 + hybrid view)

The upshot is that there's a trickle-down effect: if I, a vague material object, am definitely conscious, then all of the rest of the precise material objects over here are at least indeterminately conscious. But there's no stable stopping point at indeterminate consciousness, and so all of the precise material objects over here are definitely conscious. Back to square one.

### 3.2. *The Pure View*

As I said, van Inwagen doesn't accept the hybrid view. He doesn't think there *are* any precise macroscopic objects. This leads us to wonder: Will salvation for materialism come from the pure view? Unfortunately for the materialist, I doubt it. The reason is that we can't *definitely* do away with all of the precise macroscopic material objects—at least not while believing in the vague ones. If I am a vague material object, then for each collection, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., it's not definitely false that it composes *me*, and so not definitely false that it composes *something*. And not only that. I think we can show that it's not definitely false that *each* of the collections composes something.

But all of the links for which I've argued, which together take us from the very many precise objects in my situation to the very many conscious beings in my situation, are themselves analytic or conceptual truths, and hence definitely the case. So then it's at least indeterminate whether there are very many conscious beings where I am. Here's the argument laid out more carefully, in two steps:

#### 3.2.1. *Step 1*

1. It's not definitely false that: there is something that the  $Me_1$ -particles compose.
  - (a) It's not definitely false that: the  $Me_1$ -particles compose me (materialist vague object view).
  - (b) It's definitely the case that: if the  $Me_1$ -particles compose me, then there is *something* that the  $Me_1$ -particles compose.

So<sup>38</sup>,

(c) It's not definitely false that: there is something that the Me<sub>1</sub>-particles compose.

2. It's definitely the case that: there is something that the Me<sub>1</sub>-particles compose only if for every collection of particles, the Me<sub>1</sub>-particles, the Me<sub>2</sub>-particles, etc., there is something that the particles in that collection compose.

So,

3. It's not definitely false that: for every collection of particles, the Me<sub>1</sub>-particles, the Me<sub>2</sub>-particles, etc., there is something that the particles in that collection compose.

The justification for premise 1a, as you'll recall, is straightforward. It's neither definitely the case that some one of the Me<sub>1</sub>-particles is not part of me (i.e. that the collection has some extra particles), nor definitely the case that something overlaps me but doesn't overlap any of the Me<sub>1</sub>-particles (i.e. that the collection has some missing particles). I suppose that still leaves open the merely logical possibility that it's still definitely the case that *either* it has some extra particles or it has some missing particles. But this seems like nothing more than a mere logical possibility, not a genuine possibility at all.

Indeed, it's *barely* even a logical possibility if the Me<sub>1</sub>-particles are chosen judiciously. Consider the collection of all and only those particles that are *either* definitely parts of me or indeterminately parts of me, what we might call "the me-parts" (not to be confused with the "me-particles").<sup>39</sup> This collection definitely isn't missing any particles: it's definitely *not* the case that something overlaps me but doesn't overlap any of the particles in the collection. So then if it is definitely not the case that the particles in that collection compose me, that can only be because it's definitely the case that some particle in the collection is not part of me. But that's not definitely the case. It isn't *definitely* false that every one of the indeterminate parts is part of me. Sure, I suppose logic—even the logic of definiteness—can't rule this out: perhaps *each* of the indeterminate parts of me is, of course, not definitely not part of me, but the indeterminate parts somehow conspire to make it definitely the case that at least one of them bows out. As I said, logic can't rule this out. But it's hard to take seriously as a genuine possibility.

And premise 2 is justified by the thought that the embedded conditional is a conceptual truth—and so is definitely the case (see Williamson 1999). That is, if we

38. I assume throughout that definiteness is closed under logical consequence.

39. I could have used the collection of all and only those particles that are definitely parts of me. That collection definitely doesn't have any extra particles.

accept the anti-brutalist convictions that motivated premise (b) of the Nihilist and Anti-Materialist Arguments, we presumably do so because we think it follows from the very *concept* of composition that the difference of a particle here or there simply can't be the difference between composition occurring and not occurring. And so if one of the collections composes something, then all of the collections compose something. Of course if it isn't even *true* that the difference of a particle can't be the difference between composition occurring and not occurring, then it isn't *conceptually* true. But if it isn't true, then we have a much simpler solution to the original problem.

The conclusion of this first step of the argument is that, as I put it above, we can't *definitely* do away with all of the precise macroscopic material objects. If I am a vague material object, then it's not definitely false that *each* of the collections— $Me_1$ -particles, the  $Me_2$ -particles, etc.—composes something.

### 3.2.2. Step 2

The second step of the argument essentially recapitulates the Trickle Down Mentality argument—but now as a series of conditionals linking the very many precise macroscopic objects at one end, to the very many conscious beings at the other end, each conditional of which within the scope of a definiteness operator. The conclusion is that the conditional claim, that there are very many conscious beings here *if* there are very many precise macroscopic objects here, is itself definitely the case. And the upshot of *that* is that if we can't definitely do away with all of the precise macroscopic objects—as I've just finished arguing we can't—then we can't definitely do away with the very many conscious beings where I am.

4. It's definitely the case that: if for every collection of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., there is something that the particles in that collection compose, then there are very many definitely conscious beings where I am.
  - (a) It's definitely the case that: if for every collection of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., there is something that the particles in that collection compose, then for every collection of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., there is something indeterminately identical with me that the particles in that collection compose.
  - (b) It's definitely the case that: if for every collection of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., there is something indeterminately

identical with me that the particles in that collection compose, then for every collection of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., there is something definitely conscious that the particles in that collection compose.

- (c) It's definitely the case that: if for every collection of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., there is something definitely conscious that the particles in that collection compose, then there are very many definitely conscious beings where I am.

So,

- (d) It's definitely the case that: if for every collection of particles, the  $Me_1$ -particles, the  $Me_2$ -particles, etc., there is something that the particles in that collection compose, then there are very many definitely conscious beings where I am.

So,

5. It's not definitely false that there are very many definitely conscious beings where I am.

The premises of the argument for 4 are justified, again, by the thought that each of the embedded conditionals is an analytic or conceptual truth—and so each is definitely the case. I've argued that they're true—and implicitly argued that they're analytic or conceptual truths—in the course of my discussion of the hybrid view. Let me now be more explicit: The conditional in premise (4a) is true, given the meaning of 'composition' and the mereological axiom of extensionality. The conditional in premise (4b) is true, given the conjunction of **LLI** and **Consciousness Isn't Vague**, each of which I take to be a conceptual truth if true at all. And the conditional in premise (4c) is true, given the failure of Lewis's (1993) "loose counting" move—anyone who understands what 'many' means, in morally relevant contexts, can just see that it's true. And if the Lewisian move works, then again, we have a much simpler solution to the original problem.<sup>40</sup>

The conclusion of this argument is of course not quite as bad, or as incredible, as the conclusion that there *are* very many definitely conscious beings where I am. But it's still pretty bad, and still not credible. How should you reason about whether to donate a kidney, or bungee jump, or do countless other things, when it's not definitely false that there are millions of other definitely conscious beings whose lives you'd be putting on the line? It's far from clear. But clearly not in the way that you actually do. You'd have to take account of matters being very metaphysically murky in morally important ways. If the

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40. See fn 3.



moral and practical implications of Mental Manyism are absurd—which is what I’m assuming throughout—then the moral and practical implications of *Mental Manyism’s not being definitely false* are also absurd. Since the Vague Object Solution leaves us with roughly the same degree of moral or practical absurdity as Mental Manyism, it too fails as a response to the Anti-Materialist Argument.

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## References

- Antony, Michael V. (2006). Vagueness and the Metaphysics of Consciousness. *Philosophical Studies*, 128, 515.
- Antony, Michael V. (2008). Are Our Concepts Conscious State and Conscious Creature Vague? *Erkenntnis*, 68, 239.
- Bailey, Andrew M. and Joshua Rasmussen (2016). How Valuable Could a Material Object Be? *Journal of the American Philosophical Association*, 2(2), 332–343.
- Bynoe, Will and Nicholas K. Jones (2013). Solitude Without Souls: Why Peter Unger Hasn’t Established Substance Dualism. *Philosophia*, 41(1), 109–125.
- Carter, W. R. (1988). Our Bodies, Our Selves. *Australasian Journal of Philosophy*, 66(3), 308–319.
- Cover, J. A. and John O’Leary-Hawthorne (1996). Free Agency and Materialism. In Daniel Howard-Snyder and J. Scott Jordan (Eds.), *Faith, Freedom, and Rationality* (47–72). Rowman & Littlefield.
- Evans, Gareth (1978). Can There Be Vague Objects? *Analysis*, 38, 208.
- Hall, Geoffrey (2022). Is Consciousness Vague? *Australasian Journal of Philosophy*, 1–15.
- Harrison, Gerald K. (2016). A Moral Argument for Substance Dualism. *Journal of the American Philosophical Association*, 1, 21–35.
- Hawthorne, John (2004). Why Humeans Are Out of Their Minds. *Noûs*, 38(2), 351–58.
- Hershenov, David B. (2022). A Divine Alternative to Zimmerman’s Emergent Dualism. *TheoLogica: An International Journal for Philosophy of Religion and Philosophical Theology*, 8(2).

- Horgan, Terence (1993). On What There Isn't. *Philosophy and Phenomenological Research*, 53(3), 693.
- Hudson, Hud (2001). *A Materialist Metaphysics of the Human Person*. Cornell University Press.
- Johnston, Mark (1992). Constitution is Not Identity. *Mind*, 101(401), 89–106.
- Jones, Nicholas K. (2015). Multiple Constitution. In Karen Bennett and Dean W. Zimmerman (Eds.), *Oxford Studies in Metaphysics* 9 (217–261). OUP.
- Kim, Jaegwon (1976). Events as Property Exemplifications. *Action Theory: Proceedings of the Winnipeg Conference on Human Action, Held at Winnipeg, Manitoba, Canada, 9–11 May 1975* (159–177). Springer.
- Kovacs, David Mark (2010). Is There a Conservative Solution to the Many Thinkers Problem? *Ratio*, 23(3), 275–290.
- Kovacs, David Mark (2016). Self-Made People. *Mind*, 125(500), 1071–1099.
- Lewis, David (1993). Many, But Almost One. In John Bacon, Keith Campbell and Lloyd Reinhardt (Eds.), *Ontology, Causality, and Mind: Essays on the Philosophy of D. M. Armstrong* (23–42). Cambridge University Press.
- Lowe, E. J. (1982). The Paradox of the 1,001 Cats. *Analysis*, 42(1), 27–30.
- Lowe, E. J. (1995). Problem of the Many and the Vagueness of Constitution. *Analysis*, 55(3), 179–182.
- Lowe, E. J. (2002). *A Survey of Metaphysics*. Oxford University Press.
- Lycan, William G. (2009). Giving Dualism its Due. *Australasian Journal of Philosophy*, 87(4), 551–563.
- Madden, Rory (2016). Thinking Parts. In Stephan Blatti and Paul F. Snowdon (Eds.), *Animalism: New Essays on Persons, Animals, and Identity*. Oxford University Press.
- Markosian, Ned (1998). Brutal Composition. *Philosophical Studies*, 92, 211–49.
- McGee, Vann and Brian McLaughlin (2000). The Lessons of the Many. *Philosophical Topics*, 28, 129–51.
- Merricks, Trenton (2001). *Objects and Persons*. Clarendon Press.
- Mørch, Hedda Hassel (2019). Is Consciousness Intrinsic?: A Problem for the Integrated Information Theory. *Journal of Consciousness Studies*, 26(1–2), 133–162.
- Olson, Eric T. (1995). Why I Have No Hands. *Theoria*, 61(2), 182–197.
- Olson, Eric T. (2007). *What Are We?: A Study in Personal Ontology*. Oxford University Press.
- Olson, Eric T. and Aaron Segal (2023). *Do We Have a Soul? A Debate*. Routledge.
- Perkins, Ryan and Tim Bayne (2013). Representationalism and the Problem of Vagueness. *Philosophical Studies*, 162, 71.
- Rasmussen, Joshua and Andrew M. Bailey (2021). How Valuable Could a Person Be? *Philosophy and Phenomenological Research*, 103(2), 264–277.
- Roelofs, Luke (2022). No Such Thing as Too Many Minds. *Australasian Journal of Philosophy*, 1–16.
- Schwitzgebel, Eric (2023). Borderline Consciousness, When It's Neither Determinately True nor Determinately False That Experience is Present. *Philosophical Studies*, 180(12), 3415–3439.
- Segal, Aaron (2023). Why I Believe I am a Soul. In Eric Olson and Aaron Segal (Eds.), *Do We Have a Soul? A Debate*. Routledge.
- Sider, Theodore (2003). Maximality and Microphysical Supervenience. *Philosophy and Phenomenological Research*, 66, 139–49.
- Sider, Theodore (2013). Against Parthood. In Karen Bennett and Dean W. Zimmerman (Eds.), *Oxford Studies in Metaphysics* (Vol. 8). Oxford University Press.

- Simon, Jonathan A. (2017a). The Hard Problem of the Many. *Philosophical Perspectives*, 31(1), 449–468.
- Simon, Jonathan A. (2017b). Vagueness and Zombies: Why “Phenomenally Conscious” has No Borderline Cases. *Philosophical Studies*, 174(8), 2105–2123.
- Snowdon, Paul F. (1990). Persons, Animals, and Ourselves. In Christopher Gill (Ed.), *The Person and the Human Mind: Issues in Ancient and Modern Philosophy*. Oxford University Press.
- Sutton, C. S. (2014). The Supervenience Solution to the Too-Many-Thinkers Problem. *Philosophical Quarterly*, 64(257), 619–639.
- Tye, Michael (2021). *Vagueness and the Evolution of Consciousness: Through the Looking Glass*. Oxford University Press.
- Tzinman, Rina (2021). Thinking Parts and Embodiment. *Philosophical Quarterly*, 71(1), 163–182.
- Unger, Peter (1980). The Problem of the Many. In Peter French, Theodore E. Uehling, Jr., and Howard K. Wettstein (Eds.), *Midwest Studies in Philosophy V: Studies in Epistemology* (411–67). University of Minnesota Press.
- Unger, Peter (2004). The Mental Problems of the Many. In Dean Zimmerman (Ed.), *Oxford Studies in Metaphysics* (Vol. 1, 195–222). Clarendon Press.
- Unger, Peter (2005). *All the Power in the World*. Oxford University Press.
- van Inwagen, Peter (1990). *Material Beings*. Cornell University Press.
- Weatherson, Brian (2003). Many Many Problems. *The Philosophical Quarterly*, 53(213), 481–501.
- Weatherson, Brian (2016). The Problem of the Many. In Edward N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*, Winter 2016. Metaphysics Research Lab, Stanford University.
- Williamson, Timothy (1999). On the Structure of Higher-Order Vagueness. *Mind*, 108, 127–144.
- Zimmerman, Dean (2010). From Property Dualism to Substance Dualism. *Aristotelian Society Supplementary Volume*, 84(1), 119–150.