

# Why Aren't I Part of a Whale?

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## Abstract

We start by presenting three different views that jointly imply that all people have a large number of conscious beings in their immediate vicinity, and that the number greatly varies from person to person. We then present and assess an argument to the conclusion that how confident people should be in these views should sensitively depend on how massive they happen to be. According to the argument, sometimes irreducibly *de se* observations can be powerful evidence for or against believing in metaphysical theories.

## 1. The Lopsided Conscious Plenitude

Three views, one squarely in the realm of metaphysics, one in the intersection of metaphysics and physics, and one in the intersection of metaphysics and the philosophy of mind:

### *Unrestricted Composition*

For every collection of material entities, there is a material entity they compose.

On this view material entities are many and various. Sometimes we have names and kind terms for them. Sometimes we don't. So, for example, the girders, trusses, chords, lattices and other paraphernalia at 5 Avenue Anatole, Paris, compose a material entity for which we have a name and a kind term – it's the Eiffel Tower, and it's a tower. Barak Obama's sunglasses and the planet Jupiter compose a material entity for which we have neither name nor kind term.<sup>1</sup>

### *Material People Have Finitely Many Material Parts*

We people are material entities composed of finitely many material mereological simples – material entities with no proper parts.

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<sup>1</sup> For a defense of unrestricted composition, see Van Cleve 2008.

On this view it may be that we have cells as proper parts. It may be that cells have atoms as proper parts. It may be that atoms have protons, electrons, and neutrons as proper parts. It may be that this sequence of ever smaller things extends ever so far... but it ends with a collection of finitely many proper-partless things.<sup>2</sup>

*The Intrinsic, Non-Modal Basis of Consciousness*

Necessarily, whether or not a material entity is conscious is determined by its intrinsic non-modal properties.

On this view, to find out whether a thing is conscious we do not need to look beyond its peripheries, and see how it relates to other things. Nor do we need to look to how it would or could behave if things were different. What matters is the way it is actually configured, at a moment and over time.<sup>3</sup>

Let's call the conjunction of these three views the *Lopsided Conscious Plentitude* (henceforth: *LCP*). Various arguments have been given for and against each of these three views. We will not address these arguments directly here, beyond noting that they have one feature in common: they do not aspire to be more persuasive to some people than to others. No matter whether you are tall or short, old or young, from Holland or Denmark, they are supposed to move you just the same. In this paper, we will present and assess an argument against (or for, depending on who you are) your believing in LCP that does not have this feature. Its conclusion is that how confident you should be in LCP depends on how massive you are.

This argument, if successful, would give us a partial answer to a perennially important question about metaphysics: 'What (if any) sorts of observations can be evidence for believing in metaphysical theories?' According to the argument, sometimes irreducibly de se observations (roughly: observations that I am one thing rather than another) can be powerful evidence.<sup>4</sup>

## **2. Your Confidence in LCP Should Depend on How Massive You Are**

Why think this? Well, first notice that if LCP is true, then there are a very large (though finite) number of conscious entities in the vicinity of any given person. Take a particular cell in the skin of Barack Obama. Call it *Skinno*. By Unrestricted Composition there is an

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<sup>2</sup> The view that people are identical to their material bodies is defended in Thomson 1997. The number of our material parts is ultimately an empirical question.

<sup>3</sup> For further discussion on whether consciousness is intrinsic, see Mørch 2019.

<sup>4</sup> For other arguments with this kind of structure, see Builes 2019 and 2022.

entity composed of all the other cells that compose Barack Obama, but not Skinno. Call that entity *BarackMinus*. Now consider a different possible situation in which Skinno does not exist, but Barack is otherwise just as he actually is. Barack, in this other possible situation, is conscious. But Barack, in this other possible situation, has the very same intrinsic non-modal properties that BarackMinus actually has. So, by The Intrinsic Non-Modal Basis of Consciousness, BarackMinus must actually be conscious.<sup>5</sup> And what goes for Skinno goes for pretty much every small thing in Barack Obama's body. So there are many (though finitely many – by Material People Have Finitely Many parts) conscious entities in his vicinity. Hence the *Lopsided Conscious Plenitude*.<sup>6</sup>

Second, notice that if LCP is true then there are *vastly* more conscious entities in the vicinity of larger people than in the vicinity of smaller people. Consider two people who are very close to being equivalently massive – one composed of  $n$  mereological simples, the other composed of  $n+1$  mereological simples. By the wonders of combinatorics, it follows that one has  $2^n-1$  parts and the other has  $2^{n+1}-1$  parts. In virtue of being composed of one more mereological simple, the one has just over twice as many parts as the other! And when the difference is two mereological simples, the one has just over four times as many parts; when the difference is three mereological simples the one has just over eight times as many parts, etc. Which brings us towards the two authors of this paper. One of us (henceforth: *Heavy*) is around 20 kilos more massive than the other (henceforth: *Light*). With approximately  $10^{26}$  atoms per kilo of human flesh, that means there are approximately  $2 \times 10^{27}$  more atoms in Heavy's body than in Light's body. And that means that Heavy has at least 2 to the power of  $2 \times 10^{27}$  times as many parts as Light (we say 'at least' because (scientific) atoms are not mereological simples, so the true ratio will be much greater). This is, to speak mildly, a very large number. The first obstacle to our writing it out in decimal notation is not the *Analysis* character limit, but the size of the Milky Way galaxy.

Heavy has at least 2 to the power of  $2 \times 10^{27}$  times as many parts as Light, but not all parts of Heavy and Light are conscious. How many times as many conscious parts does Heavy have? We don't know. It depends on what proportion of Heavy and Light's parts have the intrinsic non-modal features that suffice for consciousness. But it is safe to say that it is another unfathomably enormous number. Hence the *Lopsided Conscious Plenitude*.

Now here's a question: Suppose that we two authors of this paper reflect on the established

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<sup>5</sup> This kind of argument is given in Merricks 1998 and Unger 2004.

<sup>6</sup> Throughout, we will be writing as if human organisms as a whole are intrinsically suited to be conscious. However, one might instead think that only *brains* (or certain parts of brains) are intrinsically suited to be conscious, and (at least strictly speaking) human organisms as a whole are not conscious. However, our argument will go through just the same if we organized our discussion around brains instead. For any brain that is intrinsically suited to be conscious, that brain without a single quark will presumably also be intrinsically suited to be conscious.

philosophical arguments for and against LCP, and upon first-person indexical beliefs that the two of us share, beliefs that we would express like this:

‘I exist.’

‘I am conscious.’

‘I am on Planet Earth.’

‘I am either in the vicinity of Heavy or in the vicinity of Light.’

Suppose that, after reflecting on all and only these things, the two of us have, and should have, a certain level of confidence in LCP. Well and good. Then suppose that we begin to reflect on first-person indexical beliefs that we do not share. For example, Heavy reflects on a belief that Heavy would express like this:

‘I am in the vicinity of Heavy.’

And Light reflects on a belief that Light would express like this:

‘I am in the vicinity of Light.’

How should each of us amend our confidence in LCP, in light of these further, unshared indexical beliefs?

As a warm-up towards answering this question, let’s consider another question that doesn’t involve any metaphysics. We will put it in first-personal terms. Suppose I find myself in a prison. I recognize it as the West Prison or the East Prison, but I can’t tell which it is. I wonder what is going on. I have two hypotheses. According to the first hypothesis, *Lopsided Distribution of Prisoners*, there are 99 times as many prisoners in the West Prison as in the East Prison. According to the second hypothesis, *Even Distribution of Prisoners*, there are the same number of prisoners in each prison. After very carefully poring over all available evidence, I am rightly 1/2 confident in each hypothesis, and I rightly conclude that I have no further evidence about which prison I might be in if each hypothesis is true. The warm-up question is this: suppose I then learn which prison I am in. What should that do to my confidence in *Lopsided Distribution of Prisoners* and *Even Distribution of Prisoners*?

This question seems to have a straight-forward answer. Here are two plausible principles of epistemic rationality:

*De Se Distribution Principle:* For any properties F, G, if I am certain that I have F, and I am certain that x% of things that have F have G, and I have no further evidence

concerning whether I have G, then I should be  $x\%$  confident that I have G.<sup>7</sup>

*Conditionalization:* For any propositions A and C, if my confidence in A conditional on C ought to be  $x$ , then, upon learning C and nothing more, my confidence in A ought to be  $x$ .

By the De Se Distribution Principle, if I don't know which prison I am in, and I learn that Lopsided Distribution of Prisoners is true, then I should be 99% confident that I am in the West Prison. And if I don't know which prison I am in, and I learn that Even Distribution of Prisoners is true, then I should be 50% confident I am in the West Prison.

So, by Conditionalization, if I don't know which prison I am in, and I don't know how many prisoners are in each prison, my levels of confidence in the four open possibilities should be:

	<i>I am in the West Prison</i>	<i>I am in the East Prison</i>
<i>Lopsided Distribution of Prisoners</i>	99/200	1/200
<i>Even Distribution of Prisoners</i>	50/200	50/200

So, by Conditionalization again, if I learn I am in the West Prison, then I should be 99/149 confident in Lopsided Distribution of Prisoners, and 50/149 confident in Even Distribution of Prisoners. And if I learn I am in the East Prison, then I should be 1/51 confident in Lopsided Distribution of Prisoners, and 50/51 confident in Even Distribution of Prisoners. In colloquial terms: learning that I am in the West Prison should make me pretty confident that most of the prisoners are there, while learning that I am in the East Prison should make me almost certain that the prisoners are evenly distributed.

The answer to our question about the two of us and the Lopsided Conscious Plenitude would appear to be similarly straightforward. Before factoring in the indexical beliefs we do not share, each of us should think: 'If I came to know that LCP were true, then I would know I am a conscious entity that is either in the vicinity of Heavy or in the vicinity of Light, and that  $M/(M+1)$  of those entities are in the vicinity of Heavy (where M is the humungous number such that M:1 is the ratio of conscious entities that are in the vicinity of Heavy to conscious entities that are in the vicinity of Light), and I would have no further evidence about whether I was in the vicinity of Heavy or Light. So, by the De Se Distribution Principle, I should be  $M/(M+1)$  confident that I am in the vicinity of Heavy

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<sup>7</sup> A similar indifference principle is commonly appealed to in the literature on the epistemology of self-locating belief (e.g. see Elga 2000 and 2004, Lewis 2001, Meacham 2008, and Briggs 2010).

and  $1/(M+1)$  confident that I am in the vicinity of Light. Similarly, if I came to know that LCP were false then I should be  $1/2$  confident that I am in the vicinity of Heavy and  $1/2$  confident that I am in the vicinity of Light.'

So, by Conditionalization, if  $P$  is the level of confidence in the Lopsided Conscious Plenitude that we both should have when considering just the philosophical arguments and our shared indexical beliefs, our levels of confidence in the four possibilities corresponding to answers to the questions 'Is LCP true?' and 'Am I in the vicinity of Heavy or Light?' should be:

	<i>I am near Heavy</i>	<i>I am near Light</i>
<i>Lopsided Conscious Plenitude</i>	$PM/(M+1)$	$P/(M+1)$
<i>No Lopsided Conscious Plenitude</i>	$(1-P)/2$	$(1-P)/2$

So, by Conditionalization again, when Heavy adds in Heavy's further piece of evidence, the belief that Heavy would express as:

'I am in the vicinity of Heavy',

and Light adds in Light's further piece of evidence, the belief that Light would express as:

'I am in the vicinity of Light',

Heavy's confidence in LCP should go to  $2PM/(PM+M+1-P)$  and Light's confidence should go to  $2P/(P+M+1-MP)$ . This means that, so long as  $P$  is not exactly zero or one (and who among us would have confidence zero or one in LCP based on the established philosophical arguments and our shared indexical beliefs?) our levels of confidence should be different. Heavy should be more confident than Light.

The magnitude of the difference will depend on what  $P$  is. To give you a sense of how this might play out, let's suppose that our antecedent confidence in LCP should be  $1/2$ . Then our antecedent confidence in the four possibilities should be:

	<i>I am near Heavy</i>	<i>I am near Light</i>
<i>Lopsided Conscious Plenitude</i>	$M/(2M+2)$ ( $\approx 1/2$ )	$1/(2M+2)$ ( $\approx 0$ )
<i>Even Distribution</i>	$1/4$	$1/4$

And then Heavy's confidence in LCP, after factoring in being in the vicinity of Heavy, should be approximately  $2/3$ , and Light's confidence, after factoring in being in the vicinity of Light, should be approximately 0. Heavy should be fairly confident that LCP is true. Light should be almost certain that it is false.

But P very clearly should not be  $1/2$ . Though Heavy is more massive than Light, Heavy is much less massive than the most massive human on Earth, call him *Mr. G*. We don't know Mr. G's exact mass, but the conservative assumption that he weighs at least 1 gram more than his nearest rival yields that he has at least 2 to the power of  $10^{23}$  times more parts than his nearest rival. With around  $7 \times 10^9$  people on Earth, this means that Mr. G has at least  $2^{(10^{23})}/(7 \times 10^9)$  times as many parts as do *all other humans on Earth* – another humungous multiple. It is safe to say that if LCP is true then the vast majority of conscious entities on Earth that are parts of humans are parts of Mr. G. And it follows that, if all people should be (say)  $1/2$  confident in LCP in light of the philosophical arguments and our shared indexical beliefs, then Heavy and Light's confidence should drop to approximately zero when we factor in the further indexical belief we would express as:

'I am not part of Mr. G.'

But, pushing the argument further, even Mr. G should be close to certain that LCP is false. Although Mr. G is more massive than any other human, he is small next to the most massive conscious creature on Earth – call her *Big Bluey*. By all the same reasoning as above, it is safe to say that if LCP is true then the vast majority of conscious entities on Earth are parts of Big Bluey. And it follows that, if all conscious entities should be (say)  $1/2$  confident in LCP when considering just the philosophical arguments and our shared indexical beliefs, then the confidence of all we humans should drop to approximately zero when we factor in the further indexical belief we would express as:

'I am not part of Big Bluey.'

The picture that has emerged is this: somewhere, out in an ocean, there is a great whale. If she ever turns her thoughts away from krill, currents and song, to metaphysics, then maybe she should be very confident that Lopsided Conscious Plenitude is true. The rest of us should be almost certain that it is false. But there are grades of almost-certainty. Mr. G's near zero confidence in LCP should be humongously many times greater than Heavy's, which should be humongously many times greater than Light's... and so on.

### 3. What to Make of This Argument?

Given that the conclusion of this argument is very surprising, should you take the argument

to be a *reductio* of its premises? We think not, but we think there are independent reasons to reject the premises.

We two authors part ways at this point. Light rejects Conditionalization when the thing being conditioned upon is a piece of indexical information (e.g. ‘I am near Light’). In the literature on self-locating belief, many philosophers have argued that conditionalizing on indexical information is problematic for independent reasons.<sup>8</sup> In particular, some philosophers have defended the ‘Relevance-Limiting Thesis’, according to which updating on merely indexical information should never change one’s credences in non-indexical matters.<sup>9</sup> It is a consequence of the Relevance-Limiting Thesis that learning that I am in the vicinity of Light (and learning no further, non-indexical information) should not affect my credence in LCP, which is a thesis about non-indexical matters. Although the Relevance-Limiting Thesis is controversial<sup>10</sup>, Light finds it to be plausible on wholly independent grounds.

Heavy accepts Conditionalization in cases like this, but rejects the De Se Distribution Principle. On Heavy’s view<sup>11</sup>, asking who I am in cases of *de se* ignorance is equivalent to asking: ‘Which conscious entity has (or conscious entities have) all and only *these* things as objects of direct awareness?’ But, on Heavy’s view, if LCP is true then all of the many conscious entities that are parts of Heavy have the very same objects of direct awareness, and all of the many conscious entities that are parts of Light have the very same objects of direct awareness. So, if LCP is true, then this is a bad question: ‘What is the one conscious entity that has all and only these things as objects of direct awareness?’ There’s a presupposition failure in the question. Many things have all and only these things as objects of direct awareness. A good question is: ‘Which conscious entities have all and only these things as objects of awareness?’ But good questions like this have just two possible answers. It may be that the conscious entities with all and only these things as objects of awareness are all conscious parts of Heavy, or it may be that they are all conscious parts of Light. The proper way to be indifferent is to spread confidence evenly between the two epistemic possibilities corresponding to the two possible answers to this question.

We acknowledge that both these moves are controversial. Conditionalization and the De Se Distribution Principle do have much appeal. If you wish to hang onto both of them, that’s fine, but then you must accept that you learn a great deal about metaphysics when

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<sup>8</sup> See, for example, Bostrom 2008, Meacham 2008, and Pust 2012.

<sup>9</sup> The Relevance-Limiting Thesis is an implication of Meacham’s (2008) account of ‘Compartmentalized Conditionalization’ and Briggs’ (2010) (equivalent) ‘Halfer Rule’, which are also defended in Builes 2020.

<sup>10</sup> See Titelbaum 2008 for a critique of the Relevance-Limiting Thesis.

<sup>11</sup> Explained in further detail in Hare (forthcoming).



you step on your bathroom scale.<sup>12</sup>

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