

Panpsychism and Ensemble Explanations

ABSTRACT: Panpsychism claims that the vast majority of conscious subjects in our world are inanimate and physical. Ensemble explanations account for striking phenomena by placing them within an ensemble of outcomes, most of which are not striking. This paper develops an explanatory problem for panpsychism: panpsychism renders two appealing ensemble explanations unsatisfactory. Specifically, we argue that panpsychism renders unsatisfactory the multiverse explanation of why a universe supports life and the many-planets explanation of why a planet supports life.

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1. Introduction

The conditions under which a planet or a universe permit life are rather stringent.¹ It is a striking fact that a planet and universe meet the conditions for life. How might this striking fact be explained?

Ensemble explanations are promising candidates. They explain striking outcomes—ones that cry out for explanation—by placing the phenomenon to be explained within an ensemble of outcomes, most of which are not striking. The idea is that given a sufficiently vast and varied ensemble, it's to be expected that some of its members will be striking when considered in isolation. Applied to the cases at hand, ensemble explanations hold that planetary and cosmological conditions for life are met because there exist vast and varied ensembles of planets and universes. Call these the *many-planet* and *multiverse explanations*.²

As we will see, there are reasons to find these explanations attractive. Admittedly, they are contestable.³ And they are not without competition. For instance, some reject ensemble explanations in favor of design explanations on which the conditions for life are met because an intelligent being influenced the laws of our universe or the genesis of life in our world. Still, the many-planet and multiverse explanations are among the few available explanations for why the conditions for life are met. In light of this, conflict with either of these explanations would incur a theoretical cost, at least for theories of consciousness. The task of this paper is to give reasons for thinking that this cost is incurred by one such theory: *panpsychism*, which claims that the vast majority of conscious subjects in our world are inanimate and physical. Since 'observer' and 'conscious subject' will be used interchangeably, we can also say that panpsychism holds that the vast majority of observers in our world are inanimate and physical.⁴ On this formulation, panpsychism is a thesis about the distribution of consciousness, not a thesis about its nature—it is thus compatible with, for example, physicalist, dualist, and Russellian monist accounts of what consciousness is.

Because the reasons for thinking that panpsychism conflicts with the many-planets explanation are essentially similar to the reasons for thinking that

¹ On the stringency of conditions under which planets permit life, see e.g. Ward & Brownlee (1999). On the stringency of conditions under which universes permit life, see e.g. Leslie (1989).

² See Leslie (1989) for a well-known presentation of the multiverse explanation. See Bostrom (2002) for further discussion of this ensemble explanation, and how such reasoning applies to many-planets explanations. See Hart (1982) for a presentation of the many-planets explanation for the existence of a life-supporting planet.

³ For objections to multiverse explanations, see White (2000) and Hacking (1987). For replies, see Bostrom (2002: Ch. 2), Epstein (2017), and Juhl (2005).

⁴ While this is a terminological stipulation, the problem we raise for panpsychism makes substantive assumptions about which conscious subjects observation selection effects apply to. We consider some ways of defending panpsychism by contesting these assumptions below.

panpsychism conflicts with the multiverse explanation, it will suffice to focus on one of these ensemble explanations for brevity. Conflict with the many-planets explanation promises to be more costly for panpsychists than conflict with the multiverse explanation: there is independent evidence in favor of the many-planets explanation—namely, the observations of other planets—whereas there is no analogous evidence for the multiverse explanation. Moreover, the multiverse explanation requires a radical expansion of our ontology. Because the many-planets explanation is better confirmed and more parsimonious, relinquishing it would be more costly for panpsychists. For this reason, we will focus on the many-planets explanation rather than the multiverse explanation. But it should be borne in mind that panpsychism’s compatibility with both explanations is at stake, as conflict with both explanations would incur a greater cost than conflict with just one.

Here’s the plan. §2 rehearses motivations for panpsychism. §3 introduces ensemble explanations of why strikingly life-hospitable conditions obtain. §4 argues that panpsychism renders these explanations unsatisfactory. §5 answers objections.

2. Panpsychism Motivated

Before developing the objection to panpsychism, it is worth rehearsing motivations that justify us in taking it seriously.

We can start by warding off incredulous stares that panpsychism is apt to induce. One remedy to the panpsychist strand of the incredulous stare syndrome exposes it as parochial. Panpsychism may strike you as an unpopular view among philosophers that is antithetical to common sense. But, as Chalmers (2015: 247) notes, “intuitions about panpsychism seem to vary heavily with culture and with historical period. The view has a long history in both Eastern and Western philosophy, and many of the greatest philosophers have taken it seriously.”

One positive motivation for panpsychism is that it, unlike rival views, lends to an intelligible response to the “silence of physics”. Science reveals the structure of fundamental physical reality but remains silent on the categorical states underlying that structure. An intelligible hypothesis about those categorical states is that they are experiences. Panpsychists can respond to the silence of physics by embracing this hypothesis.⁵ This response is unavailable to those who reject panpsychism: if the vast majority of conscious subjects are not inanimate and physical, then presumably many fundamental physical entities are unconscious, in which case experiences are not the categorical states underlying their structure. Nor is there obviously a comparably

⁵ N.B. panpsychists need not embrace this hypothesis. Thus, the motivation on offer is not that panpsychism by itself offers an intelligible response to the silence of physics while rival views fail to do so. Rather, the motivation is that whereas panpsychists can generate such a response by embracing an auxiliary hypothesis, opponents of panpsychism cannot (or it is at least unobvious that they can).

intelligible type of non-experiential state that those who reject panpsychism could use to intelligibly answer the silence of physics.

A closely related motivation is that panpsychism lends to a more parsimonious ontology than its rivals. Given that categorical states underlie the structure revealed by science, rival theories must countenance a family of non-experiential categorical states. Panpsychists, on the other hand, can eliminate or attenuate the proliferation of posits from novel families of states. For whenever rivals posit non-experiential categorical states, panpsychists can instead posit experiences.⁶

Panpsychism can also be motivated as a way of transcending the difficulties of dualism and physicalism.⁷ Physicalism counterintuitively implies the metaphysical impossibility of *zombies*, i.e. unconscious physical duplicates of conscious creatures. Dualism avoids that problem but has difficulties finding a plausible place for conscious causes within its conception of reality: the only available options imply that conscious states overdetermine their effects or violate the causal closure of the physical. Panpsychists can follow dualists in accommodating the intuitive possibility of zombies. For panpsychists can hold that the physical features of creatures are insufficient for their experiences on the ground that non-physical experiences of (say) fundamental particles help constitute experiences like ours. At the same time, panpsychists can integrate experiences into the causal web: they can hold that experiences are categorical states that non-redundantly occupy causal roles specified by physical theories. Admittedly, this proposal leads to violations of the causal closure of the physical. But these violations are benign: the causal closure of the physical is an empirical thesis and the posited violations fit perfectly well with the putative evidence for that thesis. For instance, rather than running contrary to the predictions of physical theories, the posited violations would help explain why those predictions hold.⁸

⁶ See Strawson (2006; 2017: 385).

⁷ See Chalmers (2015).

⁸ A variant of this proposal can be used by panpsychists who prefer to use ‘physical’ in a way that applies to any state that occupies a causal role specified by a physical theory—see *ibid.* Such theorists can hold that experiences non-redundantly occupy such roles and that, since occupying such roles qualifies experiences as physical, they do not violate the causal closure of the physical. And such theorists can give the alleged intuitive possibility of zombies its due by holding that we mistakenly suppose that experiences do not occupy such roles when we try to conceive of zombies; consequently, while we may indeed be intuiting the possibility of something, we err in taking that something to be a zombie.

These motivations are not decisive or beyond question.⁹ But they suffice to show that panpsychism deserves to be taken seriously.¹⁰

3. Ensemble Explanations

Suppose that someone wins a lottery. This is a striking fact. After all, the conditions under which people win lotteries are rather stringent: there must be a precise match between a ticket and a winning number. Of the various possible lottery tickets, almost none of them win. Thus, this fact cries out for explanation. That cry can be answered with an ensemble explanation: on the *many-tickets explanation*, a match obtains because there are many tickets with different numbers. For on the many-tickets hypothesis that such an ensemble of tickets exists, it is to be expected that some ticket will win.

Analogous ensemble explanations work in other domains. Consider life-supporting planets. These planets—or the planet, if there is only one—have won a sort of lottery as well. Suppose, as seems to be the case, that planets must meet stringent conditions to permit life. Of the various nomically possible combinations of properties that a planet can have, only relatively few support life. Yet the conditions for life and actual planetary conditions sometimes match. That fact cries out for explanation. According to the many-planets explanation of that match, the match obtains because there is a vast and varied ensemble of planets. For on the many-planets hypothesis, since such an ensemble of planets exists, it is to be expected that some planet meets the conditions for life.

Let us adopt a non-factive use of ‘explain’ and its cognates. So, whether a hypothesis explains data does not turn on whether the hypothesis is true. Given this stipulation, it should be uncontroversial that ensemble hypotheses explain why certain conditions are met. For example, the many-tickets and many-planets hypotheses respectively explain why a ticket won and why the planetary conditions for life are met. Given that these hypotheses explain these facts, there is a further question: how good are the resulting explanations? It will also be useful to understand this question in a way that is independent of whether these hypotheses are true.¹¹ So understood, the question is: *if* ensemble hypotheses are true, how good are the explanations they yield of the noted explananda? There is no general answer to that question. For a given ensemble hypothesis, the answer will depend on considerations such as the extent to

⁹ Like all proposed theories of consciousness, panpsychism faces known problems. The most discussed of these is the combination problem—roughly the problem of explaining how experiences and minds at lower levels could combine to help yield minds and experiences like ours—which threatens to undermine panpsychism’s ability to at once accommodate the possibility of zombies and provide a constitutive account of experiences like ours; see Chalmers (2016).

¹⁰ See Goff et al. (2017) for a recent overview of the literature on panpsychism and for other motivations for it.

¹¹ See White (2005: 2).

which the explanandum cries out for explanation and the extent to which the ensemble explanation coheres with available evidence.

To illustrate, let's return to the lottery case. The coincidence between a lottery ticket number and the winning number cries out for explanation. Here are two good-making features of explanations that target explananda that cry for explanation. The first is *stability*: insofar as an explanandum cries out for explanation, it's a virtue of an explanation if, according to it, the explanandum could not have easily failed to obtain. The many-tickets ensemble explanation of why a winning ticket exists enjoys this virtue. Given sufficiently many tickets and sufficient variation in their numbering, there could not have easily failed to be a winning ticket. The second feature is *urgency-reduction*: insofar as an explanandum cries out for explanation, it's a virtue of an explanation if the explanans cries out for explanation less than the explanandum. The many-tickets ensemble explanation also enjoys this virtue. The existence of many tickets is less striking than the existence of a winning ticket.¹²

The many-planets explanation displays these virtues. Given sufficiently many planets and sufficient variation among them, it could not have easily failed to be the case that the planetary conditions for life were met. Thus, the many-planets explanation is stable. Moreover, the existence of many planets does not consist in a striking coincidence or anything that stands in similarly urgent need of explanation. In contrast, the satisfaction of the planetary conditions for life does consist in a striking coincidence. Thus, the many-planets explanation of why those conditions are met is also urgency-reducing.

Even stable and urgency-reducing explanations of striking phenomena can ultimately be unsatisfactory—explanations can suffer vices that outweigh their virtues. Does the many-planets explanation suffer any vices that render it unsatisfactory? Well, it is subject to the following challenge. While the many-planets hypothesis explains why planetary conditions for life are met, it does not explain why observers are on planets that meet those conditions. Nor does it explain why we are observers on a planet that meets those conditions rather than observers on a planet that doesn't. Given the multitude of planets posited by the many-planets explanation, these facts cry out for explanation.

The trouble is not that the many-planets explanation fails to explain everything. That would be an unreasonable explanatory demand. Rather, the trouble is that in explaining one striking phenomenon—the satisfaction of planetary conditions for life—the many-planets explanation generates but fails to explain others. Specifically, the many-planets explanation fails to explain why planets (or the planet) that observers inhabit are also planets that meet the conditions for life (rather than planets that don't)

¹² These conditions are adapted from White (2005: 2-5), who identifies stability and urgency-reduction as criteria for good explanations of phenomena that call out for explanation.

and why we are observers on a planet that meets those conditions (rather than observers on a planet that doesn't).¹³ According to the challenge, until we are given a satisfactory explanation of these facts that is compatible with the many-planets explanation of why planetary conditions for life are met, we should regard the many-planets explanation as unsatisfactory: it removes one bump in the explanatory rug, only to replace it with similarly sized bumps.

To develop this challenge, let's start by focusing on the match between planets that observers inhabit and planets that support life. We'll return to the fact that we are observers on a planet that supports life shortly. Consider a variant of the lottery example: in this case, the lottery official announces that only one of the many varied lottery tickets has been purchased. Here, even if the many-tickets hypothesis explains why there is a winning ticket, it does not explain why a winning ticket is also the purchased ticket. Given the testimony from the lottery official, that fact cries out for explanation. Moreover, it seems like a live possibility that whatever explains that fact will also explain the fact that there is a winning ticket and that it will do so in a way that displaces the many-tickets explanation. That's why the official's testimony casts doubt on the adequacy of the many-tickets explanation. Here, the challenge is to show that our evidence does not jeopardize the many-planets explanation in like manner.

The challenge can be met as follows. It should be granted that the fact that the sole purchased ticket wins involves a striking coincidence which challenges the many-tickets explanation. However, there is a disanalogy between this lottery case and the cases of life-supporting planets. To illustrate the disanalogy, let's temporarily assume a *biological view* of consciousness and hence observerhood: at least the vast majority of conscious subjects in our world are alive. We will later see that the disanalogy is unavailable to panpsychists.

Now, it's uncontroversial that lottery tickets are the kind of thing that can be purchased whether or not they win, and there is nothing inherent to purchasing a lottery ticket that ensures that it will win. Given the noted biological view, the same cannot be said about observation and planets. For, on the biological view, it is (in effect)¹⁴ a necessary condition for observers to be on a planet that that planet meet the conditions for life. Thus, on this view, it's to be expected on the many-planets explanation that the planets observers inhabit will be among those that meet the

¹³ For ease of exposition, we will sometimes leave implicit the contrastive elements of these explananda. But, as we will see in §5, understanding the challenge in terms of these elements is crucial to understanding why certain responses to the challenge are misguided.

¹⁴ As defined, the biological view is consistent with the existence of some non-living observers (perhaps, for example, God or GPT-3). As a result, the biological view is consistent with planets that violate the conditions for life while hosting (non-living) observers. However, such observers are compatible with the biological view only if they are *exceedingly rare*. As such, they would not be relevant counterexamples to the suggested necessary condition in the discussion that follows—hence the 'in effect' qualification. So, we will ignore them.

conditions for life. In this way, an observation selection effect shields the many-planets explanation from the charge that it generates but fails to explain a striking coincidence between planets that meet the conditions for life and planets that observers inhabit.

Let us now turn to the second charge: that the many-planets explanation generates but fails to explain another striking fact, namely that we are observers on a planet that meets the conditions for life rather than observers on a planet that doesn't. To press this charge, let's modify the lottery example.

In this case, suppose that instead of learning from an official that someone won the lottery, you just happened to walk upon a stranger who was checking to see if her lottery ticket won. It turns out that it did. The match between the location of your observation and the location of a winning ticket is striking. After all, there is only one ticket in your vicinity, and the chances of the only ticket in your vicinity winning are unaffected by the existence of other lottery tickets. Thus, the fact that the one ticket in your vicinity wins lies beyond the reach of the many-tickets explanation. Moreover, it seems like a live possibility that whatever explains why the ticket in your vicinity wins will also explain why someone won in a way that displaces the many-tickets explanation. That's why your encounter with the stranger with a winning ticket casts doubt on the adequacy of the many-tickets explanation of why someone won. Here, the challenge for proponents of the many-planets explanation is to show that the fact that we are observers on a life-supporting planet does not imperil the many-planets explanation in parallel fashion.

Proponents of the many-planets explanation can answer this manifestation of the challenge using an observation selection effect to demystify the fact that we are observers on a life-supporting planet. On a biological view of consciousness, for us to be observers on a planet, the planet needs to meet the conditions for life. This is so no matter how many planets there are that do not meet those conditions. In this way, constraints on observerhood strongly bias us towards being observers on a planet that supports life rather than observers on a planet that doesn't. Thus, even on the many-planets hypothesis, once we take this effect into account it becomes unmythical why we are observers on a planet that meets those conditions rather than observers on one that doesn't.¹⁵ Since nothing about the setup of the lottery case suggests that you encounter a winning ticket rather than a losing ticket because of an observation selection effect, the proposed analogy fails.¹⁶

¹⁵ For an in-depth discussion of observation selection effects in the context of ensemble explanations, see Bostrom (2002).

¹⁶ If an observation selection effect were shown to satisfactorily explain your observation in the lottery case while cohering with the many-tickets explanation of why someone won, then the analogy would be restored. However, this would only go to show that, contrary to the challenge, the analogy does not threaten the many-planets explanation of why some planet meets the conditions for life.

Here's the explanatory package that results from combining the many-planets explanation with the proposed responses to the challenge: an ensemble explanation satisfactorily accounts for why a planet meets the conditions for life, and an observation selection effect answers a challenge to that explanation. In light of the virtues of the many-planets explanation and the absence of obviously superior competitors, this explanatory package seems appealing. It would be a pity if something were to ruin its appeal for panpsychists.

4. The Challenge for Panpsychists

That the conditions for life are met is no less striking on panpsychism than on rival biological views of consciousness. This brings us to the central question of the paper: are the ensemble explanations of why such conditions are met available to panpsychists? Well, the many-planets explanation is consistent with panpsychism. And panpsychism poses no threat to its virtues of stability and urgency-reduction. But we have seen that the many-planets explanation is subject to a challenge. To answer the challenge, panpsychists need to clear the many-planets explanation of the charge that it generates but fails to explain striking phenomena. We will see that this is a tall order for panpsychists.

To start, recall the first striking fact to which the challenge appealed: that, on the many-planets hypothesis, planet(s) inhabited by observers meet the conditions for life. This striking fact seemed to tell against the many-planets explanation. As we saw, this challenge can be answered on a biological view of consciousness by invoking an observation selection effect. Panpsychists, however, cannot co-opt this response. The response crucially relies on the premise that being alive is (in effect) a necessary condition for being an observer. This, of course, is exactly what panpsychists deny: they claim that the vast majority of observers are inanimate.

Fortunately for the panpsychist, she doesn't need to appeal to an observation selection effect to answer this part of the challenge. Insofar as this part of the challenge is requesting an explanation of why *the* planets inhabited by observers meet the conditions for life, panpsychists can respond by rejecting the challenge's presupposition that observers fail to inhabit planets that violate the conditions for life. Different versions of panpsychism tell against this presupposition in slightly different ways. Predominant versions of panpsychism hold that fundamental microphysical entities are conscious (and hence observers). Since those entities exist in great abundance on all planets, these versions of panpsychism entail that observers inhabit planets that violate the conditions for life. Other versions claim that all macroscopic physical entities—living or not—are conscious.¹⁷ Since those entities exist in great abundance

¹⁷ See Goff (2014) for an argument for macroscopic panpsychism.

on all planets, these versions of panpsychism also entail that observers inhabit planets that do not support life.

On the other hand, insofar as this part of the challenge is requesting an explanation of why *some* planet (or planets) inhabited by observers meets the conditions for life, panpsychists can respond: observers inhabit such a planet because observers inhabit all planets and a planet that meets the conditions for life exists. (They could deepen the explanation by using the ensemble hypotheses to explain why such a planet exists.) So, while panpsychists cannot use an observation selection effect to answer the first part of the challenge to the many-planets explanation, they can answer it nonetheless.

What panpsychists evidently cannot do is answer the second part of the challenge. Recall that, in order to answer this part of the challenge, panpsychists need to supplement the many-planets explanation of why a life-supporting planet exists with a satisfactory explanation of why we are observers on a life-supporting planet. By themselves, neither panpsychism nor the many-planets hypothesis explains why such a planet hosts observers, much less why we are observers on such a planet. When taken together, the two hypotheses explain why observers inhabit life-supporting planets. However, even when taken together, they fail to explain why we are observers on a life-supporting planet rather than observers on a planet that does not support life. For they jointly entail that observers typically inhabit planets that do not support life. After all, on the many-planets hypothesis, most planets violate the conditions necessary for life. And, on panpsychism, all planets are well-populated by observers, regardless of whether they support life or not. Since the two hypotheses together do not predict that we will be atypical in this respect, they cannot explain why we belong to the small fraction of observers who inhabit a life-supporting planet.

As we have seen, matters would be different if, as on a biological view of consciousness, observers only inhabit life-supporting planets. On such a view, an observation selection effect yields the result that observers generally inhabit planets that meet the conditions for life rather than ones that don't. That result would then leave it unmysterious why we are observers on such a planet. But panpsychism rules out that observation selection effect. Nor are there any other obvious candidates that panpsychism might use to explain why we are observers on a life-supporting planet.

To summarize, panpsychists can help themselves to the many-planets hypothesis to explain why a planet meets the conditions for life. But to render that explanation satisfactory, they need to both explain why planets inhabited by observers meet the conditions for life and why we are observers on a planet that meets the conditions for life rather than observers on a planet that doesn't. They can meet the first requirement, albeit not in the way the biological view meets it. However, panpsychism evidently

leaves the second requirement unmet, thereby rendering the many-planets explanation is unsatisfactory.¹⁸

5. Objections and Replies

We'll now introduce and reply to three objections that panpsychists might press. The first objection is that the following reasoning can be used to patch up panpsychism's response to the challenge and account for why we are observers on a life-supporting planet: we are intelligent observers. Intelligent observers are generally on life-supporting planets but nowhere else. Thus, we are observers on a life-supporting planet.

In reply, we should grant that this reasoning is unproblematic in itself, and that it is unproblematic for the panpsychist to engage in. Panpsychism is not a thesis about intelligence. So, it can be happily combined with the claim that we are intelligent observers and with the claim that intelligent observers are generally on life-supporting planets. Whether or not panpsychism is true, we have an abundance of evidence for each of these claims. From them, one can legitimately infer that we are observers on a life-supporting planet. However, while this reasoning yields an unproblematic argument, it does not yield a satisfactory explanation of why we are observers on a life-supporting planet, which is what is required to meet the challenge.

To illustrate how an unproblematic argument can fall short of a satisfactory explanation, recall the case in which you happen upon a stranger just as she is discovering that she has a winning lottery ticket. As we saw, her winning cried out for explanation, and the many-tickets explanation failed to satisfactorily answer that cry. Indeed, without further detail, no satisfactory explanation suggests itself. Now, suppose that you inspect her ticket number, compare it with the announced winning number, and find that they match. You would then be in a position to make an impeccable argument for her winning: she has a lottery ticket with a certain number and that number is the winning number. These two facts jointly entail that she won. Even so, these facts do not satisfactorily explain her winning. This explanatory shortcoming has nothing to do with the level of evidential support for these facts—even if we suppose that they are decisively confirmed, the shortcoming remains. Instead, these facts fail to explain her winning because their obtaining cries out for explanation no less than her winning does. In other words, they are not urgency-reducing.

¹⁸ If the ensemble of planets is not vast and varied enough to yield an urgency-reducing explanation of why there is a life-supporting planet, then the many-planets explanation will be unsatisfactory and this challenge to panpsychism will not arise. In that case, a parallel challenge could still be raised using a multiverse explanation of why a life-supporting universe exists or of why a life-supporting planet exists. If there turns out to be no satisfactory explanation of why a life-supporting planet exists, panpsychism would not necessarily be in the clear: panpsychism will still be at an explanatory disadvantage if it alone leaves it mysterious why we are observers on a life-supporting planet.

Similarly, the fact that we are intelligent observers cries out for explanation no less than the fact that we are observers on a life-supporting planet. Hence, at least as it stands, the fact that we are intelligent observers is ineligible to figure in a satisfactory explanation of our being observers on a life-supporting planet. As in the lottery case, this explanatory shortcoming is due to lack of urgency-reduction, not to a deficiency in evidential support: all parties can agree that our evidence decisively confirms the hypothesis that we are intelligent observers.

One strategy for repairing the objection appeals to further considerations to show that our being intelligent observers can be used in an urgency-reducing explanation. The second objection implements this strategy by appealing to an observation selection effect. It proposes the following as a satisfactory explanation available to panpsychists: we are observers on a life-supporting planet because we are intelligent observers, and intelligent observers are generally on life-supporting planets but nowhere else. It's maintained that the fact that we are intelligent observers does not cry out for explanation because an observation selection effect licenses us to treat our observations as representative of observations of intelligent observers, rather than observers *simpliciter*. Given that such an observation selection effect is operative, the fact that we are intelligent observers no longer cries out for explanation and is thus eligible to serve as an explanans in an urgency-reducing explanation of why we are observers on a life-supporting planet.

Our reply targets the objection's assumption that we can, for the purposes of explaining why we are observers on a life-supporting planet, rationally take our observations to be representative of those made by intelligent observers. It is not obvious that this assumption is true. For it is at least sometimes incorrect to treat one's observations to be subject to an observation selection effect that operates on the class of intelligent observers, as opposed to a wider class that encompasses both observers that are intelligent and observers that are not.

To see that it is sometimes a mistake to treat one's observations as subject to an observation selection effect that operates on the class of intelligent observers, consider the following thought experiment. Suppose you're a member of a class of patients who are about to undergo a brain surgery. One of two procedures will be performed. On the first procedure everyone will also wake up as an intelligent observer, while on the second procedure only one person will wake up as an intelligent observer. Everyone will wake up as an observer on either procedure. Now, suppose you undergo surgery and wake up as an intelligent observer. Intuitively, your observation is better predicted and explained by the hypothesis that the first procedure was performed than it is by the hypothesis that the second procedure was performed. Yet this would not be so if it were correct to treat your observation as resulting from an observation selection effect that

operates on intelligent observers. For given such an observation selection effect, your observation would be equally expected on the two hypotheses.¹⁹

This thought experiment shows that panpsychists cannot, absent further argument, answer the challenge by helping themselves to an observation selection effect that operates on intelligent observers. Of course, the mere fact that an observation selection effect does not always operate on intelligent observers does not mean that no such effect operates in the particular case we are interested in. In order to adjudicate this issue, we would need a more general understanding of observation selection effects in explanatory contexts—a difficult task that is beyond the scope of this paper. So while the door is not shut to a panpsychist response to the challenge along these lines, panpsychists would need to do a lot of work to walk through the door.

Admittedly, such an observation selection effect may still seem relevant to meeting the challenge. Granting that there is this appearance, our diagnosis is that, as we will see, this sort of observation selection effect bears on an explanandum that is in the vicinity of the explanandum that poses a problem for panpsychism. Before distinguishing these explananda, let us consider another objection that panpsychists might raise.

The third objection proposes to co-opt our reply to the second objection and take it one step further. According to it, for the purposes of explaining why we are observers on a life-supporting planet, we should treat ourselves as members of an even wider class, the class of all possible observers. Upon treating ourselves in this way, the fact that we are (actual) observers can no longer be taken for granted. But given that our status as observers can no longer be taken for granted, the striking fact that we are observers on a life-supporting planet will be left unexplained on the many-planets hypothesis even if a biological view of consciousness is assumed. Admittedly, the many-planets hypothesis explains why a planet meets the conditions for life. And, on a biological view of consciousness, it may be unmysterious why observers inhabit such a planet. But there are plenty of ways for there to be life-supporting planets that are inhabited by observers without there being any such planet that we inhabit as observers. Since combining the many-planets hypothesis and a biological view of consciousness does not explain why none of those worlds is actual, it fails to explain why we inhabit a life-supporting planet.²⁰ Consequently, the objection concludes, the problem of explaining why we inhabit such a planet is not a distinctive difficulty for panpsychist,

¹⁹ We put the first and second panpsychist objections in terms of intelligence. But objections of these sorts could be run with various properties aside from intelligence, such as being alive, having sense organs, or having two thumbs. Our responses apply *mutatis mutandis* to these objections.

²⁰ Alternatively, the objection could be put in terms of a failure to explain why the planetary observations we make are made by us rather than by other possible observers. Our below response applies to that version of the objection *mutatis mutandis*.

and hence not the sort of difficulty that puts panpsychism at an explanatory disadvantage relative to rival views.

There is a common moral to be gleaned from the second and third objection. What is right about these objections is that there are explananda such that (1) panpsychist are as well-positioned to satisfactorily explain those explananda as their biological rivals and (2) we can request an explanation of any of those explananda by asking “Why are we observers on a planet that meets the conditions for life?”. However, there is another explanandum that we can request with that question that is distinctively difficult for panpsychists to satisfactorily explain.

To see this, note that how “why” questions should be answered can depend on the contrast class to which they are indexed.²¹ To take a stock example, suppose that Sally, a heavy smoker, has developed lung cancer. “Why did Sally develop lung cancer?” has many different interpretations corresponding to different contrast classes. For instance, if we read the question as asking why did Sally develop lung cancer rather than skin cancer, the requested explanation may be that her smoking habit causes lung cancer, but Sally does not do anything that tends to cause skin cancer (such as sunbathing). If we instead read the question as why did Sally, rather than Sally’s coworkers, develop lung cancer, the explanation could be that Sally was a smoker while her coworkers were not. On the other hand, if we read the question as why did Sally, rather than any of the other people in Sally’s cigar club, develop lung cancer, Sally’s smoking habit would no longer be a good explanation—it might instead concern Sally’s work environment.

The same point holds for the question of why we are observers on a planet that meets the conditions for life. On one reading, the question requests an explanation of the fact that we are intelligent observers on a planet that meets the conditions for life rather than intelligent observers on a planet that does not. The kernel of truth underlying the second objection is that panpsychists, no less than biological theorists, can use an observation selection effect to satisfactorily explain that fact. Given that intelligent observers are (almost entirely) confined to planets that support life, it is to be expected—regardless of whether panpsychism is true and regardless of how many planets that do not support life—that intelligent observers such as ourselves will be on a planet that supports life rather than on a planet that does not. This, we suggest, is why an observation selection effect may seem relevant to meeting our challenge to panpsychism. However, as we will see, this reading of the “why” question is distinct from the one that presents a special challenge to panpsychism.

We should note another reading of the “why” question that does not present a special problem for panpsychism: why are we (actual) observers on a(n actual) planet that

²¹ E.g., see van Fraassen (1977: 147).

supports life rather than merely possible observers? Evidently, conjoining the many-planets hypothesis with panpsychism or a biological view of consciousness does not explain that explanandum. For an explanation of it would need to say something about why we are actual observers rather than merely possible ones. But neither of the candidate theoretical packages would do that. The kernel of truth underlying the third objection is that, even on the many-planets hypothesis, panpsychism and biological theorists evidently fail to explain the noted explanandum.

But there is a third explanandum in the vicinity: why are we observers on a planet that supports life rather than observers on a planet that does not? For panpsychists and biological theorists who endorse the many-planets explanation, this explanandum cries out for explanation. Since few planets meet the stringent conditions for life, it would be an incredible coincidence if it just so happened that the planet we are on is also a planet that meets those conditions. On a biological view of consciousness, an observation selection effect satisfactorily explains that explanandum. In contrast, on panpsychism, no satisfactory explanation accounts for it. Therein lies the challenge for panpsychists.²² Perhaps panpsychists can meet it. But since this explanandum has nothing to do with either intelligent or merely possible observers, it will not help panpsychists to simply appeal to an observation selection effect that operates on either of those classes of observers. Nor can they answer the challenge by appealing to the explanatory parity between panpsychism and biological views with respect to other explananda in the vicinity.

²² We are not assuming that asking any question that panpsychists cannot answer is enough to raise a challenge for panpsychism. To pose such a challenge, a question needs to pose a striking explanandum. We have assumed throughout that that requirement is met by “Why are we observers on a planet that supports life rather than observers on a planet that does not?”. But it is open to panpsychists dispute that assumption. This response may merit development. However, since developing it would require taking on the issue of what makes phenomena cry out for explanation—an issue that lies beyond the scope of this paper—that is a task for future research.

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