

# Idealism and the Mind-Body Problem\*

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When I was in graduate school, I recall hearing “One starts as a materialist, then one becomes a dualist, then a panpsychist, and one ends up as an idealist”.<sup>1</sup> I don’t know where this comes from, but I think the idea was something like this. First, one is impressed by the successes of science, endorsing materialism about everything and so about the mind. Second, one is moved by problem of consciousness to see a gap between physics and consciousness, thereby endorsing dualism, where both matter and consciousness are fundamental. Third, one is moved by the inscrutability of matter to realize that science reveals at most the structure of matter and not its underlying nature, and to speculate that this nature may involve consciousness, thereby endorsing panpsychism. Fourth, one comes to think that there is little reason to believe in anything beyond consciousness and that the physical world is wholly constituted by consciousness, thereby endorsing idealism.

Some recent strands in philosophical discussion of the mind–body problem have recapitulated this progression: the rise of materialism in the 1950s and 1960s, the dualist response in the 1980s and 1990s, the festival of panpsychism in the 2000s, and some recent stirrings of idealism.<sup>2</sup> In my own work, I have taken the first two steps and have flirted heavily with the third. In this paper I want to examine the prospects for the fourth step: the move to idealism.

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<sup>1</sup>I recall either hearing this epigram in conversation or reading it somewhere, with the sense that it came from the school of recent British idealists such as John Foster, Howard Robinson, and T.L.S. Sprigge. To my surprise no one I have consulted (including Robinson) remembers the saying, so perhaps I hallucinated it or it was the invention of one of my conversational partners. Any leads are welcome!

<sup>2</sup>The rise of materialism: e.g. Armstrong 1968, Feigl 1958, Lewis 1966, Place 1956, Putnam 1960, Smart 1959. The dualist response: e.g. Chalmers 1996, Foster 1991, Jackson 1982, Kripke 1980, Nida-Rümelin 1997, Robinson 1982 (with support from Nagel 1974 and Levine 1983). The festival of panpsychism: e.g. Bruntrup and Jaskolla 2017, Chalmers 2013, Goff forthcoming, Mathews 2003, Rosenberg 2004, Seager 2002, Skrbina 2009, Strawson 2006 (with support from Chalmers 1996, Griffin 1998, and Nagel 1979). The stirrings of idealism: Adams 2007, Albahari (this

# 1 Varieties of Idealism

I will understand idealism broadly, as the thesis that the universe is fundamentally mental, or perhaps that all concrete facts are grounded in mental facts. As such it is meant as a global metaphysical thesis analogous to physicalism, the thesis that the universe is fundamentally physical, or perhaps that all concrete facts are grounded in physical facts. The only difference is that “physical” is replaced by “mental”.

We can understand mental facts as facts wholly about the instantiation of mental properties.<sup>3</sup> Later we will examine possible versions of idealism that loosen this constraint. My focus is largely on conscious experience as opposed to non-conscious mental states, so the mental states and properties I will focus on are largely experiential states and properties, but in principle the definition includes views on which other sorts of mental states play a role. As for concreteness: this excludes truths about abstract domains, such as mathematics. In practice most physicalists and idealists are not committed to the strong claim that mathematical truths are grounded in physical or mental truths, and the restriction to concrete domains helps to avoid the issue.

Although it is common to define idealism as a global metaphysical thesis analogous to materialism, in practice idealism is often understood more narrowly as a version of Berkeley’s “esse est percipi” thesis, holding that appearance constitutes reality. This sort of idealism is typically seen as a paradigm of anti-realism, in that it holds that there is no concrete reality external to how things appear: all concrete non-mental truths  $p$  are grounded in or constituted by appearances that  $p$ , or in closely related truths involving appearances. If we understand appearances as experiences had by observers (most naturally as perceptual experiences, though thoughts about the external world are also sometimes understood as appearances in a broad sense), it follows that the physical world is fully grounded in the experiences as of a physical world had by observers.

Anti-realist idealism entails idealism in the broad sense, but the reverse is not the case. For example, there are panpsychist versions of idealism where fundamental microphysical entities are conscious subjects, and on which matter is realized by these conscious subjects and their relations. There are also cosmopsychist versions of idealism where the whole universe is conscious, and on

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volume), Bolender 2001, Foster 2008, Goldschmidt and Pearce forthcoming, Kastrup 2017, Meixner 2017, Pelczar 2015, Yetter-Chappell forthcoming (with support from Sprigge 1983 and Strawson 1994, as well as cosmopsychists cited later). Of course there is an enormous amount of idealism in pre-20th century philosophy (Indian, Tibetan, British, German, and so on) but due to lack of expertise I am engaging with historical material only superficially.

<sup>3</sup>That is, mental facts are facts involving only mental properties. Mental facts might involve logical and/or singular constituents in addition to properties: so e.g.  $\exists xMx$  and  $Ma$  both count.

which the complex physical states of the cosmos are realized by structurally isomorphic cosmic mental states. Whether or not these views are plausible, they need have no commitment to “esse est percipi” or to other anti-realist doctrines. In constituting the physical world, on this view, appearances concerning the physical world may play no special role. It is the structure and relations among experiences rather than their specific content that matters.

One might object that all mental states (or at least all perceptual states) are appearances of some sort, so that any view on which mental or perceptual states constitute reality is a view on which appearance constitutes reality and is therefore anti-realist. But anti-realist idealism makes a stronger claim connecting the *nature* of any nonmental reality to the specific *content* of appearances: roughly, for any nonmental fact *p* about concrete reality, what it is for *p* to obtain is for appearances that *p* (or closely related appearances) to obtain.<sup>4</sup> On the realist versions of idealism discussed above, this stronger claim is false: what it is for physical facts *p* to obtain is for certain structural roles to obtain. When we conjoin the further (possibly contingent) claim that in fact appearances play that role, the appearance-reality and the mental-physical connections follow as consequences.

Idealist views like these are naturally understood as versions of realism about the physical world, rather than versions of anti-realism. The physical world really exists out there, independently of our observations; it just has a surprising nature. Indeed, views of this sort are highly congenial to epistemological structural realism, which says roughly that science reveals the structure of the physical world but not its intrinsic nature. We can think of them as versions of *realist idealism*.

Realist idealism may sound like an oxymoron, but this is only because we tend to associate idealism with the narrow anti-realist variety and ignore the broad variety. Correspondingly, the widespread view that idealism has been refuted or defeated is best understood as a view about anti-realist idealism.<sup>5</sup> Certainly the most familiar objections to idealism are largely objections to anti-realist idealism. Realist idealism has not been subject to the same sort of searching assessment

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<sup>4</sup>Some subtleties: The definition of anti-realist idealism can either include or exclude microphenomenalist and cosmic phenomenalist views (discussed in the next section), depending on whether or not the relevant appearances are limited to those in observers like us. For it to include non-phenomenalist views where there are experiences but no physical objects, we should allow the definition to be true vacuously. For it to exclude versions of Russellian panpsychism on which structural roles fix the reference of physical terms to mental properties that play those roles (so that perhaps electron-appearances play the electron role and are therefore electrons), the “what it is” claim should probably be understood as conceptual or epistemic equivalence rather than metaphysical equivalence.

as anti-realist idealism.

Anti-realist and realist idealism tend to go with two quite different paths to idealism. Anti-realist idealism takes an epistemological path to idealism. It is most commonly driven by epistemological questions about skepticism, and is typically associated with the sort of empiricism that resists postulating hypotheses that go beyond appearances. Realist idealism takes a metaphysical path to idealism. It is often driven by metaphysical questions about the mind and about physical reality, and tends to go with the sort of rationalism that allows metaphysical hypotheses that go well beyond appearances if they help us to make sense of the universe as a whole.

From certain angles realist idealism can even be seen as a sort of naturalistic view (naturalistic idealism, perhaps?), on which idealism is put forward as a sort of scientific hypothesis to explain our experiences. In any case, it is idealism in this rationalist or naturalist spirit that I want to examine in this article. I will touch on anti-realist idealism along the way, but I will focus especially on realist idealism in order to examine its prospects.

A more traditional taxonomy of idealist views distinguishes subjective idealism, objective idealism, transcendental idealism, and absolute idealism. These varieties of idealism do not have clear standard definitions, and they they are often characterized as much by appeal to paradigmatic proponents (Berkeley, Schelling, Kant, and Hegel respectively) as to specific doctrines. For present purposes I will set aside the last two. Kant's transcendental idealism is not really a version of idealism in the metaphysical sense I am concerned with here. It is sometimes called a version of epistemological idealism:<sup>6</sup> at most it is idealist about the knowable phenomenal realm but not the unknowable noumenal realm, so it is not idealist about reality in general. Absolute idealism is typically associated with a number of Hegelian doctrines concerning teleology and rationality, and I do not have a clear sense of how these doctrines bear on the mind–body issues I am concerned with here. The label is occasionally used more straightforwardly for an idealism grounded in the mental states of a single cosmic entity, but to avoid the resonant Hegelian overtones I will give that view a different label below.

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<sup>5</sup>The assumption that idealism must be anti-realist is reflected in a question in the PhilPapers Survey (Bourget and Chalmers 2014): “External world: idealism, skepticism, or non-skeptical realism”. The question tacitly acknowledges the possibility of skeptical realism but not of idealist realism. 4.3% accepted idealism. The figure would probably not have been much higher if realist idealism were explicitly acknowledged (and only 0.4% indicated that they accepted more than one answer), but the phrasing brings out the way that views of this sort tend to be ignored. (Mea culpa.)

<sup>6</sup>Another common taxonomy distinguishes metaphysical idealism (reality is fundamentally mental) from epistemological idealism, (all knowable facts are mental), conceptual idealism (our concepts constrain facts about reality; Rescher 1973, Hofweber forthcoming), and explanatory idealism (the mental plays some role in explaining all facts

As for subjective and objective idealism, these labels correlate with at least three different distinctions. First is a version of the anti-realist/realist distinction above: reality is wholly constituted by the way things appear to be (subjective), or it has some mental nature external to how things appear to be (objective). A second distinction concerns whether the fundamental mental states are had by a subject (subjective) or by some other sort of entity or no entity at all (objective). A third distinction concerns what sorts of minds constitute reality: for example, human minds like ours (subjective) or a cosmic mind (objective). These distinctions are to some extent independent of each other, and the labels also bring enormous historical baggage, so for clarity I will use different language to mark the relevant distinctions here. To mark the first distinction, I will speak of anti-realist vs realist idealism. To mark the second distinction, I will speak of subject-involving and non-subject-involving idealism. To mark the third distinction, I will speak of micro-idealism, macro-idealism, and cosmic idealism.

The third distinction is especially important for our purposes. Micro-idealism is the thesis that concrete reality is wholly grounded in micro-level mentality: that is, in mentality associated with fundamental microscopic entities (such as quarks and photons). Macro-idealism is the thesis that concrete reality is wholly grounded in macro-level mentality: that is, in mentality associated with macroscopic (middle-sized) entities such as humans and perhaps non-human animals. Cosmic idealism is the thesis that concrete reality is wholly grounded in cosmic mentality: that is, in mentality associated with the cosmos as a whole or with a single cosmic entity (such as the universe or a deity).<sup>7</sup>

For historical examples of each: Leibniz's view has at least a flavor of micro-idealism, with all reality grounded in the mental states of monads, although his monads may include macro and cosmic entities as well as micro-entities. Berkeley looks like a macro-idealist, at least before God enters his picture, and other British empiricists such as Hume and Mill have elements of this view. Many of the 19th-century German and British idealists (e.g. Fichte, Schelling, Hegel, and Bradley) as well as Hindu and Buddhist idealists (e.g. from the Advaita Vedanta and Yogacara schools) at least tend in the direction of cosmic idealism.<sup>8</sup>

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about reality; Rescher 2007, Ross forthcoming). My focus in this article is firmly on varieties of metaphysical idealism.

<sup>7</sup>I say "mentality associated with" in order to make these three varieties of cosmic idealism consistent with non-subject-involving views that reject the idea that mentality requires something to bear mental states. If we assume a subject-involving view (or a non-subject-involving view that allows bearers that are not subjects), one could change this expression to "mental states of" here and throughout this article.

<sup>8</sup>Among contemporaries, it is easy to read Strawson (2006) as a micro-idealist (though his view is consistent with cosmic idealism). Pelczar (2015) is a macro-idealist, and Kastrup (2017) is a cosmic idealist. Others discussed below

These three versions of idealism correlate fairly strongly with three existing philosophical views: micropsychism (the thesis that microphysical entities have mental states), phenomenism (external reality is grounded in appearances), and cosmopsychism (the universe has mental states). Micro-idealism entails micropsychism, but not vice versa: there can be non-idealist micropsychists who hold that microphysical entities have mental and non-mental properties fundamentally (perhaps mass and charge are mental, and space and time are nonmental?). Cosmic idealism entails cosmopsychism but not vice versa, for the same sort of reason. Macro-idealism does not entail phenomenism (a nonphenomenalist macro-idealist might hold that reality is constituted by non-appearance-involving mental relations among macro-subjects), and phenomenism does not entail macro-idealism (a cosmic phenomenist might hold that reality is partly or wholly grounded in appearances to a cosmic mind, and a micro phenomenist could in principle say something analogous about micro minds), but the two views at least naturally go together. One could in principle speak of micropsychist, phenomenist, and cosmopsychist idealism, but I will use the shorter labels for brevity and clarity.

There are also combined views on which more than one of the three sorts of minds is fundamental. For example, Berkeley can be understood as a cosmic/macro phenomenist, on which both a cosmic mind (God's) and macro minds (ours) are fundamental. Some emergent panpsychists may be micro/macro idealists, holding that both micro and macro minds are fundamental. There is also room in principle for micro/cosmic and micro/macro/cosmic idealism.<sup>9</sup>

In what follows I will examine the prospects for micro-idealism, macro-idealism, and cosmic idealism, looking also at combined versions along the way. I will not attempt to give compelling arguments for these views over alternative views, but I will examine their merits and their challenges. I will focus especially on the merits of these views as a solution to the philosophical mind-body problem. Here the constraints are to give a satisfactory theory of (i) the physical world, (ii) consciousness, and (iii) the relation between them. I will argue that all of these views face significant challenges, but that micro-idealism and especially cosmic idealism have some promise as an approach to these issues.

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hold combined views, or hold versions of panpsychism and cosmopsychism without full-on idealism.

<sup>9</sup>Among contemporaries, Foster and Robinson can be read as cosmic/macro idealists in the Berkeleyan mould, while Albahari and Yetter-Chappell can be read as cosmic/macro idealists of a somewhat different sort. Adams offers both cosmic/macro and micro/macro alternatives. Emergent panpsychists such as Mørch, Seager, and Rosenberg might be read as micro/macro or perhaps micro/macro/cosmic idealists.

## 2 Macro-Idealism

I will discuss macro-idealism only briefly, as it is perhaps the version of idealism that is least motivated by the mind–body problem and least promising as a distinctive solution to it. It is also (in its phenomenalist guise) the version that is the most familiar in the existing literature, with familiar strengths and weaknesses. I do not have a great deal that is new to say about it (and readers should feel free to skip this section), but a few observations may be useful in drawing out the logical geography.

Macro-idealism holds that the mental states of humans and perhaps other macroscopic systems are fundamental, and that all of reality is grounded in these states. The first question for macro-idealism, as for any sort of idealism, is: how do these mental states ground facts about the physical world? Macro-idealists commonly answer: in virtue of appearance. Roughly speaking, the fact that it appears that the physical world is a certain way grounds its being that way. The second question is: how can there be illusions and hallucinations, where appearance is not a guide to reality? Macro-idealists commonly answer: physical facts are grounded in something like normal appearances, or coherence among multiple appearances, so that illusions and hallucinations are abnormal appearances or appearances that do not cohere properly with other appearances. The third question: how can there be unperceived parts of physical reality, such as the unperceived tree in the quad, or a rock on Mars? Macro-idealists commonly answer: these entities are grounded either in appearances in a cosmic or divine mind (God experiences the tree in the quad), thereby leading to cosmic or macro/cosmic idealism, or in (naturally or nomologically) *possible* experiences by macroscopic subjects (if we experienced going to a certain location on Mars, we would experience a rock).

Classical phenomenism answers all three questions: facts about physical reality are grounded in coherence among facts about possible appearances (Mill’s “permanent possibilities of sensations”). Phenomenism is often understood as a semantic thesis (*semantic phenomenism*): statements about the physical world are analyzable as statements about possible experiences. This semantic thesis naturally leads to a metaphysical thesis (though there is certainly room to accept one without the other, for those who strongly separate semantics from metaphysics): facts about the physical world are grounded in facts about possible experiences. We can call this metaphysical thesis *weak metaphysical phenomenism*. This thesis does not entail idealism, since it is consistent with there being further nonmentally-grounded facts lying behind the mentally-grounded physical facts: for example, noumenal facts lying behind appearances. However, a version of ide-

alism is entailed by *strong metaphysical phenomenalism*, which says that all facts are grounded in facts about possible experiences.

Strictly speaking, strong metaphysical phenomenalism entails only a qualified version of idealism: reality is not wholly grounded in actual experiences, but it is grounded in naturally possible experiences, or powers or potentialities or conditionals involving experiences. By allowing fundamental powers or potentialities or conditionals, this view arguably says that there is an irreducibly nomic or modal aspect of reality as well as an irreducibly mental aspect, thereby qualifying the idealism. But as long as the modal truths in question wholly concern the mental, the view seems still idealist enough for it to deserve the name.

There are many traditional objections to phenomenalism, but in my view the most important objection to strong metaphysical phenomenalism is the *explanatory objection*: the truths about possible experiences demand explanation, and this view gives them none. For example, it is true that the table looks a certain way to me, and that from a different angle it will look a certain related but different way to me, and if I come back tomorrow it will once again look a related way to me, and so on. There is an order and coherence among these possible experiences that calls out for explanation. Standard non-phenomenalist views of the external world explain this by invoking a single physical table that causes the relevant experiences. A classical phenomenalist cannot do this, since the physical table is grounded in the possible experiences. Rather, each truth about possible experience is taken as fundamental. So we have an enormous array of related fundamental truths, with no explanation for the relations. In effect, strong metaphysical phenomenalism gives an extraordinarily complex theory of fundamental reality, and should be rejected for the same reasons that we usually favor simple theories of fundamental reality.<sup>10</sup>

In response to this objection, weak metaphysical phenomenalism and semantic phenomenalism can allow further facts that causally explain the facts about possible experiences, as long as they deny that these facts are physical facts. For example, Berkeley invokes facts about a divine mind in this role. Other phenomenologists may invoke structural facts about an underlying structural

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<sup>10</sup>Pelczar (2015) holds that sensation conditionals are all primitive, but argues that they can be nonreductively explained in terms of a relatively small subset of sensation conditionals: they are naturally necessitated by those sensation conditionals that constitute the basic laws of nature and the associated boundary conditions. This subset is nevertheless still enormously large and complex: every way we look, the laws of physics seem to be true. As a result the view is very much subject to a version of the explanatory objection: the order among these sensation conditionals constitutes a remarkably complex coincidence, and is much better explained if the appearances are caused by a separate domain in which the laws are true. Pelczar concedes that the complexity is a disadvantage of his view, but holds that separate-domain views have even worse problems.

reality, or unknowable noumenal facts. These views are not entirely stable, since once one has underlying facts in the picture that causally explain physical appearances, there is some pressure to say that these facts themselves constitute the physical facts. But they are at least consistent. The further-fact response does little to save strong metaphysical phenomenalism (of the macro variety) and macro-idealism, however, as it allows facts that are not grounded in the mental states of macro subjects. As a result, many semantic or weak metaphysical phenomenologists end up augmenting their macro-idealism with a non-macro-idealist account of external reality: perhaps cosmic idealism, micro-idealism, ontological structuralism, or noumenalism.

For reasons like these, I think that the epistemological route through phenomenalism to idealism is not especially compelling. That said, I think there is a structuralist cousin of this route that has some promise for epistemological purposes. On this route, instead of holding that physical truths  $p$  are grounded in normal appearances that  $p$ , one holds roughly that they are grounded in the normal cause of appearances that  $p$  (and in related mutual causal roles). This leads to a structuralist view on which reality as we conceive of it is grounded in experience along with a structured network of causes that bring about those experiences. This view avoids the explanatory worry above, while still giving us some purchase against skepticism. Like phenomenalism, it reclassifies many apparently skeptical hypotheses (such as evil genius, brain-in-vat, and Matrix hypotheses) as hypotheses in which the apparent physical facts really obtain.<sup>11</sup> As a result, certain forms of global skepticism may be ruled out as incoherent. Because this epistemological structuralism about the external world invokes external causes of experiences, it goes beyond macro-idealism. Instead it tends to lead to ontological structuralism, noumenalism, or perhaps micro or cosmic idealism about physical reality.

In principle there can be phenomenalist idealism without macro-idealism. A cosmic phenomenologist or a microphenomenologist could hold that reality is grounded in appearances to a cosmic mind or to micro-minds, via a general metaphysical principle connecting appearance and reality. Berkeley's invocation of God suggests a view of this sort (or perhaps a version of macro/cosmic phenomenalism, with appearances in both human and divine minds grounding physical reality). One can also find at least some elements of cosmic phenomenalism in Buddhist and Hindu versions of idealism, in which cosmic experience and appearance-reality principles play a central role. As for microphenomenalism, one can perhaps find a flavor of the view in interpretations of Leibniz on which matter is constituted by monads' perceptions of matter. Cosmic phenomenalism

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<sup>11</sup>See Chalmers 2003, 2012 (excursus 15), and forthcoming.

and microphenomenalism have less need than macro-phenomenalism to appeal to merely possible experiences, since there may be cosmic or micro-experiences corresponding to every part of physical reality, but one can still reasonably raise the question of what explains the order among the cosmic appearances or the micro-appearances.

Is there room for a non-phenomenalist version of macro-idealism? In the case of micro-idealism and cosmic idealism, there is a broadly structuralist nonphenomenalist view on which physical states are constituted by (broadly causal) relations among the mental states of micro-subjects or a cosmic subject. In principle there could be a broadly structuralist macro-idealism in which physical states are constituted by causal relations among the mental states of macrosubjects. In practice, this view is somewhat undermotivated and it is hard to make it work, not least because much of what goes on in the physical world seems not to be reflected in the states of macrosubjects. For example, it is hard to see how the location of a particle in a part of the universe far from conscious life could be constituted by the conscious states of a standard macrosubject (where it is at least somewhat easier to see how states of microsubjects or a cosmic subject could do this). Perhaps the view could posit a ubiquity of macrosubjects, or macrosubjects with unusually complex mental states, or perhaps it could deny reality where there are no macrosubjects, but by this point the view seems to have little to recommend it over micro-idealism or cosmic idealism.

Interestingly, there are a few recently discussed views with roots in contemporary science that have some flavor of macro-idealism.

Some views of this sort arise from quantum mechanics, which is sometimes associated with idealist-sounding slogans such as “observation creates reality”. Perhaps the best-known view here is the interpretation on which consciousness collapses the quantum wave function (Wigner 1961, Stapp 1993, Chalmers and McQueen forthcoming). This view works best when consciousness is present only in macrosubjects, since wave function collapse in microsubjects is hard to reconcile with known quantum interference effects at the microscopic level. However, this view is standardly understood as a version of dualism rather than a version of idealism, with a causal rather than a constitutive connection between consciousness and a nonmental wavefunction. Anti-realist views are occasionally put forward where the wavefunction state itself is constituted by observers’ experiences (some versions of so-called quantum Bayesianism have something of this flavor), but these views are very much subject to the explanatory objection to phenomenism.

It is also possible to combine quantum mechanics with a structuralist rather than a phenomenalist route to idealism. One view of this sort grounds the wavefunction of the universe in the structure and dynamics of cosmic experience. This view leads most naturally to cosmic idealism or

perhaps to cosmic/macro idealism (if observer consciousness collapses the wave function) rather than to macro-idealism. For a macro-idealist version, one needs quantum states to attach fundamentally to macro systems but not to cosmic systems, perhaps because quantum entanglement extends to the macro level but not the cosmic level. The mind–body relation will be particularly tidy if person-level systems such as brains have their own fundamental quantum states, constituted by isomorphic structure and dynamics in person-level experience. This “quantum holist” view (as I called it in Chalmers 2017) will in principle be macro-idealist (or perhaps micro/macro idealist), but it faces serious challenges, not least because it postulates person-level experience whose structure is quite unlike the apparent structure of our own experience. It is also not easy to see how quantum entanglement can stably remain somewhere around the person level rather than spreading to the cosmic level (or collapsing to the micro-level), thereby yielding something closer to cosmic idealism or micro-idealism.

A second relevant view is Giulio Tononi’s integrated information theory of consciousness. Tononi makes the idealist-sounding claim that only consciousness has intrinsic existence, and he also says that consciousness is present only in causal systems with a positive amount of integrated information, which entails that conscious systems must be macrosubjects at least in the sense of having two or more components. If we understand this view as a version of macro-idealism, the obvious question concerns the status of single-component systems and perhaps other unconscious system: they they are needed to explain the dynamics of the universe, but they do not truly exist? Here the macro-idealist reading of Tononi’s view seems to suffer from problems analogous to those of phenomenalism. With only macro-conscious states, too much about the world is unexplained; once we grant reality to the non-conscious states that help explain things, the view looks much less like idealism.<sup>12</sup>

A final potential form of macro-idealism with roots in cognitive science is Donald Hoffman’s “conscious realism” (2008). Hoffman first argues (drawing partly on psychophysics) for an “interface theory of perception” on which the objects we perceive exist only as experiences (roughly as on traditional sense-datum views) and experiences may be misleading as a guide to objective reality. He then argues for conscious realism, on which the objective world consists entirely of conscious agents. It is not entirely clear whether Hoffman’s conscious agents are all macrosubjects. If they are, the view faces a severe version of the explanatory objection to phenomenalism. If they are not, the views can avoid the explanatory objection by postulating microsubjects associated with every physical particle or perhaps a cosmic subject, but then the view becomes a form of micro/macro or cosmic/macro idealism.

### 3 Micro-Idealism

Micro-idealism is the thesis that all concrete facts are grounded in facts about the mental states of (or mentality associated with) fundamental microscopic entities, such as quarks or photons.<sup>13</sup>

Micro-idealism entails panpsychism, understood as the thesis that some fundamental physical entities have associated mentality, but the reverse is not the case, for a number of different reasons. The first reason turns on a delicate terminological issue: whether cosmopsychism, the thesis that the whole universe has mental states, counts as a version of panpsychism. If we define panpsychism as I just have here, and adopt a version of cosmopsychism on which the universe is a fundamental physical entity, then this sort of cosmopsychism entails panpsychism. If we define panpsychism as the thesis that some fundamental microphysical entities have mental states, then cosmopsychism does not entail panpsychism. Both definitions are common, but on balance I think it makes sense to define panpsychism in terms of fundamental physics (as I have in previous work) rather than microphysics, so that cosmopsychism counts. On this approach we can use Strawson's term *micropsychism* for the thesis that some fundamental microphysical entities are associated with mental states. This then yields a first reason why panpsychism does not entail micro-idealism: micro-idealism entails micropsychism, so non-micropsychist versions of panpsychism such as cosmopsychism are inconsistent with micro-idealism.

Even narrowing our focus to micropsychism, there are a number of reasons why micropsychism does not entail micro-idealism. First, *nonconstitutive* micropsychists deny that the mental states of macro-subjects are grounded in those of micro-subjects. These theorists include emergent micropsychists, who holds that macrosubjects are strongly emergent from microsubjects, and autonomous micropsychists, who holds that macrosubjects do not wholly depend on microsubjects. There are idealist versions of these views, but they reject micro-idealism for micro/macro-idealism. Second, some *nonreductionist* micropsychists may allow that there are fundamental nonmental properties in the world (for example, biological or normative properties) that are not constituted by properties of micro-entities. Third, *impure* micropsychists will allow that some fundamental microscopic entities have fundamental nonmental properties (e.g. spatiotemporal properties), perhaps in addition to fundamental mental properties. By embracing fundamental

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<sup>13</sup>I don't know of any philosopher who is committed to micro-idealism. Perhaps the nearest is Roelofs (2014), who favors micro-idealism but does not rule out cosmic idealism. Strawson (2006) looks like a micro-idealist but has more sympathy with cosmic idealism. Many other panpsychists turn out to be emergent panpsychists (e.g. Mørch and Rosenberg), cosmopsychists (e.g. Goff and Shani), impure panpsychists (Goff again), or neutral monists (e.g. Coleman).

nonmental properties, nonreductionist and impure micropsychists reject idealism entirely.

We could exclude all of these views by focusing on constitutive, pure, reductionist, versions of micropsychism, thereby yielding the micro-idealist thesis that all facts are grounded in facts about the mental states of micro-entities. One might call this thesis *grounding micropsychism*, but I will typically speak just of micro-idealism for clarity.

The basic motivations for micro-idealism are closely related to the standard motivations for panpsychism. A common route to both is the route canvassed at the start, conjoining the successes of science, the problem of consciousness, and the inscrutability of matter, along with a desire to see consciousness closely integrated with the physical world and playing a causal role. These motivations typically lead to versions of micropsychism and micro-idealism where micro-entities have experiences (rather than other mental states). We might call these experiences microexperiences, contrasted with our own macroexperiences. It is these experience-involving views that I will focus on here.

In “Panpsychism and Panprotopsychism” I mounted a Hegelian argument for panpsychism, arguing that panpsychism can be seen as a sort of synthesis of the best aspects of materialism and dualism and the worst aspects of neither. Specifically, it respects the data of both the conceivability argument for dualism and the causal argument for physicalism. In effect, panpsychism is ideally suited to hold on to the three constraints: the irreducibility of consciousness, the causal role of consciousness, and the causal closure of the physical world.

The sort of micropsychism that satisfies these constraints is *constitutive Russellian micropsychism*. Russellian micropsychism (in its experience-involving version) holds that microexperiential properties *realize* microphysical properties, in that they play the causal roles associated with microphysical properties. For example, physics characterizes mass in terms of its role. Russellian micropsychism says that a microexperiential property realizes mass by playing that role, thereby serving as the “intrinsic nature” of mass. Constitutive micropsychism holds that these microexperiential properties collectively constitute (or ground) macroexperiential properties in subjects such as ourselves. In effect, Russellian micropsychism gives microexperiences a causal role, while constitutive micropsychism allows macroexperiences to inherit a causal role from those at the microexperiences, thereby avoiding the interaction problems for dualism.

Micro-idealism is naturally seen as a sort of constitutive Russellian micropsychism. If all facts are grounded in truths about mental states of microsubjects, then facts about mental states of macrosubjects are so grounded (yielding constitutive panpsychism), and facts about physics are so grounded (strongly suggesting Russellian panpsychism). So micro-idealism seems well-suited

to satisfy the data of irreducibility of consciousness, a causal role for consciousness, and causal closure of physics.

At the same time, we have already seen that micro-idealism goes beyond mere micropsychism, at least three respects: it is a constitutive, pure, and reductionist version of micropsychism. In principle it also goes beyond constitutive Russellian micropsychism in these respects, but perhaps the most natural and most common versions of constitutive Russellian panpsychism are reductionist and micropsychist. The key respect in which micro-idealism goes beyond constitutive Russellian micropsychism is its purity: it holds that *all* (and not merely *some*) fundamental properties of micro-entities are mental.

This purity is the source of a number of the distinctive strengths and weaknesses of micro-idealism. First, the strengths. In holding that all fundamental properties are of the same kind, micro-idealism offers a simple and unified monistic view of nature. By contrast, impure versions of panpsychism have both mental and nonmental properties at the fundamental level, yielding a sort of property dualism. Simplicity considerations seem to militate in favor of purity here. Second, micro-idealism yields a relatively comprehensible picture of fundamental reality, in that in principle we may be able to grasp the fundamental properties, while impure views tend to leave it quite obscure what the non-mental properties might be. One might endorse a sort of ontological structuralism about the non-mental properties, but this would yield an odd mix of ontological structuralism about some microphysical properties and nonstructuralism about others; or one might suppose they have their own intrinsic natures, but then it is quite unclear what those might be. Finally, pure panpsychism avoids the interaction problem of making sense of mental-nonmental interaction, in favor of the arguably easier problem of mental-mental interaction. Together the issues of unity, comprehensibility, and interaction provide a powerful case for taking micro-idealism seriously.

Second, the weaknesses. Some real challenges to micro-idealism arise from its having to handle all fundamental microphysical properties. Even in a classical physics framework, there are challenges, the first among which is the challenge of space and time. Perhaps it is not so hard in principle to see how microexperiential properties might ground monadic properties and quantities such as mass and charge, as long as they have an appropriate scalar structure. But it is much harder to see how they will ground fundamental relational properties, as spatiotemporal properties seem to be.

Here the worry is that spatial properties seem to involve certain fundamental relations—distance relations, on a standard view— between fundamental physical entities. Pure Russellian

panpsychism requires that these relations are realized by fundamental experiential relations between microsubjects. But it is very hard to understand what a fundamental experiential relation between distinct subjects of experience might be. The most basic experiential properties that we know about seem to be monadic properties of individual subjects. What sort of basic experiential relations between subjects might there be, that can play the role of spatial and temporal relations?

Micro-idealists might respond in a few different ways. First, they might try to find some experiential relation that can do the job. One familiar relation is the relationship of co-consciousness—but this holds between the experiences of a subject and it is not at all easy to see how it extends to a between-subjects relation. Others include the relationship of empathy, or of mental perception between subjects’ perceiving each others’ mental states, or of joint attention. All of these are more naturally analyzed in terms of individual mental states than as fundamental relations, though. Perhaps some other familiar or unfamiliar experiential relation could do the job. But there is at least a major challenge for this approach in making sense of these relations and of the picture of conscious subjects that emerges.

Second, a micro-idealist might offer a nonrelational grounding of spatiotemporal properties. One approach is to accept a substantialist view of space or spacetime on which these are single substances, and on which objects have spatiotemporal properties by being related to that substance. A micro-idealist version of this picture presumably requires that the substance here be mental, yielding an element of cosmic idealism in the picture, or perhaps a sort of micro-cosmic idealism, if there are fundamental microsubjects bearing relations to the fundamental cosmic subject that constitutes spacetime. That view is no longer a form of micro-idealism, though, and it also once again faces the question of what the experiential relations between microsubjects and cosmic subject might be. Another approach is to analyze spatiotemporal locations as intrinsic monadic properties of fundamental entities—something like a set of intrinsic co-ordinates, say—which might then be realized by corresponding microexperiential properties. But this would require at least an unorthodox view of physics that would be particularly difficult to square with modern approaches.

Third, a micro-idealist might deny that spatiotemporal properties are fundamental in physics. This move to “emergent spacetime” (that is, weakly emergent spacetime) has become increasingly popular in recent physical theories, where numerous theories that attempt to unify quantum mechanics and relativity (including string theory, loop quantum gravity, and causal set theory) have prominent versions in which spacetime is derived from more basic structure. However, on most such views the more basic structure involves more basic high-dimensional spaces. If these

spaces involve fundamental relational properties, this just moves the bump in the rug. One tempting move here is to invoke a sort of spatiotemporal functionalism that grounds spatiotemporal structure to causal structure, thereby reducing the problem of spacetime to the (somewhat easier?) problem of causation, discussed next. However, for this move to help, we still need a fundamental physics without any fundamental spaces that are constituted by quasi-spatial relations. Most current emergent spacetime theories do not have this character (even causal set theory involves a sort of geometry at the fundamental level), so this move requires a large bet on the character of future physical theory.

Finally, a micro-idealist might allow nonexperiential spatiotemporal properties in their picture of the world, while arguing that this does not compromise their idealism so badly as to rule out the label. Certainly there is some intuition that if the world consisted wholly of minds in time, where time is not given a mental analysis, this is reasonably close to a version of idealism (although it should be noted that Kant's "refutation of idealism" involved arguing that time cannot be wholly mental). If the world consists wholly of minds in spacetime, where spacetime is not given a mental analysis, then the idealism is weakened further, but perhaps the view has at least an idealist flavor. I think we should acknowledge that these views are not idealist in the strict sense defined at the start of the paper, but perhaps they are close enough to be interesting. For example, if all truths are grounded in the mental properties of microsubjects along with their spatiotemporal relations, that would still seem closer to idealism than to other traditional views. So qualified relatives of idealism remain a possibility here.<sup>14</sup>

A related challenge concerns causal and dispositional properties of fundamental physical entities. Russellian panpsychism holds that these properties have mental properties as their categorical bases, but on a common view dispositions are distinct from their categorical bases and are not metaphysically grounded in those bases. But how can dispositional facts then be grounded in mental facts, as micro-idealism requires?

Responses to the challenge of causation largely parallel responses to the challenge of spacetime. First, the micro-idealist might seek a mental grounding of dispositions, perhaps grounding them in active experiences such as that of the will. Second, the micro-idealist might reject fundamental dispositional properties, as Humeans do. Third, a non-Humean micro-idealist might allow fundamental causal/dispositional truths that are not wholly analyzable in mental terms, while hold-

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<sup>14</sup>Adams (2007) and Strawson both seem to allow that spacetime may not be mentally analyzable. Adams calls the view "mere panpsychism", holding that non-ideal spacetime gives up on idealism. Strawson seems to hold that idealism is consistent with minds existing in non-ideal spacetime.

ing that this does not compromise their idealism beyond recognition. As with the phenomenalist view that appeals to potentialities and powers regarding appearances, a world including fundamental dispositions to have experiences still seems idealist at least in spirit.

Perhaps the most interesting option here is the first. Mørch (forthcoming; see also this volume) has argued for a *phenomenal powers* views on which phenomenal states are or metaphysically ground certain causal powers or dispositions. For example, the experience of pain might ground a disposition to avoid certain situations, while the experience of love might ground a disposition to associate with certain people. On one version of this view, the phenomenal state without the power is inconceivable and metaphysically impossible (even if the power without the phenomenal state is conceivable and possible). If this view is correct, it offers the intriguing prospect of a micro-idealist view in which all microphysical dispositions and laws are grounded in the distribution of phenomenal states and the phenomenal powers that they ground. This would be an especially pure version of idealism.

These twin challenges of spacetime and causation offer distinctive challenges to micro-idealism that impure versions of micropsychism do not face. Other major challenges to micro-idealism include two challenges faced by micropsychism in general.

One such challenge is the challenge of holism. It is arguable that contemporary physics does not deal in fundamental micro-entities. Instead, fundamental properties (including fields, functions, and the like) attach holistically to systems and perhaps ultimately to the universe as a whole. For example, quantum mechanics invokes wave function properties that in general are not possessed by single particles, but rather by systems of particles and perhaps ultimately by the universe as a whole. In addition, it is sometimes suggested (e.g. Schaffer 2003) that there may be no lowest or smallest level of entities in physics, but an infinite chain of ever-smaller entities. If any of these views are correct, there are no fundamental microentities to be realized by microsubjects, and there are no fundamental properties possessed by these entities to be realized by microexperiences. If we take a Russellian panpsychist approach to views of this sort, we will be led toward cosmopsychism and perhaps cosmic idealism rather than micropsychism and micro-idealism.

The other challenge is the famous combination problem (James 1895; Seager 1995). How do the microexperiences of microsubjects collectively constitute the macroexperiences of macrosubjects? Here there are at least three versions of the combination problem, concerning subjects (how do microsubjects yield macrosubjects), qualities (how do microqualities yield macroqualities), and structure (how does microphysical structure yield macroexperiential structure)?

Some panpsychists respond by endorsing emergent micropsychism, where macrosubjects and/or

macro experiences are fundamental, causally emerging from microsubjects rather than being metaphysically grounded in them. The analogous move for a micro-idealist is to embrace a sort of micro/macro-idealism. These views tend to raise all the macro-micro interaction problems that faced versions of dualism: how can fundamental macrosubjects and macroexperiences play a causal role in a causally closed microphysical/microexperiential world? The move to micro/macro-idealism in effect removes one of the major potential attractions of panpsychism and micro-idealism.

Other panpsychists endorse constitutive micropsychism, but then they have to solve the combination problem, or at least make a case that a solution exists. I have discussed and raised problems for a number of approaches to the combination problem in “The Combination Problem for Panpsychism” (Chalmers 2017), and I will not recapitulate them here. Here I will just note that micro-idealism is a form of constitutive micropsychism, so the combination problem looms at least as large for it, and if anything micro-idealism tends to sharpen the problem. Where impure panpsychists can appeal to nonmental properties as well as mental properties to explain how the combination works, micro-idealists are restricted to mental materials from the start, which rules out some possible options and reduces the range of options generally. So the combination problem is a serious challenge for micro-idealism.

Overall: micro-idealism can be initially motivated by the same considerations as panpsychism, including the argument from irreducibility of consciousness, the causal role of consciousness, and the causal closure of the physical. It receives some extra motivation (relative to non-idealist panpsychism) by considerations of simplicity, comprehensibility, and interaction. But it also faces the significant extra challenges from spacetime and causation, as well as the more general challenges from holism and the combination problem. Some of these problems are very serious. Arguably the combination problem is the most serious, followed by the problems of spacetime and of holism. So while there are significant attractions to micro-idealism, its prospects are somewhat questionable.

## **4 Cosmic idealism**

Cosmic idealism is the thesis that all concrete facts are grounded in facts about the mental states of (or the mentality associated with) a single cosmic entity, such as the universe as a whole or perhaps a god.

Cosmic idealism entails cosmopsychism, the thesis that a cosmic entity has associated men-

tality.<sup>15</sup> Cosmopsychism does not entail cosmic idealism, for roughly the same reasons that micropsychism does not entail micro-idealism. First, nonconstitutive cosmopsychists (e.g. emergent or autonomous cosmopsychists) deny that the mental states of macro-subjects are grounded in those of the cosmic subject. These panpsychists will at best be cosmic/macro idealists. Second, impure cosmopsychists will allow that the cosmic subject has fundamental nonmental properties (e.g. spatiotemporal properties) as well as fundamental mental properties. Third, some nonreductionist cosmopsychists may allow that there are fundamental nonmental properties in the world (for example, physical, biological or normative properties) that are not constituted by properties of the cosmic subject. As with micropsychism and micro-idealism, we could exclude these three views by focusing on constitutive, pure, reductionist versions of cosmopsychism, thereby yielding the cosmic idealist thesis that all facts are grounded in facts about the mental states of the cosmic subject.

The basic motivations for cosmopsychism and cosmic idealism are closely related to the motivations for panpsychism and micro-idealism. As with these views, cosmopsychism and cosmic idealism can be jointly motivated through the success of science, the problem of consciousness, and the inscrutability of matter. In particular, experience-involving versions of cosmopsychism and cosmic idealism hold out the promise of accommodating the irreducibility of consciousness, the causal role of consciousness, and the causal closure of the physical.

The sort of cosmopsychism that satisfies these constraints is *constitutive Russellian cosmopsychism*. To understand this view, start with a basic “priority monist” view (Schaffer 2010) on which the universe as a whole is fundamental, and on which it has fundamental cosmophysical properties: perhaps distributional properties concerning the distribution of matter in spacetime, perhaps wave function properties, or perhaps something else. Russellian cosmopsychism (in its experience-involving version) says that cosmoexperiential properties realize cosmophysical prop-

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<sup>15</sup>Recent proponents of cosmopsychism include Mathews 2011 (under the name “cosmological panpsychism”), Jaskolla and Buck 2012 (“panexperiential holism”), Nagasawa and Wager 2017 (“priority cosmopsychism”, which is roughly what I am calling constitutive cosmopsychism), Goff (this volume and forthcoming), and Shani 2015. See also Albahari (this volume) and Miller 2017 for discussion. Cosmopsychism is sometimes understood as the more specific thesis that the universe (or the cosmos) has mental states. This definition excludes many divine forms of cosmic idealism, so it is not entailed by cosmic idealism as defined earlier. Of course one could also define cosmic idealism more narrowly to exclude divine versions, but then we would need a fourth category of divine idealism. At least for present purposes it is more straightforward to treat the divine and non-divine versions of cosmic idealism and cosmopsychism together. My own focus is very much on non-divine versions, but much of what I say also applies to divine versions.

erties, by having their structure and playing their causal roles. In effect, cosmoexperiential properties are the causal basis of cosmophysical dispositions. Constitutive cosmopsychism holds that these cosmoexperiential properties collectively constitute (or ground) the macroexperiences of macrosubjects such as ourselves.

In effect, constitutive Russellian cosmopsychism is a view on which the world as a whole consists in the interplay of complex physics-structured experiential states in the mind of a cosmic subject. Russellian cosmopsychism gives cosmic experiences the structure and the causal role of physical states, while constitutive cosmopsychism allows macroexperiences to inherit a causal role from cosmic experiences. Cosmic idealism is certainly a form of constitutive cosmopsychism: if all facts are grounded in truths about mental states of the cosmic subject, then facts about macroexperiences are so grounded. Cosmic idealism does not entail Russellian cosmopsychism, but the most natural realist version of cosmic idealism is Russellian: the Russellian strategy seems the best way for cosmic mental states to ground states of the physical world.

What are the cosmic experiences like? We need not take a stand here. To start with analogs of familiar human experiences, the basic cosmic experiences might be perceptual: perhaps the cosmos undergoes a series of quasi-visual experiences roughly mirroring the evolution of the universe. They might be cognitive: perhaps the cosmos has a stream of conscious thought that mirrors the universe's physical dynamics. They might be imaginative: perhaps the cosmos is in effect imagining states with the structure of the universe. Or perhaps most likely, these states may be quite unlike any human experience, with a distinctive phenomenology of their own that realizes the universe-level structure and dynamics of physics.

The key respect in which cosmic idealism goes beyond constitutive Russellian cosmopsychism is its purity: it holds that all (and not merely some) fundamental properties of the cosmic subject are mental. As in the case of micro-idealism, this purity is the source of both strengths and weaknesses for cosmic idealism. As with micro-idealism, it has strengths stemming from unity and comprehensibility of the fundamental properties, as well as a particularly straightforward story about causal interaction, which comes down to mental-mental interaction in the mind of a single subject. As with micro-idealism, it also faces distinctive challenges concerning spacetime and causation, as well as some more general challenges.

It is with respect to these challenges that cosmic idealism gains much of its distinctive motivation, at least relative to micro-idealism. The problem of spacetime is less of a challenge for cosmic idealism than it is for micro-idealism. In both cases we are challenged to find experiential relations that can realize spatiotemporal relations – but it is easier to find experiential relations in the mind

of a single subject than between subjects. For example, there are relations of co-consciousness, phenomenal feature binding, relative distribution in a sensory field, and so on. One could even imagine that spacetime as a whole is realized by complex spatiotemporal experiences of a single cosmic subject. There are still many questions to answer (for example, concerning how relativistic phenomena could be realized experientially), but the initial obstacle seems significantly smaller.

As for the problem of causation, the same range of options is available for cosmic idealism as for micro-idealism, but in some respects these options are more attractive in the cosmic context. If we have to admit irreducible causal relations or dispositions, admitting such relations within the mind of a single subject (rather than between subjects) seems particularly idealist in spirit. The Mørch-style move of saying that cosmic experiential states ground the relevant dispositions is particularly attractive in this context, as it seems particularly natural for experiential states to ground dispositions to have further experiences within the mind of a single subject.

What about the more general challenges for micro-idealism: holism and the combination problem? Holism is of course no problem for cosmic idealism, and it serves as one of the major motivators for moving from micro-idealism to cosmic idealism in the first place.<sup>16</sup> Independently of idealism: if there are no fundamental physical micro-entities, this motivates a move to holistic physical entities such as the universe as a whole with holistic physical properties. In an idealist context, we need only combine this independently motivated move with the claim that these holistic physical properties are realized by mental properties.

An analog of the combination problem, by contrast, is a significant issue for cosmic idealism and for related versions of cosmopsychism. This is the problem of how cosmic experiences can constitute the ordinary macroexperiences of subjects like us. In earlier work I called this the “decomposition problem”. Albahari (this volume) objects that this label makes it sound like the universe is decomposing, and recommends “decombination problem” instead. However, this awkward neologism is also somewhat misleading in suggesting that the universal mind must be a combination of the macro minds. Instead, I will use the simple label of the “constitution problem” for the issue of how the cosmic mind constitutes macro minds. As a bonus, this label can be used to cover the analogous combination problem for micro-idealism and constitutive micropsychism (how do micro minds constitute a macro mind?), bringing out that there is a unified problem for both views. Strictly speaking the constitution problem arises only for constitutive versions of both

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<sup>16</sup>On the other hand, as Einar Bohn pointed out to me, the “what is there is no lowest level?” objection to micro-idealism is paralleled by a “what if there is no highest level?” objection to cosmic idealism. If there is no cosmos (instead just infinitely embedded universes), the cosmos cannot serve as a cosmic subject.

views (emergent panpsychists deny that fundamental minds constitute macro minds), but these are certainly the views that are subject to the most serious combination/decomposition problems.

As with the original combination problem, the constitution problem for cosmopsychism and cosmic idealism has at least three subproblems. The subject constitution problem is that of how a cosmic subject can constitute macrosubjects. The quality constitution problem is that of how cosmic experiential qualities can constitute macroqualities. The structure constitution problem is that of how cosmic experiential structure can constitute macroexperiential structure.

All of these problems are serious. The quality and structure constitution problems are very closely related to the corresponding combination problems for panpsychism, and the range of options is similar (the main options discussed by Chalmers 2017 all apply here, with the same strengths and weaknesses), so I will set them aside here. The subject constitution problem is perhaps more distinctive in the cosmic case, and I will focus on it.

The subject constitution problem for cosmic idealism is that of how a cosmic subject can constitute macrosubjects such as ordinary human conscious subjects. It is at least not easy to see how this can happen, and there are arguments that it is impossible. For example, a straightforward conceivability argument (analogous to conceivability arguments against constitutive panpsychism mounted by Goff 2009) holds that one can conceive of the cosmic subject with all of its cosmic mental states without any further distinct subjects, and in particular without any macrosubjects. This claim may be derived from a more general claim that for any group of subjects one can conceive of any one of them without the others, or it may be offered as independently plausible in this specific case. Either way, given a link between conceivability and metaphysical possibility, it follows that it is metaphysically possible that the cosmic subject exist without macrosubjects; and given a link between metaphysical possibility and constitution or grounding, it follows that the cosmic subject cannot ground macrosubjects.

Many responses are possible. The first is to move to nonconstitutive cosmopsychism, giving up on the requirement that there be a constitutive connection between the cosmic mind and macro minds. One could endorse emergent cosmopsychism, holding that macro minds are strongly emergent in some way from the cosmic mind, or autonomous cosmopsychism, holding that macro minds do not wholly depend on the cosmic mind. Idealist versions of these views give up on straightforward cosmic idealism and instead move to a version of cosmic/macro-idealism on which both cosmic and macro minds are fundamental.<sup>17</sup>

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<sup>17</sup>Broadly autonomous versions of cosmic/macro-idealism (macro minds are autonomous from the cosmic mind) seem to fit the work of Foster 2008, Robinson, and perhaps Adams 2007, while broadly emergent views (macro minds

A common way to arrive at this sort of view is to adopt cosmopsychism as an account of the physical world, while allowing that our own minds are not constituted by the physical world or its realizers. This is an important view, but it has very much the flavor of dualist views of the mind–body relation, and it suffers from analogous problems of interaction. For example, do the macro minds affect the physics-constituting aspects of the cosmic mind (thereby threatening causal closure of physics, as with interactionist dualism), or do they have no effect on it (thereby threatening the intuition that consciousness affects the physical world, as with epiphenomenalism)? The view may have some advantages over dualism in that the interaction will at least be mental-mental rather than mental-nonmental, and unity and comprehensibility provide considerations in its favor. But the view seems to give up on the initial promise of keeping the best aspects of materialism and dualism and the worst aspects of neither.

To keep this promise, one needs a constitutive solution to the constitution problem. This requires constitutive cosmopsychism, on which macrosubjects are genuinely constituted by (metaphysically grounded in) the cosmic subject and its mental states. Here there are a few strategies in the literature.

The first is *identity cosmopsychism*, on which macrosubjects are identical to the cosmic subject. This view avoids the conceivability argument by denying any subjects distinct from the cosmic subject, but it encounters twin immediate objections. First objection: macrosubjects are distinct from each other, so they cannot all be identical to the cosmic subject. Second objection: the cosmic subject has experiences that each macrosubject (like me) is not having, so they cannot be identical. If identity cosmopsychism is to retain anything like the standard logic of identity, it must presumably respond by saying that in fact all of us are identical to each other, and all of us in fact are having all the experiences that the macrosubject has. The cost is that both of these claims seem to be obviously false. The task for the identity cosmopsychist is to explain away their apparent falsity as some sort of illusion.

A natural strategy here suggests that the cosmic subject undergoes some sort of *cognitive fragmentation* into different components, modes, or guises, each of which lacks access to the other components. Kastrup (2017) suggests an analogy with dissociative identity disorder (DID): in effect, each macrosubject is an alter (of of many multiple personalities) of the cosmic subject. Of course the metaphysics of DID is controversial, with some arguing that multiple subjects are present, but it is common to hold that there is a single fragmented subject here. On a natural 

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emerge from the cosmic mind) are adopted by Albahari (this volume) and Yetter-Chappell (forthcoming).

characterization, the subject has multiple modes or guises that lack access to the other modes. The subject has the experiences of all the alters, but under the mode of one alter they will lack cognitive access to the experiences (perhaps including simultaneous experiences) associated with other alters. In effect, the subject's access is relativized to modes. If we use the fragmentation model to understand cosmic idealism, we can then suggest that the experiences that seem to belong to a single macrosubject in fact belong to the cosmic subject under a certain mode, and under this mode we do not have cognitive access to the experiences we are simultaneously having under other modes.

Of course this view raises many questions. There are many disanalogies between the universe and a DID subject, and it is not at all clear how to find analogous within-subject fragmentation at the level of cognitive processes in the universe. The view is also massively revisionary about our minds and our relations to one another. It makes our ordinary mode of existence pathological, since in this mode we are unaware of the vast majority of experiences we are having.<sup>18</sup> This entails a massive failure of introspection, where our ordinary beliefs reflect a near-complete lack of knowledge about our own consciousness. This failure is at least uncomfortable for people who are realists about consciousness, though analogous phenomena on a more limited scale are familiar. One analog is found in Ned Block's cases where phenomenal consciousness overflows cognitive access (Block 2007): we might think of cosmic fragmentation as involving phenomenal overflow on a very large scale. Still, identity cosmopsychism along with cognitive fragmentation seems a coherent view that is worth taking seriously.

The alternative is *non-identity* constitutive cosmopsychism, on which there are multiple subjects who are not identical to the cosmic subject but whose existence and experiences are grounded in the existence and experiences of the cosmic subject. One view is that the multiple subjects are experiential parts of the cosmic subject or that they are subsumed by the cosmic subject (Goff forthcoming). A related if somewhat more obscure view (Mathews (2011) and Shani (2015)) is that macrosubjects are "vortices" in the consciousness of a cosmic subject. An obvious objection to the first view is that parts of a subject are not usually subjects—there does not seem to be a separate subject who has just by visual experiences—and even if there is, the existence of such a subject does not seem to be necessitated merely by the existence and experiences of a cosmic. The

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<sup>18</sup>According to some versions of this view, we can occasionally get hints of other fragments of our experience, or become more lucidly aware of our underlying cosmic experiences. For example, some Buddhist traditions suggest that certain meditative practices (e.g., Dzogchen practice in Tibetan Buddhism) can help us experience the fundamental mode of consciousness.

same goes for subsumption and for vortices in consciousness. Goff (forthcoming) gets around this by supposing that the cosmic subject has nonmental as well as mental properties (“consciousness-plus”) and that these unknown and unconceived nonmental properties can in principle explain the subsumption of cosmic subjects.<sup>19</sup> In postulating these fundamental nonmental properties, however, Goff gives up on cosmic idealism for a sort of cosmic property dualism.

A final strategy is to deflate subjects of experience or to eliminate them entirely. Views like this are familiar in the Buddhist tradition, which denies the existence of the self and is often understood to deny the existence of subjects as well (at least in ultimate reality). On views of this sort, there are experiences but no subjects that have them; or at least, any bearers of the experiences are very much unlike the primitive persisting entities that we have in mind when we think of subjects. This non-subject-involving view is often combined with a sort of idealism on which conventional reality is grounded in conventional appearances, and in which all this is grounded in cosmic experience at the ultimate level. This picture at least tends to suggest a view on which macroexperience is grounded in non-subject-involving cosmic experience in ultimate reality.

On a non-subject-involving cosmic idealist view, there is cosmic experience but no cosmic subject. It might then be argued that with no subjects there is no subject constitution problem to solve. Of course this does not eliminate the problem entirely. Presumably experiences still come bundled into relatively unified groups (corresponding to what we thought of as subjects), and we still need to know how a cosmic bundle of experiences could constitute a macro bundle of the sort I seem to have. This problem is by no means straightforward (on the face of it one could run a conceivability argument against it analogous to the one for subjects), but perhaps the problems for it are at least more tractable than the corresponding problems for non-subject-involving views. One cost is then to make sense of experiences without subjects of experience. I am not sure I can do this, but many theorists have at least tried, and again the view is certainly worth taking

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<sup>19</sup>For similar reasons, panprotopsychist views that appeal to unknown protomental properties have certain advantages over pure panpsychist (idealist) views when it comes to the constitution problem. Arguably we understand experience well enough to see that subjects of experience cannot constitute distinct subjects; but because we do not understand the relevant protomental properties, we do not have correspondingly strong reasons to deny that they can constitute subjects of experience. On the other hand, panprotopsychist theories have to deal with a nonexperience-experience gap (many theorists hold that only experience can constitute experience), and pure panpsychist views have the advantage of relative comprehensibility.

<sup>19</sup>It should be noted that not all Buddhists are idealists. Idealism is most common in the Yogacara school, but even there, there is a vigorous contemporary debate about whether Yogacara involves metaphysical or epistemological Buddhism. See Arnold 2008, Finnigan forthcoming, and Trivedi 2005 for discussion.

seriously.

To sum up the discussion of the constitution problem for cosmic idealism: I think that as with the combination problem for micropsychism, the constitution problem is a very serious one, but there are at least some avenues for solving it (especially the identity cosmopsychist avenue) that are more promising than analogs in the micropsychist case and that are worth exploring further.

Of course there are also any number of possible further objections to cosmic idealism. One potential objection holds that mental properties require nonmental properties lying behind them to causally sustain their structure and dynamics. Cosmic idealism is perhaps better placed than macro-idealism to answer this objection, by developing a picture on which cosmic experiences are both fundamental and causally closed, so that they need no further causal sustaining. But it is certainly a challenge to develop a detailed account of cosmic experience with the appropriate form.

Another issue is the *relationality problem*.<sup>20</sup> As Moore stressed in his “refutation of idealism” (1903), experience seems to be relational. In an experience (e.g. a sensation of blue), a subject is aware of some object (e.g. the subject is aware of blueness). Moore held that this object is itself non-experiential (in contemporary language, it is neither identical to an experience or grounded in experience), which entails that idealism is false. Contemporary representationalist views can avoid this consequence by holding that experience relates us to some abstract property (such as blueness) or proposition (e.g. that some object is blue). As noted at the start of the paper, an idealist need not hold that abstract objects are grounded in experience. Still, if the fundamental experiences (e.g. in a cosmic subject) represent a mind-independent world in which entities have mind-independent properties such as blueness, and if there is no world independent of the cosmic subject, then it is hard to avoid the conclusion that the cosmic subject is hallucinating, which is at least odd.

Cosmic idealists might respond in a number of ways. If they retain a relational view of experience, they could accept that cosmic experience is hallucinatory, or they may hold that cosmic experience is nonperceptual: perhaps the cosmic mind merely imagines the relevant states of affairs, in which case no hallucination need be involved. Alternatively, they could argue that the relational experiences of a cosmic subject are veridical. For example, cosmic subjects might represent structural properties which are instantiated in their world, or they might be unlike ordinary human subjects in that they represent only experiences and not a mind-independent world. Still,

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<sup>20</sup>Thanks to Daniel Stoljar for pressing this problem for idealism.

combining cosmic idealism with a relational view of experience seems to make the relational structure of experience at best somewhat marginal to the role of experience in constituting the world. At least on a realist version of idealism, it looks as if experience could have constituted reality just as well if it were not relational.

A more radical but perhaps more principled response denies that cosmic experience is relational at all. As Allinson (1978) observes, this response to Moore is available to so-called “non-dual” views of experience in the Eastern traditions, such as the Advaita Vedanta and the Yogacara schools. On these views, experience at a fundamental level does not involve a duality between subject and object, and does not involve a relational structure whereby subjects are aware of objects. For example, it may involve states of pure awareness without objects, or perhaps pure qualities without awareness, or something harder for us to comprehend. It is by no means straightforward to make sense of nonrelational experience, but if it is possible, it has some attractions in avoiding the problems of relationality at a fundamental level.

A related issue specific to cosmic idealism is the *austerity problem*. The issue here is that the cosmic mind in the present picture (whether relational or nonrelational) looks extremely austere, and very much unlike a mind as we normally think of it. Its basic experiential structure and dynamics is tied to the structure and dynamics of physics. There seems to be little or no rationality in this structure. There seems to be very little thinking, valuing, or reasoning. It is not really clear why, if there is to be a cosmic mind, it should be as austere as this.

The cosmic idealist faces a choice point here. On the first option, the cosmic mind has experiences that are wholly isomorphic to the structure of physics. This is the option taken by *austere Russellian cosmopsychism*, where the cosmic subject has mental states with structure and dynamics that realize physical dynamics, and has no more mental states and no more structure and dynamics than this. This option faces the austerity problem.

The second option is to postulate that the cosmic mind has experiences that go beyond the structure and dynamics of physics. One could adopt a non-Russellian cosmopsychism where the structure and dynamics of physics is absent from cosmic experience, but this view has trouble in recovering physical truths. A somewhat more attractive version of this option is *enriched Russellian cosmopsychism*, where the cosmic subject has experiential states with the physical structure and dynamics, but also has other mental states with further structure and dynamics. These further mental states might make the cosmic mind much less austere and more mind-like. The cost for this option is a sort of excess baggage problem: the world has more structure than physics suggests, and we have to postulate supra-natural structure and dynamics beyond what natural science

suggests. The extra mental states seem to play no direct role in constituting physical states of the universe, and one might worry that they will be entirely epiphenomenal with respect to the universe we observe.

That said, there are arguably enriched Russellian cosmopsychist models where the extra mental structure plays a role in sustaining physical dynamics. For example, on one model the cosmic subject is a rational being somewhat like you and me, except vastly more intelligent and with enormously greater cognitive resources. Such a being may have an interest in imagining and simulating universes, perhaps to learn what will happen in universes given various conditions. If the cosmic subject fully simulates a universe like ours in its imagination, its imaginative states will then have very much the structure and dynamics of physics in our universe. These imaginative states themselves may be somewhat austere, but they will be driven by further mental states of the cosmic subject in which values and rationality inhere. A model like this allows for a much less austere cosmic subject, perhaps at cost of making the mental states that constitute our universe something of a sideshow in its mind.

One might even adapt Bostrom's simulation argument (2003) to argue that it is quite likely that a cousin of this sort of cosmic idealism is true. A simplified version of the simulation argument says that many simulated universes will be created in the lifetime of a universe containing intelligent life, and there will be more beings in simulations than outside simulations, so it is very likely that we are in a simulation. One could additionally argue that most simulations will be done within the minds of simulating beings. The great majority of simulating beings will be superintelligent beings, and these beings will have little need to run simulations on separate computers. Instead they will have the resources to run simulations directly in their own computational minds. If so, most beings in the cosmos will exist in universes realized by the minds of simulating beings.

The idealism suggested by this simulation argument is admittedly subject to some qualifications. One is that it is far from obvious that the simulations in question will need to be conscious. The idealism may well involve constitution by non-conscious mental states, which may themselves have underlying non-mental grounds. Another qualification is that on this view the cosmic subject will not constitute the entire cosmos, but it will at least constitute everything in our universe. Whether idealism or some other view is true of the cosmos as a whole remains a further question.

I conclude that there is significant motivation for cosmic idealism. It shares the general motivations for panpsychism, which are strong, and has some extra motivation in addition. Compared to micro-idealism, it deals much better with the problems of spacetime and of holism, and it at least has some extra promise in dealing with the problem of causation and the all-important con-

stitution problem. Compared to non-idealist forms of panpsychism and panprotopsychism, it has some advantages in simplicity and comprehensibility, while it has both benefits and costs with respect to the constitution problem. I do not know that the constitution problem can be solved, but there are at least avenues worth exploring.

Overall, I think cosmic idealism is the most promising version of idealism, and is about as promising as any version of panpsychism. It should be on the list of the handful of promising approaches to the mind–body problem.

## 5 Conclusion

I do not claim that idealism is plausible. No position on the mind–body problem is plausible. Materialism is implausible. Dualism is implausible. Idealism is implausible. Neutral monism is implausible. None-of-the-above is implausible. But the probabilities of all of these views get a boost from the fact that one of them must be true. Idealism is not greatly less plausible than its main competitors. So even though idealism is implausible, there is a non-negligible probability that it is true.

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- [Refs for robinson, strawson, tononi.]