

Barbara Montero

Post-Physicalism

Introduction

What is the problem, inherited from Descartes, that we now call ‘the mind–body problem’? In his most recent book, Jaegwon Kim provides an answer with which many would agree. ‘Through the 70s and 80s and down to this day,’ Kim tells us, ‘the mind–body problem — our mind–body problem — has been that of finding a place for the mind in a world that is fundamentally physical’ (Kim, 1998, p. 2). This problem, which at one time was at home mainly in departments of philosophy, is now studied by a broad range of disciplines. One finds, for example, neuroscientists arguing that certain discoveries about the brain show that consciousness is physical; researchers in artificial intelligence claiming that because human thought can be simulated by complex computers, thought requires nothing beyond the physical; and evolutionary biologists declaring that insights into the evolution of the mind indicate that it must be fundamentally physical. But what does it mean to be physical? While the basic results of the research being done may be clear enough, how are we to interpret the further claim ‘and this shows that the mind is physical’? The answer is that we have no idea.

I am going to argue that it is time to come to terms with the difficulty of understanding what it means to be physical and start thinking about the mind–body problem from a new perspective. Instead of construing it as the problem of finding a place for mentality in a fundamentally physical world, we should think of it as the problem of finding a place for mentality in a fundamentally nonmental world, a world that is at its most fundamental level entirely nonmental. The mind–body problem, I want to argue, is the problem of determining whether

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mentality can be accounted for in terms of nonmental phenomena. In other words, it is the question, ‘is mentality a fundamental feature of the world?’¹

I: The Current State of the Debate

Currently most philosophers working on the mind–body problem see the debate in terms of the physical and the nonphysical: the question most are concerned with is whether mentality is fundamentally *physical*.² Indeed, since most think that the mind *must* be physical, the project they are engaged in is not so much arguing that the mind is physical, but, rather, trying to show how the mind could be physical (given that it is). And so, whether the account of mentality that physicalists propound is expressed in terms of reduction, realization, identity, supervenience, explanation or even elimination, the goal is to provide a plausible theory of mentality (or, as the case may be, a theory that accounts for what we mistakenly took to be mentality) that is compatible with the view that the world is fundamentally physical. For example, if one thinks that it is incumbent on physicalists to *explain* mentality then the explanation, it is thought, must make reference exclusively to physical phenomena; if one thinks supervenience suffices for physicalism, then the supervenience base must be entirely physical; and so forth. But what does it mean to be physical? It seems that those who take the central concern of the mind–body problem to be the relationship between mental properties and physical properties — and if Kim is right, this is just about everyone — should have at least a rough idea of what it means to be physical, not necessarily a strict definition, but at least a notion of the physical that excludes some, if not actual, then at least possible, phenomena from being physical. For if we cannot even conceive of something being nonphysical, it is difficult to grasp what physicalists could be arguing for — to say nothing of what that they could be arguing against.³

It is not at all clear, however, that physicalists can provide even this minimal condition. Current physics, which posits such things as particles with no determinate location, curved space–time, and wave–particle duality, tells us that the world is indeed more ghostly than any ghost in the machine. And if the existence

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- [1] The term ‘fundamental’ can, if you like, stand for whatever dependence relation you prefer. That is, when I say that the mind–body problem is the question of whether mentality is fundamentally nonmental you can substitute the question of whether mentality is reducible to (or constituted by, or supervenient on, etc.) the nonmental. Of course, the various notions of dependence are not unproblematic themselves, and there is little agreement on what relations between the lower level physical phenomena and higher level mental phenomena suffice for physicalism. But let us take one problem at a time: the problem I am concerned with here is here is not how to understand the dependence relation, but how to understand the dependence base.
- [2] While I use the term ‘mentality’ rather than the more specific term ‘experience’, most of what I say is directed at those engaged in the debate about experience, since many of those writing about intentionality already focus on the intentional/nonintentional distinction rather than the physical/non-physical distinction. Fodor (1987) is a good example: ‘if the semantic and intentional are real properties of things, it must be in virtue of their identity with (or maybe supervenience on?) properties that are themselves neither intentional nor semantic.’ (Thanks to Joseph Levine for pointing this out to me.)
- [3] At the 1999 Robert S. Cohen Colloquium: *Naturalism and its Discontents*, Kim emphasized this as does Stroud (1996).

of ghostly phenomena does not falsify physicalism it is difficult to say what would. As Richard Healey puts it, '[the] expanding catalogue of elementary particle states of an increasingly recondite nature seems to have made it increasingly hard for the physicists to run across evidence that would cast doubt on a thesis of contemporary physicalism stated in terms of it' (Healey, 1979, p. 208). In other words, if such things as one-dimensional strings and massless particles are physical, it is difficult to say what wouldn't be. Bertrand Russell made this basic point back in 1927: 'matter,' he said, 'has become as ghostly as anything in a spiritualist's séance.'⁴ And over the past seventy years Russell's point has, if anything, been reinforced. Presumably things could change. Philosophy, as we all know, is not noted for its rapid progress and perhaps in another seventy years or so we will have a clear idea of what it means to be physical. However, it seems to me that until such clarification comes about, we ought to rethink the project of accommodating the mental in the physical world. That is, we ought to rethink what Kim tells us is 'the shared project of the majority of those who have been working on the mind-body problem over the past few decades' (Kim, 1998, p. 2).

Not surprisingly, most physicalists are of a somewhat different opinion. While many physicalists admit that our understanding of what it means to be physical is rather tenuous, they usually think that the notion, and thus the crux of the debate, is clear enough. The mind-body problem, according to most physicalists, is the problem of explaining how the mind can be physical, where what counts as physical is given to us by science. In John Searle's words, the mind-body problem is the problem of locating mentality 'within our overall "scientific" conception of the world'.⁵ And so, it does not matter what kinds of ghostly and bizarre phenomena science may posit, for it is science itself that serves as a reality test. Searle thinks mentality passes the test because mentality, he argues, is 'as much part of our biological natural history as digestion' (Searle, 1992). Others, however, are a bit harsher in their grading policy. According to Patricia Churchland, for example, it is premature to say that every aspect of what we now think of as mentality can be accommodated in our scientific world-view (and for Churchland the relevant science here is neuroscience) since, for all we know, certain aspects of mentality might fail the test and go the way of phlogiston (Churchland, 1995). Yet as different as their views may be, both Searle and Churchland, as well as most other physicalists, abide by Wilfred Sellars' well known dictum, 'in the dimension of describing and explaining the world, science is the measure of all things, of what is that it is, and of what is not that it is not.'⁶ Physicalists may disagree about just how far to take this claim: must we be 'nothing butists', or can we accept an ontology that goes beyond science as long as it is related to the posits of science 'in the

[4] Russell (1927/1992) p. 78. In an interesting forthcoming paper Galen Strawson points out that Joseph Priestley made more or less the same point in 1777.

[5] Searle (1992) p. 84. To be sure, Searle is also not satisfied with the current terminology used to describe the mind-body problem.

[6] Sellars (1963) p. 173. Or as Quine (1981) puts it, 'it is within science itself, and not in some prior philosophy, that reality is to be identified and described' (p. 21).

proper way’?⁷ However, when it comes to fundamental ontological matters, they are, for the most part, united: the ultimate authority is science.

But what is meant here by ‘science’? Physicalists usually shy away from expressing their views about which specific theories will account for the fundamental nature of, as it were, everything. And this, of course, is the safest strategy. For as David Lewis advises, physicalists should ‘side with physics, but not take sides within physics’ (Lewis, 1983, p. 364). Samuel Guttenplan advocates this strategy as well; in his words, ‘all we [physicalists] are claiming is that any phenomenon that is a genuine happening in this world is in principle explicable by a science albeit by a science that might be quite different from any we now have at our disposal’ (Guttenplan, 1995, p. 77). But if this is all that physicalists are claiming, it is difficult to see what prevents *anything* from being physical: if physics (correctly) tells us that some things have no mass or no determinate spatial location, well then, physicalists will say, those things will still count as physical. Even if physics were to one day reveal that our current theory of space–time is mistaken and that space and time actually are distinct so that some phenomena have temporal, but not spatial properties, then physicalists, I assume, would say that those things too, if they actually exist, will be physical. Even more, if, as some physicists have begun to speculate, there is some sort of nonspatial, nontemporal stuff out of which space–time itself emerges, physicalists will once again declare victory.⁸ But if this is so, it seems that the strategy of simply siding with science, whatever science may ultimately say, is so safe as to bestow physicalism with what Popper thought was the very unscientific virtue of being, even in principle, unfalsifiable. Perhaps the deep eternal truths that are the domain of philosophy as well as mathematics are not at all likely to be falsifiable. Yet it seems that without any restrictions on how the science in question is to progress, or on what entities and properties it is to incorporate, physicalism, that is, the view that everything is physical, becomes not only unfalsifiable, but also trivial.⁹ That is, without any restrictions whatsoever, the view that everything is physical ends up as the view that everything exists. And this, it seems to me, is a position that most philosophers, save, of course, for Meinongians, are not interested in discussing.

[7] Credit goes to William Wimsatt for the droll phrase ‘nothing butists’.

[8] See Greene (1999). Speculation about such nonspatial, nontemporal stuff (or perhaps it would be better to call it ‘nonstuff’) should also be a bit worrisome for those who define the abstract over the nonspatiotemporal — do we want to say that our spatial world emerges out of abstracta?

[9] Even if the results of mathematics, if true, are necessarily true, an argument is only interesting if there is some step in it that is not immediately obvious to everyone. (Why bother publishing a proof that everyone already knows?) Perhaps certain sceptical hypotheses, such as the hypothesis that the world was created five minutes ago with all apparent evidence of an earlier creation in place, are also, even in principle, unfalsifiable. But while we could never have evidence that could show such a hypothesis to be mistaken, there would still be an objective difference between the two situations — God, as it were, could know that the hypothesis is false. But if being physical amounts to simply existing, it is not clear that physicalism would be falsifiable even for God. Interestingly enough, Quine (1981) seems to accept the triviality of physicalism. For as he says, ‘if the physicist suspected there was any event that did not consist in a redistribution of the elementary states allowed for by his physical theory he would seek a way of supplementing his theory’ (p. 98).

While a number of physicalists, including Lewis himself, have tried to avoid this obstacle in their formulations of physicalism, I think that ultimately there is no way around it.¹⁰ As long as one defines the physical in relation to what science tells us about the world, the problem of explaining what it means to be physical in the context of the mind–body problem, a problem I call ‘the body problem’, currently has no solution.¹¹ But what is left of the mind–body problem if we have no notion of body? In other words, is there room for the mind–body problem in a post-physical world?¹²

II: Is There Still a Mind–Body Problem?

One might think that the only reasonable conclusion to draw from the view that we have no notion of the physical is that we should give up the mind–body problem altogether: declare it dissolved and move on to other, hopefully better-defined, problems. And as far as I know, most of those who argue that we have no philosophically useful notion of the physical are, it seems inevitably, drawn to this conclusion. Noam Chomsky is a good example. He tells us, ‘we can speak intelligibly of *physical* phenomena (processes, etc.) as we speak of the *real* truth or the *real* world, but without supposing that there is some other truth or world’ (Chomsky, 1998, p. 438). And he takes this to mean, ‘we have no coherent way to formulate issues related to the “mind–body problem”’ (Chomsky, 1995, p. 5; see also Chomsky, 1993). Similarly, Bas van Fraassen argues that the fact that physicalists will usually count ‘*whatever science comes up with*’ as physical shows that the thesis of physicalism lacks content (van Fraassen, 1996, p. 167). Chris Daly, who, in a recent paper, argues quite forcefully that we have no notion of a physical property, concludes, ‘no debate between physicalism and dualism can even be set up’ (Daly, 1998, p. 213; also see Scheffler, 1950). While Tim Crane and Hugh Mellor, after finding flaws with a wide variety of proposals for defining physicalism, conclude that their paper ‘should really be the last paper on the subject’ (Crane and Mellor, 1990, p. 83). The pattern is clear. And it is not at all difficult to see the motivation behind it: for if we have no notion of the

[10] See Lewis (1983). Lewis tries to carve out a position that is not trivial by explaining the physical in terms of whatever a future physics, which is significantly similar to current physics, but much improved, will tell us about the world. While one would like some explanation of what counts as ‘significantly similar’ and ‘much improved’, the main difficulty with this notion of the physical is that if some groundbreaking discovery is made and physics goes through a *major* revolution, resulting in it not being sufficiently similar to today’s physics, physicalists would, most likely, not want to claim the new posits and laws of this physics as being nonphysical. For other attempts to solve the body problem see Hellman (1985), Papineau (1993), Poland (1994), Meehl and Sellars (1956), Melnyk (1997), Smart (1978), Snowdon (1989).

[11] In Montero (1999) I present an in-depth argument for this point. Since the main focus of this paper is to present a new way of thinking about the mind–body problem in light of the view that we have no solution to the body problem, my discussion here of this point will be brief. However, in arguing here for my proposed focus on the mind–body problem, I will also be arguing against retaining our current focus on the question of whether mentality is physical.

[12] I should mention that I am not the first to use the term, ‘post-physicalism’. John Post suggests that ‘a far happier name [for his non-reductive physicalism], surely, would be “post-physicalism”’. See Post (1987) p. 18.

physical, there seems to be little use in asking how the mind could be physical and, thus, little point in discussing the mind–body problem. But is this the only conclusion one can draw? Must our inability to solve the body problem lead to the demise of the mind–body problem as well?

To be sure, one obvious worry about concluding that we must abandon the mind–body problem is that, as a matter of fact, very few will follow suit. Philosophy, it has been said, has a penchant for burying its undertakers, and despite repeated pronouncements of the death of the mind–body problem, most people feel that a problem of some sort — perhaps of a very deep sort — remains. Even Crane and Mellor realize that this creates some tension in their view. For after stating quite boldly that their paper should definitely be the last on the topic, they also sheepishly admit that they actually know it will not. And here they were certainly right. Since their paper came out, about ten years ago, the question, ‘what is the fundamental nature of the mind?’ — a question to which ‘it is physical’ is supposed to provide an answer — has, if anything, been even more widely discussed. But why is this, if, as the title of their paper proclaims, ‘there is no question of physicalism’? Of course, the mere fact that many continue thinking about a problem does not show that a problem really exists. For it might be that no one has listened to Crane and Mellor’s protests that we have no notion of the physical capable of grounding questions about whether the mind is physical. While there may be something to this, there is more to be said. For there actually *is* an interesting question to ask about the fundamental nature of the mind. It is just not the question of whether the fundamental nature of the mind is physical.

What other broad, philosophical questions can we ask about the fundamental nature of the mind — questions, that is, which could reasonably be thought to address the set of concerns that we have come to think of as the mind–body problem? Certainly, even if there were no philosophical problem called ‘the mind–body problem’, there would still be specific questions about the mind left to investigate. For example, regardless of whether we have a notion of the physical, we may still arrive at a deeper understanding of our mental lives, perhaps by studying the relationship between consciousness and various neural process or, say, investigating which sorts of pains are correlated with A-fibre stimulation, which with C-fibre stimulation. Daly emphasizes this point towards the end of his paper. As he says, ‘for even in absence of a principled account of the distinction between physical properties and all other properties, terms used to designate specific properties may be sufficiently well defined for us to raise specific issues [such as, how pain relates to C-fibre stimulation]’ (Daly, 1998, pp. 213–14). And I take it that many of those who take sides within science (rather than simply siding with science) are engaged in addressing specific questions — like those the neuroscientist asks — that do not depend on such a distinction. But are specific questions the only sorts of questions left? I think that they are not, for regardless of whether we know what it means to be physical, we can still ask whether mentality is a fundamental feature of the world. In other words, does mentality ultimately depend on nonmental phenomena or, as it were, is it mental all the way down?

As I see it, in its most general structure, this is the crux of the mind–body problem. Yet a glance through the literature, where one comes across numerous papers with titles such as, ‘Can Science Explain Consciousness?’ does not make this apparent (see, for example, Shear, 1997). That is, the question of whether mentality is fundamental is crucial to the debate, yet rarely is it addressed directly. I think this is a mistake. And a serious one since physicalists aim to refute dualism, yet dualism is the view that mentality is fundamental.

To say that the question is rarely addressed directly, however, is not to say that philosophers are indifferent as to its outcome. For despite the fact that most recent discussions about the mind focus on whether mentality will be somehow subsumed under the scope of the scientifically acceptable, what I call ‘the science question’, one often does find that the underlying concern in these debates is the question of whether mentality is a fundamental feature of the world (what I call ‘the mind–body problem’). And, for the most part, philosophers’ views on this come down along party lines: the dualists are for it and the physicalists are against it.¹³ For example, when Kim lays out the basic physicalist commitments, along with the claim that the mental supervenes on and is determined by the physical is the claim that there are ‘no fundamental mental entities’.¹⁴ David Chalmers also makes clear what side he is on: when addressing the question of whether it would be more accurate to call his view a version of physicalism, since he allows that the mental may in the future be accounted for by an expanded physics, he holds fast to the dualist classification because, as he says, his view admits ‘phenomenal or protophenomenal properties as fundamental’ (Chalmers, 1996, p. 136; see also Foster, 1989, pp. 1–15).

But, again, while many physicalists claim that mentality is not fundamental, few spend much time defending this claim. Rather, most focus on the science question, the question of whether science will account for the mind.¹⁵ Yet these two views do not make the same cut: science may account for mentality (in as much as it accounts for any other fundamental feature of the world) but mentality

[13] There are a few exceptions. For example, Strawson (1994a) seems to believe that there are aspects of the world that are purely mental yet physical. And moreover, he seems to think that all physicalists must hold this view (especially pp. 46–59). Also see Strawson (forthcoming). And Searle (1992) seems to hold a similar view. While O’Leary-Hawthorne and McDonough (1998) explicitly say that if an ideal physics will have consciousness at the metaphysical ground-floor, property dualism is wrong’ (p. 350).

[14] This claim, according to Kim (1996), is implied by the principle of supervenience assuming that if there can be one purely mental being, there can be at least two that differ mentality. For the principle of supervenience states that if two beings are psychologically discernible, then they will be physically discernible and this, according to Kim, shows that (given the further assumption) they cannot, then, be purely mental. But the principle that there are no fundamental mental entities follows from the principle of supervenience plus the assumption that if there is one purely mental being there can be more than one purely mental being only given a further assumption: that the physical realm does not include fundamental mental entities, itself.

[15] To be sure, if you see science as the enterprise that investigates the world in nonanthropocentric or nonmental terms, an enterprise that we think essentially began in the seventeenth century with Descartes, then the two views I am trying to delineate are not distinct. (Thanks to Thomas Nagel for drawing my attention to this.) If this is what physicalists mean by ‘science’, making this explicit should have the same affect on the debate as focusing on the question of whether mentality is fundamental.

may still be a fundamental feature of the world. Of course, physics, for the most part, does not posit anything fundamentally mental. However, it is not too much of a stretch of the imagination to see how it could. For example, if Wigner's hypothesis — the hypothesis that acts of pure consciousness (in other words, fundamentally mental entities) are required to explain the collapse of the wave function — were accepted, or, to put it more strongly, if it were true, there would be a sense in which consciousness fits perfectly into our scientific world-view: acts of pure consciousness would be just one of the many fundamental entities posited by physics.¹⁶ Yet mentality would still be a fundamental feature of the world. Certain interpretations of the anthropic principle, a principle sometimes invoked to explain or at least constrain other explanations about why things are just as they are, also seem to take mentality as, at least explanatorily, fundamental. For example, it is sometimes claimed that the reason why a particular state of the carbon nucleus has the precise energy that it does is that if this value were only slightly greater or slightly less, human beings would never have developed and thus we would not be able to ask this very question. As such, the existence of human consciousness is taken as a starting point in explaining other aspects of the universe.¹⁷ To be sure, both the anthropic principle and Wigner's hypothesis are highly controversial, and perhaps neither should be taken as part of physics. But I think they do illustrate a possibility: the possibility of how physics could incorporate mentality as a fundamental. And as long as physicalists accept this mere possibility, they are accepting the possibility that mentality could be accounted for by science, yet still be fundamental.¹⁸ Arguing that science can in principle account for mentality, then, does not suffice to show that mentality is not fundamental; in this sense, an argument for physicalism is not an argument against dualism.¹⁹

But while physicalists, in claiming that science or physics will account for mentality, may assert a view that is not opposed to dualism, they nonetheless usually exclude the mental from their fundamental ontology. And since they do, they in fact are not simply deferring to science to tell us how things are. Rather, they

- [16] I should emphasize that I am not intending to defend Wigner's hypothesis but am merely using it as a rough example of how physics might incorporate fundamental mentality. Yet it is not at all clear how to interpret it; in particular, it is not at all clear what is meant by 'acts of pure consciousness'. Apart from the question of what 'consciousness' means in this context (does an imaging device count? does animal consciousness?), there is the question of what 'pure' means. Does it mean fundamental? If not, then Wigner's hypothesis could be true even though mentality would not be fundamental.
- [17] Again, this is not a defence of the view. One problem with this version of the anthropic principle, as Steven Weinberg has pointed out, is that while the existence of life may place some constraints on the energy of this state of the carbon nucleus, it does not constrain it entirely. Furthermore, even if it did, it is not clear that it would count as an *explanation*.
- [18] Perhaps physicalists will claim that no *true* physics will account for mentality in this way. Perhaps not, but then they are really just claiming that (it is true that) mentality is not fundamental.
- [19] If one defines science as whatever tells us about the purely structural and relational, and one also holds that relations are never fundamental, then one probably would hold that a scientific account of the mental suffices to show that it is not fundamental. Russell (1927/1992) seems to hold such a view of science. And the view of science in Chalmers (1996) is very similar. Russell later abandoned this view due to Max Newman's criticism that if this is all physics tells us about the world the only nontrivial information about the world that physics provides is information about how many things there are. (See Demopoulos and Friedman, 1985, for an excellent discussion of this topic.) Since Chalmers' picture of what science tells us about the world includes causation it may avoid Newman's objection.

are putting forth a substantive ontological thesis, namely, that mentality is not a fundamental feature of the world (regardless of what physics reveals). If physics posits things that cannot be analysed in terms of (or are not ultimately reducible to or determined by or constituted out of — pick your favourite dependence relationship) nonmental phenomena, physicalists typically will *not* go on to acknowledge those things as physical. Science may, indeed, be the measure of all things, but if science posits fundamental mental entities or properties, physicalists, I take it, throw in the towel. And so, despite much talk about the wonders science is capable of achieving, the crux of the mind–body problem is actually not the question ‘is the mind physical?’ (where this notion is tied to what science can achieve) but is rather the question, ‘is the mind fundamentally nonmental?’²⁰

III: Physicalism Without Naturalism = Fundamental Nonmentalism

Convincing physicalists that we need to focus on the question of whether mentality is fundamental may not be easy since physicalists are usually intent on trying to have things both ways. As I see it, physicalists have long struggled to find some middle ground between their desire to be naturalists, that is, their desire to defer to science for matters about fundamental ontology, and their desire to put forth a significant thesis about the mind, that is, their desire to express a view that at least amounts to more than the claim that mentality fits into our scientific world-view, where our scientific world-view can turn out to encompass anything including, if it so happens, acts of pure consciousness. But it is very difficult to do the latter while upholding the former. In order to make their notion of physicalism a substantive claim about the world, some restriction needs to be placed on what counts as science.²¹ Putnam makes this point forcefully: ‘if no restraint at all is placed on what counts as a possible “fundamental magnitude” in future physics, then reference to soul or good could even be fundamental magnitudes in future physics!’²² Yet placing *a priori* restrictions on science, on what it is and how it is allowed to progress seems blatantly anti-naturalistic: according to the deferential naturalist, what sorts of theories about the world, what sorts of entities, relations, and laws

[20] Others have expressed similar views of the mind–body problem. Strawson (1994a,b; forthcoming) emphasizes the importance of focusing on the distinction between the mental and the nonmental, specifically on the experiential and the nonexperiential. However, he also relies on a notion of the physical. And Levine (1998) says that materialism in philosophy of mind is the thesis that ‘there is no sharp discontinuity in nature between the mental and the nonmental’ (p. 449).

[21] Poland (1994) also discusses this problem and tries to resist it. While he explicitly rejects placing restrictions on physics (p. 159), he tries to give physicalism content by making a distinction between future physics (the course of which we cannot predict) and what physicists, in general, study: spacetime and the fundamental constituents of all occupants of space time and the fundamental attributes that account for all interaction of such occupants (pp. 163–4). Yet it seems that in putting forth a theory about what physicists study he is, nevertheless, restricting physics. I discuss the significance of spatiality for the mind–body problem in section VII.

[22] Putnam (1970). Putnam addresses this problem by providing a programmatic definition of the fundamental magnitudes, that is, he defines them as those magnitudes which physicists currently take to be fundamental. While this may be of use for the purposes of his paper, I think that it does not work for the purposes of the mind–body problem since it leaves the physicalist asserting a view she thinks is more likely false than true. For further discussion of this point see Montero (1999).

science can posit as well as what sorts methodologies it can avail itself of, will be determined by science itself, not by armchair philosophy. Given this conflict of interests, I say physicalists should abandon one or the other: naturalism or ontological significance.²³

Naturalists might try to avoid this conflict by claiming that their intent is not to place restrictions on the posits of science but, rather, to make a prediction about its course, namely, that mentality will not show up as a fundamental.²⁴ But this consistency is purchased at a price. For to adopt a policy of strict noninterference and recede to mere prediction is to step out of the debate between physicalists and dualists. Some naturalists may not mind this retreat, yet I think that they are not the majority. Rather, many naturalists both positively assert that mentality is not fundamental and claim to defer all ontological matters to the scientist and, thus, struggle valiantly to remain faithful to an ontology that excludes fundamental mentality and to deferential naturalism. Yet this, I think, is something that cannot be done with consistency.

David Papineau is a good example of someone engaged in such a struggle. Papineau provides a clear account of which dependence relation he prefers: the mental, he claims, supervenes on and is token congruent with the physical. He takes supervenience to be a thesis about variation between intrinsic properties of systems: two systems cannot differ (across possible worlds that share our laws of physics) without differing in terms of their intrinsic physical properties. And he takes two properties to be token congruent if one realizes the other or if they are actually type identical.²⁵ But when it comes to explaining what he means by 'physical', a conflict becomes apparent. His commitment to naturalism leads him to take a hands-off approach and to let the answer to this question come from within physics itself. Not today's physics, since he thinks that current physics is certainly inadequate, but rather a true and complete physics, a physics that he simply defines as 'the science of whatever categories are needed to give full explanations for all physical effects'.²⁶ But now the threat of triviality enters the picture: for if psychological categories are part of this science, Papineau's position loses its punch. That is, if psychological categories are part of the science that is needed to explain all physical effects, psychology will indeed supervene on the physical, but only because it will be part of the physical (there will be no change in

[23] While I am equating naturalism with deference to science, the term 'naturalism' is used in an enormous variety of ways. For example, Hornsby (1997) calls herself a 'naïve naturalist' even though she explicitly denies that the mind is amenable to scientific investigation, while Stich (1996) argues against 'naturalism' while defending a view he calls 'open ended pluralism' which seems to amount pretty much to deferential naturalism.

[24] Much thanks to Gene Wittmere for his insightful comments on this issue. I should note that not all naturalists would be willing to go this route. For example, McGinn (1989) calls himself a naturalist yet he not only predicts, but also claims to have shown that mentality will never be accounted for in nonmental terms.

[25] He explains these notions in Papineau (1993) pp. 10–16.

[26] Papineau (1993) pp. 29–30. Of course, in order to avoid circularity, he also needs to explain what he means by '*physical* effect'. To do this, he relies on some 'paradigmatic physical effects,' of which he thinks we have an intuitive understanding. In Montero (1999) I argue that relying on intuitions in these sorts of cases will not work.

psychological properties without a change in the physical base properties because the psychological, itself, will be a physical base property).

Papineau, however, well aware of this threat, tries to compromise. The mind, he claims, will be accounted for by science, yet the science will be one without psychological categories (Papineau, 1993, p. 31). But it seems to me that this exclusion is really the whole game. The bottom line, it turns out, is not whether mentality can be accounted for by science. For when the notion of science is left entirely open-ended, as Papineau, being a good naturalist, is drawn to do, we can say nothing about whether psychological categories will be part of the *final* scientific dependence base. Rather, the bottom line is whether mentality can be accounted for without involving psychological categories themselves.

Robert Kirk's discussion of what he means by 'physical' exemplifies a similar conflict of interests. The physical, Kirk says, is simply 'whatever is posited by physics'. Yet, just to be safe, he also says, 'we can explicitly exclude all expressions that would ordinarily be counted as mental or psychological' (Kirk, 1994, p. 78). But clearly one cannot leave everything up to the physicists while at the same time placing restrictions on what they can do. One can embrace naturalism wholeheartedly: take one's ontological commitments to reach only as far as what is sanctioned by science and thereby defer all substantial ontological questions. Or one can take a stance: reject naturalism and start being a little less deferential.

The middle ground that Papineau and Kirk try to set out, that is, leaving the job of making all substantial ontological hypotheses up to the scientists *except* for the hypothesis that the mental is not fundamental, seems oddly *ad hoc*. Why should this bit of *a priori* reasoning be allowed and not others?²⁷ Some might say that it should be allowed because the hypothesis that mentality is fundamental is abhorrent to common sense, simply unimaginable. And perhaps this is so. For as Thomas Nagel has said, 'there is a deep-seated aversion in the modern "disenchanted" Weltanschauung to any ultimate principles that are not dead — that is, devoid of any reference to the possibility of life or consciousness' (Nagel, 1996, p. 133). However, reasoning from what is or is not abhorrent to common sense is not usually a type of reasoning condoned by naturalists. According to the naturalist, scientific judgments are one thing and intuitions are something else. For example, naturalists may admit that it is intuitively difficult to understand how pain could be identical to, or even just constituted by some brain state. But this, they quickly point out, does not falsify physicalism. Newtonian gravity was difficult to imagine, naturalists often remind us, but this didn't stop Newton and likewise the fact that some hypothesis is unintuitive or difficult to imagine should not stop physicalism. But if naturalists reject reliance on what is or is not abhorrent to common sense in these situations, it seems that consistency should lead them to reject it in reasoning about whether mentality is a fundamental feature of the world. If the naturalist wants to leave everything up to science, then he should do so. For there is nothing wrong with adopting the strategy of 'let's just wait and see'. It is just that this strategy does not make for much of a debate.

[27] Some have argued that the naturalist's hypothesis itself is *a priori*. See van Fraassen (1995).

It might seem, however, that the distinction between the naturalist who defers to the scientist and the armchair philosopher who denies the fundamental status of mentality is somewhat artificial. For isn't it the case that science, in fact, already tells us that mentality is not fundamental? To be sure, if we try to look up mentality in the 'Berkeley booklet', the physicists' ever expanding little black book of the fundamental entities and properties known to date, we will find no listing.²⁸ But according to most physicalists, not being listed in today's Berkeley booklet does not exclude a fundamental entity or property from the physical realm. What matters is what will show up in the final edition. That is, physicalists do not merely claim that mentality is not *currently* classified by physicists as a fundamental feature of the world; rather, according to such philosophers as Papineau and Kirk, mentality will be *forever* unlisted in the physicists' little black book.²⁹ But it is difficult to see how naturalists can make such an assertion. The world as we know it is full of fundamental properties and fundamental mental properties (if there are such things) should, at least in principle, be no more (or for that matter, no less) mysterious, or necessarily outside the realm of science than any other fundamental properties.³⁰ Of course, there may be reasons to avoid such a conclusion. For example, considerations of simplicity may lead us to want explanations with as few primitive terms as possible and encourage us to do without mentality as a primitive term if possible. But the question of whether it is possible is the central point of the debate so we should not start out assuming this.

That said, one still might feel that there is something defeatist about the view that mentality is fundamental. For if one claims that mentality is fundamental isn't one, rather than presenting a possible solution to the mind-body problem, giving up on it?³¹ I suppose this depends on what one means by 'giving up'. To be sure, fundamental principles or phenomena do, by their very nature, leave something unexplained. And in this sense, claiming that mentality is fundamental is tantamount to denying any possible further explanation of it, any explanation of it in terms of something else. Nevertheless, to successfully argue that mentality is fundamental is to provide a solution to the mind-body problem. That is, that answer to the question 'what is the relationship between mental phenomena and nonmental phenomena?' will be that the mental is fundamentally distinct from the nonmental.

[28] The official title of the Berkeley booklet is, the *Particle Physics Booklet*, an abridged version of the *Review of Particle Physics*. The information in these books can be found at <http://pdg.lbl.gov/>.

[29] However, see Melnyk (1997) for an argument that we should ground physicalism in current physics.

[30] As Nagel (1996) says, 'atheists have no more reason to be alarmed by fundamental and irreducible mind-world relations than by fundamental and irreducible laws of physics' (p. 131). David Chalmers (1996) has also argued for this point. As he sees it, the view that consciousness is a fundamental property is 'entirely compatible with a contemporary scientific worldview' (p. 127).

[31] This is related to the claim one often hears that even if Mary in the black and white room knows all the dualistic facts, she still would not know what it is like to see red. The implication, then, is that if Jackson's thought experiment does pose a problem for physicalism, it poses just as serious a problem for dualism. But this is not quite right since dualists hold that the experience of seeing red is fundamental, something that cannot be explained in terms of anything else. The fact Mary would need to know, claims the dualist, is nothing less than what it is like to see red; and if she knows what it is like to see red, she knows what it is like to see red.

Of course, the distinction between the mental and the nonmental may not be sharp. And in fact, physicalists may need to hold that it is not. Physicalists (of the noneliminative sort) think that the nonmental, arranged in the right way, as it were, gives us the mental; yet if you hold that the mental/nonmental distinction is sharp, it is very difficult to see how to bridge that divide. For example, if you are interested in explaining subjectivity and you take the line between the subjective and the objective (i.e., the nonsubjective) to be sharp, physicalism — or rather, fundamental nonmentalism — becomes very difficult, if not impossible to defend. This is true of the intrinsic/extrinsic divide as well: if it is sharp, and one takes the properties of consciousness to be intrinsic and physical properties to be extrinsic, it is very difficult to see how an anti-physicalist view could fail to follow.³² As a sharp distinction between the living and the non-living seems to lead us to posit a fundamental life-force, or *élan vital*, a sharp distinction between the mental and the nonmental seems to lead to dualism. So in debating the mind–body problem, we should focus on the mental/nonmental distinction but not presuppose that the distinction is sharp since the outcome of the debate may partially turn on this.

IV: Some Difficult Classifications

I have argued that physicalists are committed to the claim that mentality is not a fundamental feature of the world and that this commitment is incompatible with the naturalist's commitment to defer all substantial ontological questions to the physicists. The latter leads to a hands-off approach that basically amounts to stepping out of the debate, while the former presents in extremely general form a relatively clear way of posing the mind–body problem, a way that enables a *real* debate, that is, a debate that has more than one side. But two sides, while better than one, do not cover all possible positions and it may not be entirely clear how to classify some of them. For example where do we place Chalmers' suggestion that mentality may be accountable for in terms of something like 'proto-mentality,' and that 'proto-mentality' is a rock bottom feature of the world? For it apparently amounts neither to the view that mentality is fundamental nor to the view it is not fundamental. Similarly, where does one place the view that an explanation of the mental not only requires reference to lower level neurological processes but also requires reference to higher level features of the world, such as social features and natural selection? (See, for example, Wimsatt, 1976; 1994; Clark, 1997). While such positions illustrate borderline or hybrid cases, I do not think that the existence of such cases reduces the usefulness of setting out the two extremes.

But things can get tricky: What if one thinks that in order to account for mentality we need to invoke God? Proponents of this view certainly do not think of themselves as physicalists; yet it is not clear that they think of mentality as being

[32] As I see it, Chalmers' (1996) arguments for dualism mainly fall out of his assumption that the intrinsic/extrinsic divide is sharp and that the physical is extrinsic while the mental is intrinsic. Indeed, given these assumptions, it seems that his arguments for the possibility of zombies are inessential. (Cf. Yablo, 1999, claims that 'almost everything' in Chalmers' argument turns on the claim that zombie worlds are possible.)

fundamental either. Nevertheless, there is a sense in which they take mentality as fundamental feature since adverting to God often involves adverting to mentality. Perhaps for some believers, those who think of God as something like energy, or perhaps even the big-bang, this is not the case. If so, they fall on the other side of the debate.

Trickier still, however, is view that we need norms to account for mentality. Roughly speaking, this is the view that mentality — more specifically, intentionality — is fundamentally normative.³³ Thus normativity, and not necessarily mentality, is taken as fundamental. But, someone might object, the fundamentally normative is just as abhorrent to physicalists as the fundamentally mental. As with adverting to God, it is not clear on which side of the debate this view lies. But here, again, I would want to ask whether the account of mentality provided is an account of mentality in terms of the nonmental.³⁴ If intentionality is accounted for by norms that are themselves irreducibly intentional, this is an instance of taking intentionality to be irreducible. And if intentionality is accounted for by the nonintentional, but normative, this is simply an account of intentionality in nonintentional terms. To those who may protest that this latter position would nonetheless be antiphysicalistic, I can only ask them for their solution to the body problem. Without some understanding of what it means to be physical, these protests fall dead in their tracks. In any event, the possibility of a normative account of mentality provides no reason to return to the science question. For it is not clear that there is anything inherently unscientific about fundamental norms. If they exist, I suppose that they too will need to be included in that proverbial true and complete catalogue of the fundamental features of the world.

V: The Impact on the Debate

One might accept my formulation of the mind–body problem, but still wonder if it will have any interesting affect on the debate. If not, we might as well save the ink and leave everything as is. A look, however, at what some see as the most persuasive argument for physicalism indicates that we can't. Why believe in physicalism? One not uncommon answer is that the tremendous success and progress of the physical sciences gives us reason to think that physicalism is true. But the tremendous success of physics, while possibly very relevant to the outcome of the debate, does not settle the issue between physicalists and dualists. For it seems that physics could be tremendously successful in either case.

Moreover, I think that focusing on the mental/nonmental distinction rather than the physical/nonphysical distinction will also affect the debate about mental causation. The problem of mental causation is usually thought of as the problem of

[33] See Brandom (1994), who argues that mentality presupposes norms and that norms, while they do not presuppose mentality, presuppose sociality.

[34] I should again emphasize that I do not take the distinction between the mental and the nonmental to be exhaustive. The most interesting positions with respect to the normativity of the mental might be those that take mentality to be normative and normativity to be not quite mental but not quite nonmental either (depending on what we say about the social, Brandom may fall into this camp). As I said before, I do not think that the existence of such borderline cases reduces the usefulness of setting out the two extremes.

explaining how mental properties could be casually efficacious in a world that is fundamentally physical. The difficulty arises, it is thought, for anyone who thinks that (1) mentality exists but is not identical to anything physical, (2) there is no causal overdetermination, and (3) the physical world is causally closed, i.e. all physical effects (which have causes) have sufficient physical causes. Many philosophers have thought that there are good reasons to accept all three of these claims. But it seems to me that when we shift our focus to the mental/nonmental distinction, the reasons usually given for the third claim, the causal closure of the physical, no longer apply. For the reasons usually given for why we should believe in the causal closure of the physical are the reasons usually given for why we should believe in the causal closure of physics. As Kim puts it, if the physical world were not causally closed then ‘to explain some physical events you must go outside the physical realm and appeal to nonphysical causal agents and laws governing their behavior!’³⁵ And what this entails, and I take it why Kim finds it exclamatory, is, as he says, ‘complete physics would in principle be impossible, even as an idealized goal’ (Kim, 1996, p. 147). This is true when the physical is defined over physics, but it is not a reason to accept the causal closure of the fundamentally nonmental.³⁶

Some might claim that one potentially unwelcome result of my formulation will be the demise of the identity theory — the old example being that pain is identical to C-fibre stimulation. For what could the identity theory amount to if we take the relevant distinction to be between the mental and the nonmental?³⁷ If we think of C-fibre stimulation, for example, as entirely nonmental, what could it mean to say that C-fibre stimulation is identical to something mental? Yet if you allow C-fibre stimulation to have an irreducible mental aspect, in what sense are you a physicalist? In general, isn’t it hopelessly paradoxical to say that mental property *M* is identical to nonmental property *N*?³⁸ Perhaps it is, but my claim is not that we should replace the notion of *being physical* with the notion of *being nonmental*, from which it would follow immediately that the identity theory is impossible. Rather, it is that we should replace the notion of *being physical* with the notion of being *fundamentally nonmental*. As such, it seems at least possible

[35] Kim (1996) p 147. I should also point out that causal closure can mean (1) any physical effect (that has a cause) has a sufficient physical causes or (2) any physical cause has only physical effects, or both. But Kim’s quote only addresses (1).

[36] Further problems arise if being fundamentally mental implies being free, since freedom of the will may not be compatible with any type of overarching theory. However, it is not clear that being fundamentally mental does imply being free. Furthermore, the debate between compatibilists and incompatibilists is far from settled: free will might fit into the otherwise nonfree world in an intelligible way. Or perhaps, if Nancy Cartwright is correct, what we would normally think of as the nonmental world, is, in a sense, actually more free than not; on her view, most of the world is not law governed (neither deterministically nor probabilistically.) If so, fundamental (free) mentality would be no more of a threat to a complete physics than most nonmental phenomena.

[37] I thank Leopold Stubenberg for his comments on this point.

[38] Of course, if C-fibre stimulation is thought of as fundamentally mental, as, interestingly enough, Feigl (1958) seems to think, eliminativism does not follow. See Stubenberg (1998) for an illuminating discussion and defence of Feigl’s identity theory. As Stubenberg puts it, on Feigl’s view, ‘the brain is made of qualia’.

to carve out a space for the identity theory: the identity theory would be true if both pain and C-fibre activity are, at least in some sense, mental yet the fundamental constituents of C-fibre stimulation (as well as pain) are entirely nonmental.

Most importantly, however, I think that focusing on the mental/nonmental distinction will facilitate an actual head-on debate between physicalists and dualists. As things stand, physicalists usually take themselves to be arguing against views about the mind that are anti-scientific, views that hold that mentality will forever be beyond the scope of science. Yet dualists often take themselves to be arguing against the view that mentality is not fundamental (regardless of whether it can be accounted for by science). So it is not surprising that the two sides of the debate often talk past each other. If we focus on the mental/nonmental distinction, this may change.

VI: Is The Mental/Nonmental Distinction Clearer Than the Physical/Nonphysical Distinction?

The change, I hope, would be for the better; yet it may not if the distinction between the mental and the nonmental is no clearer than the distinction between the physical and the nonphysical.³⁹ It is no an easy task to delineate the mental from the nonmental. However, I do think that this distinction is better off than the physical nonphysical distinction. Why do I think this? I could say, as one is prone to do when asked this question, that we are familiar with what is often classified as the qualitative aspect of mentality, that is, what it is like from our first person perspective, for example, to feel pain, to see red, to taste chocolate, to have the unpleasant experience of being embarrassed or the wonderful experience of feeling proud, and so on. Yet to do so does little to convince those who resolutely deny having any understanding of phenomenal experiences that they actually know what they are like. And eliminativists are just such people: according to (the more radical) eliminativists, we couldn't have any understanding of mentality since there really isn't any such thing. And it is difficult to know what sort of argument one could give that would convince them to believe otherwise (this is especially tricky when they claim that, strictly speaking, they have no beliefs).⁴⁰

So let me try a new tack. An indication that we have a grasp of the mental is that while there may be no agreed upon 'mark of the mental', we can and do classify various kinds of mentality: qualitative, intentional, and affective phenomena, for example, all fall under its scope. And we can beneficially address each of these individually. But if I am willing to address specific kinds of mental phenomena why am I not willing to address specific kinds of physical phenomena? Don't we also have a grasp of specific kinds of physical phenomena? As I've argued here

[39] As Gabby Sakamoto said to me, one might think that just as there is a body problem from those who ask 'is mentality fundamentally physical?' there is a mind problem for those who ask 'is mentality fundamentally nonmental?' Sober (1999) makes this point as well.

[40] Strawson (1994a) remarks, only half jokingly, that perhaps the best explanation for those who resolutely deny qualitative experience is that there really are zombies (functional duplicates of human beings that have no phenomenal states) and that the eliminativists are among them.

and in more in depth elsewhere, for the purpose of formulating the mind–body problem we do not (Montero, 1999). With respect to the mental/nonmental distinction, while we do not have a definition of the mental, we nonetheless have a handle on the concept since we have a relatively clear idea of phenomena that fall on each side of the divide. However, with the physical/nonphysical distinction we lack even this. Of course, if panpsychism is true, everything will be fundamentally mental. But this does not mean that in stepping into the debate we have no grasp of the nonmental.⁴¹ For we can easily conceive of something being fundamentally nonmental. Yet the concept of being fundamentally nonphysical seems to elude us entirely. What in the world (or, perhaps I should say ‘out of the world’) is supposed to count as being nonphysical?

The fact that we have no answer to this question shows that even if our grasp of the mental/nonmental distinction is far from clear, it is better than our grasp of the physical/nonphysical distinction. Furthermore, even if one thinks that both distinctions are equally opaque, this should not be reason to favour the current formulation of the mind–body problem because understanding the mental/nonmental distinction is no less exigent for understanding the current formulation than it is for understanding my proposed formulation. This is because those who think that the mind–body problem is the problem of explaining how the mind is physical assume that we have some intuitive understanding of that which they claim is entirely physical. (Beyond this they also assume an understanding of what it means to be physical.) More, of course, needs to be said about the mental. And, indeed, in debating the mind–body problem we are debating what exactly this should be.

VII: Spatiotemporality and Mentality

Some might object that I have missed my target entirely: the mind–body problem is not the question of whether mentality is fundamental, nor, for that matter, of whether it will ultimately be explainable by science (or, more specifically, physics). Rather, it is the question of whether it is spatiotemporal. For to be physical, some might say, is to be spatiotemporal.⁴²

While this question echoes Descartes’ concern with the mind–body problem — according to Descartes, mind is nonspatial, or at least unextended, and body is spatially extended — I think that it does not address the heart of the debate between physicalists and dualists.⁴³ For it seems to me that if mentality is

[41] Some arguments for idealism, however, do intend to show this.

[42] For example, according to Meehl and Sellars (1956): ‘an event or entity is *physical*, if it belongs in the space–time network.’ (Something is *physical*₂, they say, ‘if it is definable in terms of theoretical primitives adequate to describe completely the actual states though not necessarily the potentialities of the universe before the appearance of life.’ As I see it, the problem here is that if physicists discovered that some sort of life-force was created in the big bang, or, perhaps, that the big-bang theory was wrong and that sentient life has existed all along, then any minimal class of theoretical primitives adequate to describe the universe before the appearance of life is, vacuously, empty. And so the concept of *physical*₂ in this case would pick out those things definable from nothing.) See also Armstrong (1995) who defines naturalism as ‘the doctrine that reality consists of nothing but a single all-embracing spatio–temporal system’ (p. 35).

fundamental, this, more than its being nonspatial or nonspatiotemporal, would capture what dualists believe is true about the mind: it is not reducible to anything else and thus has a rather special place in the world. What is more, being nonspatial or nonspatiotemporal seems neither sufficient nor necessary for dualism. For if the reason mentality is not spatiotemporal is simply that our theory of spacetime is incorrect I think that most physicalists would not take this to validate dualism. Or if mentality is in some sense purely abstract — the abstract program of the brain, perhaps — then physicalists who were happy with abstracta could be happy with a nonspatial mind.⁴⁴ Finally being nonspatiotemporal is not even necessary for dualism since if mentality were a *fundamental* spatiotemporal feature of the world, physicalists would not feel victorious. What matters to dualists is the fundamental nature of the mind, which is just what physicalists should argue against.

VIII: The Path Ahead

As I see it, then, focusing on such questions as whether mentality is a natural phenomenon, a physical phenomenon, or a spatial phenomenon sidesteps the hard question that lies at the heart of the debate. It is time to confront this question head-on: Is mentality a fundamental feature of the world? Physicalists will then need to make a decision: they can uphold deferential naturalism, the view, as Sellars put it, that science is the measure of all things, or they can put forth a substantive hypothesis about the general nature of the mind. To choose naturalism is to follow the course of science wherever it may lead, which is, perhaps, not to abandon the mind–body problem, but to hand it over to someone else. But there is another option: take a stance and think of the mind–body problem as the problem of whether mentality is fundamentally nonmental. And without the cloak of naturalism, physicalists can do this openly and with a clear conscience. As such, they will not be naturalists in the sense that they will not simply be deferring to science to tell us what is and what is not. But, nevertheless, this does not mean that in putting forth their hypotheses they are necessarily being anti-scientific. To put forth a view, to state a hypothesis is to work hand in hand with science; to leave the mind–body problem up to someone else is not.

Of course, it may be the case that such hypotheses about the ultimate constituents of the universe might not admit of definitive refutation. For it might be difficult to know with certainty that any particular level is the bottom level. Alternatively, if there actually is no bottom level, if the world is in some sense infinitely divisible, then the question would become whether, after a certain level, it is nonmental *ad infinitum*. And who knows how to address that question. But in any case, I think that looking at the mind–body problem in terms of the distinction between the mental and the nonmental rather than the distinction between the physical and the nonphysical will not only relieve the conflict between naturalism and ontological significance (basically by giving each its own territory) but will

[43] This is not to say that the question of whether mentality is spatial is not an interesting one (see, for example, McGinn, 1995).

[44] Of course, it is not easy to formulate the abstract/concrete distinction either.

also pave the way for what I hope will be a clearer, more interesting, and potentially even terminable debate about the fundamental nature of the mind.⁴⁵

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