Monism, Dualism, Pluralism

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1.

Consider the basic outlines of the mind-body debate as it is found in contemporary Anglo-American analytic philosophy. The central question is "whether mental phenomena are physical phenomena, and if not, how they relate to physical phenomena."[1] Over the centuries, a wide range of possible solutions to this problem have emerged. These are the various "isms" familiar to any student of the debate: Cartesian dualism, idealism, epiphenomenalism, central state materialism, non-reductive physicalism, anomalous monism, and so forth. Each purports to specify, among other things, the metaphysical relationship between the mental and the physical. They do so by specifying whether, or in what way, mental entities are identical to, reducible to, realized by, supervenient upon, or in causal interaction with physical entities. Thus, a convenient way to survey the range of positions is to enter them in a table (see Table 1). Rows correspond to the major kinds of metaphysical relation which might obtain between mental and physical entities. Each columns corresponds to one of the generic positions available in the debate. The particular theories defended by individual philosophers are usually just specific versions of generic positions. Thus Malebranche's occasionalism is a version of causal dualism, distinguished by a peculiar account of the way in which causal interaction between mental and physical is actually effected. The central philosophical challenge is to determine which of these positions correctly describes the mental/physical relationship. Positions are evaluated for internal consistency, their fit with "intuitions," their compatibility with scientific developments, and so forth. The mind-body debate, in this simple form, is set out in any number of

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[1]   This definition of the mind-body problem is lifted from (McLaughlin, 1995), p.597.

textbooks, introductory anthologies, encyclopaedia articles, etc., and is standard
fare in undergraduate philosophy of mind classes.[2]

Relation of mental to physical:	*Baseline Dualism /Idealism* (inc. Parallelism)	*Causal Dualism* (inc. "Cartesian" Dualism, Epiphenomenalism, Occasionalism)	*Weak Supervenience*	*Non-Reductive Physicalism* (inc. Emergentism, Anomalous Monism, Functionalism, Biological Naturalism)	*Baseline Physicalism* (inc. Australian Materialism, Behaviourism, Neuroscientific Eliminativism)
Identity	no	no	no	yes	yes
Reduction	no	no	no	no	yes
Realisation (Constitution)	no	no	yes	yes	yes
Supervenience	no	no	yes	yes	yes
Causal Interaction	no	yes	yes	yes	yes

Table 1. Positions on the mind-body relationship found in the basic debate.

The mind-body problem is one of most popular topics in contemporary
philosophy. There are now more philosophers working on the problem than ever
before, resulting in avalanches of papers, books, conferences and controversies. Yet,
amidst all this activity, there are signs of frustration and despair. One example is
John Searle's recent book *The Rediscovery of the Mind*, wherein the whole of the
traditional debate is accused of being, *inter alia*, bankrupt, unscientific, incoherent
and implausible.[3] Another is Colin McGinn's conclusion that the solution to the
mind-body problem is eternally beyond our reach.[4] Common to these lines of thought
is the idea that the mind-body debate in anything like its current form cannot hope to
resolve its central problems.

It is of course quite possible that such pessimism is entirely premature, and
indeed most participants seem to prefer that comforting prognosis. Alternatively, the
views of Searle, McGinn and others may be symptoms of a kind of terminal ill-
health, strange sarcomas appearing on the body of philosophy's favored son. This
paper explores the second possibility.

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[2]   See, for example, (Braddon-Mitchell & Jackson, 1996; Warner & Szubka, 1994).

[3]   (Searle, 1992).

[4]   (McGinn, 1994).

2. Symptoms

Why would anyone suspect that there are problems at the heart of the mind-body debate? Outward indicators include the following:

Failure. The problem the mind-body debate has set before itself is to describe the metaphysical relationship between the mental and the physical. At the most basic level, there are two kinds of answers: the mental "is" the physical (monism), or the mental "is not" the physical (dualism). These two basic positions have been available for centuries. The extraordinary thing about the mind-body debate is that we are *still* debating the relative merits of dualism versus (physicalist) monism. We cannot seem to resolve differences even at the most fundamental level. Of course, progress has been made in some directions. We now realise that the binary opposition between dualism and monism fractures into a wide range of basic positions and particular stances. Yet the wider range of answers seems only to provide greater scope for disagreement. Currently, every major position is defended by some respected philosopher or other. The mind-body debate seems chronically unable to resolve its most basic disagreements.

Stagnation and regression. The mind-body debate gives the impression that is has already uncovered every conceivable answer to the mind-body problem. Ambitions are now restricted to selecting the one true solution from a menu that is cast in stone. For decades nobody has managed to come up with a major new proposal regarding the mind-body relationship. The two positions most discussed in recent years—functionalist non-reductive physicalism, and eliminative materialism—are just variants of positions that had clearly emerged by the 1920s and 1960s respectively.[5] This stagnation is all the more alarming in view of the fact that the amount of philosophical attention being given to the problem is at an all time high. Indeed, it is plausible that a majority of philosophers who *ever* worked on the problem have been working on it in this period.

Since the debate has already mapped out the full range of basic options, the only place to go is around in circles. Traditionally, when problems were found with one position, philosophers developed a *new* position which at least had the merit of avoiding those problems. Thus Berkeley's idealism (whatever else may have been wrong with it) avoided Cartesian dualism's problem of interaction. Today, however, problems with one position induce philosophers to retreat to an existing position

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[5]   See (Kim, 1993a) for discussion of non-reductive physicalism as a reincarnation of the emergentism of Alexander and Morgan. Contemporary eliminative materialism finds first expression in (Feyerabend, 1963; Rorty, 1965).

with known difficulties. In recent years many have argued that difficulties with
physicalism—especially concerning qualia—force us to accept some form of dualism.
Others have argued that difficulties with dualism force us to some form of
physicalism. All seem agreed that the limits of metaphysical possibility have
already been determined. The debate seems permanently stuck oscillating between a
fixed range of unacceptable options. Searle put the point provocatively: "If we were
to think of the philosophy of mind over the past fifty years as a single individual, we
would say of that person that he is a compulsive neurotic, and his neurosis takes the
form of repeating the same pattern of behaviour over and over…" (p.31)

  Anomaly and despair. As the prospects for solving the mind-body problem
within the current framework grow ever more remote, tolerance for anomaly
increases. Finding virtue in necessity, philosophers argue that bizarre conclusions
represent profound realities. Some have concluded that whole categories of mental
entities simply don't exist. Others acknowledge the awkwardness of their position
even as they reluctantly endorse it. For example, Frank Jackson defended the
existence of epiphenomenal qualia even while conceding that they are "a total
mystery" and "an excrescence."[6] There is only a fine line between embracing overt
anomaly and throwing up one's hands in despair. Jaegwon Kim concludes his classic
collection *Supervenience and Mind* with a sigh: "We therefore seem to be up against a
dead end. Perhaps, that is what's really so intractable about the problem of the
mind."[7] Colin McGinn has managed to blend anomaly *and* despair in a uniquely odd
mix. According to McGinn, the mind-body problem has a simple solution.
Consciousness is "nothing very special." There is "no intrinsic conceptual or
metaphysical difficulty" in the relation between consciousness and the brain. There is
a "natural and prosaic" scientific theory which provides a "full and non-mysterious"
explanation of this link. In fact, we already possess this theory in our "subconscious
brain representations and the genetic code." However, despite all this, we cannot
solve the mind-body problem. The human brain is such that we will never be able to
comprehend this simply connection. McGinn regards the idea that humans must be

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[6] Jackson imagined an objector claiming that his epiphenomenal qualia
   are an excrescence. They *do* nothing, they *explain* nothing, they serve
   merely to soothe the intuitions of dualists, and it is left a total mystery
   how they fit into the world view of science. In short, we do not and
   cannot understand the how and the why of them.

  "This is perfectly true" he conceded immediately. See (Jackson, 1982), p.135.

able to solve the mind-body problem as a kind of intolerable hubris. His preferred form of humility is to suppose that the limits of human understanding just happen to coincide with the limits of his own understanding, circa 1990.

Scholasticism. When industry meets stagnation, the inevitable result is a kind of scholasticism. Concepts and arguments are subject to ever more subtle refinements, expressed in arcane technical vocabularies drowning in neologisms and subscripts. Sharp minds are tied up in baroque dialectics rivalling the greatest achievements of medieval or Talmudic debate. Unfortunately, little by way of deep new understanding results from all this.[8] One result is that the substance of the mind-body debate is generally and safely ignored by other disciplines approaching the general problem of fit, such as cognitive science, complexity theory, artificial life, and so forth.

In short, the contemporary mind-body debate suffers from chronic failure to solve its most basic problems, a dearth of major new ideas, much going around in circles, outbreaks of anomaly and despair, and suffocation by the steely grip of scholasticism.

3.

There is of course much room for debate over the extent to which these pessimistic assessments are justified. That they contain *some* significant degree of truth can hardly be disputed. Only the most naive enthusiast could suppose that the mind-body debate is nothing but ceaseless progress towards philosophical enlightenment as great minds grapple with profound mysteries. We are therefore confronted with another set of questions. What is responsible for this sorry state of affairs? What can be done about it?

According to Searle, the difficulties of the mind-body tradition can be attributed to implicit acceptance of a series of seven deep theses.[9] These unwitting

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[7]   (Kim, 1993b) p.367

[8]   Of course, the participants themselves would disagree. One man's scholasticism is another's bread and butter.

[9]   These are: that consciousness is relatively unimportant; that science is objective because reality is objective; that the study of the mind must be objective; that mental properties of other systems can only be known by observing behavior; that the intelligent behavior and causal relations to such behavior is the essence of the mental; that everything is knowable and understandable by us; that everything is ultimately physical, as the physical is traditionally conceived.

assumptions help create the space within which the various standard positions and the debates arise, but they are "at best, false," and guarantee that there can be no adequate resolution of the issues. Overthrowing them clears the way for Searle's own formulation of the solution to the mind-body problem, which he calls "biological naturalism":

> The famous mind-body problem, the source of so much controversy over the past two millennia, has a simple solution... Here it is. Mental phenomena are caused by neurophysiological processes in the brain and are themselves features of the brain. (p.1)

Searle clearly takes his biological naturalism to be an *alternative* to all the standard solutions, one that could not even be expressed within the traditional terms of the debate. But is this true? Notice that in the passage just quoted biological naturalism is cast in terms of two relations between mental and physical (neurophysiological) entities, viz., *identity* and *causal interaction*.. If mental entities are identical with physical entities, they must also be *realized* by them. Elsewhere, Searle argues that mental entities are *supervenient upon* (p.124) physical entities but not *reducible to* (pp.111-126) them. Sound familiar? These commitments are the hallmarks of traditional non-reductive physicalism. It turns out that biological naturalism is an idiosyncratic variant of one of the most popular of the existing generic positions. Indeed, it takes a subtle mind to distinguish Searle's position from traditional baseline physicalism. Searle himself argues that the failure of reducibility is trivial (p.122), has no deep metaphysical consequences (p.122), and makes no difference to our scientific world view (p.116).

In other words, even after denying his seven theses, Searle ends up defending a quite orthodox stance on the mind-body problem. This episode just illustrates the depth of the rut into which the mind-body debate seems to have fallen. Even one of its most vociferous critics seems unable to escape. The episode also suggests that Searle's seven theses—whether or not they really are assumptions of the tradition, and whether or not they are really false—cannot be the deep commitments responsible for the basic structure and problems of the debate. There must be some *other* set of assumptions Searle holds in common with the tradition, assumptions forming the central strands of a web in which Searle has been trapped as effectively as everyone else.

4.

In order to isolate the really critical assumptions, we must ask: what has to be taken for granted by anyone who seriously entertains the idea that positions like

epiphenomenal dualism, central state materialism, biological naturalism and the rest could possibly constitute *the* solution to *the* mind-body problem? Of course, in any philosophical debate a great deal must be taken for granted, most of which is entirely unobjectionable. The challenge here is to identify just those assumptions which are both central and questionable.

A useful way to approach this question is to ask: what makes it possible for Table 1 to neatly circumscribe the range of standard positions available within in the debate? What assumptions are built into the table? One is obvious in the simple fact that the table has just five main rows. That is, it is widely assumed that a putative answer to the mind-body problem must describe the metaphysical relationship between mental and physical in terms of the obtaining or otherwise of a certain five metaphysical relations (identity, reduction, realisation, supervenience, and causation). This assumption has two sides. One is that adverting to each of these relations is *necessary* for proper description of the metaphysical relationship. The other is that the five relations are collectively *sufficient* for that task. This second aspect is the one relevant here. We take for granted that we need not invoke any *other* major metaphysical relation in a complete account of the mental-physical relationship.

An historical illustration might help here. Davidson's famous inconsistent trio—that there is psychophysical causation, that causation is law-governed, and that there are no psychophysical laws—led him to conclude that mental entities must be identical with physical entities, but only on a token-by-token basis.[10] Yet this stipulation seemed inadequate to account for the strength of the dependence of the mental on the physical. Since the existing framework did not allow Davidson to properly describe this dependence, he introduced the notion of supervenience the mind-body debate. Ever since, supervenience has seemed indispensable. Now, however, we implicitly assume that Davidson made the last such innovation that would ever be necessary. The difficulties of the debate are to be resolved using only the current tools, and not by expanding the set of tools available.

A second major assumption of the contemporary debate is implicit in one of the most innocent-seeming features of Table 1—namely, that a position can be specified by entering ticks (checks) or crosses down a colum of the table. These marks indicate that each of the five metaphysical relations either obtains, or fails to obtain, between mental entities and physical entities. The assumption here is that the *same* configuration of relations obtains between *all* mental entities and the physical—

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[10]   See (Davidson, 1970).

or, in other words, that the mental is relationally homogeneous vis a vis the physical. Searle's biological naturalism, for example, asserts that *all* mental entities are "caused by neurophysiological processes in the brain and are themselves features of the brain." He doesn't maintain that biological naturalism is true for some mental entities but not others. Relationally, one size fits all.

A third major assumption is closely related to relational homogeneity, and indeed constitutes a major source of support. Why do all mental entities relate to the physical in the same way? Because they're all *mental* entities, i.e., they share a common *ontological* nature. All mental entities are in the same relational bag because they're in the same ontological bag. It is because mental entities are fundamentally alike in nature, that it makes sense to debate which *one* of the major positions might be the answer to the mind-body problem. Searle again provides a clear and pertinent example. He insists that "the ontology of the mental is an irreducibly first-person ontology" (95). All mental entities are essentially "subjective," and for this reason are not reducible to neurophysiological phenomena.

The ontological homogeneity assumption is not to be confused with the idea that there are no ontological differences among mental entities whatsoever. It is the more delicate claim that mental entities are *relevantly* similar to each other, i.e., they don't differ in any way that makes a difference to the mind-body problem. Consider the entities of chemistry, as opposed to basic physics. Surely there are ontological differences here—a chemical *process* differs in some important ontological sense from a chemical *state*. Yet, since the process/state distinction applies equally to physical entities, this ontological difference is one that *makes* no difference as far as chemical/physical relations are concerned.[11] Similarly, mind-body theorists can make any number of distinctions among mental entities, while remaining committed to ontological homogeneity in the relevant sense. The archetypical functionalist, for example, is one who maintains that the ontological essence of mental entities—what makes them *mental* entities—is to occupy a certain kind of causal role. It is because they all share this same fundamental nature that a certain position (generally taken to be non-reductive physicalism) captures the relation of *all* mental entities to the physical.[12]

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[11]   For discussion of the distinction between formal and material ontological categories, and the relevance of this distinction to issues in the philosophy of mind, see (Smith, 1995; Smith, 1997).

[12]   David Lewis, for example, bases his argument for "reductive materialism" with regard to the mind on the idea that all mental states have a certain fundamental

The final major assumption to be discussed here is also implicit in the form of Table 1. The marks in the squares of the table indicate that mental entities either do, or do not, stand in a given relation to the physical. The assumption here is that mental entities can be considered as homogeneous *units* or *wholes* for the purpose of describing how they relate to the physical. Put differently, it is the assumption that the level at which we ordinarily individuate mental entities is the correct level of analysis for describing how those entities relate to the physical. We think it makes sense to ask whether *pains* are identical with, reducible, etc., the physical; or whether *beliefs* are supervenient upon, constituted by, etc., physical entities; and so forth. We overlook the possibility that the relevant level of analysis might be more fine-grained—that, in other words, these relations might apply in the first instance to *constituents* of ordinary mental entities rather than to those mental entities themselves, and that these constituents might differ in how they relate to the physical.

Suppose one were interested in the ontological status of *economies*, particularly the famous "economy-body" problem. One could ask whether the Australian economy, for example, is identical with any quantity of physical stuff; or whether it is constituted by some such quantity; or whether it causally interacts with the physical, and so forth. But the absurdity of this approach is obvious. Economies have lots of different kinds of constituents, relating in different ways to the physical and demanding different accounts. For example, factories and coins are realized by specifiable quantities of physical stuff, but mortgages and anti-trust laws are not. The proper account of the metaphysical relationship of an economy to the physical is thus a complex story; first we identify all the relevant constituents, then we ask how those constituents relate to the physical (noting that they themselves might be complex); then we describe the metaphysical relations those constituents bear to each other in forming an economy.

The simplicity assumption in the *mind*-body problem is the assumption that we need not undertake analysis of this kind when describing the mental-physical relation. Note that it is not the assumption that mental entities are simples

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nature: "the concept of a pain, or indeed any other experience of mental state, is the concept of a state that occupies a certain causal role, a state with certain typical causes and effects. It is the concept of a state apt for being caused by certain stimuli and apt for causing certain behavior." ((Lewis, 1983), p.124). Lewis's Lewis's stance on the mind-body problem makes all four major assumptions outlined here. For a useful overview, see (Lewis, 1994).

simpliciter. Everything—except ultimate metaphysical atoms, if there are such things—is ontologically complex in some way or other. The point, rather, is that mental entities are assumed to be *relevantly* simple. We take for granted that we don't have to first look inside mental entities, identify their diverse components and how they hang together, and then pose *separate* relational questions for the various sorts of components. A single specification of relations describes how any given mental entity as a whole relates to the physical because that same specification describes how all its parts relate.

In short, the standard debate assumes that the mind-body problem is to be solved by specifying which configuration of just five metaphysical relations holds between all mental entities, as wholes, and physical entities, in virtue of their common fundamental nature as mental.

5.

What does it mean to say that these four assumptions are made by "the debate"? It does not mean that every participant makes every one of these assumptions in a naive and unqualified form. The basic mind-body debate, as outlined here, is an abstraction from the positions and arguments of its various core participants. The four assumptions do indeed lie behind that abstraction. It is only against such a background that it makes sense to see positions such as Cartesian dualism and non-reductive materialism as competitors for the title of One True Solution to The Mind-Body Problem. What must be true, for the mind-body debate in this simplified form to be worth discussing, is that the assumptions are *widely* adhered to in actual practice. This is in fact the case. There are many central figures in the debate who clearly subscribe to *all* of them; Searle is just one handy example. However, there are also key figures in the debate who (implicitly) reject at least one of them. For example, Frank Jackson's hybrid epiphenomenalism/physicalism amounts to rejection of the two homogeneity assumptions. Still, the fact that some philosophers constitute exceptions does not undercut the truth or utility of the claim that the four assumptions pervade the basic debate, any more than the occasional healthy smoker proves that smoking is not harmful. It will be suggested below that we ought to reject all four assumptions. Any tendencies in that direction in the existing literature are to be welcomed as steps in the right direction. The fact that in some cases philosophers have already felt compelled to surrender one or more of these assumptions can be enlisted as support.

6.

Suppose for a moment that the four assumptions described above are all false. Then at least some kinds of mental entities are ontological complexes, containing a diverse range of constituents, relating in fundamentally different ways to the physical. Mental entities differ in their ontological makeup, and so no one position or story properly describes the way all mental entities relate to the physical. At least some of these positions invoke other metaphysical relations, over and above the standard five.

A complex situation of this sort involves a plurality of ontological kinds, and so invites the name "pluralism". If some form of pluralism is true, then none of the standard "isms" stands a chance of coming to grips with the actual relationship between mind and physical world. The orthodox mind-body debate, attempting to force a complex situation into simple moulds, would be forever doomed to failure. The four assumptions dictate a certain limited range of basic options, and eventually every option in that range would have been tried; stagnation and regressive oscillation would then be the natural result. In the long run, participants would have no choice but to embrace anomaly or admit defeat. Dogged insistence on working *within* the orthodox framework would result in little but baroque encrustations of irrelevant detail.

In short, if pluralism were true, we would expect to see exactly the kinds of problems that have in fact been afflicting the mind-body debate. This constitutes a *prima facie* case for rejecting the four assumptions and embracing a pluralist orientation. In what follows, this case is buttressed by sketching a pluralist account of one particular aspect of mind, namely belief. This account is drawn from the work of Robert Brandom, particularly his recent book *Making It Explicit*.[13] Brandom's ontology of belief—or rather, his account of the phenomena found in the vicinity of belief—serves as the major premise of an argument against the four assumptions and in favour of pluralism. Readers unwilling to grant the truth of this major premise can at least take the sketch as a good illustration of pluralist alternatives to standard positions.

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What it to *believe* something? What, ontologically speaking, is a belief? Suppose Sheila believes that her name derives from that of a pre-Christian fertility symbol, the

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[13]   (Brandom, 1994).

"Sheela-nu-gig." The sparrow outside my window doesn't believe that about Sheila, or indeed anything remotely similar. What's the difference?

First and most obviously, there is a difference in their conduct. Sheila does, or at least is disposed to do, things which indicate that she accepts a certain claim about the origin of her name. For example, she likes to tell others about the origin of her name, in such a way as to imply some kind of spiritual or mystical significance in the fact. The sparrow just chirps. Second, there is a difference in their internal causal constitution. There is no deep mystery about why Sheila behaves as she does. The details are still quite obscure, but the basic point is that there is a critical fact about the way her brain is wired up which causes her to behave in those ways. The sparrow brain isn't wired up that way, and probably couldn't be.

These two features of the belief situation have received considerable attention in the traditional mind-body debate. There is however another feature of belief which has been relatively neglected. When Sheila believes that her name derives from a fertility symbol, she takes it to be true that her name has that origin. In other words, she stands in a special relationship to the proposition that her name has a certain origin—a relation of *endorsing* or *standing by* or being *committed to* that proposition.

This kind of relationship is essential to the *ontology* of belief. No state of affairs would count as believing unless it involved someone's taking some proposition to be (more or less) true. Support for this strong ontological claim can be drawn from a subtle argument developed by Arthur Collins.[14] The argument takes off from a version of what is known as Moore's paradox. Imagine Sheila saying "I believe that my name is derived from a fertility symbol, but my name is not derived from a fertility symbol". There is obviously something wrong with this statement. The paradox arises because both sides of her statement may well be true. Indeed, very often what we believe *isn't* true. How can there be a problem saying two things which might well both be true?

The paradox is resolved by recognising that the problem is pragmatic. In saying "I believe that p" one asserts or takes a stand on p. In saying "not p" one of course denies p, or takes a stand against it. Thus, Sheila's utterance both commits herself to p and rejects p in the same breath. It may actually be the case that Sheila believes that her name is derived from a fertility symbol *and* that it is not so derived, but Sheila can't consistently commit *herself* to both these propositions. Thus, the "oddness" of Moore-paradox utterances is really just a good way to highlight the fact that claiming "I believe that p" has the effect of asserting p.

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[14]   See (Collins, 1987).

So far so good. Collins' argument goes on to provide an argument which demonstrates that the commitment that is undertaken in self-ascriptions of belief is not merely a pragmatic feature of belief utterances, but is in fact essential to the belief state itself. The argument begins by supposing that this is false—i.e., that a belief is, for example, *just* a state of the brain, and the status of being committed to p is a kind of incidental extra. Call this state "B". Clearly, the existence of B and the truth of p are quite separate issues. (E.g., whether I believe it will rain next Christmas is one thing; whether it will in fact do so is quite another.) Therefore, one might report the existence of B in oneself without asserting p. However, since B (*ex hypothesi*) *is* the belief, to report the existence of B in oneself is to claim to believe p—and that, as we just saw, is a way of asserting p. One cannot assert p without asserting p. The initial assumption has led to a contradiction. Something has to give.

The implication Collins himself draws from this *reductio* is radical: beliefs cannot be given any kind of "constitutive analysis" at all. "Constitutive analysis" is his term for is any account of the ontological nature of beliefs (whether as mental stuff, behavioural dispositions, brain states, or whatever). Any attempt to say what beliefs *are* is misguided.

However, we can safely draw a more moderate conclusion. Whatever our full ontological analysis of belief might be, commitment to the truth of p has to play an essential role in that analysis. For if believing that p essentially involves commitment to p, then in reporting the possession of a belief one is automatically committing oneself to p. The path to the contradiction is then blocked.

Let us accept, then, the (independently plausible) claim that the notion of commitment is at least an essential part of the ontological analysis of believing that p. This raises as many questions as it answers. What kinds of things are these commitments? And what, more precisely, is the ontological relationship between belief and commitment? The most sophisticated discussion of these issues is provided by Robert Brandom. His primary concern in *Making It Explicit* is not the ontology of belief, let alone the mind-body problem. Nevertheless, at various places he sets out the pieces of what is in effect an account of the ontology of belief phenomena, a theory with many important implications for the mind-body problem.

In Brandom's account, the commitments that matter for understanding the notion of belief are what he calls *doxastic* commitments. These are a species of deontic status, which are in turn a kind of normative status. A normative status is a matter of having what one does count as (im)proper or (in)correct in some way. A deontic status is a normative status of a person or agent in some context, such that they stand *entitled* or *obliged* to act in some way. For example, purchasing a movie

ticket creates for the purchaser the deontic status of entitlement to enter the cinema, and for the proprietor the deontic status of commitment to allow entry.

Doxastic statuses are assertional, i.e., the kind of deontic status one can undertake by making an assertion. When under normal conditions Sheila utters the words "My name is derived from a fertility symbol" she announces herself as committed to the truth of the claim that her name is derived from a fertility symbol. This is a conditional commitment to do certain things under appropriate circumstances. Thus, if someone challenges her claim, she is obliged to provide justification. A fundamental feature of assertional commitments is that they are discursive, i.e., have a propositional content. Commitments come to have propositional contents by virtue of being inferentially articulated, i.e., by virtue of being caught up in a web of commitment, entitlement and (in)compatibility relations with each other. For example, saying "My name is derived from a pre-Christian fertility symbol" commits Sheila to the claim that she has a name, and is incompatible with the claim that her name is of recent origin.

Brandom, following Wittgenstein, is a social pragmatist concerning norms generally and deontic statuses in particular. That is, he takes them to arise only in the context of essentially social practices which set up those statuses by taking or treating people as occupying them. Deontic statuses arise solely because people are in the business of treating each other as having those statuses:

> The natural world does not come with commitments and entitlements in it; they are products of human activity. In particular, they are creatures of the *attitudes* of taking, treating, or responding to someone in practice *as* committed or entitled (for instance, to various further performances). (p.xiv)

In other words, commitments are *instituted* by human practices. They only exist, and are what they are, because certain practices take the shape they do. To understand why, or how it is, that there are deontic statuses in the world, one must understand how things can be brought into being as what they are by what we do.

Some socially instituted entities are physically realized. A church, for example, "is" a building, but not *merely* a building; it is a building made into a church by the community treating it as a church. However, some instituted entities are *not* physically realized; they lack material embodiment of any kind. Doxastic commitments are prime examples. As Brandom puts it,

> Norms (in the sense of normative statuses) are not objects in the causal order. Natural science, eschewing categories of social practice, will never run

across *commitments* in its cataloguing of the furniture of the world; they are
not by themselves causally efficacious—any more than strikes or outs are in
baseball. Nonetheless... there are norms, and their existence is neither
supernatural nor mysterious. Normative statuses are domesticated by being
understood in terms of normative attitudes, which are in the causal order.
(p.626)

In the language of the mind-body discourse, we would say that commitments are not
identical with, reducible to, in causal interaction with, or even realized by physical
entities. In this sense at least they are abstract objects. Nevertheless, they are real,
countable, temporal things, ultimately dependent in a mundane sense on the
physical. It is only because the physical is the way it is that we exhibit the practices
we do, and it is our practices which institute commitments. If we stopped treating
each other in the right kinds of ways, all socially instituted deontic statuses would
vanish without a trace.

Doxastic commitments are members of a class of entities occupying a kind of
metaphysical middle ground between abstract, eternal Platonic entities on one hand,
and concrete, physically-realized entities on the other.[15] They are not part of the
"bump and grind" of the "natural" world, but neither are they removed in some
wholly independent, disconnected, foreign metaphysical realm. A great many of the
ordinary things we deal with in everyday life belong to this category, including
mortgages, fictional characters, theories, laws, songs, computer programs and (soon)
cyberdollars. Entities of these kinds are set up and sustained by our practices, and
so their grip on existence is as tenuous as those practices. Nevertheless, they cannot
be identified with, reduced to, etc., those practices. Like the emergent contours in
Kaniza-type illusions (Figure 1), they inhabit the space created by our practices,
without simply being those practices. They are "triangulated" into existence by what
we do.

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[15]   Here the term "entity"—like "thing"—is used in a completely neutral or generic
way. Use of these terms is in itself intended to imply nothing other than that we
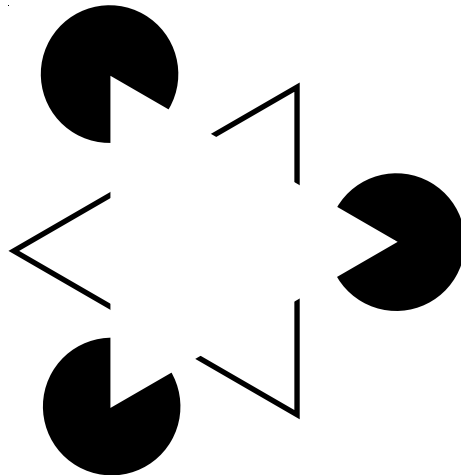are dealing with countable existents.

Figure 1: Kaniza figure.

Of course, many philosophers find such claims disturbing. They worry that such entities are weird or ghostly, lacking the comforting solidity of either physical or Platonic being. Often they attempt to eliminate such entities altogether. Sure, they say, we might *talk* of commitments, mortgages, fictional characters, loopholes in the law, etc., but there aren't *really* any such things—or there aren't really any such *things*. Alternatively, they attempt to identify these insolently insubstantial "things" with the some aspect of the relevant practices. However, it turns out that these strategies run into considerable difficulties whenever anyone attempts to work them out in detail.[16]

Institution is a metaphysical relation, but it is not the same relation as identity, reduction, realisation, supervenience, or causation. If one tried to account for the place of instituted entities in the world in terms of just these five relations, a large and essential part of the story would simply be missing. It would be like trying to understand how a member of parliament is related to the people without talking about voting.

In the next stage of Brandom's account (as reconstructed here), he establishes that

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[16]   For a classic illustration of these difficulties, see (Lewis & Lewis, 1983). (Thomasson, manuscript) provides an excellent elaboration and defence of the kind of metaphysical stance taken here to apply to doxastic commitments, as well as detailed explanation of the troubles that arise for anyone who hopes to reduce or eliminate fictional characters in favour of something else regarded as more acceptable.

> Much of the theoretical work done by the concept of belief can be done instead by appeal to [doxastic commitments], and to the practical scorekeeping attitudes of acknowledging or undertaking such commitments. (p.xv)

The "theoretical and explanatory work" done by the concept of belief includes playing central roles in theoretical accounts of phenomena such as knowledge, perception, and action. Brandom provides illuminating accounts of a wide range of belief-related phenomena within a single integrated framework by invoking doxastic commitments, and attitudes towards them, wherever one might be tempted to invoke the ordinary notion of belief. For example, when overhauling the classical analysis of knowledge as justified true belief, the idea that the knower must be taken to *believe* p is replaced with the idea that the knower must possess doxastic commitment to p.

Notice that in the quote above Brandom does not claim that doxastic commitments do *all* the work of belief. If this were true, then beliefs could be simply identified with doxastic commitments. However, the theoretical match-up between beliefs and commitments is, in a variety of ways, not close enough to warrant identification. For example,

> 'belief' may simply be *ambiguous* between a sense in which one believes what one is prepared to avow and a sense in which one also believes what one *ought* rationally to believe, as a consequence of what one is prepared to avow... An unambiguous, univocal technical term 'doxastic *commitment*' is introduced, which comprises both commitments one is prepared to avow and commitments that follow from those one acknowledges. But attention to the attitudes in terms of which those deontic statuses are explained makes it possible also to distinguish clearly between these two *kinds* of commitment, as 'belief'-talk does not. (p.196)

In short, where talk of belief is vague and ambiguous, talk of doxastic commitments can be rendered precise and univocal. For such reasons the theoretical work in the vicinity of belief can actually be done better in the new vocabulary whose centrepiece (in the current context) is the term "doxastic commitment". Belief talk is thus *eliminable* (in theory if not in practice) in favour of commitment talk:

> The proposal is accordingly not to *analyze* belief in terms of commitment but to discard that concept as insufficiently precise and replace it with clearer talk about different sorts of commitment. (p.196)

The lack of fit between beliefs and their theoretically superior counterparts provides reason "not to believe in beliefs" (p.508). This case for eliminating beliefs from our ontology parallels the more famous neuroscientific case promoted by Churchland.[17] In both cases, belief talk is taken to be part of a "folk" theoretical framework for describing some domain. For Churchland, that domain is the inner causal mechanisms underlying animal (including human) behavior. For Brandom, it is the nature of persons as talking, thinking, knowing and acting beings. In both cases, the folk framework compares unfavourably with another, more sophisticated theory. In both cases, the ontology of the old framework is claimed to be illusory, displaced by the entities postulated in the new framework. Where Churchland speculates about replacing talk of beliefs with neuroscientific talk of brain states, Brandom replaces talk of beliefs with talk of entities such as doxastic commitments.

So, what are beliefs? If the Brandom picture is broadly correct, then strictly speaking there are no beliefs at all. Loosely speaking, beliefs are whatever structures in fact exist in the general region corresponding to belief talk. Those structures—call them beliefs*—include doxastic commitments. However—and this is where they insights of the tradition come into play—they also include (1) dispositions to certain kinds of behavior, such that in an appropriate social context one qualifies as holding the doxastic statuses which are instituted by the social practices within which one is participating; and (2) and internal states playing a causal role in those dispositions. Sheila's belief* about her name is a complex structure which includes a socially instituted doxastic commitment to the claim that her name has a certain origin; dispositions to behave in ways appropriate to possession of that commitment; and internal states of her body and particularly her brain which are causally responsible for the fact that she exhibits those dispositions.

This whole complex structure is what is required for belief* in the full sense. If any of these ontological ingredients are missing, the remainder is, at best, a degenerate case. A brain in a vat might be wired up the right way but, without a body and appropriate social context, it is ontologically deficient. Call what it has "belief" if you like; nobody owns the term. The deep point is that you and I are made up of richer ontological structures. Much the same goes for a zombie remote-controlled by aliens. It behaves the right way, and has the commitments, but has less than full-blooded belief*, for it is not causally responsible for its behaviors.

We can now see that the standard ontological analyses of the nature of belief offered within the mind-body discourse are partly right and partly wrong. They each

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[17]   (Churchland, 1981)

latch onto an important ingredient of the total belief* situation, but each mistakes it for the whole. Physicalists are right that believing* that p, in the full sense, essentially involves having one's brain configured in an appropriate way. Their mistake is to equate beliefs* with these brain states. Behaviorists are right that believing* p, in the full sense, essentially involves having the right behavioural dispositions. Their mistake, as physicalists have often pointed out, is to equate beliefs* with behavioural dispositions. Even dualists were half right. Believing* that p essentially involves commitments, which are abstract instituted objects, located in time but not in space, lacking material constitution. Having understood that beliefs* cannot be material objects, Descartes' mistake was to equate them with non-material objects. Beliefs* are neither material nor non-material, in just the same sense that universities are neither physical nor non-physical.

8.

If this perspective on the ontology of belief is correct, there are many important implications for the mind-body problem.

First, none of the standard "isms"—Cartesian dualism, functionalism, and the rest—can do justice to the metaphysical relationship between belief and the physical. There are two reasons. One is that the relevant entities in the vicinity of belief—beliefs*—are ontological complexes whose various ingredients differ in how they stand vis a vis the physical. For example, states of the brain are realized by physical stuff, but doxastic commitments are not. Therefore, no one position can apply to beliefs* as wholes. The second reason is that the standard positions attempt to specify the relationship between mental entities and the physical solely in terms of the five major metaphysical relations. However, accounting for the metaphysical status of doxastic commitments, and hence beliefs*, also requires reference to social institution. Therefore, none of the standard positions can be the full story. Thus, all the standard positions are in one way too coarse, and in another too narrow, to describe how beliefs* relate to the physical.

A second major implication is that none of the standard "isms" can be the solution to the mind-body problem as a whole. This follows automatically from the previous point: any position which cannot do justice to beliefs cannot do justice to minds. There is however more to be said here. Beliefs* are ontological complexes, demanding complex stories, but there is no reason yet to believe that the same is true of all mental entities. Pains, for example, do not have socially instituted doxastic commitments as essential ontological ingredients. It is quite plausible that, as Paul

Churchland has argued[18], baseline physicalism applies straightforwardly to these relatively primitive denizens of the mental realm. If this is right, then beliefs* and pains differ in ontological kind, and they relate in different ways to the physical. From this it follows that all of the standard positions in the classic mind-body debate are wrong, not just in detail, but in their fundamental form.

Third, the four major assumptions are false, and the solution to the mind-body will be some form of pluralism. Note that pluralism as such is not some new position *alongside* epiphenomenalism, anomalous monism, etc.. Rather, it is a framework or orientation, the essence of which is rejection of the assumptions within which the standard positions seem reasonable. Pluralism is just the general thesis that minds are ontologically complex at many levels, and that the solution to the mind-body problem is not any one of the simple "isms" but rather a correspondingly complex story. Pluralism in this sense is not "dualism and more." It is not the proposal that there are three or more fundamentally different substances in the world, whereas dualism acknowledges only two. Pluralism does not incorporate dualism, but wholly sidesteps it. Traditional dualism is monistic about minds—i.e., it presupposes ontological homogeneity in the mental realm, and sees duality in the opposition between mind and physical world. Pluralism, by contrast, postulates ontological diversity *within* the mental realm. Dualism is just one hopeless outcome of attempting to address the mind-body problem from within the artificial constraints of the traditional assumptions. The proper response to dualism is not to embrace it, subsume it, or even to flee from it to some kind of physicalist monism. Rather, the proper response is to reject the framework of false assumptions within which dualism and its equally simplistic monistic counterparts are regarded as serious candidates for the solution to the mind-body problem.

The pluralist framework recommended here is not a "discourse pluralism" of the kind recommended by Rorty and Price and criticised by Cussins.[19] It simply allows for a multiplicity of entities in the vicinity of the mental, and is not committed in advance to any theses about the number of different discourses, the connection between discourse and reality (between how we talk and what there is), or any form of anti-realism. Indeed, pluralism is perfectly consistent with a hard-nosed realism which divorces the question of what kinds of mental entities in fact exist from the question of how we talk about people and what concepts we may have. A realist pluralism of this kind does not try to read ontological commitments directly off our

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[18]   See (Churchland, 1995).

[19]   (Cussins, 1992; Price, 1992; Rorty, 1991).

current language or concepts. It is perfectly willing to allow that folk discourses and folk concepts are inadequate to the ontological structure of mental reality. Distinctions built into ordinary ways of talking need not reflect deep ontological distinctions, and there may be ontological differences among kinds of mental entities to which folk talk is entirely oblivious.

9.

This final section discusses some of the implications of pluralism of this kind for our understanding of mind in relation to cognitive science.

Cognitive science is, trivially, the science of cognition. The way the term is generally used these days, cognition is the totality of states, processes, mechanisms, etc., bearing direct causal responsibility for a broad range of sophisticated behaviors, from wine-tasting to conversation and basketball. The bulk of cognition in this sense is found inside the head, and so cognition can be thought of as the inner engine of behavior. Thus, cognitive scientists study "what makes us tick."

For decades, cognitive science has been dominated by the mainstream computational approach, according to which cognitive agents instantiate digital computers of some kind, and the task of cognitive science is to describe the architecture of this computer and the nature of the processes which run on it.[20] In recent years, the computational approach has been challenged by the emergence of a clear alternative, dynamical cognitive science. Increasing numbers of cognitive scientists are applying the tools of dynamical modeling and dynamical systems theory to the study of many different aspects of cognition. These researchers take cognitive agents to be, in the first instance, dynamical systems rather than digital computers. The rift between computationalists and dynamicists is one of the deepest and most theoretically significant in cognitive science.[21]

This development is directly relevant to the ontology of mind. A sufficient condition in practice for some aspect of the world to count as physical is that it be rigorously describable in dynamical terms. Whenever some natural phenomenon can be viewed as the coupled interaction of a set of quantitative variables, that phenomenon is regarded as physical, regardless of whether any theoretical

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[20]   (Pylyshyn, 1984)

[21]   For an overview and representative sample of dynamical cognitive science, see (Port & van Gelder, 1995). Discussion of the difference between the dynamical and computational approaches is found in (van Gelder, 1995b; van Gelder, forthcoming).

connection can yet be made to any other physical domain. Therefore, insofar as dynamical cognitive science is offering correct descriptions of cognitive phenomena, it is demonstrating that those aspects of cognition are physical in as substantial and direct a sense as anything else. In other words, dynamical cognitive science is in the process of showing how cognition is physical in its own right. Philosophers have generally attempted to demonstrate the truth of physicalism for some domain by showing that phenomena in that domain are somehow appropriately related to physical phenomena—whether by identity, realisation, supervenience, etc.. Dynamical cognitive science is in the process of demonstrating that such manoeuvres are unnecessary for many aspects of cognition.

There is long-standing philosophical tradition according to which mind and cognition are one and the same thing. Philosophers in this tradition take mind to be the inner engine of sophisticated behavior. Descartes, for example, believed that the only reason we can use language is that we have minds, i.e., special inner states and processes bearing direct causal responsibility for linguistic behavior. Philosophers as diverse as Fodor and Churchland agree on this point. They just disagree on the nature of that special inner stuff.

If the "mind as cognition" doctrine were true, then dynamical cognitive science would be in the process of demonstrating that *mind* is inherently physical. Dynamical cognitive science would be naturalising mind in the strongest possible sense. This is a tantalising prospect. Unfortunately, it turns out to be a mirage, founded on metaphysical misconception. Mind is not just the same thing as cognition; they are different in ontological kind. This is not to say that something like traditional dualism is true, i.e., that mind and cognition are metaphysically distinct and independent. The actual situation is that mind is an ontological complex, with cognition an essential constituent. We should be thinking not of mind as the inner engine of behavior, but rather of cognition as the inner engine of mind. Recall the discussion of economies. The mind-as-cognition doctrine is basically the same mistake as identifying economies with factories, or with processes of production. It is substituting a concrete part for a more-than-concrete whole.

There have been a number of large-scale philosophical assaults on the mind-as-cognition doctrine this century, including especially those by Ryle and Heidegger.[22] The fundamental point is that, just as there is more to an economy than factories, so there is more to mind than causal mechanisms. What more? One illustration is

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[22]   See (Heidegger, 1962; Ryle, 1984). For a review of the Rylean/Heideggerian rejection of the mind-as-cognition doctrine, see (van Gelder, 1995a).

provided by the pluralist orientation on belief described above. Suppose that this Brandom-style pluralism is correct. Then when people talk of beliefs, what they are really talking about is belief* structures, which include cognitive states, as well as behavioural dispositions and doxastic commitments. The latter, as Brandom stressed, stand outside the causal realm. They are not part of cognition. They play no causal role in generating behavior. Rather, they are things you qualify as possessing if you behave a certain way in a given social context.

Thus, a thoroughgoing pluralism goes hand in hand with rejection of the mind-as-cognition doctrine. Mind (in the full sense) is not simply in the head, to borrow the famous phrase. Pluralism of this kind also entails certain limits on the explanatory reach of cognitive science. A science of the mechanisms underlying sophisticated behavior is not a science of the statuses achieved by virtue of exhibiting that behavior in an appropriate social context. Cognitive science is not the science of belief*, but only of certain aspects of it. Therefore, cognitive science is not "the" science of the mind, though it is a science of part of mind.

These strong implications—that mind and cognition are ontologically distinct, and that the science of cognition is something less than a full science of mind—by no means entail that mind itself is inherently and eternally beyond the reach of science in any form. In the absence of any definitive account of what science essentially is, no limits can be placed on the scope of scientific explanation. We can however be sure that a full science of mind would have to be much more than cognitive science in the current sense. That full science of mind would have to cover not just how we come to behave as we do, but also the social practices which are constituted by those behaviors, and everything instituted by those practices. Needless to say, no such science is on the horizon. The prospect of a full science of mind is as remote as it is appealing.[23]

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