Chapter 2 The Major Objections from Reductive Materialism Against Belief in the Existence of Cartesian Mind–Body Dualism

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Abstract I discuss five basic objections that materialists often raise to Cartesian Mind-Body Dualism: (1) It is not empirically testable or confirmable; (2) It is in principle testable and confirmable, but unconfirmed; (3) It is testable and confirmable, but has been shown false; (4) It is unnecessary to explain anything; (5) It cannot serve to explain anything. I will show how unsatisfactory all these objections are. If I am right in what I argue the reductionist posture of contemporary materialism against the existence of Cartesian Immaterial Substances as causal agents in explaining human behavior is demonstrably more dogma than anything else. Moreover, the promise of reductive materialism to explain human personality, consciousness, and behavior is unlikely ever to be fulfilled.

Unfortunately, limits on space here prevent a discussion of more positive, empirical research from reincarnation studies and voluntary out-of-body experiments providing solid empirical or scientific evidence affirming both the existence of Cartesian Immaterial Substances and some form of personal survival after biological death. So, even though I will not be able to argue here that we have a well-confirmed scientific belief that there are Cartesian Immaterial causes of human behavior that undermine explanations in usual reductionist efforts, we can at least show why the standard and pervasive objections from reductive materialism fail by way of seeking to show that Cartesian Mind-Body Dualism is false.

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2.1 Introduction

When confronted with the problem describing human nature or explaining human behavior, most philosophers and scientists think that we do not need, and cannot justify, appealing to the existence of minds or souls as substances distinct from, and in addition to, physical bodies. They believe that only physical objects exist. So, when it comes to minds or mental events proposed as immaterial (or nonphysical) causes of human behavior, they object by insisting that if minds or mental events (such as wishing, believing, intending, or wanting) are not ultimately reducible to, or identical with, some set of brain states, or some complex computational function of brains, or some biological property produced by the brain, then there simply are no minds or mental events or souls. They believe it unscientific to think otherwise. Call their view *reductive materialism* and, because it eliminates by reduction any causally effective "ghosts" in the machine, we can also call it *eliminative material*ism. It has dominated the philosophical and scientific landscape for well over 50 years. Even among those who would otherwise hesitate to characterize themselves as *naturalized epistemologists* (i.e., as people who think that the only legitimately answerable questions are those we can answer by appeal to the methods of testing and confirmation in the natural sciences), there is a strong tendency to accept the view that believing in nonreducible, nonphysical, minds asserted to exist by Plato, Aristotle, the Medievals, Descartes, and other philosophers up to the publication of U.T. Place's influential "Are Mental Events Brain States?" (Place 1956) is just too philosophically and scientifically unjustifiable.

There are, to be sure, voices crying out in the wilderness that reductive materialism may not be true, or even that it is demonstrably false.¹ But it seems clear that the majority of scientists and philosophers of mind continue to regard those voices as the unfortunate legacy of tenaciously entrenched superstition or religion. For that majority, whatever else the mind–body problem may be, it will obviously not extend to the question of whether there are any Cartesian Immaterial Substances that cause certain human behaviors and are somehow irreducible to any physical property, complex or otherwise, chemical or biological, of the brain.

But why do reductive materialists contend that belief in such nonreductive Cartesian immaterial substances is unjustifiable? Alternatively put, what are the basic objections, constituting the core reasons, reductive materialism advances against any Cartesian mind–body dualism, affirming the existence of minds or souls as immaterial causes of human behavior.

¹ See, for example, C.D. Broad's *Mind and Its Place in Nature*. London: Routledge and Kegan Paul. 1962. David Chalmer's *The Conscious Mind.*, Oxford University Press. 1990, Joseph Levine's *Purple Haze The Puzzle of Consciousness*, Oxford University Press, 2002 (and reviewed by Terry Horgan in Nous Vol. xl, number 3, Sept. 2006), Richard Swinburne, "Personal Identity: The Dualist Theory" in Personal Identity. Edited by Richard Swinburne and Sydney Shoemaker, Oxford England, Blackwell Publishers, (1999, 3–35), Jaegwon Kim, *Physicalism or Something Near Enough*. Princeton Monographs in Philosophy. 2005. Princeton University Press, Princeton N.J.

2.2 The Five Core Objections to Cartesian Immaterialism

The five core materialist objections to belief in Cartesian Immaterialism are the following:

- 1. It is not empirically testable or confirmable.
- 2. It is in principle testable and confirmable, but unconfirmed.
- 3. It is testable and confirmable, but has been shown false.
- 4. It is unnecessary to explain anything.
- 5. It cannot serve to explain anything.

In examining these objections, I shall argue that they are all bad objections, and so natural science has not refuted Cartesian mind-body dualism. Presumably, these are the best objections reductive materialism can offer. Along the way I shall make a modest effort in suggesting more positive reasons for adopting the Cartesian position than the materialist failure to refute it, as we noted above, although lack of space here makes telling this part of the story in full detail a more ambitious undertaking for a future date.

2.2.1 Not Empirically Testable or Confirmable

The *first* and common objection one hears from reductive materialists is that the belief in the existence of Cartesian Immaterial Substances is not empirically testable or confirmable; and so it falls squarely into the domain of philosophy, or religion, or simple superstition. Falling there, they add, is the kiss of death. As we will see when we examine the next objection, however, belief in the existence of Cartesian Immaterial Substance is quite empirically testable and confirmable. But even if, contrary to fact, it were not empirically testable, and if we then ask what is wrong with this issue being a philosophical matter, the typical answer will be that philosophers, unlike scientists, have never really agreed on anything nontrivial. Descartes was right in noting this "scandal of philosophy" but, so this objection continues, in spite of his deepest aspiration to the contrary, Descartes was never quite able to overcome that scandal with his attempt to place philosophy on a firm methodological footing that would allow for something like reliable knowledge about the world. By way of contrast, at least all scientists will, by their method, agree that there are certain nomic regularities (causal physical laws) allowing us to predict precisely our sensory experience and certain physical events thereby allowing for our greater adaptability under evolution; and that is the reason why we should insist on verifiability or verification as a necessary condition for any reliable belief about world. The Cartesian can reply, however, that this typical verificationist answer is problematic because it arguably underestimates how much philosophers have agreed upon, and overestimates how much scientists have agreed upon even in the face of theories that allow for very reliable predictions. While we cannot pursue it here at length,

philosophers have agreed, for example, that if we take classical logic seriously, philosophical solipsism (the thesis that I alone exist) is indefensible, and most agree that it has been refuted, although certainly not in any laboratory setting or in any experimental or nonexperimental test.² Philosophers also generally agree that Aristotle's view that nonhuman animals are not rational because they do not think (because they do not use tools and hence show no capacity to relate means to ends) stands refuted along with Hume's theory of ideas asserting, as it does, that there is no idea that does not derive from some distinct corresponding impression of sense. On the other hand, however well-confirmed a scientific thesis or explanation may be, that in itself does not show it to be objectively true, as if the thesis or explanation as stated and confirmed was forever immune to rejection or serious modification. The history of science is replete with claims that were once well-confirmed and enthusiastically accepted by the scientific community at large only to find later that those same theses were no longer acceptable in the light of new bodies of evidence. Ptolemaic Astronomy (the Geocentric Theory), Absolute Space and Time, The Caloric Theory of Heat, and The Phlogiston Theory of Combustion come readily to mind as suitable examples of such occurrences. In science, as elsewhere, consensus is always desirable and necessary, but it is fallible and evolving with the inevitable increase of evidence and a deep respect for fallibilism. In the long run, science may be no better off than philosophy, even though science can certainly predict our sensory experiences better on any given day. But whether that success counts for more long-term agreement than philosophy on crucial issues seems debatable.

2.2.2 In Principle Testable and Confirmable, but Unconfirmed

The *second* objection one frequently finds among the scientifically-minded is that, contrary to the main point just offered in the first objection, the belief in Cartesian Immaterial Substance, or minds, is indeed empirically testable and confirmable, that it has been tested but not confirmed, and so we have no confirming evidence for it. This objection the philosopher Derek Parfit, among others, offers.

In *Reasons and Persons*, under a heading (#82) entitled *How a Non-Reductionist View Might have Been True*, Parfit (1984) said this:

Some writers claim that the concept of a Cartesian Ego is unintelligible. I doubt this claim. And I believe that there might have been evidence supporting the Cartesian View.

²The refutation occurred first when Christine-Ladd Franklin wrote to Bertrand Russell and asserted that she found Russell's defense of Personal Solipsism compelling and that as a result she too was a solipsist. It appears that Russell thought she was serious and that she had not intended to offer a decisive counterexample to any argument favoring Russell's thesis. For a fuller discussion of this and other instances of philosophical agreement see the author's *Harmless Naturalism: An Essay on the Limits of Science and the Nature of Philosophy* (Open Court Publishers, 1998).

There might, for example, have been evidence supporting the belief in reincarnation. One such piece of evidence might be this. A Japanese woman might claim to remember living a life as a Celtic hunter and warrior in the Bronze Age. On the basis of her apparent memories she might make many predictions that could be checked by archaeologists. Thus she might claim to remember having a bronze bracelet, shaped like two fighting dragons. And she might claim that she remembers burying this bracelet beside some particular megalith, just before the battle in which she was killed. Archaeologists might now find just such a bracelet buried in this spot, and their instruments might show that the earth had not been disturbed for at least 2000 years. This Japanese woman might make many other such predictions, all of which are verified.

Suppose next that there are countless other cases in which people alive today claim to remember living certain past lives, and provide similar predictions that are all verified. This becomes true of most of the people in the world's population. If there was enough such evidence, and there was no other way in which we could explain how most of us could know such detailed facts about the distant past, we might have to concede that we have accurate quasi-memories about past lives. We might have to conclude that the Japanese woman has a way of knowing about the life of a Celtic Bronze Age warrior which is like her memory of her own life.

It might next be discovered that there is no physical continuity between the Celtic warrior and the Japanese woman. We might therefore have to abandon the belief that the carrier of memory is the brain. We might have to assume that the cause of these quasi-memories is something purely mental. We might have to assume that there is some purely mental entity, which was in some way involved in the life of the Celtic warrior, and is now in some way involved in the life of the Japanese woman, and which has continued to exist during the thousands of years that have separated the lives of these two people. A Cartesian Ego is just such an entity. If there was sufficient evidence of reincarnation, we might have reason to believe that there really are such entities. And we might then reasonably conclude that such an entity is what each of us really is.

This kind of evidence would not directly support the claim that Cartesian Egos have other special properties in which Cartesians believe. It would not show that the continued existence of these Egos is all-or-nothing. But there might have been evidence to support this claim. There might have been various kinds or degrees of damage to a person's brain which did not in any fundamental way alter this person, while other kinds or degrees of damage seemed to produce a completely new person, in no way psychologically continuous with the original person. Something similar might have been true of the various kinds of mental illness. We might have generally reached the conclusion that these kinds of interference either did nothing at all to destroy psychological continuity, or destroyed it completely. It might have proved impossible to find, or to produce, immediate cases, in which psychological connectedness held to reduced degrees.

Have we good evidence for the belief in reincarnation? And have we evidence to believe that psychological continuity depends chiefly not on the continuity of the brain but on the continuity of some other entity, which either exists unimpaired, or does not exist at all? We do not in fact have the kind of evidence described above. Even if we can understand the concept of a Cartesian Pure Ego, or spiritual substance, we do not have evidence to believe such entities exist. Nor do we have evidence to believe that a person is any other kind of separately existing entity. And we have much evidence both to believe that the carrier of psychological continuity is the brain, and to believe that psychological connectedness could hold to any reduced degree.

I have conceded that the best-known version of the No Reductionist View, which claims that we are Cartesian Egos, may make sense. And I have suggested that, if the facts had been very different, there might have been sufficient evidence to justify belief in this view (p. 227–228).

Parfit's argument avoids the easy dogmatism that comes of casually affirming that belief in the existence of Cartesian Immaterial Substance is obviously unintelligible, or pure religion, or superstition. Doubtless, from some point of view such an assertion is unintelligible, but whether that point of view is in fact defensible, or possibly adopted as philosophical dogma, would still be an open question. Rather than take the dogmatic stance, Parfit seeks instead to satisfy the question "What should you take as solid empirical evidence that Cartesian Immaterial Substances exist?" Along with Ayer (1956), Parfit affirmed that the thesis is in fact empirically testable under a minimalist construal of reincarnation because, he says, the reincarnation hypothesis makes predictions or has test implications at the sensory level, as long as we accept as a necessary condition for personal identity that one have systemic memories that nobody else could have.

After all, if the person beside you professed to having memories that only Julius Caesar could have had, and indeed had a number of such memories, and if we could find no other equally plausible way to explain how he got the memories of Julius Caesar, then, assuming also that we had a large number of similar cases, you would be stuck with the claim that we have solid evidence here that the person beside you is Julius Caesar. Indeed if s/he really is Julius Caesar in a different body, then s/he should have empirically confirmable memories that only Julius Caesar could have had. He might, for example, tell you that he had a twin brother, Caius, who for certain reasons never left the family farm, and that he, Julius, buried at a specific location beside the Rubicon river just before crossing it in 49 b.c. a sum of 500 newly minted gold coins and a personal note leaving the money to Caius, just in case things did not go well in Rome the following week. He also tells you he instructed one of his soldiers, Cratylus, to go to his family secretly and inform them of the whereabouts of the buried gold coins for Caius. Such memory claims would indeed be empirically confirmable in the way suggested by Parfit. Certainly, too, there is no current record anywhere that Caesar had a twin brother, or that he, Caesar, indeed buried that sum of money with a note leaving the money to his twin brother Caius. Assume then that we find the place where the money is supposedly buried, excavate carefully the ground, assured by paleontologists that the ground has not been disturbed at that site since 49 b.c., and find the minted gold coins and the note (authenticated by several distinguished graphologist) in the handwriting of Julius Caesar. Suppose further that the person beside you continues and tells you many other similar memories he has, and suppose they are all confirmed in much the same way. How would we explain his having these confirmed memories that only Julius Caesar could have had? What would be the best available and nonarbitrary explanation for this person having these memories if it is not that this person beside you is indeed Julius Caesar in a new body? Certainly most people would take such evidence as confirmatory of this person being Julius Caesar in a new body and sitting beside you. That is because most people instinctively believe the memory theory of personal identity, which neither Parfit nor

Ayer questioned.³ Further, if we could not come up with an alternative empirically testable hypotheses that would produce the same effects without our having to believe that the person beside you is Julius Caesar, and if there were many other cases like this, then we would have little choice but to accept that at least this person beside you is reincarnated, by some causal mechanism we know not what, and for some reason we know not why.

Along with Parfit and Ayer, of course, if we do not abandon the having of systemic and unique memories as at least a necessary condition for personal identity, not to say essential, and if something like the above came to pass very often, we would need to change dramatically what we mean by memory, because we could not define memory in terms of some biological product of the brain, or some neural network, or any describable biochemical property or complex set of neurobiological properties, ultimately defined in terms of atoms and molecules that are governed by the laws of physics at some fundamental level and cease to exist with the death of the brain. Those things die with the brain. But this person beside you has the confirmed memories and not the "quasi memories" of Julius Caesar, and if Julius Caesar's memory was identifiable with the above stated properties or biological properties produced by the brain, obviously this person could not have the memories s/he does have.

³ The major objection to any memory theory of identity was offered briefly by Thomas Reid and later at greater length by Bernard Williams in "Personal Identity and Individuation" (Proceedings of the Aristotelian Society 57, 1956-1957). The objection consists in a thought experiment in which a fellow named Charles turns up claiming to be Guy Fawkes. All the events he claims to have witnessed back as Fawkes in the sixteenth century and the actions he claimed to have done point unanimously to a life-history of some one person in the past – Guy Fawkes. All Charles' memory claims can be checked to fit the life of Fawks and some few that cannot will be plausible, and provide explanations of unexplained facts. And so by the memory theory of personal identity, Charles is Guy Fawkes in a new body. Williams asks us now to imagine that another person, Robert, who turns up and satisfies the memory criteria for being Guy Fawkes equally well. We cannot say they are both identical with Guy Fawkes, because if they were they would be identical to each other which they are not because they currently live different lives different thoughts and feelings from each other. So, Williams concludes that apparent memory cannot constitute personal identity. This basic objection has convinced the majority of writers that something more like bodily continuity than memory would count for personal identity. As I see it however, the counterexample does not work. If Robert did show up satisfying the memory criteria for being Guy Fawkes, that would be an empirical disproof of the memory criteria for identity. The attractiveness of the memory criteria for personal identity is that it is in fact empirically falsifiable just in case somebody other than Charles was to show up with the same memories of Guy Fawkes. The fact that we can imagine the empirical events that would falsify the memory theory of identity is not a logical refutation of the theory, but rather a statement of conditions that would be sufficient to empirically refute the theory. I think we would all agree that if Robert had the same memories as Guy Fawkes while Charles has them also, the memory theory of personal identity would stand refuted. But that has not happened just yet and so the memory theory cannot be simply dismissed by appeal to what we would accept as empirical evidence for the falsity of the memory theory of personal identity. I know of no other persuasive counterexample to the memory theory of identity and, in fact, given that the thesis is empirically falsifiable it seems strange to try to offer a counterexample, as if it were a matter of taking the theory as an instance of definition by way of appeal to ordinary usage, rather than an empirically falsifiable thesis.

So, belief in the existence of Cartesian Immaterial Substances is an empirically confirmable hypothesis. That conclusion in itself should be big news, and one can only wonder why so little has been said about it, given the general assumption so widely adopted that whether anything like a Cartesian Mind exists is a question of Metaphysics (in the pejorative sense) and not something that is empirically confirmable or testable in natural science.⁴

Anyway, Parfit hastens to add that while belief in reincarnation and, by implication, in Cartesian Immaterial Substance, is certainly an empirically testable and confirmable thesis, we do not in fact have any such evidence for believing in reincarnation. Although the above cited Parfit text is not as clear as one might wish, he seems to assert that the thesis has been tested, and that we never got the confirming evidence to warrant acceptance of Cartesian Immaterial Substance, and so we would have no rational justification for accepting the thesis. This conclusion emerges because Parfit, unlike Ayer, thinks a necessary condition for accepting the thesis would require most of the current population to have such confirmed memories before we could say of anyone in particular that s/he is a reincarnated person. That requirement is an unusually and arbitrarily strong requirement, rather than say a requirement to the effect that there be over time a large number of such cases, enough to establish the nonanecdotal nature of the evidence offered. If that is so, and arguably it is, then Parfit's position would be that science has at least indirectly refuted the Cartesian position by indirectly refuting the thesis of reincarnation, which he apparently takes to be the only hypothesis under which Cartesian Dualism is empirically testable. Apart from that, he offers us no help in what it would take to disconfirm either reincarnation or dualism under some other hypothesis.

Nor should we forget, incidentally, that Ayer (1956: 193) in the course of arguing for memory as the criterion for personal identity, argued that if the man sitting bedside you had the memories of Caesar Augustus, better yet had memories that *only* Caesar Augustus could have had, and such memories were confirmed, then we would need to say that the man beside you is indeed Caesar Augustus in a different body, unless we could find some way to confirm the belief that one could have the memories that only Caesar Augustus could have without being Caesar Augustus. Ayer, like Parfit, had no hesitation in accepting the view that the existence of minds is an empirical hypothesis testable under the hypothesis of reincarnation. In fact, however, Ayer did not believe ostensibly in reincarnation, but used it rather as a thought experiment to drive home what we would say if the evidence for reincarnation actually obtained. Clearly he took the existence of Cartesian minds, by implication, to be an empirically testable thesis as long as one accepts *the memory theory of personal identity*. This conclusion was orthogonal to his well-published earlier view that empirical hypotheses that are central to the sciences are not at the core of

⁴ For other ways one could empirically test for the existence of Cartesian Immaterial Substances, see Chap. 3 and the discussion of the Osis-McCormick Experiment with reference to voluntary out-of-body experiences pp. 167–202 of the author's *Death and Personal Survival* 1992. Littlefield Adams, Quality Paperback.

philosophy (Ayer 1994).⁵ One would have expected that the mind–body problem is at the core of philosophy, but his granting it empirical status as a testable empirical hypothesis would place it squarely inside natural science.

In the end what seems objectionable in Parfit's claim that we do not have the required evidence for justified belief in reincarnation is simply that he lays down an impossibly strong requirement, namely that most of the current population have at the same time empirically confirmed past life memories that only the former person could have had. Fortunately, Ayer made no such a demand rather than that there simply be many other past similar cases of confirmed memories. Let us turn briefly to John Searle's position which is offered as evidence for the claim that science has shown that traditional or Cartesian mind–body dualism is false, and not simply that we do not have enough evidence for it.

2.2.3 Testable and Confirmable, but Shown to Be False

The *third* objection one will see sooner or later is that the belief in Cartesian Immaterial Substance is indeed empirically testable but science *shows* that souls, or Cartesian Immaterial Substances, cannot exist because contemporary science *shows* that consciousness, or any mental state whatever, at least as traditionally conceived, cannot exist after the death of the brain. In *The Rediscovery of Mind*, after asserting that all mental events are biological phenomena, Searle (1992) goes on to say of them:

They are as much the result of biological evolution as any other phenotype. Consciousness, in short, is a biological feature of human and certain animal brains. It is caused by neurobiological processes and is as much a part of the natural biological order as any other biological features such as photosynthesis, digestion, or mitosis. This principle is the first stage in understanding the place of consciousness within our world-view. The thesis of this chapter so far has been that once you see that atomic and evolutionary theories are central to the contemporary scientific worldview, then consciousness falls into place naturally as an evolved phenotypical trait of certain types of organisms with highly developed nervous systems. I am not in this chapter concerned to defend this worldview. Indeed, many thinkers whose opinions I respect, most notably Wittgenstein, regard it as in varying degrees repulsive, degrading and disgusting. It seems to them to allow no place -- or at most a subsidiary place-for religion, art, mysticism, and "spiritual values" generally. But like it or not, it is the worldview we have. Given what we know about the details of the world-about such things as the position of elements in the periodic table, the number of chromosomes in the cells of different species, and the nature of the chemical bond---this world view is not an option. It is not simply up for grabs along with a number of competing worldviews. Our problem is not that we have somehow failed to come up with a convincing proof of the existence of God or that the hypothesis of an afterlife remains in serious doubt, it is rather that in our deepest reflections we cannot take such opinions seriously. When we encounter

⁵ A. J. Ayer, "On Making Philosophy Intelligible" in *Metaphysics and Common Sense*. Jones and Bartlett. 1994. 1–19; *The Problem of Knowledge*. 1956. Penguin Books, Pelican Paperback, 187–20.

people who claim to believe such things, we may envy them the comfort and security they claim to derive from these beliefs, but at bottom we remain convinced that either they have not heard the good news or they are in the grip of faith. We remain convinced that somehow they must separate their minds into separate compartments to believe such things. When I lectured on the mind-body problem in India and was assured by several members of my audience that my views must be mistaken, because they personally had existed in their earlier lives as frogs or elephants, etc., I did not think "Here is evidence for an alternative world view" or even "Who knows, perhaps they are right" And my insensitivity was much more than mere cultural provincialism: Given what I *know* about how the world works, I could not regard their views as serious candidates for truth.

And once you accept our world view the only obstacle to granting consciousness its status as a biological feature of organisms is the outmoded dualistic/materialistic assumption that the "mental" character of consciousness makes it impossible for it to be a physical property. (p.90-91)....Anyone who has had even a modicum of scientific education after about 1920 should find nothing at all contentious or controversial in what I have just said. It is worth emphasizing also that all of this has been said without any of the traditional Cartesian categories. There has been no question of dualism, monism, materialism, or anything of the sort. Furthermore there has been no question of "naturalizing consciousness"; it already is completely natural. Consciousness, to repeat, is a natural biological phenomenon. The exclusion of consciousness from the natural world was a useful heuristic device in the seventeenth century, because it enabled scientists to concentrate on phenomena that were measurable, objective and meaningless, that is, free of intentionality. But the exclusion was based on a falsehood. It was based on the false belief that consciousness was not part of the natural world. That single falsehood, more than anything else, more even than the sheer difficulty of studying consciousness with our available scientific tools has prevented us from arriving at an understanding of consciousness. (p.93, for an essentially identical assertion, see Searle 2004)

Searle's argument, then, for the claim that consciousness exists as a *biological* product of the brain, secreted by the brain in the same way a hormone is secreted by a gland, is then simply that that is the only position consistent with a naturalistic world view in which what is known about the world is what we can get under the method of testing and confirmation in the natural sciences as we have come to know them. He is quick to add, of course, that he is not interested in defending such a worldview. He simply accepts it as obvious that it is our worldview, and asserts that that fact in itself should be sufficient reason for the rest of us to accept it, and to make our philosophical explanations consistent with it (Searle 2004: 101). So he urges that those who would affirm the existence of consciousness as a Cartesian Immaterial Substance, and thereby reject the biological nature of consciousness, disagree with our world-view; and they thereby do so either because they are in the grip of religion or just have not yet heard the good news that science and the scientific world view is all we have when it comes to knowing anything about this world. They either know nothing about science, or they are superstitious.

In fact, by way of criticism of Searle's position, it is quite possible to accept *a* scientific world view, in any of the various ways Searle might be inclined to define or characterize it, and still, without being superstitious or essentially ignorant of science, reject Searle's biological construal of consciousness, simply because his position is purely philosophical and not in fact established in natural science. His position on the biological nature of consciousness contradicts his stated worldview. After all, where in the scientific literature, biological, neurobiological, or otherwise,

is it established either by observation or by the methods of testing and experiment, that consciousness is a biological property secreted by the brain in the same way a gland secretes a hormone? Better yet, where in the history of science has it been established that consciousness exists, but cannot be a substance very much unlike any substance we ordinarily deal with in contemporary physics or biology? In short, there is no scientifically well-confirmed (much less robustly confirmed) belief within science that consciousness is a biological product of the brain. We do not see the brain secrete consciousness in the same way we see a gland secrete a hormone. Consciousness is nothing like a hormone.

When this last objection is noted, the Searlean materialist's fall-back position is that nevertheless the biological construal of consciousness is the only position consistent with our scientific world view. Supposing indeed that to be the case, where was that world-view established as a truth or a robustly confirmed hypothesis in science? Besides that, what exactly does Searle mean by "our scientific world view?" Well, of course, he said above that adopting the scientific world view is just another way of saying that in the interest of attaining human knowledge we need to *naturalize* everything and take the methods of science as the only way to attain human knowledge. But that is arguably a bit too vague because the concept of a scientific world view admits of no fewer than three logically distinct characterizations⁶ and, depending on which characterization one chooses, one may or may not have a justification for adopting a scientific world view; and one can argue that the only viable characterization of "scientific world view" that is harmless, is the one that leaves it an open question as to what the nature of consciousness might turn out to be.

Finally, Searle apparently believes that simply because we have adopted a scientific world-view, (in some sense suitably explicated) then whether anybody likes it or not, that is a good reason for adopting it. Given all this, and when all the appeals to obviousness are done, the ultimately nagging question is why should anybody take seriously the *biologizing* of consciousness as something warranted in science or even as something warranted in terms of accepting a scientific world-view? Searle's claim that science has *shown* that consciousness, like any mental state is a biological property of the brain and hence dies with the death of the brain, is by no means as obvious as he contends. Indeed, it is false that science has shown as much. Nobody, as we remarked earlier, has yet seen consciousness secreted by the brain in the way one can see a hormone secreted by a gland. It is also false that science has

⁶ There are no fewer than three logically distinct forms of naturalized epistemology: (a) The only legitimately answerable questions about this world are those we can answer by appeal to the methods of testing and confirmation in the natural sciences, and the only correct answers we have are those provided by natural science (replacement thesis); (b) There are legitimately answerable questions outside of natural science, but whether anybody knows anything or not is an empirical or scientific question (transformational thesis); and (c) The method of the natural sciences is the only reliable method for acquiring a public understanding of the nature of the observed regularities and properties of the physical world.(harmless thesis). For a full discussion of all three and an endorsement of (3), see the author's *Harmless Naturalism: The Limits of Science and the Nature of Philosophy.* (Open Court Publishers, Chicago, Illinois). 1998. p b.

shown that consciousness cannot be some sort of Cartesian Immaterial Substance irreducible radically to any property of the brain. And even if Searle's biologizing of consciousness and all other mental states were the only position consistent with accepting our scientific world-view, Searle's refusal to defend such a world view reveals at best a lack of understanding of those arguments already in the literature to the effect that naturalizing everything (under either the replacement thesis or the transformation thesis) is fraught with difficulties, and at worst an elementary *ad populum.*⁷

2.2.4 Unnecessary to Explain Anything

The *fourth* core objection is that we simply do not need Cartesian Immaterial Substance to explain anything at all. We only need physical laws and physical objects to explain and predict all of human behavior, and even if we cannot now predict all of human behavior, at least it is something we can do in principle. This common objection feeds upon the traditional *Principle of Parsimony* which asserts that the only justification we have for believing in the existence of anything is that the belief explains something we could not otherwise explain equally well without that belief. Bypassing certain questions about what would count as an adequate theory for the explanation of human behavior, and whether the ability to predict human behavior in itself would count for such an explanation, this objection is, more than anything else, a challenge to the Cartesian dualist to come up with good reasons for supposing that we need something more, or that there is something fundamentally wrong with commonly proposed explanations put forth by reductive materialists to explain human behavior. Here the trench warfare begins.

Take for example, the problem of consciousness. Consciousness certainly does not seem to be a property like any other physical property. Everybody admits that it exists, but being generally aware of things is not like any other physical property we know about, or whose existence can be directly or indirectly inferred from observation of other physical properties. Reductive Materialists, however, will generally argue that being in a particular brain state just *is* being conscious; certain describable

⁷ There are other problems with Searle's proposed solution to the mind–body problem. He asserts, for example, that materialism and traditional dualism are false, that is, it is false that only material objects exist (because there are mental states) and it is false that traditional dualism is true (because that implies that there are substances not reducible to physical objects). For Searle, the trick is to realize that there are mental states and consciousness, but that they are in fact material or biological states of the system produced by the brain. (RM 15 and HPR Spring 2004. 110–113) But arguably that just is classical materialism. How this differs from the original form of eliminative materialism offered by Rorty in 1965, (Review of Metaphysics. Vol. 19) is difficult to fathom. Searle's view is fundamentally that there are mental events but they are material events, and this is clear if we can see that there is no disjunct between the mental and the material. Once we get over that hump we will see that the original mind–body problem was generated by a bad definition of the mental and the material, one that made the mental and the material mutually exclusive.

neuro-biological activities always occur when consciousness is present, but are not there when consciousness is not present (Dennett 1992). Note also here that Dennett's Consciousness Explained is in fact no different from that form of eliminative materialism that falls under the contingent identity thesis. Less popularly, as we saw above in the work of John Searle, other reductive materialists will argue that *being* conscious does not reduce simply to being in a particular brain state describable simply in neuro-chemistry, but rather reduces, a la Searle, to being a biological property produced or secreted by the brain. We need not repeat the above reasons why the latter form of reductionism seems so unsatisfactory. But the idea that consciousness just is being in a particular neuro-biological state, complex or otherwise, which is the awareness we experience, as materialists say, does not seem to the Cartesian Dualist to be any more empirically confirmed than alternative explanations such as the position offered by John Searle, or even that offered by Cartesians who might urge that consciousness is neither a physical property nor any other empirically describable state of the brain; but rather that when consciousness is present certain parts of the brain light up, as it were, and would not light up otherwise because that is the way in which consciousness causes the brain to do the work it does in producing various human behaviors such as believing, desiring, intending, remembering, loving, hating, and knowing. In addition, as we shall see soon, there are other human behaviors that we cannot explain simply by some appeal to causal brain states as either causative or constitutive of such behavior.

2.2.5 It Cannot Serve to Explain Anything

Our *fifth reductionist* objection to believing in Cartesian immaterial substances is that such substances, even if they existed, could not function as causes of anything in the world, and so the belief in them could have no explanatory power in principal for anything and especially when it comes to explaining human behavior. This objection has a long history. It works on the principle that anything that will be a cause in our explaining observable human behavior will need to function by way of conveying kinetic energy to another object; otherwise there would be no explanation for the human behavior that occurs because we would not be able to predict the behavior under the cause. If Cartesian Immaterial Substance could be a cause, then something could occur without the transfer of kinetic energy and, so this anti-Cartesian objection goes, that would violate *The Principle of Conservation of Energy*, as it would allow for the overall increase of energy in the universe, just as if physical events could cause mental events, there would be an overall decrease in energy in the universe.

However, seductive this objection to belief in the existence of Cartesian Immaterial Substances as causally productive of human behavior, it suffers from at least one fundamental flaw. The concept of causality to which the materialist appeals begs the question in favor of his position that only physical objects exist, because he defines a cause not simply as that object whose efficient action brings about a change in another object, but rather as that object by whose conveyance of kinetic energy brings about another proportional and predictable change in the observable properties of the other object. When one defines causality in this way under the rubric of operationalizing basic concepts in science, the definition assumes that causality is a relationship between physical objects and is determinably present only when there is a transfer of kinetic energy in the way understood by traditional physics. This assumption begs the question in favor of a concept of causality that obtains only between physical objects as we know them, and thus begs the question against any basic causal relation between a physical object and a Cartesian Immaterial Substance. It begs the question in favor of mechanistic explanations of human behavior to the extent that concept of causality is also implied in mechanistic explanations. The anti-Cartesian would respond predictably, then, that the Cartesian dualist is unfortunately asking us to take seriously the proposition that we cannot have explanations of human behavior (however, much success we might have in predicting human behavior) in the natural sciences as we know them. Materialists often think that this response closes the debate, because it is hard to take seriously anybody who thinks that natural science cannot provide us with any explanations of human behavior.

But what if Cartesian dualists are willing to accept that particular conclusion and relegate natural science to securing causal explanations among physical objects requiring the transfer of kinetic energy, and then reserve explanations of human behavior for a different type of causal interaction, a basically primitive one wherein there is in fact a transfer of efficient energy between mental and physical objects but not to be understood in terms of a transfer of kinetic energy between two typically observable physical objects? Science, as we currently understand it, may not be able to provide scientifically mature causal explanations of human behavior under this model, but it might still be able to predict a good deal of human behavior from many antecedent statistical correlations. Just as the unpredictable at any moment can and does occur but still has a cause, the predictable can and does occur without our being able to describe the cause in terms of a transfer of kinetic energy from one physical object to another. But, of course, at this point, the anti-Cartesian materialist may quite possibly continue to urge that we cannot then make any scientific sense of a causal relationship between the physical and the nonphysical, and that the supposition to the contrary is somehow incoherent.

On this last point, and in an effort to establish the claim that it is neither logically impossible nor factually impossible that there can be a causal relations between physical objects and Cartesian Immaterial Substances, Broad (1962) once asked us to reflect on our own behaviors and experience of causality.⁸ When I raise my arm, for example, just after saying "I will now raise my arm" we usually explain the arm going up by saying he raised his arm because he wanted to raise his arm. Or he raised his arm because he intended to raise his arm. The anti-Cartesian materialist will not deny such explanations, but he will add that wanting, or intending, must be construed as causal agents identical to certain brain states that cause the arm to go

⁸ Mind and its Place in Nature. London: Routledge and Kegan Paul, 1962.

up; its just a case of brain-body interaction and there is nothing particularly mysterious here. C.D. Broad, however, might have pressed the issue further. Why, he could ask, does my arm go up just after I say it will, or, better yet, why does the brain cause the arm to go up at that time and at no other time, than just after I say "I will now raise my arm?" What caused the brain to function as such an effective cause at that point and not before or after? What activates the brain as a causal agent? If my arm went up autonomically, as a result of some neurological glitch, twitch, or of some sort of chemical imbalance, we would not say I raised my arm. What causes the brain to be in precisely the position it needs to be in order to cause the arm to go up at precisely that time when I say "I will now raise my arm?"...and when I do not intend to raise it, or do not want to raise it, why is the brain state not then causing the arm to go up? If the answer here is that there is some other complex, or even some simple brain state that is at work to cause the brain to raise the arm, then the next question will be why does that particular cause of the brain activity occur at that time and at no other time? And so we have to go to an infinite regress to explain why my arm is caused to go up by the brain at precisely that time when I say I will raise it and do raise it. This seems problematic for any proposed causal explanation of behavior in terms of intentions and wants that are presumptively reducible to brain or neuro-biological states. For the Cartesian such a problem leads to the view that there are Cartesian Immaterial Substances causally responsible for human behavior. To be told repeatedly, however, that there could be no such causes of human behavior because we could not understand in science how they work, is simply begging the question against their existence when there is good reason to think that the reductivist thesis fails to explain something as simple and as important as intentional acts such as deliberately raising one's arm at a particular time. Our not knowing in natural science how such causes work does not imply that there are no such causes, but only that we cannot understand them at the moment if we construe them as mechanisms that require a transfer of kinetic energy between two fundamentally physical objects as we ordinarily understand them operationally in scientific contexts. Doubtless, the Cartesian Dualist will claim we are dealing here with some primitive and fundamentally different kind of causation between two different types of objects, although mental events and physical events will obviously need to share something in common for them to be enough alike for there to be any causal interaction at all.

2.3 Conclusion

In his excellent book *Purple Haze: The Puzzle of Consciousness* Levine (2002) is right to say that the antinomy in discussions on the problem of consciousness is that consciousness seems to be so basically irreducible to some interesting physical or material property and yet at the same time we feel the need for causal explanations which belief in irreducible consciousness undermines. This tension goes to the heart of the mind–body problem. The Cartesian Mind–Body Dualist cannot help but be

attentive to that antinomy. But if what we have argued above is persuasive by way of funding a rejection to all core objections to Cartesian Mind–Body dualism, we do not need to give up the thesis that Cartesian Immaterial Substances exist and are causes of human behavior. We only need to give up the idea that we can provide causal explanations of human behavior simply in terms of causes understood mechanistically or in terms of the transfer of kinetic energy as we usually understand it.

For lack of space, there is nothing said here about what I have argued elsewhere to the effect that there is indeed commanding empirical evidence that some form of Cartesian Dualism is correct in terms of the strong empirical evidence for some *minimalist* form of reincarnation, and in terms of repeated, and repeatable, case studies of voluntary out-of-body experiences. Reductive Materialists of different stripes tend to ignore that evidence for the alleged reason that it is not scientific and for the further reason (among others) that there is no scientific evidence for any such Cartesian Dualism. On this see Almeder (1992), *Death and Personal Survival: The Evidence for Life After Death*; and also the three-essay exchange between Almeder (2001) and Hales (2001a, b) on reincarnation and science in *Philosophia* and reprinted in Hales and Lowe (2006).

There may be important why-questions about human behavior, questions we cannot answer by appeal to the methods of testing and confirmation in natural science as we currently understand them. If that is true, it raises serious further questions about the science of psychology, and whether it is really explaining human behavior, rather than using statistical correlations to successfully predict a good deal of human behavior. The latter of course is profoundly important and useful without our having to claim we are therein advancing causal explanations of human behavior.

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