Suggested Reading

Substance dualism is given scant attention in contemporary philosophy of mind. The focus has been, instead, on 'property dualism', a view according to which the mental and the physical are not distinguishable kinds of substance, but distinct families of properties (Chapter 11). Dualisms of this sort have troubles of their own, and have been much discussed in recent years. I have elected to dwell on substance dualism here partly in hopes of encouraging a fresh look at a range of well-worn issues. Descartes is probably wrong, but he is not stupidly wrong.


E. J. Lowe defends a version of substance dualism in Subjects of Experience (1996). Lowe argues that minds are simple substances distinct from bodies that house them and with which they interact, but with an important caveat: minds are not immaterial substances. The position is discussed in some detail in Heil (2004, chapter 4).

3 Descartes's Legacy

3.1 Dualism without Interaction: Parallelism

Cartesian dualism stumble in attempting to accommodate mind-body interaction. Minds and bodies evidently interact causally. Your decisions lead you to act and so to move your body in particular ways. The material world impinging on your body gives rise to conscious sensory experiences. As you have discovered, however, it is hard to see how such interaction could occur if minds are unextended, nonmaterial substances and bodies are extended, material substances.

Some of Descartes's successors sought to massage dualism so as to resolve the problem of mind-body interaction while preserving what you might regard as Descartes's core insights. What would happen, for instance, if you simply dropped the requirement of causal interaction? In so doing, you would move to a doctrine called 'psycho-physical parallelism' or, for short, 'parallelism'. Gottfried Wilhelm von Leibniz (1646–1716) is perhaps the best known proponent of parallelism, although my focus here will not be on Leibniz's considered view but on a simpler alternative.

A proponent of parallelism accepts Descartes's bifurcation of the world into extended material substances and unextended mental substances. Parallelists deny, however, that mental and material substances interact causally. This appears to fly in the face of ordinary experience. It seems obvious that going-on in your mind affects your body, and through it, the material universe beyond your body. It seems no less clear that events and objects in the universe have an impact on your mind by way of their effects on your body.

Consider again your sitting on a tack planted by a practical joker. You sit on the tack, experience a sharp, painful sensation, and leap from your chair. This sequence of events includes both mental and material events that are, to all appearances, causally related. A defender of parallelism, in contrast, insists that these appearances are deceptive. The parallelist's picture is captured by Figure 3.1 (compare Figure 2.2).

Minds, parallelists grant, appear to interact with the material universe, but this appearance is a mere appearance. Sequences of events involving minds,
mental events, and sequences of material events run in parallel: co-variation without causal interaction. Your sitting on a tack (a material event) precedes your sensation of pain (a mental event). You undoubtedly have the clear impression that the former brought about the latter. In this you are mistaken, however. Similarly, when you form a desire to leap upward and subsequently leap, you have the impression that your feeling of pain and its attendant desire to leap caused your leaping, but it did not. Events in the mind systematically co-vary with events in the material universe, but there are no mental–material causal connections.

Now, you know that A's can co-vary with B's without its being true that A's cause B's. If the co-variation is extensive and systematic, however, it would be natural to seek a causal explanation: perhaps A's and B's are themselves caused by C's. A squeaking from under the hood of an acquaintance’s vintage DeSoto is inevitably followed by the motor’s quitting. The motor’s quitting co-varies with the squeaking, but is not caused by it. Rather some mechanical condition produces both the squeaking and the motor's quitting.

What explanation has a parallelist to offer for the fact that sequences of mental events co-vary systematically and universally with sequences of material events? One possibility is that this is just a brute fact about our universe, a fact not admitting of further explanation. Such a response is scarcely satisfying, however. In the context, it appears embarrassingly ad hoc. True, all explanation comes to an end somewhere. Fundamental facts uncovered in physics might themselves be incapable of explanation. Such facts would function as unexplained explainers. But the notion that the delicate pattern of co-variation of the mental and the material is an inexplicable brute fact appears to be motivated solely by a wish to preserve dualism. This is painfully evident given that a straightforward explanation appears to be available: mental events co-vary with material events because material substances and material substances interact causally! To be sure, this explanation would require that parallelism be abandoned, but that is the parallelist’s problem, not anyone else’s.

Another defense of parallelism invokes God. God intervenes to ensure that mental and material sequences run in parallel. You might think that an appeal to God to account for the co-variation of mental and material events is obviously unpromising. God is not a material substance. Indeed, according to Descartes, God is not a mental substance either: God is a substance of a third sort (a substance whose defining attribute is perfection). But if that is so, how is it any easier to understand how God could affect the course of material events than it is to understand how finite material substances could do so? All the difficulties associated with Cartesian interactionism appear to arise all over again.

Perhaps this is unfair to the parallelist. A parallelist need not envisage God as continually adjusting or ‘tuning’ the course of mental and material events. Rather God might create, once and for all, a world containing both material substances subject to unalterable natural law and mental substances, subject, perhaps, to psychological laws. The world is designed in such a way that events in the mental realm co-vary with events in the material realm. The model is a clockmaker who constructs a pair of perfectly synchronized chronometers the movements of which mirror one another, not because they are causally linked, but because the internal adjustments in one clock perfectly match the internal adjustments in the other. (See Sobel 1995 for an account of just such a clockmaker.)

Even so, the parallelist’s appeal to God is not much of an improvement over the brute fact account. Indeed, the appeal to God appears to be just a gussied up way of saying that mental–material co-variation is a brute, inexplicable fact. Were there independent grounds for believing that God exists and acts in the way required by parallelism, matters would be different. In the absence of such independent grounds, the appeal to God is an appeal to a Deus ex machina, a contrived solution to an otherwise intractable problem.

### 3.2 Occasionalism

A variant of parallelism, ‘occasionalism’, accords God a more active role in the world. Occasionalism is most often associated with the writings of Nicolas Malebranche (1638–1715), although Descartes himself might have had occasionalist leanings. My discussion will focus on occasionalism as a philosophical doctrine, and omit historical subtleties.

Parallelism envisages systems operating independently, but side by side, in the way an automobile on a highway might shadow a train. Occasionalism makes God actively responsible for the existence and character of every sequence of events. When you sit on a tack, God ‘occasions’ or wills the occurrence of a sensation of pain in your mind (see Figure 3.2). God’s acting in this instance resembles, but is taken to be different from causing.

You might have difficulty seeing occasionalism as an advance over parallelism, and difficulty seeing either doctrine as an improvement on Descartes’s original version of dualism. The sticking point for Descartes is the difficulty of understanding how unextended mental substances could interact causally with extended material substances. Parallelism and occasionalism concede
3.3 Causation and Occasionalism

How might an occasionalist respond? Occasionalism is motivated in part by a general thesis about causation. Suppose, as most philosophers do suppose, that causation is a relation holding among events: one event, the cause, brings about another event, the effect. Your striking a billiard ball with a billiard cue, one event, brings about the billiard ball's rolling in a particular direction, a second event. The difficulty is to understand what exactly such 'bringing about' amounts to. We ordinarily distinguish cases in which one event merely follows or accompanies another, from those in which one event is causally responsible for another. But what is the basis of this distinction? This is the problem of the causal nexus: when events are linked causally, what is the character of the linkage?

Descartes thought of the causal nexus in terms of transference: when you strike the billiard ball with a billiard cue, a quantity of motion is transferred from the cue to the ball. More recent versions of this conception of causation take causal connections to involve energy transference. Appealing as this might seem, it is just this feature of Descartes's conception of causation that leads to difficulties in understanding how mind-body interaction could be possible. If minds and bodies share no properties, how could either cause a change in the other if causation requires the transfer of some quantity?

One possibility is that, with respect to causation, Descartes was mistaken: there are no genuine links between events, no transference, only bare event sequences. Scientists, then, might regard two events as standing in a causal relation, not because they observe the first bringing about or inducing the second, but because the event sequence resembles sequences they have previously observed. A view of this kind is associated with David Hume (1711-76).

Note that, although tempting, it would be misleading to describe such a view as one that denies that events are causally related. The idea rather is that this is just what particular causal relations amount to: a causal sequence is nothing more than an instance of some universal regularity. Your striking the billiard ball now (a particular, dated event) causes it to roll across the table (another particular event), just in case it is true that, whenever an event of a kind similar to the first occurs, an event of a kind similar to the second occurs as well.

Hume was hardly an occasionalist, but his influential observations on causality bear on the occasionalist hypothesis. (Indeed, Malebranche, the best known occasionalist, advanced 'Humean' arguments long before they occurred to Hume.) If causal relations boil down to nothing more than regularities, the co-variation of events of particular sorts, then it is a mistake to regard the absence of a mechanism, a nexus, or a causal link between mental events and material events as a special problem. On the contrary, there are no such links, not even among events in the material universe. To be sure, we are often under the impression that we have observed connections among events, real bringings about. But according to Hume this is merely a 'projection' of our conviction that, when an event of a given sort occurs (the striking of a billiard ball by a billiard cue), an event of another sort (the ball's moving in a particular way) will follow. And this conviction arises in us after we have been conditioned by prior observations of similar event sequences.

If causal relations boil down to regularities among types of event, then there is nothing especially problematic or mysterious about mental events causing material events. The appearance of a problem stems from the tacit assumption that causal relations require an intervening mechanism or link. If no mental-material links are discoverable, that is scarcely surprising. They are absent as well from ordinary sequences of material events. Cartesian and parallelist pictures of mental causation are, on such a view, indistinguishable.

Where does this leave occasionalism? Occasionalists might argue that, in the absence of a causal nexus, a connecting mechanism or linkage between causes and effects, we require some explanation for the pattern of regularities among kinds of event we find in the world. These regularities encompass purely material event sequences as well as sequences involving both mental and material components. When an event of one kind is invariably followed by an event of another kind, this is not because events of the first kind somehow instigate or bring about events of the second kind. Events are discrete, entirely self-contained occurrences; no event has the power to produce another event. How then are we to explain the obvious fact that event sequences are tightly structured, regular, and orderly? Their orderliness is captured by scientific theories, which postulate natural laws, and it is enshrined in everyday causal generalizations.
At this point the occasionalist invokes God. If events are discrete, wholly self-contained episodes, the occurrence of one event cannot by itself account for the occurrence of any subsequent event. The occurrence of every event is, in an important sense, miraculous. God, as it were, creates every event ex nihilo - from nothing. One way to think about a view of this sort is to imagine that the universe is divided into momentary temporal stages or segments (Figure 3.3).

Alternatively, you could think of the universe over time as comprising a sequence of numerically distinct universes, each universe differing slightly from its predecessor in something like the way each image on a movie film differs from the image preceding it. In the billiard ball example, the cue's striking the ball belongs to one temporal segment (one universe), and the ball's subsequent rolling belongs to subsequent temporal segments (each a distinct universe). Every segment in the sequence that makes up what we commonly regard as our universe must be created anew: continual creation. God provides the connecting thread.

Let me pause briefly to say something about my use of 'universe' here and elsewhere in the book. By 'universe', I mean the all-encompassing totality of material reality of the kind investigated by fundamental physics. Some physicists have speculated that 'our universe' is just one among many universes, each with its own space-time and its own distinctive laws of nature. As I am using the term, however, this 'multiverse' would be the universe. Talk of 'our universe' would amount to talk of one constituent of the universe, one self-contained space-time, the one you and I happen to inhabit.

It is widely held that no event in the universe could account for the existence of the universe (a universe that includes that event as a part). And if what we call the universe is more accurately thought of as a sequence of metaphysically independent universes or universe stages, it follows that no event in any stage in the sequence can account for any event in a subsequent stage. You have a choice it seems. You could accept the existence and character of each stage in the sequence as a brute, inexplicable fact; or you could explain the existence of the sequence by postulating a powerful, benevolent God. God wills anew each universe in the sequence of universe stages in accord with a divine plan. You can rest content that the sequence will preserve the kind of complex order you would find were you to engage in scientific inquiry because you can be confident that it belongs to God's nature to do so (Figure 3.4).

The movie analogy can help make this clear. Although sequences of images on a movie screen appear continuous, and events in those images appear causally connected, in fact no image-event is causally responsible for any other image-event. The sequence of events depends on goings-on outside the sequence: the operation of a system consisting of a projector and reels of film. (The projection system fills the role occupied by God in Figure 3.4.) This does not prevent us from making predictions about sequences of images: an image of a falling vase will be followed by an image of the vase's shattering on the floor. But the causal story here is not 'horizontal', not one that holds across sequences of images, but 'vertical': each image is produced by something outside the sequence.

This is the picture, but what can be said for it? An occasionalist can point out that it is one thing for a scientist to allow that the existence of a single universe is simply a brute fact, a fact for which there is no explanation. It is quite another matter, however, to hold that each member of a patterned sequence of metaphysically independent universe stages is a brute fact. If no event in any stage accounts for the occurrence of that stage or the occurrence of any event in any other stage, then, it would seem every fact is merely a brute fact!

Suppose you find this conclusion unappealing but you accept the occasionalist's conception of the universe as a sequence of momentary, self-contained universe stages. You then seem faced with a choice. Either every fact is a brute, unexplained and unexplainable fact (Figure 3.3), or God exists and provides an explanation for things being as they are (Figure 3.4). In this case, unlike the case of parallelism, God is offered as a plausible explanation of an otherwise baffling state of affairs. Of course, you might question the occasionalist's take on causation, and question as well the notion that the universe is a sequence of metaphysically independent momentary stages. But then it is up to you to provide a plausible alternative.

If nothing else, these reflections make it clear that you cannot hope to evaluate claims about minds and the material universe without first coming to grips with a host of fundamental metaphysical issues. Whatever plausibility
occasionalism possesses rests in large measure on a particular metaphysical conception of causation. If the occasionalists are right about causation (and right, as well, about mental and material substances), then they are in a relatively strong position. Before you can evaluate the occasionalist’s brand of dualism, however, you will need to build up your grasp of the metaphysical options.

3.4 Idealism

Parallelism and occasionalism imply that our impression that minds and bodies affect one another is an illusion. You make up your mind to wave and subsequently wave. It might seem to you that your decision brings about your waving. But that is not so—or, if it is so, it is only because God ensures that, in the universe segment subsequent to the universe-segment in which you decide to wave, you wave.

Suppose you go further, however, and suppose you allow that, not only is the impression of mind-body causal interaction an illusion but that the material universe is itself an illusion! You have experiences that you would describe as experiences of material objects and events existing outside your mind, 'out there', but these are at bottom nothing more than elaborate and prolonged hallucinations. Of course, everyday activities lack the peculiar dreamlike character of dreams, but that is just because everyday experiences are more orderly, regular, and unforgiving.

On a view of this sort, 'idealism', the world consists exclusively of minds and their contents. (On a variant of idealism, 'solipsism', the world is just a single mind — your mind — and its contents.) There are no nonmenal material objects or events, hence no worrisome causal interactions between minds and mind-independent material objects, no mysterious parallelism between independent mental and material realms. We explain the regularity and order we find in our experiences, not by reference to a regular and orderly material universe, but by reference to the intrinsic nature of minds (Figure 3.5) or by postulating that the order is secured by a benevolent God who ensures that our ideas occur in orderly, hence predictable, patterns (Figure 3.6). (The Irish philosopher and Anglican bishop, George Berkeley [1685–1753] is the most famous proponent of the latter view.)

Idealism has the advantage of saving the appearances. If idealism is true, then your experiences of the universe would be no different in any way from what they would be were the universe populated by material objects. Idealism does not imply that what appear to you to be solid, extended material objects would take on a ghostly air. On the contrary, you would have experiences 'as of' solid extended objects and spatial expanses, just as you sometimes do in dreams.

Suppose you set out to disprove idealism by conducting experiments designed to establish the existence of mind-independent material bodies. These experiments might be crude—as in the famous episode of Dr. Johnson’s kicking a large stone and announcing 'thus I refute Berkeley' — or sophisticated—including, for instance, the deployment of expensive detectors to identify the material particles that science tells us are the building blocks of a mind-independent reality.

An idealist will point out that experimentation is a matter of arranging matters so as to yield certain observations. Your kicking a stone provides observational evidence of an especially vivid sort that the stone exists. A scientist’s observation of a particular kind of streak in a cloud chamber provides rather more indirect evidence that an alpha particle has passed through the chamber. Observations are conscious experiences, however, and so do not carry us outside the mind. Further, our experimental equipment—stones, Arwood machines, cloud chambers—are, if the idealist is right, no less mental. What is a stone or a cloud chamber other than something that looks a particular way, feels a particular way, sounds a particular way, and so on? Looks, feels, and sounds, are just conscious sensory states! Experiment, the idealist concludes, cannot hope to provide grounds for inferring the existence of anything nonmental.

Idealism certainly covers the bases. It banishes problems associated with causal interaction between minds and the material universe, and it does so in a way that by-passes worries associated with parallelism and occasionalism. Rightly understood, idealism is consistent with all the evidence you
could possibly muster. Moreover, idealism has a kind of elegant simplicity of the sort valued in the sciences. Idealism postulates nothing more than minds and their contents and explains all the phenomena by appeals to these without needing to resort to messy theories concerning extra-mental material objects and events.

Even so, you are likely to find idealism hard to swallow. This could be in part because idealism appears to take the easy way out. Idealism explains the appearances by identifying the appearances with reality. Most of us, however, hold out hope that there might be some way to keep the distinction and to reconcile our minds and their contents with a nonmental, mind-independent, material universe. In the end, we might be forced to accept idealism. But until we are forced to accept it, we can continue to seek less dramatic alternatives.

3.5 Mind and Meaning

Having expressed reservations about idealism, I should note that, traditionally, idealists have not offered idealism simply as a happy alternative to Cartesian dualism. At the heart of most species of idealism is a view about meaning and the contents of our thoughts. Idealists argue that opposing views, views that sharply distinguish a mind-independent universe from minds and their contents, are not simply false, but are literally unimaginable. True, belief in an 'external world', a world outside the mind, might not immediately strike you as unimaginable. According to the idealist, however, once you understand what is involved in the having of particular thoughts, you can see that such beliefs are in fact nonsense: thoughts of a universe of mind-independent material objects are literally unthinkable. The upshot is that there really are no options, no coherent alternatives to idealism!

This is a stunning thesis. If true, idealism would appear to be unassailable. This is not the place to examine idealists' arguments in detail. Let us look, rather, at a streamlined version of the kind of argument to which idealists might appeal.

The line of argument I have in mind was perfected by Bishop Berkeley. Berkeley was not interested in showing that there is, as a matter of fact, no material universe but only minds and their contents, or that idealism enjoys subtle metaphysical or explanatory advantages over its dualistic competitors. His aim was to show that, in the final analysis, there are no serious competitors. Berkeley holds that when philosophers attempt to talk about the material universe, they are endeavoring to talk about something literally inconceivable. More starkly: philosophical talk about a mind-independent material universe is not talk about anything at all. Dualistic hypotheses, then, are not merely false or implausible; they altogether lack meaning.

Consider, says Berkeley, what you are talking (or thinking) about when you talk (or think) about familiar objects: tables, stones, cats. You are talking (or thinking) about things that look, sound, taste, smell, and feel a certain way. But the sounds you hear, the looks of things, their tastes, and feels are not external to you, not entities present outside your mind. They are simply experiences of certain characteristic sorts. You commonly distinguish your experiences of things from the things, of course, but Berkeley is out to convince you that this is an empty distinction.

Imagine that you are now perceiving a ripe tomato in bright sunlight. You have a particular visual experience of a reddish spherical sort. If you grasp the tomato and bite it, you will have additional tactile, olfactory, gustatory, and auditory experiences: the tomato feels, smells, and, when you bite it, tastes and sounds a particular way. Berkeley argues that your thoughts about the tomato are exhausted by these sensory features. When you think about the tomato, your thought concerns something that looks, feels, smells, tastes and sounds a particular way. But, again, looks, feels, and the rest are, properly understood, nothing more than qualities of conscious experiences; and conscious experiences are mental phenomena.

So your thoughts about the tomato are, in the end, thoughts about certain characteristic mental episodes. It makes no sense to suppose that mental episodes – Berkeley calls them 'ideas' – could exist outside the mind, however. Your thoughts about tomatoes, then, are really thoughts about mental goings-on: conscious experiences of particular kinds you have had, or would have under the right conditions. Materialist philosophers tell us that these experiences correspond to and are caused by a mind-independent tomato 'out there'. But, when you examine your conception of tomatoes, you will find only experiences. You will find nothing answering to the expression 'mind-independent tomato'. The expression 'mind-independent tomato', then, is empty of significance. In that regard, it resembles 'colorless green ideas'. You can utter these words, but they signify nothing. You could, as well, entertain a thought that you might describe as a thought of colorless green ideas. But in so doing you entertain an empty thought, a thought with no content.

You might think that there is an obvious response to this line of reasoning. Of course, you say, anyone can think of a mind-independent tomato. Nothing could be easier. Mind-independent tomatoes resemble our tomato experiences: they are red, spherical, and acidic. You could think of a mind-independent tomato by entertaining thoughts of the kinds of conscious experience you might normally have in the presence of tomatoes, and appending to these thoughts the thought that they are of something outside the mind, something 'beyond' those experiences.

Berkeley quickly dismisses moves of this kind. Experiences, he contends, could only resemble experiences. In setting out to imagine a mind-independent tomato, you, in effect, call to mind certain familiar kinds of experience, then subtract from these the idea that they are experiences! This, Berkeley argues, is nonsense. It resembles calling to mind the idea of a triangle and then subtracting from this idea that it is three-sided. You are left with nothing but an empty thought. Of course, you still have words:
\[ \text{unexperienced, mind-independent tomato} \text{, triangle without three sides}. \]

But the words lack significance, lack potential application to anything in the world. In the former case philosophers have not noticed this difficulty. We have persisted in prattling on about a mind-independent universe in the way a child might prattle on about a triangle that is not three-sided.

The conclusion – a universe of material objects residing outside the mind is literally unthinkable – seems outrageous. But why? Suppose idealism was true: all that exists are minds and their contents. How would your everyday experiences, or for that matter, experiences of scientists in their laboratories, be different than they would be were idealism false? The answer, according to Berkeley and other idealists, is that nothing would be detectably different. If that is so, however, it is hard to accuse idealists of confuting ordinary expectations. What idealists deny is simply a certain unmotivated philosophical interpretation of these expectations. In rejecting material objects, idealists insist that they are not rejecting tables, trees, galaxies, and the like. Rather, they are rejecting the notion that ‘table’, ‘tree’, and ‘galaxy’ designate fanciful mind-independent material objects. The terms in fact designate collections of actual and possible experiences, ideas in Berkeley’s special sense.

Idealism, despite its initial implausibility, is notoriously difficult to confront head-on. Rather than rehearsing detailed arguments against idealism here, I propose to move forward and discuss alternative views. It might turn out that there are grounds for preferring one or more of these to idealism, even though there are no obvious chinks in the idealist’s armor. My own suspicion is that idealism represents a kind of failure of nerve: unable to reconcile minds and the material universe, the idealist gives up the game and stuffs the material universe inside the mind.

### 3.6 Epiphenomenalism

Descartes depicts minds as causally interacting with the material universe: events in the material universe produce experiences in minds, and mental events yield bodily motions. You have seen that this kind of two-way causal interaction is difficult to reconcile with the conviction that the material universe is causally self-contained: the causes of every material event are exclusively material. Suppose, however, you granted that the material universe is ‘causally closed’, but allowed that material events can have mental by-products. Mental events exist. Mental events are effects of certain material causes. But no mental event has a material effect; no mental event affects goings-on in the material universe. Mental events are ‘epiphenomena’, incidental ‘side-effects’ of material phenomena, that themselves yield no effects of any kind (see Figure 3.7).

Epiphenomenalists regard mental phenomena (consciences experiences, for instance) as by-products of occurrences in complex physical systems. Mental phenomena resemble heat produced by a computing machine, or the shadow cast by a billiard ball rolling across a billiard table, or the squeaking noise produced by a pair of new shoes. The heat, the shadow, and the squeaking noise play no causal role in the operation of the systems that produce them. Of course, the heat, the shadow, and the squeaking noise are themselves material phenomena, and so have straightforward physical effects: the heat triggers a fan, the shadow alters the distribution of light radiation in the region on which it falls, and the squeaking produces minute vibrations in the eardrums of the person wearing the shoes and nearby observers. Mental phenomena, in contrast, are wholly epiphenomenal: mental phenomena have no effects whatever – material or mental. (And their production apparently involves no expenditure of energy)

Epiphenomenalism, at first glance, appears to fly in the face of common experience. Surely your experience of pain as you move your hand too close to the fire is what brings about your matching it away. And surely your deliberation and subsequent decision to obtain a Whopper are what lead you to pull into the Burger King drive-thru. According to the epiphenomenalists, however, all the causal work in these cases is done by events in your nervous system. Those events have, as a by-product, the production of certain conscious experiences, perhaps. The conscious experiences, however, are causally inert. They appear to have causal efficacy because they are caused by, hence invariably accompany, material events that themselves reliably produce various kinds of effect. Suppose a loose fan belt causes both the overheating of your friend’s DeSoto and a distinctive whistling noise. The whistling accompanies, but does not cause, the overheating. According to the epiphenomenalists, this is how it is with mental phenomena generally.

The fact, then, if it is a fact, that it feels to you as though your states of mind make a causal difference in what you do is entirely consistent with the truth of epiphenomenalism. In deciding to reach for a Whopper and subsequently reaching, you have the distinct impression that your decision is responsible for your reaching (or, at any rate, that it contributed to the occurrence of that material event). Certainly, you can count on your body’s moving in ways that reflect your decisions. And it could be true that, had you not decided to reach for the Whopper, you would not have done so.
does not follow, however, that decisions—kinds of mental event—themselves move anything. If epiphenomenalism is right, then the cause of your body's moving is some neurological event. This neurological event has, as an inevitable auxiliary effect, a conscious decision—just as, in Figure 3.7, a neurological event, \( E \), yields both a desire to leap—a mental event—and a subsequent leaping.

Neuroscientists have sometimes found epiphenomenalism attractive. In studying brain function, if you accept epiphenomenalism, you can safely ignore 'phenomenal' characteristics of mental phenomena altogether, and focus exclusively on physical mechanisms and processes in the brain. If mental phenomena are epiphenomenal then they are undetectable (except, presumably, by those undergoing them), and they could make no difference to anything that transpires in the material realm. This would leave neuroscientists free to explore mysteries of the brain without having to concern themselves with the messy details of conscious experience.

Epiphenomenalism faces a number of difficulties, however. First, a familiar difficulty, the nature of body-to-mind, material-to-mental causal relations, is none too clear. Many philosophers accept the idea that causal relations hold among events. The epiphenomenalist contends that some material events cause mental events, but mental events cause nothing. You might think that there would be no harm in allowing that mental events could cause other mental events. After all, mental events (according to the epiphenomenalists) have no material effects, so causal relations among mental events would pose no threat to the causal integrity of the material universe. But this possibility is out of step with the epiphenomenalist's broader picture. If mental events could themselves cause other mental events, then a mental event could have a life of its own. It is of the essence of epiphenomenalism, however, that mental events are exclusively by-products of material goings-on.

Epiphenomenalists suppose then that mental events, although themselves causally inert, are induced by material events. 'Dangling' causal relations—the expression comes from Herbert Feigl by way of J. J. C. Smart—of this sort differ from ordinary causal relations, however. In the case of ordinary material causation, events are both effects (of prior events) and causes (of subsequent events). So, causal transactions that include mental events appear to be dramatically different from those encountered elsewhere in the universe. You might wonder, for starters, whether a material event's causing a purely mental event might not after all require energy departing the material universe in violation of conservation principles fundamental to physics.

Perhaps such considerations by themselves pose no serious threat to epiphenomenalism. At most, they are consequences of the epiphenomenalist's conception of mental events, so pointing them out amounts to little more than restating the epiphenomenalist thesis. Nevertheless, it seems clear that, if an alternative view were available, one that accounted for all that epiphenomenalism accounted for, but that did so without recourse to a special kind of causal relation, that view would be preferable.

This way of thinking invokes the Principle of Parsimony or Ockham's Razor (named in honor of William of Ockham, 1285–1347). Ockham's Razor bids us not to multiply entities beyond necessity. The idea is that simpler, more parsimonious, accounts of phenomena, accounts that refrain from introducing new kinds of entity or process, are preferred to less simple competitors. The notion of simplicity in play here is notoriously difficult to spell out. And, of course, there is no guarantee that nature is governed by the simplest possible laws. Such matters, however, needn't detain us. We are bound to judge competing theories on their merits. You could think of Ockham's Razor, not as a principle that tells us how the universe is organized, but as one that encourages us to place the burden of proof on proponents of 'less simple' theories. If an alternative to epiphenomenalism avoids 'dangling' causal relations, then the burden is on the proponent of epiphenomenalism to convince us that epiphenomenalism nevertheless affords a better account of the phenomena.

Suggested Reading

Malebranche's defense of occasionalism can be found in Dialogues on Metaphysics and Religion, (1688). Leibniz advances a version of parallelism in his Monadology (1787). Berkeley's idealism is discussed at length and defended in his Treatise Concerning the Principles of Human Knowledge (1713); and in Three Dialogues between Hylas and Philomous (1710). John Foster brings idealism up to date in The Case for Idealism (1982) and The Immaterial Self (1991). Howard Robinson's Objections to Physicalism (1993) includes contemporary essays defending various immaterialist doctrines including idealism. For more recent discussion of the territory see Gillett and Lower's Physicalism and Its Discontents (2001).

Victor Caston, 'Epiphenomenalism Ancient and Modern' (1997), provides a historical look at epiphenomenalism. Epiphenomenalism is described and defended by T. H. Huxley in his Methods and Results: Essays (1901). See also C. D. Broad's The Mind and Its Place in Nature (1925), chapter 3. Nowadays, epiphenomenalism is most often taken to concern, not mental events, but mental properties: an object's possession of mental properties makes no nonmental difference. Brian McLaughlin's 'Type Epiphenomenalism, Type Dualism, and the Causal Priority of the Physical' (1989) affords an excellent account of what McLaughlin calls 'type epiphenomenalism'. Frank Jackson's defense of property-epiphenomenalism in 'Epiphenomenal Qualia' (1982) has been widely influential. Taking Jackson to heart, David Chalmers, in The Conscious Mind (1996), develops an account of consciousness with strong epiphenomenalist tendencies.

Recent work in neuroscience has suggested to some that conscious decisions are in fact epiphenomenal on the grounds that decisions seem to occur after the onset of neural processes that lead to actions. The work of Benjamin Libet is most often cited in this regard. See Libet's 'Unconscious Cerebral
4 Behaviorism

4.1 Moving Away from Dualism

Chapter 2 began with an examination of Descartes's contention that minds and material bodies are distinct kinds of substance, distinct things. Chapter 3 took up an assortment of related views, each of which could be spun out from a Cartesian starting point by rejecting or modifying one or another of its trademark components. This chapter and the chapter to follow, explore two materialist accounts of the mind.

Materialists deny that the universe includes both mental and material substances. Every substance is a material substance, every property a material property. Minds are fashioned from the same kind of elementary component that makes up rocks, trees, and stars. If you took fundamental particles and arranged them one way, the result would be a granite boulder; differently arranged, the outcome would be a theoretical physicist. The mind is not a separate, nonmaterial entity, but only matter, suitably organized.

Materialism has a long history. Democritus (c. 460–370 BC) described the universe as a fleeting arrangement of atoms swirling in the void. Hobbes (1588–1679) and La Mettrie (1707–51) argued that mental phenomena were nothing more than mechanical interactions among material components of animate creatures. On such a view, plants and animals, including human beings, would be complex machines. Nowadays, materialism of one stripe or another is more often than not simply taken for granted; in David Lewis's words, materialism is non-negotiable. In any case, the belief that minds are just brains is evidently widespread. Francis Crick's recent characterization of this as 'the astonishing hypothesis' flies in the face of my own experience with undergraduate philosophy students who often seem happy to use 'mind' and 'brain' interchangeably.

Although many philosophers would, if pressed, describe themselves as materialists, materialism is not a single unified doctrine, but a family of divergent doctrines. Indeed, disagreements among materialists tend to overshadow their common rejection of dualism. More significantly for our purposes, dissatisfaction with various materialist precepts has led to a revival of interest in forms of dualism. Surprisingly, much of this renewed interest...