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Mind-Brain Dualism and Its Place in Mental Health Care

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Abstract

This chapter begins by setting out and explaining the doctrine of "substance dualism", according to which the mind and the brain are distinct and mutually independent "substances". It then examines the merits and deficiencies of dualism, in comparison with those of alternative theories, in answering questions about the nature and treatment of mental disorder, its similarities and differences from bodily illness, and the relation between mental disorder and brain dysfunction. The alternative theories considered are the mind-brain identity version of materialism, and Merleau-Ponty's conception of human beings as "embodied subjects".

Introduction

The nature of human mental life and its relation to biological life, and especially the operations of the brain, is a central theme in general philosophy. Since health care is concerned with maintaining and restoring human well-being, both mental and

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bodily, this is also a theme for philosophical reflection about health care. Such reflection is not just theoretical: our answers to questions about the relation between the mental and the bodily have a bearing on the kinds of treatment which are appropriate for mental and bodily disorders.

Various questions arise. First, are mental disorders properly seen as "illness," in the sense in which that term is understood in modern, scientific, medicine? (The answer to this question requires thought about how terms like "illness" and "disease" *are* understood in modern medicine.) Second, if the answer to the first question is "Yes," then how is mental illness related to bodily, especially brain, disorder? Is mental illness totally distinct from brain disorder? Or are "mental" disorders just a subclass of brain diseases? Or is mental illness the *causal product* of brain disease? Or, finally, is all illness a combination of "mental" and "bodily" elements, so that the alleged distinction between mental health and bodily health is, at best, *pragmatic* – useful for some purposes, but with no sound philosophical foundation?

These are the questions which will be considered in this chapter. To prepare the ground, however, we must first very briefly survey some of the main positions adopted by philosophers on the general problem of relations between "mind" and "brain" and their implications for health care.

Descartes, Dualism, and Medicine

Much of the agenda for modern philosophy, and indeed for the modern world, including the development of scientific medicine, was set in the seventeenth century by René Descartes (1595–1650). Descartes was dissatisfied with what had been presented in his own education as "knowledge" about the world. Knowledge worthy of the name – what we would call "science" – should, it seemed to him, have a basis in what could meet the scrutiny of that *reason* with which all human beings were endowed. What passed for knowledge in his own day, however, was better described as a set of *opinions*, supported by tradition, authority, or uncritical common sense, rather than reason, that is, by evidence that anyone could *see* to be reliable when examined in an unprejudiced way. He therefore resolved to find such a reliable foundation, using a "method of doubt." The program was to subject to the most searching doubt all those beliefs which he had previously taken as established: if any reason to doubt them, however slight, could be found, then he should for the time being treat them as if they were false. If, however, he could find a belief which could not be doubted, then the grounds on which he accepted it could be taken as a reliable foundation on which a whole structure of dependable knowledge could be based.

Using the method of doubt led, Descartes thought, to only one belief which could serve as a foundation in this sense. This was the belief in his own existence as a thinking being, which could not be doubted because doubt would be self-defeating. Even to doubt the existence of other things, the things one thought *about*, one must indubitably exist oneself and have at least the capacity for thought (since doubting involves thinking). Descartes concluded from this that he could exist as a thinking being whether or not anything else existed. (Most critics would reject this inference,

arguing that from the fact that one may *doubt* the existence of one thing but may not doubt the existence of another, it does not follow that the *existence* of the latter is not dependent on that of the former). In the terminology that he used, that meant that the thinking self was a distinct "mental *substance*," where "substance" meant a being which could exist independently of anything else. Conversely, he concluded that all the objects that he could think about, including his own body, constituted an entirely separate substance, "material substance," since their existence does not require the presence of a thinking substance. A human being, therefore, was a composite of two quite independent substances, mental and material, or "mind" and "body." This is the doctrine known as "substance dualism," the conception of the world, including ourselves, as made up of two types of stuff – mental and material.

In order to be logically independent in their existence, two substances must be different in their "essences": that is, they must each have defining characteristics which are peculiar to them and not found in the other substance. Descartes argues that the essence of mental substance is *thought*, *reason*, or *consciousness*; that of material substance is *extension*, or the property of occupying space – having a spatial location, being able to move from one such location to another, having spatial dimensions, etc. Because these are distinct essences, nothing mental can have, say, a spatial location (e.g., a thought cannot be 2 cm from another thought); and nothing material can have any property which depends on thought (a boulder, for instance, cannot have a *purpose* in rolling downhill). Thus, the explanation of mental life must be different in kind from that of processes in the material world. We can explain why someone felt angry at someone else by giving his reasons for feeling that way (he found the other's words insulting, say): but the brain processes which occurred when he felt angry – the electrochemical movements in his neurons, for instance, cannot, for the dualist, be any part of the explanation of his anger. Equally, however, the feeling of being insulted cannot be part of the explanation of why just these brain processes occurred then: for that, according to dualism, we need a more "mechanistic" explanation in terms of purely physical and chemical processes.

One main reason which Descartes had for seeking reliable foundations for science was his conviction of the need to establish medicine on a sounder, more scientific, basis. The maintenance of health, he says in his best known work, the *Discourse on the Method*, is "the chief good and the foundation of all the other goods in this life" (Descartes 1985, p. 143). If we had a medicine which was based on a reliable understanding of the causes of the diseases and infirmities of body and mind, therefore, we could use it to free ourselves of these infirmities, and so make human beings "wiser and more skilful than they have been up till now" (Descartes 1985, p. 143).

As far as the infirmities of the body were concerned, reliable understanding, according to the argument given above, required seeing them as like the dysfunctional performance of a machine – a clock which could not tell the time correctly, for instance. The human (or animal) body was, after all, according to dualism, a part of matter or material substance, whose movements could be explained "mechanistically," as the result of the purposeless movements of particles of matter from one position in space to another – just like the movements of clockwork. Bodily

processes, both normal and abnormal, are just physicochemical processes governed by the laws of nature, that is, according to Descartes, the laws of mechanics (see Descartes 1985, p. 139). A good example of this, which impressed Descartes greatly, was the discovery by his English contemporary, William Harvey, of the circulation of the blood. This phenomenon could be explained mechanistically, Descartes reasoned, if one regarded the heart as a pump which pushed blood round the body. Then, certain kinds of heart disease could be seen as analogous to the failure of such a pump to be able to fulfill this function. This failure will itself be mechanically caused: so, if we can discover these causes, we can hope to devise methods of curing or preventing such maladies (see Descartes 1985, p. 316).

Descartes talks also of mental illness, but his account of the nature of mind makes it hard to explain what it consists in, how it can be explained, or how it can be treated. Mental substance, according to dualism, does not operate mechanistically: our bodies may be machines, but our minds cannot be. Their operations cannot be explained by the laws of physics, but only by reason. If we are to speak of mental *illness*, therefore, it must consist in failure to operate rationally. Does it make sense, however, to speak of a person as having reasons to think, feel, desire, or behave irrationally? In his *Fourth Meditation*, Descartes tries to explain why, despite the goodness of God, who does not wish us to be deceived and has given us the power of reason to discover the truth, we can nevertheless make mistakes. This is because, he says, "the scope of the will is wider than that of the intellect" (Descartes 1984, p. 40). We are, that is, inclined to rush to judgment about things that we do not fully understand. The will, however, is part of our minds and so governed by reason: how can we have rational grounds for rushing to form irrational beliefs? We could, perhaps, fail to use our powers of reasoning properly, especially about issues which require hard thought, and so get into difficulties, which could be described as mental *disorders*. Such disorders, however, could surely not qualify as *illness* in any medical sense, that is, in any sense where professional medical help is needed to help us overcome the difficulties. They require the help not of a doctor but of an educator (and some willingness on our part to make the effort to think more rationally).

Are Mental Disorders Illnesses?

We might, of course, simply deny that this is a problem: some would wish to deny, anyway, that there is such a thing as "mental illness," as opposed to difficulties which we may get into in our lives and which we may need help in dealing with – though not *medical* help. One of the best known of these "deniers" was the American psychiatrist, Thomas Szasz (1920–2012). In the book which first made him famous, *The Myth of Mental Illness* (1961), he proposed (as his title implies) that the whole idea of mental illness was a "myth." He had various reasons for this view. One of the most relevant, from the present point of view, was the claim that, according to ordinary usage, a condition could only be described as an "illness" if it is a deviation

from the "anatomic and genetic norms of bodily functioning" (Szasz 1972, p. 10). If that is correct, then the term "mental illness" must be self-contradictory and so logically absurd. This argument from common usage is questionable, however, since it is far from clear that common usage does restrict the application of the term "illness" to the outcomes of bodily dysfunction; and, even if it did, Szasz provides no reason for supposing that it would not be perfectly legitimate to extend common usage to include mental disorders in the class of illnesses. Szasz is also assuming that what we call "mental illness" *cannot* be the outcome of one kind of bodily dysfunction, namely, a deviation from norms of *brain* functioning. In a later work, he explicitly says, "However, diseases of the brain are brain diseases; it is confusing, misleading, and unnecessary, to call them mental illness" (Szasz 1997, p. 49). This statement is merely an expression of dogmatic dualism, however, unless it is supported by argument: one possible argument for it will be considered later, in section "The Brain and Mental Disorder."

A more subtle argument can be found in philosophers such as Christopher Boorse. In the 1970s, Boorse published a number of journal articles (Boorse 1975, 1976, 1977), in which he attempted to define concepts of health and illness in general. He later summarized his position in the light of further reflection and responses to criticism (Boorse 1997). At the heart of his view is a distinction between the concepts of disease and illness. "Disease," he claims, is a purely objective, value-free concept, which makes it the primary focus of medicine as a *science*. To call a state or process in any living organism "diseased" is, he argues, to say that, as a matter of fact, it deviates from the normal functioning of organisms of the relevant species. The normal functioning of an organ or a system is that which is in accordance with its "design." The use of the term "design" does not, he says, carry with it any evaluative connotations: to function in accordance with its design is neither good nor bad but simply to proceed in ways required for the pursuit of the goals which the organism happens to have. (In Darwinian evolutionary theory, e.g., organisms are treated as metaphorically "having the goals" of survival and reproduction.) A scientific medicine, however, is also one which seeks to *apply* science for practical human benefit (promoting human well-being), and this is where the concept of illness has its home. A disease is called an illness, Boorse then said, only if it is serious enough to be incapacitating and so undesirable for the person who suffers from it.

The concept of illness, as used in a genuinely scientific medicine, is thus logically dependent on that of disease: it is simply a kind of disease which we find undesirable. From this Boorse draws skeptical conclusions about the idea of *mental* illness. The reason for doubt seems to be that mental disorders like schizophrenia or depression, while they may qualify as "illnesses," in the sense of being conditions which we find undesirable, do not seem to be "diseases," in the sense of being objectively determinable deviations from the normal functioning of an organism in accordance with its design. Logically, not all members of a species can deviate from the design of that species, because of what "design" means. Psychological norms, however, may vary between different groups within the species: beliefs which are

considered bizarre in one society, for example, are considered perfectly normal in another. Nothing objective, like the possibilities of survival of a species, seems to depend on whether people, for instance, deludedly believe in witchcraft. If correct, this argument implies that what we call "mental disorder" is determined not by scientifically establishable facts but by purely subjective value judgments – by what people in any particular society generally regard as "bizarre" beliefs, or behavior, for instance.

Another possibility is to say that at least some recognized mental disorders are illnesses in exactly the same sense as bodily disorders, because they represent biologically harmful dysfunctions. One much discussed version of this view was proposed in the 1970s by the psychiatrist Robert Kendell (1975). Kendell defined an illness as a deviation from normality which conferred "biological disadvantage" (Kendell 1975, p. 310). Obvious examples of biological disadvantage, he thought, were increased mortality and reduced fertility, but "other impairments" (loc. cit.) might also be included. So any failure of normal functioning, bodily or mental, which could be shown to confer such disadvantages constituted an illness. To call something a "biological disadvantage" is, of course, to make a value judgment, though one with which most human beings in all cultures would probably agree. To say that some dysfunction confers biological disadvantage is thus to say something which is objectively (scientifically) verifiable. The rest of Kendell's argument consists in giving examples of recognized mental disorders which can allegedly be shown to confer biological disadvantage and so to qualify as "illness" in a straightforward medical sense. Schizophrenia, for instance, can, he claims, be shown to lead to reduced fertility. One problem with this kind of argument, however, is that it is easy to find examples of recognized mental disorders which do not seem to confer any of the *biological* disadvantages which Kendell lists, though they do confer what may be regarded in some cultures but not others as *social* or *psychological* disadvantages.

A more philosophically sophisticated attempt along the same lines is to be found in a number of articles published in the 1990s by the American philosopher Jerome Wakefield. Wakefield defines a disorder as a "harmful dysfunction." "Functions" here mean "biological functions," which are said to be "designed by nature" in a sense determined by Darwinian natural selection: that is, an "internal mechanism" is said to perform its function in so far as it tends to ensure individual and species survival. Success or failure in performing functions can thus be verified by objective scientific evidence (see, e.g., Wakefield 1992, 2000, 2009).

The question then is whether recognized *mental* disorders can be fitted in to this analysis. To do so would involve showing that generally accepted examples of such disorders can be *explained* by the failure of some internal mechanism(s) to perform their functions as designed by nature (in the sense explained above). To do this, however, would involve abandoning mind-brain dualism of the Cartesian kind, since that is incompatible with the existence of any kind of mental "mechanisms" which might be accounted for by natural selection. To proceed any further, therefore, we need to return to the general philosophical issue of the nature of our mental life and its relation to the brain.

The Brain and Mental Disorder

An objection to dualism which emerged very early (and was in a way admitted by Descartes himself) is that we cannot ultimately separate "mind" and "brain," because many of our mental operations depend in one way or another on the normal functioning of the brain. Brain damage, for instance, leads to loss of memory or even a change in personality. Many of the symptoms of mental illness, such as delusions, can equally be the result of problems in brain functioning. As scientific understanding of the brain has developed over the last three centuries, more and more such interactions between brain functioning and the character of our thoughts, feelings, desires, and behavior have been discovered. The very possibility of such reactions, however, seems to be ruled out by the dualist view that our "minds" are a separate "substance," with a distinct essence, from our "bodies," including our brains. To account for them, therefore, seemed to require a philosophical shift from thinking of a human being as composed of two substances, mind and body, to thinking of ourselves as composed of a single substance: our mental functioning, it seems, must be just part of our bodily or biological functioning – in particular the operations of our *brains*. This is the position known as "classical materialism."

One advantage of materialism was that it seemed to eliminate the dualist problem of interaction: the influence of mind on body and body on mind became not the unintelligible influence of one substance on another but simply the influence of one part of a substance on another part of the same substance. Our "minds" could then be liable to disease or illness in exactly the same sense as, say, our hearts or livers. In effect, so-called "mental illness" would be just one kind of bodily illness. This view is made explicit in the Introduction to the Fourth Edition of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*: "anachronism of mind/body dualism unfortunately implies a distinction between "mental" disorders" and "physical" disorders that is a reductionistic anachronism of mind/body dualism" (American Psychiatric Association 1994, p. xxi).

A connected benefit of abandoning dualist conceptions of mental disorder was believed to be that it made it possible to bring psychiatry into line with the scientific approach of the rest of modern medicine. If the mind is equated, not with some immaterial substance distinct from anything else in the created universe but with the brain and its operations, then it seems possible to explain mental disorder as the harmful outcome of a dysfunction in "internal mechanisms" operating in the brain and nervous system. The philosopher Dominic Murphy even defines psychiatry as "a branch of medicine dedicated to uncovering the neurological basis of disease entities" (Murphy 2006, p. 10). This approach to psychiatry is often labeled "biological psychiatry." These brain dysfunctions can then be related, in much the same way as heart dysfunctions, to biochemistry, genetics, and other sciences, to form part of the unified scientific picture of the world which modern science is believed to aspire to. Descartes had proposed such a unified science for the *physical* world, but excepted the mental sphere from it: materialism goes further, to include the mental sphere in the physical world. The philosopher Paul Churchland, an advocate of "eliminative materialism," according to which our common-sense (essentially

dualist) account of psychological phenomena will eventually be displaced by "a completed neuroscience," argues that such materialism offers a more coherent and effective account of mental phenomena in general and mental disorder in particular. We can do far better, he argues, in understanding and so dealing with psychological problems by linking them to the structures, physiology, chemistry, and genetics of the brain than by thinking of psychology in "common-sense" terms ("folk psychology") (see Churchland 1981).

Especially in American psychiatry, the attraction of this materialist philosophy was that, in the ways which Churchland suggests, it seemed to restore psychiatry to a scientific approach which was thought to have been abandoned during the long dominance in the USA of Freudian psychoanalysis, which was regarded as unscientific. Thus, the historian of psychiatry, Edward Shorter, wrote that "Biological psychiatry ... became able to investigate the causes and treatments of psychiatric illness by using the scientific method, a method other psychiatrists had virtually abandoned for half a century" (Shorter 1997, p. 272). Although Freud himself does seem to view his work as "biological psychiatry," he does not in practice explain mental disorder in terms of the kinds of brain abnormalities which Churchland refers to and thus has come to be regarded by many psychiatrists and philosophers as essentially unscientific. The implication of materialism in this sense is that the so-called "mental" disorders can be treated not by Freudian "talking cures" but by manipulating their physical and chemical causes.

Opponents of biological psychiatry include Thomas Szasz, who, as quoted earlier, wanted to distinguish brain disease from the so-called "mental illness." Such a distinction requires the support of a philosophical argument against the materialism which identifies the two kinds of disorder. One argument of this kind which is often used goes as follows. Mind cannot be identified with the brain, nor can talk of mental phenomena be replaced without loss by talk of brain states and processes, because thoughts, emotions, desires, and other mental phenomena have certain essential properties which brain states and processes cannot have. The two properties are *subjectivity* and *intentionality*. Thoughts, emotions, etc., must be "subjective," in the sense that they must be *someone's* thoughts (my thoughts, your thoughts, his or her thoughts). They are necessarily identifiable, therefore, not only by their content (e.g., "that dualism is false") but also by the "subject" or person who has a thought with this content: if you and I both think that dualism is false, then there exist two thoughts with the same content. This is not the case with brain states: a brain state, such as the firing of certain neurons, is identified completely by its physicochemical properties and not by which brain it occurs in. The same brain state may thus occur in two (or a million) different persons or even, in the right circumstances, such as a laboratory experiment, when the neuron in question is not part of *any* living human brain.

The other feature of mental states and processes which is emphasized by this kind of anti-materialist argument is "intentionality." This medieval term was reintroduced into the philosophical vocabulary above all by the nineteenth-century Austrian philosopher Franz Brentano (see Brentano 1973). "Intentionality" essentially refers to the relation of consciousness to what it is about (its "intentional object"). The

claim is that anything mental is necessarily directed toward an object – it is "about" that object. Thus, one cannot think without thinking *of* something or *that* something: a thought might be identified, for example, as being a thought *of* Paris or *that* Paris is a beautiful city. Similarly, any emotion must be directed *toward* someone or something: I love my wife; I am afraid of terrorism; I admire bravery. Again, one cannot desire without desiring *someone* or *something*: I want that picture, I long for your return, and so on. The argument of the anti-materialists assumes that brain states and processes are not intentional in this sense: again, a brain state like the firing of a neuron is defined entirely by its physicochemical properties and is not "intentional," that is, it is not defined by being *about* anything. We cannot identify my thought that dualism is false, for example, with any particular set of occurrences in my brain (even though I can't have this, or any other, thought *unless* something goes on in my brain).

What is held to follow from this, if it is correct? From the present point of view, the most important conclusion is that mental disorders (disorders of thought, emotion, desire, etc.) cannot be completely or satisfactorily explained by brain dysfunction. Brain dysfunctions do not involve subjectivity or intentionality and so cannot explain these essential features of mental disorder. To use a particular example, the mental disorder agoraphobia consists in fear of open spaces, and that fear is necessarily experienced by someone (it is subjective), and it is defined by what it is fear *of* (its intentional object is "open spaces"). It may be the case that someone experiences agoraphobia only when their brain is in a certain state, but being agoraphobic involves more than being in that brain state: it also requires that the *person* as a whole experiences certain emotions about his or her environment. What is required for an explanation of how someone comes to be in any mental state, including one which is disordered in the psychiatric sense, is precisely something which will answer the question why the person is in the relevant subjective state, defined by a certain intentional relation to their world. The state of her brain cannot by itself answer that "why" question. We need also to know about the person's *reasons* for having these fears about being out of doors.

This has implications for psychiatric treatment, since appropriate treatment must depend on the way in which we explain the occurrence of the disorder being treated. Altering the patient's brain state (for instance, by administering medication) cannot target the irreducibly subjective aspect of her disorder: only engaging with her reasons for having those problems can hope to do that. This is the essence of the case made by some opponents of biological psychiatry, such as the psychiatrist R. D. Laing (1971, 2010) and the clinical psychologist Richard Bentall (2004, 2009). Laing was mainly concerned with schizophrenia, which he approached from the direction of existential phenomenology, rather than that of clinical psychiatry. His approach concentrates on a sympathetic understanding of the subjective personal experience of the patient, rather than on the biological or chemical causes of the current state of the patient's brain. The patient's condition is seen as expressing an individual response to the problems of his or her existence as a human being, rather than as symptoms caused by dysfunction in his or her brain. Bentall's approach is somewhat different. He is happy to accept the relevance of biological (e.g., genetic)

factors in predisposing individuals to mental abnormality of various kinds; but he attaches more importance to the "environmental" or "psychological" elements in the etiology of mental disorder. The assumption that "mental illnesses are genetically influenced brain diseases" has been, he argues, "a spectacular failure" (Bentall 2009, p. 264). It has failed, in that it has contributed very little to relieving the suffering of those with the severest forms of mental disorder. A psychological approach, by contrast, would recognize, Bentall argues, "that distress in human beings is usually caused by unsatisfactory relationships with other human beings" (Bentall 2009, p. 265). That is, Bentall, like Laing, maintains that successful treatment of the mental distress of human beings must be based on a conception of that distress as a subjective response to problems which those human beings experience, rather than as caused by a breakdown in their internal brain mechanisms.

An Alternative Account of Brain-Mind Relations

It can be argued that Cartesian dualism and classical materialism, despite their obvious differences, have something important in common and that this common element is responsible for the problems in thinking of the relation between bodily and mental illness which have been raised. Putting it briefly, the common element is a conception of the question to be asked. The question is taken to be this: in saying that human beings have a mind, are we saying that this "mind" is a thing (or "substance") distinct from and independent of the brain, or are we saying it is identical with the brain? Whichever we say, we are assuming that the term "mind" refers to a substance. Descartes's formulation of dualism makes this assumption explicit. Classical materialism is less explicit but clearly implies that "mind" refers to a thing, in identifying the mind with the brain. For this reason, some recent philosophers have called classical materialism "Cartesian materialism."

Such critics of a medicalized psychiatry as Laing and Bentall can be seen as dualist in spirit, even if they officially reject Cartesianism and accept that brain states and brain processes have some relevance to the explanation of mental disorder. Their conception of mental disorder, however, rules out attributing any *central* importance to brain dysfunction. Laing, for example, argues that the issues lived through by people with schizophrenia "cannot be grasped through the methods of clinical psychiatry and psychopathology" but "require the existential-phenomenological method to demonstrate their true human relevance and significance" (Laing 2010, p. 18). In similar vein, Bentall criticizes "biological investigators" for failing to consider the possibility "that their findings might reflect the tribulations of life, rather than some lesion or genetic scar carried by the victim from birth" (Bentall 2009, p. 152). If mental disorders are seen in this way, as human responses to certain kinds of problems in life, then it seems we must explain them in terms of patients' *reasons* for finding certain situations insuperable problems, rather than in terms of the failure of their brains to function in biologically appropriate ways – that is, to offer a dualist or "mentalistic" explanation rather a materialist or "physicalistic" one.

The arguments for one alternative in the debate between dualism and materialism largely consist in objections to the other. As seen earlier, materialism is argued to be superior to dualism, for example, because it makes "mental" operations like thinking identical with brain operations, which are objectively accessible, and so that mental disorder is a neurological problem which can be dealt with by a scientific medicine. On the other hand, the brain-mind identity thesis seems incompatible with the widely held view that minds have properties (subjectivity, intentionality) which brains do not have, and so that mental disorder needs to be empathically understood, as a human problem, rather than causally explained as a breakdown in brain mechanisms. The conclusion seems to be, then, that neither dualism nor materialism is entirely satisfactory.

Is there another possible way of approaching the relation of mind and brain, which might offer the prospect of a more satisfactory conception of the role of that relation in thinking about health care? This essay will conclude by considering one such alternative. Some philosophers have suggested recently that the problems arise only because we start from an unexamined assumption: putting it at its simplest, it is the assumption that "mind" refers to a thing, so that the only question is, is "mind" a *separate* thing from "brain," or are they one and the same thing? Perhaps, if we abandoned that assumption, we could also avoid the difficulties just mentioned.

One way of arriving at this position is *linguistic*, to be found, for instance, in Gilbert Ryle's book *The Concept of Mind* (Ryle 1949). Ryle proposes that we avoid asking abstract questions like "What kind of thing is a mind?" and instead examine how we use words like "mind," "mental," etc., in ordinary language. If we do this, he argues, we will conclude that "mind" is not the name of a thing, but a way of classifying a wide variety of human activities, capacities, and other dispositions. An alternative approach to a similar position is by means of *phenomenology* – the philosophical method introduced and developed by Edmund Husserl (1859–1938). Central to this method is the attempt to avoid all "presuppositions" (e.g., that a mind is a "thing" which human beings have) and instead to describe phenomena as we actually *experience* them, avoiding as far as possible assumptions derived from science or previous philosophy. Husserl himself laid some of the foundations for a new approach to mind-body relations along these lines, most notably in his posthumously published work, *The Crisis of European Sciences* (Husserl 1970). The phenomenological approach was most fully developed, however, by the French philosopher, Maurice Merleau-Ponty (1908–1961). Merleau-Ponty's approach to these issues has also influenced some recent philosophers in the analytic tradition, such as Shaun Gallagher (see 2005; Gallagher and Zahavi 2008) and Andy Clark (see 1997). Matthew Ratcliffe's work is also relevant, especially his (2008).

A phenomenological approach, as said above, seeks to set aside all assumptions, for instance, about what a "mind" is, and to consider our actual experience, as far as possible in a "presuppositionless" way. We experience minds, both our own and those of other human beings, in our dealings with other people. For instance, we converse with others, expressing our own thoughts and hearing and responding to theirs. So we experience minds in experiencing ourselves and others as *subjects*. To

experience someone as a subject, however, is necessarily to experience them as *embodied*. A subject is a being who relates to the world both in the way material objects do (being spatially and causally related to other objects) and also in *experiencing* the world – relating to objects in finding them *meaningful* to him- or herself. A simple example would be that a human being may relate to, say, an apple, not only because the light reflected from the apple causes him/her to see the apple but also in that he or she perceives the apple as having such meanings as "good to eat," "esthetically attractive object," and so on. Being a subject and being embodied are two sides of the same coin: we can only experience the world subjectively because we are embodied in a particular way (we have senses and have a physical location in space and time from which we perceive things) and the way in which we are in the world objectively is not like the way an inanimate (i.e., "subjectless") object is, because, as active subjects, we find *meaning* in the objects (including other people) around us. We are thus essentially *embodied subjects*. Merleau-Ponty's fullest and clearest development of this view can be found in his major work, *Phenomenology of Perception* (Merleau-Ponty 2012: especially Part One and references in Index to "embodiment/incarnation").

Starting with the notion of human beings as embodied subjects offers the possibility of a totally different way of thinking about mind-brain relationships and their relevance to the treatment of both mental and physical disorders, from that implicit in either Cartesian dualism or Cartesian materialism. In this understanding, thinking, feeling, desiring, wishing, intending, hoping, remembering, and the behavior, which is explained by them, are activities of neither "minds" nor "brains" but of *human beings*. Because human beings are embodied, their responses to their environment necessarily involve bodily reactions, especially brain processes, changes in brain chemistry, etc., but these bodily reactions themselves can be fully understood only as part of the human response. A human being may, for instance, feel suicidally depressed: if so, the serotonin levels in his or her brain would characteristically be lowered. This change in serotonin levels, however, does not *explain* the depression, on this view: rather, it is part of what has to be explained. To explain why someone feels in such a mood, or any other mental state, requires us to explore what it is about the situation which leads them to see it as they do (e.g., depression may be a response to a dramatic breakdown in a close relationship). Psychotherapeutic modes of treatment would thus be central. At the same time, however, we cannot ignore the fact that depression, in a human being, necessarily involves changes in serotonin levels, so that medications which affect those levels may alleviate depressive mood. This is also why, it might be suggested, in some cases of what we should normally call "bodily" disorders, we can, for the same reason, cite psychological responses to difficult human situations as playing a significant role, because of our embodiment, in leading to the physical problems involved. An example might be paralysis, as part of a response to psychological trauma. Merleau-Ponty discusses a number of spatial and motor disorders along these lines in Merleau-Ponty 2012, pp. 100–148.

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