

# THE GREAT IDEAS ONLINE

---

May '01

Center for the Study of The Great Ideas

# 132

To say that the brain is only a necessary, but not a sufficient condition, is to say that we *cannot* think conceptually *without* our brains, but that we *do not* think conceptually *with* our brains. The brain is not the organ of thought as the eye and the brain together are the organs of vision, or the ear and brain together are the organs of hearing.

—Mortimer J. Adler



---

---

## IS INTELLECT IMMATERIAL? [two parts]

by Mortimer Adler

We must confess that there is much we do not understand about the brain's relation to the mind. We do not understand, for example, why the transmission of nervous impulses from the external sense organs does not result in conscious experience until these impulses activate the cerebral cortex. A blockage that would prevent their passage from the lower and midbrain connecting centers to the cerebral cortex would prevent awarenesses of colors, sounds, or smells that stimulated the external sense-organs.

Even more puzzling is the fact that when nervous impulses coming from the eyes reach the occipital area of the cerebral cortex, we see shapes and colors; when coming from the ears, they reach the temporal area and we hear sounds. These impulses, so far as we know, are the same in character; the nervous structure of the two cortical areas mentioned are also the same. Why, then, should there be a qualitatively different result in our conscious experience?

Neither do we understand the neurological basis of the agnosia that leaves a person able to see the shape and color of a rose held before his eyes, yet not be able to recognize that it is a rose until the rose is held under his nose to smell.

Both the visual and the olfactory organs seem to be working perfectly. The understanding of what a rose is has not been lost. What is malfunctioning in the brain that prevents understanding from being elicited by the sight of the rose when it is so readily elicited by the smell of it? We do not know.

There is much that we have yet to learn regarding the brain's relation to the mind in the field of sensory experience. But how much greater is our ignorance of the brain's relation to the mind in the sphere of intellectual activity? This does not mean that we will never have the knowledge we now lack. Further progress in neurology may achieve it, *but only if whatever happens in the mind can be fully explained by what happens in the brain.*

That *if* raises the questions to which we must now address ourselves. One is a question about the inseparability of mind and brain and the extent to which they may be distinct from one another. Another is a question about the dependence of the mind upon the brain and the extent to which mind may be independent of the brain.

The issue with which we are concerned is often poorly stated in the literature of the subject because the word "identity" is misused. Strictly speaking, if two things can be distinguished in any way, even if it is only by the fact of their twoness, they are not identical. Two ball bearings that are alike in every respect except the space each occupies at a given time cannot properly be called identical, though the word is often misused that way, as it is also misused when we speak of identical twins.

One extremist theory about mind and brain asserts their identity. Used literally, the word "identity" must here mean that there is no distinction whatsoever between mind and brain. That, in turn, means that the two words—"mind" and "brain"—are strict synonyms. If that is the case, we cannot meaningfully ask about the relation of psychology to neurology because psychology is identical with neurology.

Eliminating that troublesome word "identity" from our discussion, I propose to proceed in a way that I think clarifies the issue. It is a double-barreled issue involving

two pairs of contrary views in such opposition to one another that both cannot be true but both can be false.

The first pair of opposed views I regard as going to opposite extremes, and, in my judgment, both are false. The opposed views in the second pair are more moderate; each has some truth in it, yet both cannot be completely true. If one is completely true, the other must be false, and it is possible that both may be false.

Let me deal with the two extremist views first, the falsity of which can be easily shown. In our philosophical vocabulary we have two “ism” words to name them. The words are “dualism” and “monism” and they at once suggest to us what is being said about mind and brain by the dualist, on the one hand, and by the monist, on the other hand.

In the history of thought about mind and brain, or body and soul, Plato and Descartes are the outstanding psycho physical dualists. They assert that man is constituted by two utterly distinct and existentially separate substances—for Plato, body and soul; for Descartes, matter and mind, extended substance and thinking substance. Strictly speaking, a human being is not what common sense supposes that person to be: one indivisible thing. That person is actually divided into two individual things, as different and distinct as the rower and the rowboat in which he sits.

If this dualistic theory were true, it would confront us with the most embarrassing, insoluble difficulties should we try to explain how these two utterly different substances could interact with one another, as they appear to do in human behavior. Fortunately, the riddles of the mind-body problem that have plagued modern philosophy since Descartes can be dismissed. Two incontrovertible facts, which are matters of general knowledge, suffice for the refutation of psychophysical dualism.

One is the fact that we fall asleep from time to time. For some portion of the time that we are asleep, our minds are totally inactive. We are unconscious. We know that sleep is induced by fatigue toxins that affect the brain. It can also be induced by drugs and pills. But if the mind is totally independent of the brain, then why should one brain condition allow for consciousness and another bring about unconscious sleep?

The second fact, equally well known to us, is that brain injuries or defects produce mental disabilities or disorders. We also have the reports from neurological surgery that tell of electrical stimulation of the brain producing conscious experiences. How can this be so if mind and brain are as separate as the rower and the rowboat, a separation so complete that it permits the rowboat to be sunk while the rower swims away unharmed?

The theory of the monist is at the diametrically opposite extreme. In earlier times it was called materialistic monism because it asserted that matter and matter alone exists—that the world consists of nothing but bodies and their motions. In the present century it has come to be called the identity hypothesis, misusing, as we have seen, the word “identity.”

Materialistic monism that reductively identifies mind with brain cannot retain distinct meanings for the two words “mind” and “brain.” The reduction of mind to brain totally excludes mind and the mental from consideration. There is nothing to talk or think about except the brain, its activities, its states, and its processes. The reductive materialist should expunge from his vocabulary the word “mind” and all the other words that go with it.

Can these words be expunged from his or anyone else’s vocabulary and still allow us to describe

experiences that everyone has? If not, then mind and brain are at least analytically distinct, even if they are existentially one and the same thing.

Toast and butter are existentially separate when each lies on a separate plate. When hot toast is buttered, the two become inseparable, but when the buttered toast is eaten, it still remains possible to distinguish by taste the butter from the toast.

Mind and brain may be existentially inseparable, and so regarded as one and the same thing, yet the mental and the physical may still be analytically distinct aspects of it. This can be put to the test in the following manner. Let a surgeon open up an individual's brain for inspection while the patient remains conscious. Let the surgeon dictate to a secretary his detailed observation of the visible area of the brain under scrutiny, and let that area of the brain be its center for vision. Let the patient dictate to another secretary a detailed description of the visible walls of the room in which the surgery is occurring.

The language used by the surgeon and the language used by the patient will be irreducibly different: the one will contain words referring to physical phenomena occurring in the brain; the other, words referring to conscious experiences of the room. The extreme monism that asserts not only the existential unity of brain and mind, but also that there is no analytical distinction between them, thus becomes untenable.

With both extremes eliminated, I turn now to the other more moderate pair of contrary views about the relation of mind to brain. Here there is no question about the analytical distinction between mental and physical acts, states, and processes. Both of the opposed views agree on that score but differ with regard to the dependence of the mental on the physical.

One view maintains that the activation of the brain and of other nervous processes is both the necessary and the sufficient condition for the occurrence of all mental states and of all the mind's acts and processes. This theory can be called materialistic, but it is not a reductive materialism.

The other view agrees in part and disagrees in part. With regard to certain sensory experiences, it agrees that the action of the brain and nervous system is both a necessary and a sufficient condition for their occurrence. But it disagrees when it comes to the intellectual activity of the mind in conceptual thought, and in any other activity that involves conceptual understanding, as in human sense-perception when the individual is not suffering from agnosia.

At this point, sharp disagreement arises. Here the nonmaterialistic view maintains that brain action is only a necessary, but not a sufficient, condition for the occurrence of the mental acts under consideration. If this is so, then some other factor—an immaterial factor—must be added. If we call the first of these two theories a moderate materialism, because it is not reductive and affirms at least the analytical distinction of the physical and the mental, then perhaps we may call the second, contrary theory a moderate immaterialism.

In the current state of this dispute, those who espouse the view I have called a moderate materialism tend to concentrate on sensory acts and processes in their effort to show that the brain is all that is needed for such mental acts and processes to occur. They give little attention to intellectual processes and conceptual thought, and ignore or overlook the involvement of concepts in sense-perception, memory, and imagination; or they attempt to explain these intellectual processes in terms that require no distinction between the senses and the intellect as separate cognitive powers.

In defending the opposed theory, which I have called a moderate immaterialism, the argument appeals mainly to what is required for intellectual activity and conceptual thought. Its central contention is that intellectual acts and processes cannot be explained in sensory terms and that more than the brain or any other material organ is required for them to occur

To say that the brain is only a necessary, but not a sufficient condition, is to say that we *cannot* think conceptually *without* our brains, but that we *do not* think conceptually *with* our brains. The brain is not the organ of thought as the eye and the brain together are the organs of vision, or the ear and brain together are the organs of hearing.

There is another way of saying this. As the eye or ear, together with the brain, are sense-organs, the brain itself is not a mind-organ; or, more precisely, the brain is not an intellect-organ. The most that can be said of the brain in relation to the human mind is that it is an intellect-support organ upon which the intellect depends, without which it cannot think, but with which it does not think.

Which of the two moderate but contrary views of the relation of mind to brain is correct determines how we answer the question that was left hanging at the end of the preceding chapter. If moderate materialism is correct, then the difference in kind that follows from the uniqueness of the human mind by virtue of its intellectual powers may be only a superficial difference in kind because all the extraordinarily wide differences between human and animal life, human and animal behavior, can be explained by differences in degree between human and animal brains.

Only if the brain is not the sufficient condition for intellectual activity and conceptual thought (only if the intellect that is part of the human mind and is not found

in other animals is the immaterial factor that must be added to the brain in order to provide conditions both necessary and sufficient) are we justified in concluding that the manifest difference in kind between human and animal minds, and between human and animal behavior, is radical, not superficial. It cannot be explained away by any difference in the physical constitution of human beings and other animals that is a difference in degree.

---

---

**WELCOME NEW MEMBERS**

**T. J. Adams**

**Seth M. Guggenheim**

**Harold C. Verdun**

---

---

**We welcome your comments and questions.**

---

---

**THE GREAT IDEAS ONLINE** is published  
by the Center for the Study of The Great Ideas  
Founded by Mortimer J. Adler & Max Weismann  
E-mail: [TGIdeas@speedsite.com](mailto:TGIdeas@speedsite.com)  
Homepage: [TheGreatIdeas.org](http://TheGreatIdeas.org)  
A not-for-profit (501)(c)(3) organization.  
Donations are tax deductible as the law allows.