

U. T. Place, “Is consciousness a brain process?”

Excerpts from U.T. Place, “Is consciousness a brain process?”, *British Journal of Psychology* 47: 44-50, 1956.

Place begins by noting the diminished popularity of dualism, and its succession by behaviorism, which rejects any mental “inner processes”. (N.B. Place’s paper was published in 1956.) However, behaviorism is problematic because...

...there would seem to be an intractable residue of concepts clustering around the notions of consciousness, experience, sensation, and mental imagery, where some sort of inner process story is unavoidable. It is possible, of course, that a satisfactory behavioristic account of this conceptual residuum will ultimately be found. For our present purposes, however, I shall assume that this cannot be done and that statements about pains and twinges, about how things look, sound, and feel, about things dreamed of or pictured in the mind’s eye are statements referring to events and processes that are in some sense private or internal to the individual of whom they are predicated. The question I wish to raise is whether in making this assumption we are inevitably committed to a dualist position in which sensations and mental images form a separate category of processes over and above the physical and physiological processes with which they are known to be correlated. I shall argue that an acceptance of inner processes does not entail dualism and that the thesis that consciousness is a process in the brain cannot be dismissed on logical grounds.

I want to stress from the outset that, in defending the thesis that consciousness is a process in the brain, I am not trying to argue that when we describe our dreams, fantasies, and sensations we are talking about a process in our brains. That is, I am not claiming that statements about sensations and mental images are reducible to or analyzable into statements about brain processes, in the way that ‘cognition statements’ are analyzable into statements about behavior. To say that statements about consciousness are statements about brain processes is manifestly false. This is shown (a) by the fact that you can describe your sensations and mental imagery without knowing anything about your brain processes or even that such things exist, (b) by the fact that statements about one’s consciousness and statements about one’s brain processes are verified in entirely different ways, and (c) by the fact that there is nothing self-contradictory about the statement, ‘X has a pain but there is nothing going on in his brain’. What I do want to assert,

however, is that the statement 'Consciousness is a process in the brain', although not necessarily true, is not necessarily false. 'Consciousness is a process in the brain', on my view, is neither self-contradictory nor self-evident; it is a reasonable scientific hypothesis, in the way that the statement, 'Lightning is a motion of electric charges', is a reasonable scientific hypothesis.

The analogy with lightning raises a crucial question: how do we know when a set of scientific observations and a set of everyday-life observations are observations of one and the same thing? The answer Place suggests is that they are observations of one and the same thing when the scientific observations help explain the everyday-life observations.

...we must examine other cases where an identity is asserted between something whose occurrence is verified by the ordinary processes of observation and something whose occurrence is established by special scientific procedures. For this purpose I have chosen the case where we say that lightning is a motion of electric charges. As in the case of consciousness, however closely we scrutinize the lightning we shall never be able to observe the electric charges; and just as the operations for determining the nature of one's state of consciousness are radically different from those involved in determining the nature of one's brain processes, so the operations for determining the occurrence of lightning are radically different from those involved in determining the occurrence of a motion of electric charges. What is it, therefore, that leads us to say that the two sets of observations are observations of the same event? It cannot be merely the fact that the two sets of observations are systematically correlated such that whenever there is lightning there is always a motion of electric charges. There are innumerable cases of such correlations where we have no temptation to say that the two sets of observations are observations of the same event. There is a systematic correlation, for example, between the movement of the tides and the stages of the moon, but this does not lead us to say that records of tidal levels are records of the moon's stages or vice versa. We speak rather of a causal connection between two independent events or processes.

The answer here seems to be that we treat the two sets of observations as observations of the same event, in those cases where the technical scientific observations set in the context of the appropriate body of scientific theory provide an immediate explanation of the observations made by the man in the street. Thus we conclude that lightning is nothing more than a motion of electric charges, because we know that a motion of electric charges through

the atmosphere, such as occurs when lightning is reported, gives rise to the type of visual stimulation that would lead an observer to report a flash of lightning. In the moon/tide case, on the other hand, there is no such direct causal connection between the stages of the moon and the observations made by the person who measures the height of the tide. The causal connection is between the moon and the tides, not between the moon and the measurement of the tides.

If Place is right about what it takes for a set of scientific observations to be observations of the same thing as a set of everyday-life observations, then establishing that consciousness is a brain process would require that introspective observations (the everyday-life observations) be explained by neurophysiological observations (the scientific observations). Place takes the English neurophysiologist Sir Charles Sherrington to express skepticism that there is any such explanation.

If this account is correct, it should follow that in order to establish the identity of consciousness and certain processes in the brain, it would be necessary to show that the introspective observations reported by the subject can be accounted for in terms of processes that are known to have occurred in his brain. In the light of this suggestion it is extremely interesting to find that when a physiologist as distinct from a philosopher finds it difficult to see how consciousness could be a process in the brain, what worries him is not any supposed self-contradiction involved in such an assumption, but the apparent impossibility of accounting for the reports given by the subject of his conscious processes in terms of the known properties of the central nervous system. Sir Charles Sherrington has posed the problem as follows:

The chain of events stretching from the sun's radiation entering the eye to, on the one hand, the contraction of the pupillary muscles, and on the other, to the electrical disturbances in the brain-cortex are all straightforward steps in a sequence of physical 'causation', such as, thanks to science, are intelligible. But in the second serial chain there follows on, or attends, the stage of brain-cortex reaction an event or set of events quite inexplicable to us which both as to themselves and as to the causal tie between them and what preceded them science does not help us; a set of events seemingly incommensurable with any of the events leading up to it. The self 'sees' the sun; it senses a two-dimensional disc of brightness located in the 'sky', this last a field of lesser brightness, and overhead shaped as a rather flattened dome,

coping the self and a hundred other visual things as well. Of hint that this is within the head there is none. Vision is saturated with this strange property called 'projection', the unargued inference that what it sees is at a 'distance' from the seeing 'self', Enough has been said to stress that in the sequence of events a step is reached where a physical situation in the brain leads to a psychical, which however contains no hint of the brain or any other bodily part.... The supposition has to be, it would seem, two continuous series of events, one physicochemical, the other psychical, and at times interaction between them. (Sherrington, Foreward to the 1947 edition of *The Integrative Action of the Nervous System*.)

Place goes on to argue that Sherrington is mistaken in concluding that dualism must be true on the basis of the considerations he mentions. Sherrington's mistake, Place suggests, rests on the fallacious assumption that descriptions of our experiences are descriptions of "objects and events on a peculiar sort of internal cinema". Place calls this assumption the "phenomenological fallacy":

Just as the physiologist is not likely to be impressed by the philosopher's contention that there is some self-contradiction involved in supposing consciousness to be a brain process, so the philosopher is unlikely to be impressed by the considerations that led Sherrington to conclude that there are two sets of events, one physicochemical, the other psychical. Sherrington's argument for all its emotional appeal depends on a fairly simple logical mistake, which is unfortunately all too frequently made by psychologists and physiologists and not infrequently in the past by the philosophers themselves. This logical mistake, which I shall refer to as the 'phenomenological fallacy', is the mistake of supposing that when the subject describes his experience, when he describes how things look, sound, smell, taste, or feel to him, he is describing the literal properties of objects and events on a peculiar sort of internal cinema or television screen, usually referred to in the modern psychological literature as the 'phenomenal field', If we assume, for example, that when a subject reports a green afterimage he is asserting the occurrence inside himself of an object that is literally green, it is clear that we have on our hands an entity for which there is no place in the world of physics. In the case of the green afterimage there is no green object in the subject's environment corresponding to the description that he gives. Nor is there anything green in his brain; certainly there is nothing that could have emerged when he reported the appearance of the green afterimage.

Brain processes are not the sort of things to which color concepts can be properly applied.

The phenomenological fallacy on which this argument is based depends on the mistaken assumption that because our ability to describe things in our environment depends on our consciousness of them, our descriptions of things are primarily descriptions of our conscious experience and only secondarily, indirectly, and inferentially descriptions of the objects and events in our environments. It is assumed that because we recognize things in our environment by their look, sound, smell, taste, and feel, we begin by describing their phenomenal properties, i.e., the properties of the looks, sounds, smells, tastes, and feels that they produce in us, and infer their real properties from their phenomenal properties. In fact, the reverse is the case. We describe our conscious experience not in terms of the mythological 'phenomenal properties' that are supposed to inhere in the mythological 'objects' in the mythological 'phenomenal field', but by reference to the actual physical properties of the concrete physical objects, events, and processes that normally, though not perhaps in the present instance, give rise to the sort of conscious experience that we are trying to describe. In other words, when we describe the afterimage as green, we are not saying that there is something, the afterimage, that is green; we are saying that we are having the sort of experience that we normally have when, and that we have learned to describe as, looking at a green patch of light.

Finally, Place claims that overcoming the phenomenological fallacy removes any obstacle to thinking that brain processes can explain the everyday-life observations of consciousness. And if this explanatory relation holds, then we can understand introspective observations and neurophysiological observations to be observations of one and the same thing. In other words, 'Consciousness is a process in the brain' is a reasonable scientific hypothesis, like 'Lightning is a motion of electric charges'.

Once we rid ourselves of the phenomenological fallacy we realize that the problem of explaining introspective observations in terms of brain processes is far from insuperable. We realize that there is nothing that the introspecting subject says about his conscious experiences that is inconsistent with anything the physiologist might want to say about the brain processes that cause him to describe the environment and his consciousness of that environment in the way he does. When the subject describes his experience by saying that a light that is in fact stationary appears to move, all the

physiologist or physiological psychologist has to do to explain the subject's introspective observations is to show that the brain process causing the subject to describe his experience in this way is the sort of process that normally occurs when he is observing an actual moving object and that therefore normally causes him to report the movement of an object in his environment. Once the mechanism whereby the individual describes what is going on in his environment has been worked out, all that is required to explain the individual's capacity to make introspective observations is an explanation of his ability to discriminate between those cases where his normal habits of verbal description are appropriate to the stimulus situation and those cases where they are not and an explanation of how and why, in those cases where the appropriateness of his normal descriptive habits is in doubt, he learns to issue his ordinary descriptive protocols preceded by a qualificatory phrase like 'it appears', 'seems', 'looks', 'feels', etc.