Panpsychism: A Restatement of the Genetic Argument

Clark Butler

Indiana University - Purdue University Fort Wayne, butler@ipfw.edu

This research is a product of the Department of Philosophy faculty at Indiana University-Purdue University Fort Wayne.

Follow this and additional works at: http://opus.ipfw.edu/philos_facpubs

Part of the Philosophy Commons

Opus Citation
The usual version of the genetic argument for panpsychism is not difficult to refute. The version is based on the principle of biological continuity according to which the various species differ in degree rather than in kind. It is then asserted that if there is some point in the evolution of life out of inanimate matter, or of higher out of lower life, such that before this point minds did not exist while thereafter they do exist, then the principle of continuity is violated. The argument, as Paul Edwards points out, is based on the Scholastic principle that a cause must contain its effect in actuality, since otherwise it could not communicate the effect and thus could not operate as its cause.\footnote{Just as what causes a body to heat up must itself be hot, so what causes human minds to come into existence must already possess mentality. Ultimately, the inanimate world of, say, six billion years ago caused human minds to come into existence. Therefore, the constituents of even the so-called “inanimate world” are psychic. Yet Edwards’ refutation of this particular argument is unassailable. The argument fails, first, because the Scholastic principle on which it is based is highly dubious. But it fails even granting this principle. The emergence of high-level minds from low-level minds would create just as great a problem as an original emergence of the mental from the nonmental. There would still be the problem of how an entity with given capacities and characteristics could be caused by entities without those capacities and characteristics. And, finally, if we grant the emergence of high-level from low-level minds, it is not clear why the mental itself may not emerge from the nonmental.}

My concern in the present paper is to reconstruct the genetic argument in a form less open to objection. Panpsychism as I shall understand it attributes mentality to the most elementary forms of matter, and, thus, given today’s science, it must establish the possibility and indeed the probability of even an electronic or photonic psyche. We shall first take up the question as to whether the panpsychist hypothesis is possible or intelligible consistent with empirical science. The hypothesis need not entail a crude anthropomorphism. An electron or photon psyche would clearly lack several features of the human psyche. Firstly, insofar as self-consciousness is a constituent part of intelligent communication (as for example G. H. Mead describes it), we could hardly attribute any explicit self-consciousness to it: the electron would be incapable of singling out the standpoint of a second mind which observes it, and of becoming self-conscious through taking the standpoint of that other mind. Secondly, insofar as the electron or photon lacks a brain, we could not attribute any power of abstract thought to it. Even if a photon has or is a mind, we would not attribute any capacity for higher mathematics to it. Thirdly, we could not attribute perception in the human sense to a photon. By “perception” in this sense I mean the application of concepts in the interpretation of sensation, and this implies a power of conception not attributable to an elementary particle which lacks a brain. Fourthly, since an elementary particle lacks sense organs, we could not attribute modally differentiated sensation to it: it can have no visual sensation as contrasted to tactile, auditory, or olfactory sensation. Yet the panpsychism I have in mind does entail the attribution of some kind of sentience even to a photon. The case for this panpsychism will thus depend on the possibility of modally undifferentiated sensation.
Even the lowest life on the evolutionary scale, I shall begin by arguing, is endowed with sensory capacity. Of course, since the simplest life forms do not have sufficient structural differentiation of function to have specialized sense organs, we cannot attribute modally differentiated sensation to them. However, to the extent that they respond differentially to stimuli, even they appear capable of qualitatively differentiated sensation. These discriminative behavioral responses of the simplest one-celled organism are called “tropisms,” differing from “reflexes” in that they are convulsions of the entire organism rather than responses of a single organ. Sensation, it may be noted, clearly does mediate stimulus and response in the case of at least some reflexes. For example, the photonic stimulus impinging on the retina and the blinking response of the eyelids are mediated by the sensation of a qualitatively bright flash of light. It is altogether unlikely that the photons would cause the blink if there were no blinding light sensation. In other words, sensation here appears causally efficacious. The photons cause the flash and the flash causes the blink. As Whitehead says: “the flash made me blink.”

Thus qualitatively differentiated sensation is known to mediate stimulus and response in some cases. Moreover, it is never known not to do so. Bodily reflexes which occur without any conscious sensation are not known to be unaccompanied by sensation, for there may be a sensation, in the responding organ, of which one is unconscious. We therefore have some inductive grounds for supposing that qualitatively differentiated sensation always mediates a stimulus and discriminative response, in the case of tropisms as well as reflexes. (If it is pointed out that the inductive grounds are slim, being based merely on a few cases, it may be replied that the induction is reinforced by considerations of parsimony: a theory of organic behavior which supposes S and R always to be mediated by sensation is simpler than a theory which does not suppose this to be the case. If we are to reject the simpler theory, we should have grounds for doing so. But, as I have already said, we have no empirical knowledge that, in the case of a tropism, S and R are not mediated by sensation. And the following paragraphs attempt to show that there are no conceptual grounds for rejecting this view, i.e., that the concept of modally undifferentiated sensation is not unintelligible.)

So far we have introduced the idea of tropistic sensation. But even more primitive than this might be the qualitatively undifferentiated sensation of an entity below the level of the living cell, e.g., an entity such as an isolated photon. The acceptance of sensation at the most elementary biological level may require its extension to the prebiological sphere, at least if it is possible for us to conceive a form of mentality more primitive than the tropistic form. If we can conceive this, the beginnings of a genetic argument for panpsychism can, I wish to show, be made. So let us try to conceive what the mentality of an isolated photon might be like. Besides being neither self-conscious nor capable of pure conception, perception, or modally differentiated sensation, any sensation which it would have would be qualitatively undifferentiated and, indeed, totally confused. The environment of any material entity is differentiated both structurally and qualitatively. Any entity whose sensation fails to differentiate actual differences in its environment is thereby “confused.” The sensation of the most primitive particle, differentiated neither modally nor qualitatively, would be totally confused in the same sense of “confused” as when we say of a human being listening to the roar of the waves that its auditory sensation is partially confused.

But to say that the particle’s sensation is qualitatively undifferentiated would not mean that it has no particular quality or determination. To be, to exist, is to possess distinguishing quality. Qualitatively undifferentiated sensation is rather sensation whose quality is not externally and
comparatively determined as being other than something else. For differentiated sensation is essentially a contrast effect.

As we attempt to say something further about the quality of sensation which would be experienced by the most primitive particle, the distinction between so-called common sensibility (*Gemeinsgefühl*) and specific sensory modes becomes useful. Common sensibility consists in sensory qualities common to all sensory modes, a prime example of which is pain. Blinding visual sensations, extreme pressure or temperature sensations, piercing auditory sensations, and “hot” taste sensations can all be painful. It is known that when any differentiated sense quality reaches a certain extreme of intensity, it becomes painful. For example, extreme heat becomes mere pain, hardly distinguishable from extreme cold. But just as there is a sensation of temperature which is hardly either hot or cold but is chiefly painful, so it seems possible to conceive a sensation of pain which is modally undifferentiated, which is neither painful sound, nor painful light, etc. Freud suggests this state of mind when, as a terminal cancer patient, he describes his existence as “an island of pain surrounded by a sea of indifference.” The sensation which mediates stimulus and response in a one-celled organism may be this modally undifferentiated pure sensation of pain, just as the sensation which mediates stimulus and response in the case of blinking is a modally differentiated, visual sensation of pain.

It may be hypothesized that the sensation mediating stimulus and response is always one of pain. The function of pain is then to cause the response and thus eliminate the pain provoking stimulus. Whereas a sense of well-being tends to cause itself to be repeated, pain tends to cause itself *not* to be repeated or continued. Pain is functionless except in an organism whose survival and welfare depend on the elimination of pain provoking stimuli and the consequent restoration of well-being. Pain is felt in essential contrast to well-being; it is a disturbance, a negation of well-being. (This may be why painful sensation is, unlike the sensation of well-being, self-conscious in a specific sense. Thus it is sometimes said that one does not know when one is happy except retrospectively, except when one is no longer happy.) It follows that, in trying to conceive the mentality of the most confused, least differentiated particle, we must reject the possibility that this mentality consists in a sensation of pain. Functional pain emerges only at the biological level. Although dysfunctional pain may exist at the prebiological level, it would be qualitatively differentiated from a prior state of well-being, and thus would not be the most primitive conceivable form of mentality. It may then be hypothesized that this most primitive form of mentality consists in a modally and qualitatively undifferentiated sensation of well-being, in this and nothing else.

If it is true that pain is correlated with sensation of high intensity, and that even pleasure, if too intense, becomes painful, the sensation of well-being will be of low intensity. The Freudian death wish might be interpreted as the desire for this minimally intense sensation of well-being characteristic of the lowest form of inanimate matter. The function of organic response is the release of tension and restoration of well-being.

All this has been quite hypothetical. So far we have not argued for the *probability* of photonic mentality, but rather for its *conceivability*. But now I come to the main point. In reconstructing the genetic argument, I do not wish to start out from the premise that the mental cannot have evolved from the nonmental, but rather from the premise that the higher-level mind must have
evolved out of the lower-level mind. I wish then to argue that the lowest conceivable biological mind is not the lowest conceivable mind, and that the lowest conceivable mind can be conceived to exist only on the lowest physical level of the so-called elementary particles. Modally undifferentiated tropistic mentality is not the lowest conceivable mentality because it is qualitatively differentiated. The idea is that so long as there is a conceivable level of mentality lower or less differentiated than a given level, the given level has evolved out of the lower level. Biological mentality, whether on the cellular or higher levels, is qualitatively differentiated whether it be painful or pleasureful, pain being experienced as pleasure interrupted, and pleasure as pain transcended. The biological levels are those of stimulus and response, and the pain which mediates S and R is internally related to the memory of well-being which the stimulus disturbs, and to the anticipation of well-being which the response may restore.

Below this level we may conceive a qualitatively undifferentiated sensation of well-being, exemplified by an isolated photon. The mentality of a free neutron, on the other hand, would appear to be painful. The neutron appears to be supported by an atomic environment, and outside an atom the neutron eventually disintegrates. Panpsychistically, we may say that when the environmental, atomic conditions of the neutron’s support fall away the neutron harbors a sensation of pain. If the environmental conditions of its support are not restored, the neutron disintegrates. Pain appears as the experience of a supported entity deficient in support. On prebiological levels, pained entities are incapable of responses which would restore their supportive environments. Well-being is not here experienced as pain transcended. And if the pain is experienced as pleasure interrupted, it is not experienced as a means to pleasure restored.

In contrast to the neutron, the photon is said by physicists to be stable in even an isolated or free state. Panpsychistically, the photon would not be a supported entity and so would be incapable of pain. But it must be stressed that such suggestions are not being offered in anything resembling a dogmatic spirit. What they do show, if anything, is merely that prebiological mentality of even a photonic variety is conceivable, and this tends to show that primitive biological mentality has emerged out of prebiological mentality through a process of complexification. But the distinction must be maintained between arguments for panpsychism as a general thesis and particular panpsychist interpretations of specific natural phenomena. Once the arguments for panpsychism as a general thesis are taken seriously, they become a license to debate alternative panpsychist interpretations of specific natural phenomena. It may seem in the foregoing that we have put the cart before the horse, that we have first defended a particular panpsychist interpretation of photonic and neutronic phenomena in order to construct an argument for the general panpsychist thesis. However, the genetic argument for panpsychism does not in fact depend on the suggested interpretation of photons. Rather, the argument depends merely on the assumption as to the complexity of even the simplest conceivable biological mentality, and on the assumption that complex, internally differentiated or organic wholes initially emerge or evolve out of entities of a less complex nature, so that minds capable of feeling pain evolve from simpler prebiological minds lacking this capacity.4

Purdue University, Fort Wayne Campus

Notes


The present reconstruction of the genetic argument presupposes emergent evolutionism, the defense of which I wish to undertake in a separate paper. I merely observe here that if emergent evolutionism is false, atoms, molecules, cells, and organisms do not exist in their own right, but are ultimately logically fictive aggregates of externally related particle elements, and that their properties must therefore be reduced to properties of those particles. A denial of emergent evolutionism seems to lead to the view that there ultimately are no atoms, molecules, cells, or organisms. But nobody, to my knowledge, has succeeded in reducing the properties of higher biological minds, e.g., modally differentiated sensation, to properties attributable to the nonbiological physical particles.