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# A Note on Active Panpsychism

## Eric Lindell

#### New York City, New York

Panpsychism holds that all matter is inherently conscious, circumventing the knotty issue of how consciousness can emerge from physical phenomena. In the usual formulation of panpsychism, no special treatment is given for active mind. It is argued here that, if matter is inherently conscious, then energy expenditures should be inherently volitional. This approach offers the advantage of a correspondence between consciousness and physics that is more granular, balanced, and complete.

Keywords: panpsychism, passive, active

David Chalmers' (1996) elegant approach to the hard problem of consciousness admits to a simple extension. If subjective experience is an inherent property of matter, then it should follow that volitional agency is an inherent property of energy expenditures. Or, building on labels for passive and active mind, if passive panpsychism is true, then shouldn't active panpsychism follow?

Passive mind is subjective experience. Active mind is volitional agency. This distinction is relevant because Chalmers' modern treatment of panpsychism holds matter to be inherently endowed with subjective experience. With that premise, this paper attempts to expand panpsychism to include explicit treatment of volitional agency.

An alternative thesis is to assume that active mind requires no special treatment beyond that given to consciousness in general in the original formulation of panpsychism by Chalmers.<sup>1</sup> In other words, whatever it is about matter that endows it with subjective experience also endows it with volitional agency. The advantage to the present approach is to acknowledge both forms of consciousness, passive and active, associating each with a distinct physical correlate.

<sup>1</sup> Personal communication, 2008

Correspondence concerning this article should be addressed to Eric Lindell, 23 Lexington Avenue #633, New York, New York 10010. Email: EricLindellNyc@gmail.com

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It warrants emphasis that I am not saying energy expenditures necessarily are volitional, but rather this proposition should stand or fall based on the same merits or lack thereof as passive panpsychism. Moreover, the implication should work bidirectionally; either form of panpsychism should imply the other. The negation of either should imply the negation of the other.

Active panpsychism follows naturally from passive because passive panpsychism includes only subjective experience and only as a property of matter. Beyond subjective experience is an entirely distinct mode of consciousness, namely volitional agency, and beyond matter is an entirely distinct mode of physicality, namely energy. The possible link thus implied is underscored by a well-established correlation between agency and energy. John Eccles (1994) has found them so tightly linked as to propose that, for action to be freely willed, it must violate energy conservation.

Active mind is associated with energy expenditures — just as volitional action, like throwing a baseball, involves kinetic energy. Similarly, passive mind is associated with matter, which, independent of energy expenditures, is inert (passive). By contrast, examples of non-inert matter all involve energy — as in radiation from a uranium sample, molecular motions of heated metal or its photoelectric emissions, or flames leaping from burning logs.

Since this form of panpsychism draws a clear distinction between passive and active mind, it is easy to misconstrue action in perception (Noe, 2004) as a counterpoint — to which I offer the following response. Though integrated into a unified conscious event, the ontological status of passive and active mind as distinct concepts remains undiminished. A similar effect can be seen in a television set with only black and white pixels, from which myriad shades of gray derive.

It is instructive to reduce the panpsychist hypotheses to their simplest forms. First, regarding the matter/experience association, perception must be disentangled from action, as a Hopfield (1982, 1984) biologically inspired autoassociative memory illustrates. Whereas retrieval of data from the memory requires a (stochastic) algorithm, the stored data are static. They are stored as fixed, scalar "weightings" associated with each synaptic interconnect. Analogous effects can be found in Hebb (1949), Minsky and Papert (1969), Rumelhart and McClelland (1986), and Skarda and Freeman (1987).

Second, reducing action to maximal simplicity might entail a bimetallic strip attached to a (furnace) switch. When heated above threshold, the strip coils, flipping the switch off. When cooled, it uncoils, flipping the switch on. Under the present panpsychist assumption, the energy of the action in flipping the switch is volitional. A functional, more complex thermostat can also be implemented as a human being, who turns the heat up or down, according to comfort level.

As regards energy expenditures that are volitional under the present hypothesis, a buildup of electrical potential in the brain's supplementary motor area occurs prior to "freely willed action" (Deecke, Grotzinger, and Kornhuber, 1976; Libet, Gleason, Wright, and Pearl, 1983). This buildup begins an enactive chain from the cortex, through the efferent nerves, to the muscles, bones, fingers, and furnace switch.

Historically, omitting explicit consideration of active consciousness may result from a long-standing bias in philosophy that prefers consideration of subjective awareness — sometimes to the exclusion of volitional agency. To cite one example, Nagle's (1974) renowned discussion of mind's baffling subjectivity asks what is it like to *be* a bat — rather than *to do* as a bat does. (Being and doing, respectively, are another dimension of the passive/active duality.)

This imbalance is arguably an extension of process philosophy, which alleges a bias for substance over process. An example may be found in classical physics, which employs a fundamental unit for mass (e.g., kilogram), but a derived one for energy (e.g., joule, defined in terms of three fundamental units — kilogram, meter, and second).

The foregoing implies a structural parallel between mind and universe. Each is dichotomized — mind, into passive and active; physics, into matter and energy, which hints at the same duality — matter, being passive; energy, active. Whether these parallels may be dismissed as coincidence can be investigated and subject to various epistemic tests. I hope to explore these tests and their implications for the mind-body problem in a subsequent writing.

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