in: New Catholic Encyclopedia Supplement 2012-13: Ethics and Philosophy. Ed. Robert L. Fastiggi. 4 vols. Detroit: Gale, forthcoming 2013.

Panpsychism

Analytic Philosophy; Mind, History and Philosophy of; Soul, Human.

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From the Greek *pan* meaning "all," and *psyche* meaning "soul," panpsychism is a version of ontological monism. It is the thesis that mental being is a fundamental and ubiquitous feature of the universe (cf. Seager 2009, 206).

Panpsychism has a long-standing history in philosophy (cf. Skrbina 2005). Panpsychism can be traced back to pre-Socratic philosophers, such as Thales (cf. Aristotle 411a7), but it is in the Renaissance that it assumed a systematic form. Francesco Patrizi (1529–1597) developed the idea of a divine mental light pervading the universe, which he called "pampsychia" (why he used *pam* instead of *pan* is not clear). Gerolamo Cardano (1501–1576) defended the doctrine of a world soul informing the universe as a psychic principle and Giordano Bruno (1548–1600) stated even more clearly that the world soul is "the formal constitutive principle of the universe and all that is contained in it" (*De la causa, principio et uno*, Venice 1584).

The systematic apex of panpsychism is the philosophy of Gottfried Wilhelm Leibniz (1646–1716). It originates from his criticism of Descartes's concept of matter: "extensionem non esse absolutum, quoddam praedicatum, sed relativum ad id quod extenditur sive diffunditur" [extension is not absolute, as said above, but relative to what is extended or diffused] (Leibniz G IV, 394). The intrinsic nature of matter is rather that all reality is made up of monads considered as mentally propertied units reflecting the entire universe.

Especially at the end of the nineteenth and beginning of the twentieth century, philosophers from different traditions have defended versions of panpsychism: In Germany, Gustav Theodor Fechner (1801–1887) revived the idea of an animated universe, which he held to be a unitary system penetrated by the spirit of God and including all other minor "systems" as sentient subjects. Rudolf Hermann Lotze (1817–1881) restated Leibniz's theory of un-extended, conscious monads, and Friedrich Paulsen (1846–1908) presented physical reality as a manifestation of a supreme psychic unit.

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In the United States, Charles S. Peirce (1839–1914) maintained that mind and matter are but different aspects of a single feeling process. Josiah Royce (1855–1916) shared Fechner's view of the psychic aspect of all things. As one of the most prominent proponents of panpsychism, Alfred North Whitehead (1861–1947) stands out. He pictured the world as a process of events rather than of thing-like substances. These processes are bipolar: mental and physical. They have been aptly described as Leibnizean monads with windows.

In France, the spiritualistic movement of Jean Gaspard Félix Ravaisson (1813–1900) reached its climax in the theory of *élan vital* as the immanent principle of evolution, an idea defended also by Henri Bergson (1859–1941). In *Le cœur de la matière*, Pierre Teilhard de Chardin (1881–1955) claimed just like Whitehead in his 1925 *Science and Modern World* that the idea of evolution leads to panpsychism: The creative activity of matter can be explained only if mental being is present in the world at its very beginning.

At the end of the twentieth century, there was a renaissance of panpsychism in analytic philosophy of mind and metaphysics due to the seemingly insurmountable problems of reductive materialism. David Chalmers (2003) and Galen Strawson (2006) argued that in order for physicalism to allow for the emergence of mind, the nature of physical reality must contain more than what physics de ribes: human consciousness needs to be grounded in the intrinsic natures of physical reality. This can be spelled out in two ways: (1) Russellian Monism, which claims that although there must be an intrinsic nature of matter, knowledge of most characteristics of this nature is concealed from us; (2) panpsychism, which, in contrast to this Kantian move, argues that the intrinsic basis of the material world is indeed experiential (or mental) in nature. Thus, contemporary panpsychism claims to establish coherent middle-ground between dualism and physicalism.

Common to all expressions of panpsychism are two arguments: (1) The *genetic argument*, which is based on the philosophical principle *ex nihilo*, *nihil fit* ("nothing comes out of nothing"). If human con iousness is to evolve from a physical basis, then rudimentary forms of mental being need to be present at the very basis of this evolutionary process. Both Thomas Nagel (2012) and William James (1890, 149) have defended versions of this argument. (2) The *argument from intrinsic nature*, which has been developed as a reaction to the claim that a complete ontology in terms of relations is possible. This view might be inconsistent, because of model theoretic consequences of the Löwenheim-Skolem theorem: relational patterns alone leave the intrinsic nature of concrete individuals underdetermined. Panpsychists argue that the intrinsic nature of matter is known in the case of human consciousness. Being ontological monists, they claim that the intrinsic nature of matter in general is mental being or proto-mental: "Physics is the knowledge of structural form, and not knowledge of content. All through the physical world runs that unknown content, which must surely be the stuff of our consciousness" (Eddington 1920, 200).

There have been other arguments in favor of panpsychism: for example, the ethical strategy employed by David Skrbina (2005, ch. 10) and the ecological strategy employed by Freya Mathews (2003, ch. 6).

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Panpsychism has been applied to scientific thought. For example, panpsychistic interpretations of quantum mechanics have been advanced by David Bohm's theory (1993) of active information and the implicit order, by the Orch-OR model of human consciousness developed by Roger Penrose and Stuart Hameroff (1996), by Henry Stapp's theory of a mindful universe (2007), and by Michael Epperson's Whiteheadian reading of quantum decoherence (2004).

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