

John A. Gowan
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de Broglie Matter Waves and the Evolution of Consciousness

In 1923 Louis de Broglie introduced the notion of matter waves, the particle-wave duality of matter which is the reciprocal extension of the notion of the particle-wave duality of light. The wave nature of matter is evidently a "memory" of its origin in light, much as the particle aspect of light suggests its capacity to create matter. Such dualities are part of the connective tissue of the Cosmos and its two principle energy forms, light and matter (free and bound electromagnetic energy). The less massive the particle, the more strongly is its wave nature expressed. The wave nature of the tiny electron is very pronounced, as is famously demonstrated by the interference phenomena of the canonical 2-slit experiment of quantum mechanics. In the extreme case of neutrinos, which apparently have almost no mass, their wave nature completely dominates their particle nature. However, as particles become heavier and more massive, their wave nature becomes rapidly overwhelmed, until for ordinary macroscopic masses to which we are sensible it is completely obscured.

The rise of consciousness and intelligence in large biological organisms can be seen as a direct reassertion of the wave nature of matter even in large masses; for surely our thoughts, intuitions, and inspirations are nothing if not part of the wave nature of both light and matter, and therefore constitute our personal long-range connection to and medium of communication with the Cosmos - whether in the rational or intuitive mode. An evolutionary goal of biology can be proposed as the reestablishment of the wave nature of matter in macroscopic masses (through consciousness).

This is a basic rationale in purely material-physical terms for the existence of the biological information pathway. It is a parallel development to the abiotic gravitational drive in the same direction, culminating in macroscopic bodies such as our Sun, which are as much radiant wave as they are massive particle. Most curiously, the negentropic gravitational drive and the negentropic biological drive have both culminated in the same process, hydrogen fusion (humanity develops the hydrogen bomb), restoring symmetry through the conversion of bound to free energy. The appearance of this convergence in a destructive rather than a constructive mode is a caution to our species, for we are quite literally engaging, at our peril, the "dark side of the force". The Sun will eventually destroy the Earth, needing no assistance from humans. (See also: "[The Information Pathway](#)".)

In terms of natural connectivity, this explanation is also completely consistent with the development of life through the 4x3 fractal algorithm, through matter's search for antimatter, and with the biological destiny of humanity as the reproductive seed and dispersal agent of Gaia. The connectivity of the Universe is the essence of its physical character and is what we perceive as its "spiritual" nature; our perception, consciousness, intelligence, and rational and intuitive awareness are all part and parcel of this wavelike connectivity and evolving cosmic self awareness - and not just here on Earth, but everywhere in the Cosmos that suitable conditions for life exist. See: "[Newton, Darwin, and the Evolution and Abundance of life in the Cosmos](#)".)

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A book by Prof. J. C. Gowan (Sr.): [Trance, Art, Creativity: An Investigation of the Numinous Element and the Metaphysical Realm.](#)

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