

Review of: "Provisional Definition of the Living State: Delineation of an Empirical Criterion that Defines a System as Alive"

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This article makes an interesting statement that is worth publishing: "Stand-alone volition is the key attribute of Life". This idea, which could potentially attract citations, may not be totally original, but the existing literature is somewhat confusing, so additional publications on this topic are needed. Other authors prefer the term consciousness to describe the same fundamental element of living systems. However, consciousness is an old, overused term that, in Psychology, only describes advanced mental activity as opposed to unconsciousness or subconsciousness. Therefore, the introduction of the term volition is interesting so that related papers promoting this terminology deserve attention.

Nevertheless, the paper has several weaknesses. Whereas in its first version, the reference list was unacceptably short, the introduction of the second version presents a long but unfocused and incoherent review of various works on the origin of life. In addition, no effort has been made to clarify the rather mathematically vague definition of terms such as consciousness and volition. In such a task, Brillouin's definition of information (negentropy) could be helpful. Finally, the claims presented in this work are not systematically supported by arguments based on experimental evidence. Therefore, a series of examples should be added showing that target-oriented behavior exists at all levels of the hierarchy of living systems. Moreover, the author should present arguments showing that the traditionally used descriptive definition of Life, which involves metabolism, growth, responsiveness, reproduction, etc., is compatible with his new definition by showing that all these functions of living systems can be viewed as consequences of the paper's basic principle, namely of the existence of stand-alone volition.