

## ABSTRACT

Current science has no place for meaning at a fundamental level. In the following an alternative picture of nature is developed, based on the Circular Theory of Yardley. Yardley's account is of a descriptive character, not amenable as such to scientific analysis, but it is shown in the following that it can be clarified by relating it to existing concepts in science, including crystal formation, critical phenomena, and biological sign theory (biosemiotics). According to this synthesis, reality at a fundamental level can be viewed as the product of a fluctuating crystallisation process, regulated both by biological mechanisms and by considerations involving symmetry. The overriding symmetry involved is that of the conformal symmetry group known to apply to critical fluctuations, thus accounting for the key role of line and circle in circular theory.

In biosemiotics, a special construct known as semiotic scaffolding has been invoked as the basis of the systematic organisation and development of phenotypes, and it plays a key role in the present analysis. Twentieth century physics, with its computational and reductionistic emphases, failed to take this possibility into account, developing instead the quantum theory, which from the present standpoint is a defective theory, providing only statistics and ignoring the possibility that buried within the statistics may be meaning. Conversely, the invocation of appropriate scaffolding offers the possibility of accounting for putative anomalies and the fact that nature appears to be attuned to life (the anthropic principle). More controversially, the scaffolding mechanism may be relevant to the process of biological evolution, not just within the organism.

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Brian D. Josephson  
Emeritus Professor of Physics, University of Cambridge  
Director, Mind–Matter Unification Project  
Cavendish Laboratory, JJ Thomson Ave, Cambridge CB3 0HE, UK