

# **Does the Non-Locality of Quantum Phenomena Guarantee the Emergence of Entropy?**

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## **Abstract:**

Quantum-Mechanical objects and phenomena have a different nature, and follow a different set of rules, from their classical counterparts. Two interesting aspects are the superposition of states and the non-locality of objects and phenomena. A third aspect, that gives quantum-mechanical objects which have common roots a non-local connection, is quantum entanglement. This paper takes up the question of whether these three properties of quantum mechanical systems engender the phenomenon of entropy, in terms of creating a condition where energy is dispersing, or going from being more localized to being more spread out over time. The author feels that quantum-mechanical systems necessarily take on aspects of computing engines, in this context, and discusses how the onset of chaos is possible even with relatively simple calculational processes, which may help to explain what is observed as entropy in ordinary affairs, or with macroscopic systems.