

Quantum Sleeping Beauty

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Abstract

The Sleeping Beauty paradox in epistemology and the many-worlds interpretation of quantum mechanics both raise problems concerning subjective probability assignments. Furthermore, there are striking parallels between the two cases; in both cases personal experience has a branching structure, and in both cases the agent loses herself among the branches. However, the treatment of probability is very different in the two cases, for no good reason that I can see. Suppose, then, that we adopt the same treatment of probability in each case. Then the dominant 'thirder' solution to the Sleeping Beauty paradox becomes incompatible with the tenability of the many-worlds interpretation.

Keywords: Quantum mechanics, many worlds, Everett, probability, Sleeping Beauty paradox

Subjects: [Specific Sciences: Physics: Quantum Mechanics](#)

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