Branching and Uncertainty

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Abstract

Following Lewis, it is widely held that branching worlds differ in important ways from diverging worlds. There is, however, a simple and natural semantics under which ordinary sentences uttered in branching worlds have much the same truth values as they conventionally have in diverging worlds. Under this semantics, whether branching or diverging, speakers cannot say in advance which branch or world is theirs. They are uncertain as to the outcome. This same semantics ensures the truth of utterances typically made about quantum mechanical contingencies, including statements of uncertainty, if the Everett interpretation of quantum mechanics is true. The `incoherence problem' of the Everett interpretation, that it can give no meaning to the notion of uncertainty, is thereby solved.

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