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# No-common-cause EPR-like funny business in branching space-times

Belnap, Nuel (2002) *No-common-cause EPR-like funny business in branching space-times*. [Preprint]



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## Abstract

There is "no EPR-like funny business" if (contrary to apparent fact) our world is as indeterministic as you wish, but is free from the EPR-like quantum-mechanical phenomena such as is sometimes described in terms of superluminal causation or correlation between distant events. The theory of branching space-times can be used to sharpen the theoretical dichotomy between "EPR-like funny business" and "no EPR-like funny business." Archived publication PITT-PHIL-SCI00000451 offered two analyses of the dichotomy, and proved them equivalent. This essay adds two more, both connected with Reichenbach's "principle of the common cause," the principle that sends us hunting for a common-cause explanation of distant correlations. The two previous ideas of funny business and the two ideas introduced in this essay are proved to be all equivalent, which increases one's confidence in the stability of (and helpfulness of) the BST analysis of the dichotomy between EPR-like funny business and its absence.

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