

Review of: "What connects entangled photons?"

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Potential competing interests: No potential competing interests to declare.

The continuing efforts to understand entanglement appear very necessary to this reviewer. Robert French's review of this paper addresses many of the issues this reviewer recognizes. In addition:

N. D. Mermin's paper "Quantum Mysteries for Anyone" (1980) available at:

http://hep.ucsb.edu/courses/ph125_02/mermin.pdf identifies 8 states in its model of the entangled system without the use of QM formalism. Richard Feynman described this paper by Mermin as "one of the most beautiful papers in physics". Mermin's model offers very strong support of Bell's theorem (1964). An equivalent system without remote entanglement has 4 states: two spin directions at two detectors. The author's model does not appear to correlate to Mermin's 8 state model.

This reviewer also doesn't find this author's analysis compelling given that the refutation of Bell's theorem, which basic to the author's thesis, is another paper by the same author.

The author does identify that the initial conditions of the system do effect the results. A published paper (2021) that develops how the initial conditions create the illusion of remote entanglement, following Mermin's model, is "Measurement unification" available at: <https://www.sciencedirect.com/science/article/pii/S0263224121005960?via%3Dihub>