Conventionality of Simultaneity and Reality

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Abstract

An important epistemological lesson can be learned from the impossibility to determine the one-way velocity of light and the immediate implication that simultaneity is conventional. The vicious circle -- to determine whether two distant events are simultaneous we need to know the one-way velocity of light between them, but to determine the one-way velocity of light we need to know that the two events are simultaneous -- is an indication of the need for a profound change of our view on reality.

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