

Handedness, parity violation, and the reality of space

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Abstract

In the first part of this paper a relational account of incongruent counterparts is defended against an argument due to Kant. I then consider a more recent attack on such an account, due to John Earman, which alleges that the relationalist cannot account for the lawlike left--right asymmetry manifested in parity-violating phenomena. I review Hofer's, Huggett's and Saunders' responses to Earman's argument and argue that, while a relationalist account of parity-violating laws is possible, it comes at the cost of non-locality.

Keywords: incongruent counterparts, parity violation, substantivalism, relationalism, space, Kant, Earman

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