

Relativity theory between structural and dynamical explanations

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Abstract

In this review article I discuss Harvey Brown's recent book *Physical Relativity* (OUP, 2005) by presenting and criticizing some of his main arguments in favour of a dynamical underpinning of rods contractions and clocks dilations. The problem about how we should understand contractions and dilations raises deep questions on the nature of physical explanations, which are addressed only partially by Einstein's distinction between Principle theories and constructive theories.

Keywords: relativity, spacetime, explanation, kinematics, dynamics, inertia, rod contractions, clock dilations

Subjects: [Specific Sciences: Physics: Relativity Theory](#)

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