

Time Travel and the Reality of Spontaneity*

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Received August 17, 2005; revised January 15, 2006; Published online April 22, 2006

Contrary to the informed consensus, time travel implies spontaneity (as distinct from chance) so that time travel can only be of the second kind.

KEY WORDS: time travel; tilt in the arrow of time; spontaneity; mundane time.

“No patient who recovers without a physician can logically attribute his recovery to spontaneity. Indeed, under a close examination spontaneity disappears. For everything that occurs will be found to do so through something, and this ‘through something’ shows that spontaneity is a mere name and has no reality. Medicine, however, because it acts ‘through something’ and because its results may be forecasted, has reality.”^a

1. INTRODUCTION

In this note I consider time travel both as a real physical possibility and as a means of re-examining fundamental assumptions about time. Although stemming from a new mathematical model of the evolutionary equations of physics, the arguments in this note are robust enough to be stated with the technicalities only in the background. Such a style of

* A preliminary version of this paper was presented at a Seminar on ‘Reality in Physics and Philosophy,’ S. N. Bose National Centre for the Basic Sciences, Calcutta, 24-25, Feb 1996.

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^a Hippocrates, *The Art*, cited in S. Sambursky, *Physics of the Stoics* (Routledge and Keegan Paul, London, 1987) pp. 51–52.