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## Tempospect Theory of Intertemporal Choice

PDF (Size: 107KB) PP. 555-557 DOI: 10.4236/psych.2012.38082

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### ABSTRACT

Anomalies in intertemporal choice (e.g. hyperbolic discounting, subadditive discounting, a sign effect, a magnitude effect, and a delay-speedup asymmetry) have been investigated in neuroeconomics and behavioral neuroeconomics. In this study we propose a “tempospect” theory of intertemporal choice which can account for these anomalies in intertemporal choice. The key features of the present theory are: 1) decision over time is made with psychological time; and 2) psychological time is determined by a change in delay until receipt (i.e., positive or negative time-interval between options); 3) psychological time is less sensitive to a decrease in delay in comparison to an increase in delay; and 4) psychological time is influenced by the sign and magnitude of the delayed outcomes. Implications of the present theory for neuroeconomics are discussed.

### KEYWORDS

Time Discounting; Psychological Time; Psychophysics; Behavioral Economics; Neuroeconomics

### Cite this paper

 Takahashi, T. & Han, R. (2012). Tempospect Theory of Intertemporal Choice. *Psychology*, 3, 555-557. doi: 10.4236/psych.2012.38082.

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