

Intertemporal discounting in psychology and economics

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One of the most celebrated concepts of current behavioural economics is the notion of “time preferences”. Its fundamental idea is that economic agents pose a premium on enjoyment nearer in time over more remote enjoyment, and that this premium is analytically separable from their other evaluative dimensions. Time preferences are mathematically captured in a discount function. Discounting, of course, has a long history in neoclassical economics, but as an idealizing rationality assumption, not as a substantial assumption about people’s psychological characteristics. Behavioural economics changed this, deriving explanations of people’s behaviour, as well as prescriptions how to influence such behaviour, from specific forms of the discounting functions, specifically its “hyperbolic” form. This amounts to a fundamentally different interpretation of discounting – an interpretation that is derived not from economics, but from psychology. This paper examines how this interpretation was developed in psychology, tracing its roots to Mischel’s Marshmallow Experiments, Herrnstein’s Matching Law and Ainslie’s research on impulse control. It then investigates how this interpretation was transferred into economics, and how formal models were adapted to match them to economic modeling practices. The result is an example how models were shaped through the conditions of interdisciplinary transfer.