

# Impulsivity and Social Security\*

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## Abstract

A leading justification for the existence of a social security (mandatory savings) program is that it succeeds as a paternalistic commitment device that counters insufficient saving for retirement due to impulsive spending. Indeed, the concepts of time inconsistency and saving too little for retirement have been operationalized with research on hyperbolic discounting. Yet despite the fact that hyperbolic discounting has become the conventional way to model and represent impulsive behavior in economics and psychology, a major obstacle still exists for the mandatory savings role of social security given that a recent body of research has documented that it is *impossible* for hyperbolic discounting to justify the need for a social security program. I demonstrate both analytically and numerically that social security does indeed succeed as a commitment device in restraining impulsive spending and that it does indeed improve life-cycle well-being, if the idea of an impulsive consumer is conceptualized differently. This alternative specification of impulsivity is represented as an *intra*-temporal tension between saving optimally and saving too little, which fits within the general context of a “dual self” (Thaler and Shefrin 1981). This finding provides a theoretical basis for the principal justification of social security.

**Keywords:** *impulsivity, time-inconsistent preferences, social security, dynamic optimization, life-cycle consumption and saving theory*

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