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Goals and bracketing under mental accounting

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Abstract

Behavioral economics struggles to explain why people sometimes evaluate outcomes separately (narrow bracketing of mental accounts) and sometimes jointly (broad bracketing). We develop a theory of endogenous bracketing, where people set goals to tackle self-control problems. Goals induce reference points that make substandard performance painful. Evaluating goals in a broadly bracketed mental account insulates an individual from exogenous risk of failure; but because decisions or risks in different tasks become substitutes there are incentives to deviate from goals that are absent under narrow bracketing. Extensions include goal revision, naïveté about self-control, income targeting, and firms' bundling strategies.

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1. Introduction

We investigate how people set goals and evaluate these in mental accounts to achieve self-control, thereby making novel predictions about a central question in behavioral economics: mental accounting.² An important and still poorly understood aspect of mental accounting is how people "set the brackets". Do they evaluate outcomes in a narrowly or in a broadly bracketed mental account? Camerer et al. (1997) and Read et al. (1999) informally discuss that narrowly evaluated goals, such as daily work goals, may facilitate self-control. Heath and Soll (1996) document how people control their expenditures in narrowly bracketed mental accounts, such as entertainment, clothing, or food. And many diet programs, such as Weight Watchers PointsPlusTM, involve daily nutrition goals. But at the same time, not all goals are narrow. People do not have a mental account for every item they buy, or for every possible consumption category. And diet programs typically combine daily nutrition goals with the recommendation to weigh yourself not daily, but only at weekly intervals, or to set a weekly exercise goal (e.g., UK National Health Service, 2012).

To explain such puzzling evidence, we explicitly model the processes through which mental accounts impose constraints on future behavior, and how these constraints depend on the bracket of the account. By asking what goals are self-enforcing under a certain type of bracket, we derive boundary conditions for self-regulation and a theory of endogenous bracketing. Extending our model to allow for revision of goals and brackets, we address the question why it is not optimal for an individual to deviate from an originally adopted bracket for mental accounts by transforming narrow brackets into a broad bracket.

The idea that narrow bracketing is a means of overcoming self-control problems figures prominently in behavioral economics and consumer research.³ Yet, this literature has the important limitation that the brackets of a mental account are imposed rather than endogenous and that models directly assume non-fungibility between accounts without spelling out how the brackets of a mental account actually constrain behavior.⁴

We consider an individual who faces two decisions with uncertain productivity (for instance, how hard to work on two different tasks or how much to consume of two different goods) and who has a demand for self-control stemming from a present bias. The individual's present bias implies that, when making a decision, he puts too little weight on the future benefits, or the harm that working on the task brings along. To motivate his future self, the individual therefore sets goals and specifies the brackets of his mental accounts. Goals induce reference points in a particular mental account, and the individual is loss averse regarding goal achievement.⁵

² Mental accounting is often associated with how people organize their financial activities (cf. Thaler, 1999). We adopt the broader perspective of Tversky and Kahneman (1981).

³ Examples are Thaler and Shefrin (1981), Shefrin and Thaler (1988), Thaler (1985, 1999), Heath and Soll (1996), Prelec and Loewenstein (1998), Read et al. (1999), and Fudenberg and Levine (2006, 2011).

⁴ Prominent examples are Thaler and Shefrin (1981) and Shefrin and Thaler (1988), who assume a different marginal propensity to consume out of wealth for each account; and Fudenberg and Levine (2006, 2011), who model mental accounts as "pocket cash constraints" on a short-run self with a life-time of one period. Non-fungibility between accounts is imposed by assuming that the short-run self has no access to other accounts.

⁵ Goals and mental accounts are internal commitment devices. Relatedly, Bénabou and Tirole (2004) explain why internal commitment devices can actually work if an individual has imperfect knowledge about his willpower. Our approach applies to different informational environments (perfect vs. imperfect self-knowledge) and relies on different mechanisms.

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