

# The Cognitive Science of Saving: Individual Financial Structures as Tools for Self-Control

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## Economic Rationality versus Self-Control and Mental Accounting

Since Strotz (1955), the standard economic model of wealth distribution over the lifecycle as an overall utility maximization has been challenged repeatedly (i.e. Thaler, 1980). The two main observations contradicting the integration into one category of total discounted wealth are the additional utility of direct or anticipated consumption (self-control) and the segregation into financial categories (mental accounting). Different models to capture these behavioral characteristics have been proposed.

Various patterns of SC have been described in the literature of financial behavior. In line with Schelling (1984) and Ainslie (1975) these can be categorized into three different types: precommitment, environment manipulation, changes in contingencies.

Many behavioral pattern use different mechanisms in combination to guide saving. Often external control goes hand in hand with internal preparedness and are therefore difficult to distinguish from each other. The categorization above illustrates the variety of possible alternatives which can be applied. In this paper we evaluate whether people actually use SC strategies to guide saving behavior.

### Saving Concepts

To evaluate the different approaches to the savings task it is necessary to know how people understand this problem and what their saving goal is. The construal and mental representation are important for the various SC initiatives. For understanding the mental representation of saving it is useful to know how people structure their finances.

### Saving Structures

All 13 participants, from a two hour open structured interview with a drawing board task, have some sort of financial structure in place to facilitate saving. But the general understanding of this structure is poor and is only revealed through the task.

The derived results divide into two categories 'tiered structures' and 'radial structures' (Figure 1). The tiered structures (46% of the cases) serve as a sort of buffer with different levels. In the radial structures (54%) the income is distributed between different saving accounts. In all cases a number of accounts are linked in specific ways by tools which control or guide the transfers.

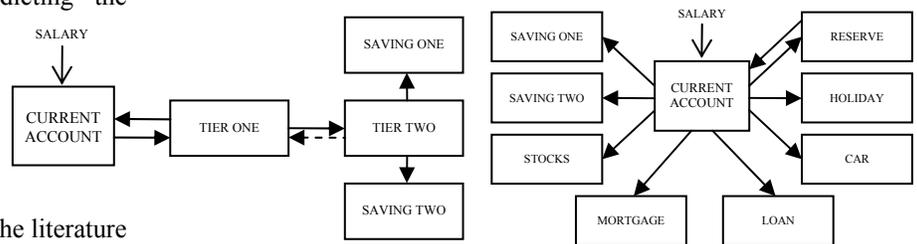


Figure 1: Tiered and radial structures

### Behavioral Differentiation

A specifically developed questionnaire shows, with 57 saving behavior related items and based on 173 participants, that the demand for self-control tools is the most prominent factor in the saving domain. The individual differences in SC strongly demand tailored solutions and stress design components which support the understanding, the involvement, the evolution, and the flexibility of financial products.

### References

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