Essays on Reference-Dependent Preferences

This dissertation investigates the role of reference-dependent preferences in different areas of application, both from an empirical/experimental and a theoretical perspective. Despite their common focus, all chapters are self-contained and can be read independently.

In the first chapter, entitled "Does Loss Aversion Beat Procrastination? A Behavioral Health Intervention at the Gym", I analyze the implications of reference-dependent preferences in the domains of self-control and optimal incentive design. Financial incentives are a common tool to encourage overcoming self-control problems and developing beneficial habits. There are different means by which such incentives can be provided, yet, up to date there is little empirical evidence on the relative effectiveness of different incentive designs. I present the results of a field experiment that explores whether and how incentives that are economically equivalent but framed differently affect the likelihood of exercising at a gym. I find that framing incentives in terms of losses, meaning individuals lose cash incentives by not exercising, encourages more frequent visits to the gym than framing incentives in terms of financial gains. After removing these incentives, I observe habit formation in gym exercise only if incentives were framed as losses rather than gains. The findings are consistent with the concept of reference-dependent preferences and loss aversion and suggest that cost reductions and performance improvements can be achieved if opting to frame incentives in terms of losses.

The second chapter, entitled "Salience-adjusted Expectation-based Reference Points: Theory and Experiment", studies the consequences of reference-dependent preferences in the domain of decision making under uncertainty. Recent theories of expectation-based reference-dependent preferences offer a structured approach of the formation of reference points, yet do not incorporate important context-specific characteristics. One implicit assumption is that individuals rationally form their reference point as expectations, by correctly predicting the probabilistic environment they are facing. A second assumption is that in subsequent unanticipated decision making problems, individuals consider previously formed lagged expectations as their reference point. In an experimental setup, I demonstrate that specific contextual factors affect the composition of expectation-based reference points. First, while expectations are formed, outcomes that attract the moment of first focus receive a higher weight. Second, in subsequent unanticipated decision making under uncertainty, the outcomes of the choice set affect to which extent lagged expectations are considered as a reference point, depending on the associated intensity of gains and losses. Finally, apart from providing empirical evidence on the limitations of current theories of expectation-based reference-dependence, I present a theoretical extension that can overcome some of these limitations by allowing reference points to be contingent on salient contextual effects.

In the third chapter, entitled "Competitive Persuasive Advertising under Consumer Loss Aversion", I examine the role of reference-dependent preferences in the domain of consumer choice. In particular, I analyze the effects of expectation-based loss aversion in imperfect competition when consumers’ gain-loss utility is susceptible to salience effects. I present a theoretical model in which consumers’ gain-loss utility associated with the expectation to buy the most salient products within their contextual environment is inflated upwards, whereas the gain-loss utility associated with the expectation to buy the least salient products is deflated downwards. Firms can strategically manage consumers’ gain-loss utility by investing in salience-enhancing activities, such as persuasive advertising. If consumers are initially aware of prices but uncertain about their individual match value from the purchase, persuasive advertising has strictly anticompetitive consequences. This is because it allows firms to mitigate consumers’ experienced losses from higher prices, which reduces competitive pressure.