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Aspiration-based choice ☆

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Abstract

Numerous studies and experiments suggest that aspirations for desired but perhaps unavailable alternatives influence decisions. A common finding is that an unavailable aspiration steers agents to choose similar available alternatives. We propose and axiomatically characterize a choice theory consistent with this aspirational effect. Similarity is modeled using a subjective metric derived from choice data. This model offers implications for consumer welfare and its distribution between rich and poor when firms compete for aspirational agents, and a novel rationale for sales.

JEL classification: D11; D21; D90

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1. Introduction

There is widespread evidence that decision makers do not always behave as utility maximizers. While violations of rationality occur, they do not appear to be random but often follow

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systematic patterns. To better understand these patterns, the conditions under which they occur and their economic implications, a growing literature has proposed choice models that accommodate departures from rationality. In this paper, we introduce a choice model that focuses on the effect of unavailable alternatives.

The question of how unavailable alternatives influence decision making has received scant attention in the decision theory literature, even though numerous studies and experiments suggest that they have an important effect. Some examples are: (1) The high price (and hence unavailability) of luxury brands leads consumers to purchase similar and cheaper counterfeit products. (2) Individuals may attempt to "keep up with the Joneses" and mimic the choices of their neighbors, even though (or perhaps because) those alternatives are not feasible for them. (3) A manager's consumption-leisure decision is unavailable to her subordinates due to wage differences, but can affect how they trade off between the two. (4) An employer may change her ranking of job applicants after interviewing a "superstar" who is clearly out of reach. (5) Past consumption can create habits that influence current consumption, especially when past consumption levels are no longer attainable. (6) Many advertised products are intentionally unavailable (such as limited editions or vaporware) in order to influence consumer choice among available alternatives.[1]

A number of experiments have found that the presence of a *phantom* alternative, which is desired and unavailable, leads agents to choose a similar available alternative. Farquhar and Pratkanis (1992, 1993) were the first to conduct such experiments. Highhouse (1996) and Pettibone and Wedell (2000) respectively found this *aspirational effect* to be equal in magnitude to the well-known attraction and compromise effects.

The above examples and experiments present a basic violation of rationality because alternatives that are unavailable (and therefore irrelevant) affect decisions. However, two systemic patterns appear and they are not accounted for by existing models of bounded rationality: the unavailable alternatives influencing these decisions are desired by the decision maker, and when a highly desired alternative is unavailable, decision makers tend to choose *similar* available alternatives. The first part of this paper proposes an axiomatic choice model that captures the effect of unavailable alternatives. The second part studies the economic implications.

A choice problem is a pair of sets: a set of observed alternatives and a subset of those which are also available for choice. The observed alternatives which are not in this subset are unavailable. For each choice problem, an agent chooses a subset of the available alternatives, but her choice may depend upon the unavailable alternatives.

We axiomatically characterize a choice procedure defined by two primitives: a linear order over alternatives and an endogenous metric. A decision maker focuses on the maximal element she observes according to the linear order, which we call her *aspiration*. She selects the closest available alternative to this aspiration where distances are measured using her metric. This procedure lines up with basic intuition as well as the experimental findings that an unavailable aspiration steers the agent to the most similar available option.

Three straightforward axioms characterize this procedure. First, in the absence of unavailable alternatives, choices are rational. Second, the agent behaves rationally across choice problems with the same observed alternatives. Third, the agent's most desired alternatives (aspirations) are revealed by her choices when every observed alternative is also available. We assume that the agent chooses the same alternatives from choice problems with the same available alternatives and the same aspirations.

[1] Vaporware refers to advertised software or hardware that is not available to buy.