Special Session Summary  New Frontiers in the Construction of Preferences

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The idea that preferences are constructed rather than retrieved from memory has been very influential in the thinking of many consumer choice researchers (e.g., Bettman, Luce and Payne, 1998). Studies derived from this idea have uncovered many interesting effects. The composition of the choice set has influenced this construction process and resulting preferences (e.g., attraction effect). The type of preference elicitation has also been shown to have important influences on preference construction (e.g., matching versus choice). While many strides have been made in understanding the preference construction process, there is still much to learn about the mechanisms of preference construction. This session can help develop some specific mechanisms involved in the construction process.

The first two papers are more theoretical and the third paper is more applied. In the first paper, techniques are borrowed from the attitude construction literature to help understand the mechanisms behind some common effects in preference construction. Using a feelings-as-information approach allows us to identify which context effects can be influenced by subjective feelings states at the time of the decision. This allows us to better understand how the context effects affect the preference construction process. The second paper looks at how the preference elicitation task (choice versus matching) affect preference construction. That research identifies simply arithmetic construction strategies (e.g., ratio or difference matching) that underlie responses to matching questions. These strategies allow us to refine previous choice theory (i.e. the prominence effect) by appealing to the low level methods of preference construction. The last paper looks at a real-world example of how matching and choice differ. It shows that very consequential decisions (housing prices) can be greatly affected by biases in the preference construction process.

LONG ABSTRACTS

"Parallels in the Underpinnings of Constructed Preference and Constructed Attitudes"
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The notion that preferences are constructed rather than retrieved from memory has been an important influence on consumer choice research (e.g., Bettman, Luce and Payne, 1998). Many effects, including choice context effects rely on this orientation. While constructionist ideas were flourishing in choice research, researchers studying attitudes were suggesting that attitudes are constructed rather than retrieved from memory. In fact, there are many parallels between the two bodies of research. Context effects based on temporary and often normatively irrelevant cues were having effects both on the construction of preferences and on the construction of attitudes. However, many ideas that might be applied to both attitudes and preferences have not crossed the boundary between these two fields. In the research described below, we attempt to introduce a key idea from attitude research (feelings-as-information) into preference contexts.

In attitude research, there is a line of research known as feelings-as-information (Schwarz, 1990; 2001) that shows that individuals use their current subjective feeling state to inform their attitudes toward various objects. In our research we attempt to induce feelings (e.g. difficulty) in individuals making decisions and see how that affects their preference construction. We look at three preference construction effects: the compromise effect, the attraction effect, and the no-choice effect.

In several studies, we investigate the compromise effect. Demonstrations of this effect involve adding a third option to a two-option choice set in such a way as to increase the share of one of the original options. For example, consider a choice between a high quality/high price option (B) and a low quality/low price option (C). When a very high price/very high quality option is added to the choice set, consumers seem to often choose the middle or compromise option (B) even more than they chose it in the two-option set. In our studies, we expand this design to include an inducement of a subjective feeling of difficulty. We manipulate the subjective difficulty of the choice by asking respondents if they can think of 2 or 10 reasons for their choice. Most people cannot think of 10 reasons in the choices we offer, so the 10-reason condition induces a strong subjective feeling of difficulty. When subjective difficulty is increased, we observe a greater compromise effect. This suggests that the compromise effect is the result of a deliberate strategy that the decision maker adopts to help them make a choice.

We also conducted several studies looking at the effect of adding a no-choice option to a decision. Similar to the compromise effect, we find that the no-choice option has a bigger effect when the subjective difficulty is high. This suggests that no-choice effects are also mediated by a deliberate strategy.

Interestingly, subjective difficulty does not always increase context effects in choice. We investigated another preference effect, the attraction effect. In the attraction effect, adding a third option to a two-option choice set that is dominated by one of the original options but not the other increases the share of the dominating option relative to the two-option set. Using the same 2 versus 10 reasons manipulation we varied the perceived difficulty of choices related to the attraction effect. We find that the attraction effect, as opposed to the compromise effect or no-choice effect, is attenuated when the subjective difficulty of the choice is increased. We believe that the attraction effect is reduced because it is a perceptual effect. That is, the attraction effect occurs because the dominated option makes one option more attractive. Choosers are generally not aware that the dominated option is having an effect on the choice. Rather, the chooser just perceives the dominating option as more attractive. Increasing the subjective difficulty interrupts this effect by encouraging the chooser to think more about the choice.

In the studies above, the difficulty in generating reasons for the choice is attributed to the difficulty of the decision-maker in making the decision. In follow-up studies, we manipulated whether the difficulty of generating reasons was attributed to the decision-maker having difficulty with the decision or to something else. For example, by telling respondents that other people on average can generate only a few reasons, the difficulty in generating reasons is attributed to the fact that too many reasons were requested not to the fact that the respondent is having difficulty with the decision. When the attribution for the feeling of subjective difficulty is directed away from the decision the influence of the number of reasons on the context effects is eliminated.
“The Psychology of Matching and the Prominence Effect”
Shane Frederick, MIT
Eldar Shafir, Princeton University

Most objects of preference can be evaluated along multiple dimensions or attributes. Apartments vary on rent, square footage, and distance from work. Automobiles vary on gas mileage and safety. Gamble have different payoffs and probabilities. Thus, evaluating such options typically requires tradeoffs between attributes.

Determining the relative importance or weight people assign to various attributes is a central theoretical and practical topic in economics, psychology, decision analysis, and consumer research. Various elicitation methods have been used to infer attribute weights, including choice, matching, rating and pricing, and even asking people to directly graph their indifference curves (e.g., MacCrimmon & Toda, 1971).

These alternate elicitation procedures often imply different attribute weights. One of the most striking and widely cited examples of this was first reported by Slovic (1975), who found that respondents tended to select the alternative that was superior on the dimension they had previously rated as more “important” even though they were choosing between pairs of alternatives they had previously “equated” in a matching task. This effect, which Slovic first termed the “more important dimension hypothesis” was renamed the “prominence effect” by Tversky, Sattath, and Slovic (1988, p. 372), who replicated and extended Slovic’s original findings. The prominence effect has subsequently been replicated for many decision contexts and types of attributes (see, e.g., Fisher and Hawkins, 1993; Hawkins, 1994; Sekides, Ariely, & Constantine, 1999; Fischer et al., 1999). However, no consensus has emerged regarding its underlying cause(s).

In this paper, we explore the prominence effect in the context of the various strategies respondents use to solve matching tasks. We propose that respondents may match alternatives using one of three different strategies (difference matching, ratio matching, and adjustment), and that each may be used depending on the comparability of attributes, the units in which the scale values are denominated, the relative magnitude of the scale values, and even the ease of subtracting vs dividing. Depending on the particular task and attribute values, the application of such strategies can lead to patterns consistent with the prominence effect. However, it can also generate the opposite pattern (in which the more important attribute is weighted more heavily in matching than in choice). We show several such examples.

In our first study, we show that in cases where a ratio matching strategy is likely to be used, the prominence effect can be eliminated or even reversed merely by changing scale values. Indeed, we show that the most widely cited illustration of the prominence effect (Tversky, Sattath, and Slovic’s “lives vs. money” problem) disappears when the numbers used to describe lives and money respectively are swapped (Camen and Simonson, 1998, show a similar effect in consumer choice problems).

In a second study, we show that the size and direction of the choice-matching discrepancy can be manipulated by changing the scale value at which one of the choice options is instantiated. In each case, we demonstrate both the prominence effect and its converse, merely by manipulating the attribute value at which one of options varies. This effect has been completely ignored in prior research on this phenomenon, because the choice task is ordinarily taken as the ground against which various versions of matching tasks are compared.

In a third study, we show that the imputed tradeoff rates can be dramatically affected by manipulating the ease with which people can apply the various strategies (e.g. making the attribute levels multiples of each other may focus attention on ratios, rather than differences). We also show a new type of dominance violation that can arise when increasing the scale value switches people from focusing on ratios (which favors that item) to focusing on differences (which favors the competing item).

In summary, this paper offers a discussion of the meaning and imputation of attribute weights and attribute “importances,” and a typology of alternative strategies that respondents may use to generate responses in matching tasks, including difference matching, ratio matching, and adjustment. Against this background, we show that the size and even direction of the prominence effect can be influenced by factors that have nothing to do with attribute importance, per se, and that prior accounts of the prominence effect are, in this sense, misleading. However, we also show several phenomena that are qualitatively consistent with the prominence effect, including matching responses that are radically insensitive to qualitative task features (e.g. whether a graduate applicant is applying for admissions to an English Department or a Mathematics department) and choice proportions that seem adequately sensitive to quantitative task features (e.g. the exact number of crimes prevented or false arrests created by a more aggressive crime prevention policy).

“A Behavioral Analysis of Real Estate Prices”
Christopher Hsee, University of Chicago
Yan Zhang, China Europe International Business School

The present article examines the same pattern of units on different floors in a given building. There are three main sale patterns. The first is a flat pattern, in which all units are sold at about the same rate, whether the units are on good (high) floors or bad (low) floors. The second pattern is bad-before-good, in which low-floor units are sold faster than high-floor units. The last pattern is good-before-bad, in which high-floor units are sold faster than low-floor units.

Theoretically, developers can precisely control the sales pattern of units in a given building through pricing. For example, if developers want a bad-before-good pattern, then they should price the low-floor units sufficiently low and price the high-floor units sufficiently high. If developers want a good-before-bad pattern, then they should keep the price difference between high and low-floor units small.

Our research examines whether developers price floors in such a way that the actual sale pattern matches their intended sale pattern. Our prediction is that it does not. Our theory is that when developers price the units, they are in a matching or anchoring-and-adjustment mode, but when buyers decide which unit to purchase, they are in a choice mode. We also know from extensive interviews that consumers consider floors as a more important (prominent) dimension than price. Based on prior research (Tversky, Sattath & Slovic, 1988), we predict that developers (the matchers) will give the more prominent attribute (floors) less weight than the consumers (the choosers). As a result, the final sales pattern will differ from the developers intended sales pattern, with high-floor units selling faster than intended by the developers.

In this talk, we will present both data from controlled questionnaires and actual real estate sales data from Shanghai, the most active real estate market in the world today. The results of our research can be summarized as follows:

1. Most professional developers and realtors prefer the flat sales pattern or the bad-before-good sales pattern over the good-before-bad sales pattern.
2. When developers price units, they use one of two strategies: (a) an anchoring-and-adjustment strategy (they anchor on the price of the average unit, and adjust the price for better or worse units); and (b) a matching strategy (they set the price of a given unit and ask potential buyers to match the price of a better or a worse unit so that these units would be equally attractive).

3. Given the prices set by those realtors or developers, the actual sales pattern differs from what they intend. The high-floor units usually go faster than low-floor units. The graph above (Figure 1) is the data of a typical new construction (7-story midrise), where the x-axis is floors, and the y-axis is the average number of months the units on a given floor are on the market before they are sold.

4. So far our focus has been on the discrepancy between the intended sales pattern and the actual sales pattern. We have not discussed what is the optimal (most profit-maximizing) sales pattern. We will also present some preliminary data showing that a flat pattern or a bad-before-good pattern may be better than a good-before-bad pattern. It suggests (a) that the realtors/developers’ intuitions are right, and (b) that the actual sales pattern (i.e., good-before-bad) is suboptimal.

This research has important implications for pricing strategies. It is also an important application of a seemingly subtle BDT effect in the real world.