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Research Dialogue

Will I like a "medium" pillow? Another look at constructed and inherent preferences☆

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Abstract

There is a growing consensus that preferences are inherently constructive and largely determined by the task characteristics, the choice context, and the description of options. Although the fact that construction influences often play an important role is not in dispute, I argue that much of the evidence for preference construction reflects people's difficulty in evaluating absolute attribute values and tradeoffs and their tendency to gravitate to available relative evaluations. Furthermore, although some key demonstrations of constructive preferences involved rather unusual tasks and might have "benefited" from the effects they were demonstrating, the findings have led to rather sweeping, unqualified conclusions. The notion of more stable *inherent preference* components that are not determined by context is then introduced, suggesting that it is often meaningful and useful to assume that people are non/receptive to certain aspects and object configurations, including those that may not yet exist. Inherent preferences are more influential when reference points and forces of construction are less salient, most notably, when objects are experienced. The final section explores some of the implications of constructed and inherent preferences with respect to decision and marketing research.

For 55 years I slept without a pillow, even in the face of (sometimes) rough hotel mattresses. While at a store a few weeks ago, I decided impulsively to conduct an experiment and give pillows a chance. The store offered three options: "firm", "medium", and "soft", all of which were the "finest goose down pillows" and were on sale for 50% off the regular price. Being a potential convert from a flat surface, I bought the "soft" pillow. Then, perhaps influenced by sunk cost, I tested that pillow more thoroughly than any other pillow I had ever tried. After three nights of experimentation, I was sold — (soft) pillows are wonderful and greatly improve the significant portion of my day spent in bed. Should I next try the "medium" pillow?

More importantly, similar in certain respects to the nature versus nurture and person–situation debates (e.g., Kenrick & Funder, 1988), a question that naturally arises is whether this event represents a common occurrence whereby people have what might be regarded as an inherent preference for objects (e.g., a pillow, an iPod-like media player, Dutch licorice candy). Such a preference, which arguably pre-exists and is not determined by context, may or may not be revealed, depending on chance, marketers' creativity, limited context interference, and other factors. Alternatively, a preference shift, such as from a negative to a positive pillow attitude, might be just another case of preference construction under the influence of contextual factors such as the option set, transient affect, and the framing of options and prices. Research over the past three decades has emphasized the latter account.

Consider the now familiar conclusion frequently stated in the introduction of behavioral decision theory (BDT) articles: "There is a growing consensus that preferences are typically constructed when decisions are made, rather than retrieved from a master list of preferences stored in memory. In particular, preferences are influenced by the method of preference elicitation, the description of the options, and the choice context". In line with this theme, researchers have raised the possibility that preferences are created when decisions are made, with stable values often playing only a very limited role. While the exact wording differs from one article to the next, this basic conclusion has been recognized as "one of the main themes that has emerged from behavioral decision research during the past three decades" (Lichtenstein & Slovic, 2006; first page of the edited volume, "The Construction of Preferences").

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Social psychologists have also concluded that judgments and attitudes are constructed (e.g., Ross & Nisbett, 1991; Schwarz, 2007), referring to them as mental construals. However, their perspective and emphasis are focused more on generic characteristics of the judgment process than on particular sources of influence. The main proposition regarding construction is that a judgment reflects what comes to mind when it is formed (e.g., Higgins, 1996), and what comes to mind is influenced by a wide range of factors (e.g., salience, the order of questions). Thus, for example, judgments of life satisfaction depend on whether they are made before or after judgments of marital satisfaction (Schwarz, Strack, & Mai, 1991). Although research has provided various illustrations of mental construal effects, the social psychologists' notion of construction does not focus on the content and nature of what comes to mind (e.g., whether it reflects inherent preferences), which is a main focus of this article. That is, the social psychological notion of construction highlights the process by which accessible inputs influence the resulting judgments/attitudes, whereas the question of whether the processed preference elements reflect stable dispositions or mainly the particular task, context, and frame has not received much attention. Furthermore, social psychologists have studied primarily the construction of reported judgments and attitudes (e.g., the answers to survey questions about happiness and the "war on terror") as well as the limited insight that people have into the causes of such responses, rather than the development of more enduring preferences (see, e.g., Nisbett and Wilson, 1977; Tourangeau and Rasinski, 1988).

The BDT notion that preferences are largely "constructed" is significant. As decision researchers, and construction experts in particular, know quite well, frames matter. Accordingly, the conclusion that preferences are "constructed" is not just a subtle nuance, it represents a fundamental shift in the way preferences are viewed. Indeed, that preferences can be influenced is not a new insight. By contrast, the notion that preferences are constructed goes much farther and suggests that preferences are typically constructed, with inherent, predetermined preferences playing only a limited, if any, role. As suggested below, without detracting from the importance of the demonstrated influences on preferences, the ease of showing certain preference reversals may have caused us to overstate the role of construction while ignoring the role and determinants of more stable preference components that are not determined by context.

The concept of constructed preferences applies, of course, also to the preferences of consumers. For example, Bettman, Luce, and Payne (1998, Abstract) state, "We argue that consumer choice is inherently constructive". This conclusion is now generally accepted and commonly cited in the introductions to studies of consumer decision making (e.g., Simonson & Nowlis 2000). The notion that preferences are constructed raises fundamental questions about the meaning of preferences. It also has important practical implications, for example, with respect to the development of effective marketing strategies and market research techniques (e.g., Kivetz, Netzer, & Srinivasan, 2004; Simonson, 2005a).

Considering the strong opposition, mainly from economists, faced by promoters of the position that preferences are inherently constructive, it is not surprising that this notion has been painted with a broad brush, with few qualifications and little attention to boundary conditions. It is generally assumed that construction forces are most effective when existing preferences are ambiguous or uncertain, but even uncertain preferences presumably reflect earlier constructions based on the then-accessible frame, task, and context. However, now that the role of construction has been recognized and the "war" against flawed economic assumptions has largely been won, it is important to examine more closely the data relied upon to make the case for constructive preferences as well as key boundary conditions. We may also want to revisit the notion that people often have inherent preferences that reflect more stable dispositions that are determined prior to the decision context.

The objective of this article is not to question the conclusion that construction influences play an important role or suggest that we have to choose between the constructive view and inherent preference view, though I believe that paying more attention to the latter is called for. Instead, the main objectives are twofold. In the first section, I examine the data relied upon to establish that preferences are constructed. In particular, I argue that (a) much of the evidence for construction reflects people's difficulty in evaluating absolute attribute values and tradeoffs and their tendency to gravitate to available relative evaluations; and (b) although some key demonstrations of constructive preferences involved rather unusual tasks, sometimes "benefiting" from the effects being demonstrated, the findings have led to sweeping, unbounded conclusions. In the second section, I examine whether a concept of more stable, *inherent preference* components that are not determined by context is meaningful and might provide useful insights into the evolution of preferences. The final section explores some of the implications of constructed and inherent preferences regarding decision and marketing research.

An advance "warning" is in order. This article is not designed to review or integrate prior research in BDT or studies about consumer preferences. In fact, much of what is presented goes against currently accepted views of how preferences are formed and raises questions about the interpretation of prior findings, including my own research. Even worse, because the scope of topics covered is quite broad, the discussion of individual components is not very thorough and will undoubtedly leave many unanswered questions. Thus, the main objective is to suggest some qualifications and to simplify the now well-established concept of constructed preferences, while potentially reviving interest in the seemingly discredited notion of inherent preferences that are not determined by context. Hopefully, this essay will lead to further exploration of different perspectives on the meaning, determinants, and measurement of preferences.

Simplifying construction: relativity and methodology

The fact that preferences and attitudes can be influenced is of course not a new insight (e.g., advertising, persuasion). But the

notion of "preference construction" goes well beyond influence, suggesting that preferences are so malleable that they are often largely created by the context, elicitation method, and description of options. The scope and implications of this interpretation depend on the meaning of the term "preference". Without getting into a lengthy analysis, an examination of the various definitions of "preference" (see, e.g., dictionary.com) suggests that it can be used as a very local, specific state (e.g., choosing A over B) or as a more global, stable state, akin to an attitude, disposition, or tendency. If one subscribes to the view that specific decisions are wholly or mostly constructive, then more stable preferences or attitudes do not matter much. However, even strong "constructionists" likely believe that more stable attitudes do exist and may influence specific choices.

Yet almost all of the evidence in support of preference construction highlights "local", transient effects, such as that A is more likely to be chosen over B when it dominates C (Huber, Payne, & Puto, 1982), lean-framed beef tastes better than fat-framed beef (Levin & Gaeth, 1988), and the exchange rate for a life saved is higher in choice than in matching (Tversky, Sattath, & Slovic, 1988). That is, while the principles governing context, framing, and task effects may be general, the resulting "preferences" often leave no trace and have little if any effect on subsequent decisions (e.g., Yoon & Simonson, in press). Thus, the literature on preference construction has been largely confined to local decisions and is less relevant to more enduring preferences. As argued below, it is reasonable and useful to assume that, in addition to construction influences, people do have predetermined, rather stable preference components that are less susceptible to transient conditions and reflect inherent tendencies. First, however, we need to examine more closely the evidence relied upon for the conclusion that preferences are inherently constructive.

Preference construction is relative

Although the popular saying that "Everything is relative" may be a subject of debate in fields such as physics and philosophy, there is little doubt that the assessment of options' values is typically done relative to internal and/or external reference points. The problem with absolute attribute values and specific value tradeoffs (e.g., 5× higher magnification for an extra $40; 10 MPG for 100 horsepower) is that there are so many of them, and it is highly unlikely that people could prepare, store in memory, and be able to retrieve translations of all possible attribute values to psychological values. Thus, to the extent that economists truly believe that a utility function means that consumers have a complete master list of (psychological) values in their heads that are retrieved when encountering absolute attribute values, that assumption clearly makes no sense and is a rather poor strawman. Indeed, it does not appear that psychologists have made any effort to challenge such an obviously flawed assumption, and the great attention given to it by decision researchers can only be explained based on the economic origins of decision theory and the continuing reliance on the economic theory benchmark.

But the literature on constructive preferences has done much more than merely refute a clearly unreasonable assumption. In particular, BDT researchers have identified a wide range of factors that systematically influence the construction of preferences, including some surprising influences of the manner in which preferences are elicited, the set of options under consideration, affective responses (e.g., Slovic, Finucane, Peters, & MacGregor, 2002), and the description or framing of options (for reviews and examples, see, e.g., Bettman et al., 1998; Kahneman & Tversky, 2000; Lichtenstein & Slovic, 2006). A characteristic of much of this research and the proposed explanations for the various observed influences on the construction of preferences reveals that they tend to be phenomenon-specific; that is, they highlight different factors that account for the observed effects and are often endowed with different effect and process names. Thus, for example,

(a) the "embedding effect" in contingent valuations (Kahneman, Ritov, & Schkade, 1999) was explained based on judgments of moral satisfaction;
(b) context effects were explained based on justifications, tradeoff contrast, and extremeness aversion (Simonson, 1989; Simonson & Tversky, 1992);
(c) preference reversals between joint and separate evaluations were explained based on evaluability and attribute–task compatibility (Hsee, 1996; Nowlis & Simonson, 1997);
(d) biased willingness-to-pay (WTP) and willingness-to-accept (WTA) judgments were explained based on anchoring and "coherent arbitrariness" (e.g., Ariely, Loewenstein, & Prelec, 2003; Simonson & Drolet, 2004);
(e) preference reversals between matching and choice and between pricing and choice were explained based on compatibility (Slovic, Griffin, & Tversky, 1990);
(f) and the impact of a "sale" price relative to total price on the willingness to drive to another store located 20-minute away was explained based on mental accounting (Tversky & Kahneman, 1981).

A decision maker capable of meaningfully assessing absolute attribute values would not be susceptible to these (and many other) decision phenomena; specifically,

(a) the WTP to save one lake or 2000 birds would be significantly lower than the WTP for saving 100 lakes or two million birds, respectively, with moral satisfaction playing a smaller role in responses;
(b) the tendency to focus on the local context with little regard to the more global attractiveness of options, which promote context effects, would be attenuated;
(c) joint and separate evaluations would produce more consistent preferences, because joint evaluations would be more like separate (absolute) evaluations;
(d) WTP and WTA judgments would be less arbitrary and less influenced by irrelevant anchors;
(e) preferences elicited through different procedures (e.g., matching and choice) would be more consistent; and

(f) the decision whether to drive to another store would be based primarily on the absolute value of the dollar savings.

However, because people are typically absolute value-challenged, whereas they are inclined to and quite good at making consistent and coherent relative judgments, they naturally gravitate to the latter, using the most accessible reference points. This tendency has different manifestations, depending on the task and available inputs With respect to the above examples:

(a) since the number of lakes or birds to be saved is not meaningful and has no salient reference point for most people, it is much easier to focus on the more generic, qualitative meaning of the cause of lakes or birds relative to other causes accessible in memory;
(b) since absolute attribute values are difficult to assess, people focus instead on relative comparisons among the externally presented options, leading to context effects;
(c) quantitative attribute values (e.g., prices, quality ratings) are usually easy to compare but difficult to assess in isolation, whereas qualitative values (e.g., brand names, country-of-origin) often have readily accessible stored values (e.g., Toyota is reliable); consequently, quantitative attributes tend to receive relatively greater weight in joint versus separate evaluations, leading to preference reversals;
(d) the tendency to rely on relative evaluations, if necessary using even arbitrary but accessible reference points, accounts for many anchoring effects, including the influence of irrelevant but accessible anchors on WTP and WTA;
(e) as discussed further below, the tendency to rely on proportional matching, that is, entering a (missing) matching value that sets the value ratio on one attribute relative to the given value ratio on the other attribute, largely accounts for the choice-matching reversal (i.e., the prominence effect; Carmon & Simonson, 1998); and
(f) the difficulty of assessing the (psychological) value of absolute dollar savings and the readily available comparison between the savings and the regular price magnifies the impact of that relative assessment.

These illustrations suggest that many forms of preference construction reflect a key underlying principle: decision makers tend to avoid absolute value judgments and gravitate to accessible relative evaluations. This general observation needs refinement and elaboration. For example, there are typically many candidate relative evaluations one might gravitate to, which raises a question regarding the criteria that drive relative judgment or focal-comparison selection. For the present discussion, it is sufficient to note that the evidence that has been accumulated to make the case for preference construction might be largely driven by a rather simple common principle. This rather simple, yet important absolute-to-relative principle lends itself to seemingly unrelated demonstrations, which have been treated as distinct phenomena and received unique labels. I next further examine certain limitations of the evidence used to make the case for preference construction.

Some limitations of prominent evidence for construction

The experimental tests that we have used to demonstrate construction effects have, arguably, tended to exaggerate the degree to which preferences are constructed. Furthermore, these demonstrations have often capitalized on the very principles of construction they were demonstrating, most importantly, on the known fact that context (broadly defined) matters. Consider first the role of preference elicitation method, perhaps the domain that started the preference construction literature. As Tversky et al. concluded in 1988 (p. 384), "One of the main themes that has emerged from behavioral decision research during the past 2 decades is the view that people's preferences are often constructed in the process of elicitation. … If different elicitation procedures produce different orderings of options, how can preferences be defined and in what sense do they exist?" In an early, influential demonstration of the effect of preference elicitation method, Slovic and Lichtenstein (1968) showed that preferences (i.e., choices) between gambles were influenced mainly by the probabilities of winning and losing; conversely, buying and selling prices of gambles (e.g., "What's the most you would pay to play this gamble?") were influenced primarily by the amounts that could be won or lost.

For example, in one study that was conducted on the floor of a casino (Slovic and Lichtenstein 1973), participants first chose between and then indicated the minimum selling price of the following bets (each chip was worth 25 cents):

Bet 1 ("P bet"): 11/12 chance to win 12 chips; 1/12 chance to lose 24 chips;
Bet 2 ("$ bet"): 2/12 chance to win 79 chips; 10/12 chance to lose 5 chips.

The results indicated that, although each bet was selected about half of the time, 87% gave $ bets higher selling prices. This robust finding has had a significant impact in the economics and decision literatures because it raises serious questions regarding the assumption of a stable utility function (see, e.g., Grether & Plott, 1979) and shows that preference elicitation methods matter.

The question though is whether this finding is informative regarding the psychology of decision making, and in particular, whether preferences are generally constructive. While people often choose among gambles (e.g., different available medical treatments), they rarely, if ever, price or sell gambles. So, when given the task of pricing a gamble, subjects are likely to rely on the most accessible relative judgments, namely, assign a dollar price relative to the stated dollar amounts. This account, which is quite consistent with the compatibility principle (Slovic et al., 1990) and the anchoring phenomenon, suggests that the reliance on an unusual task created a preference reversal based on a manipulation of the salient reference points. As suggested above, because people have difficulty assessing absolute values,

especially with respect to options and values with which they have little experience (e.g., pricing a particular gamble), they gravitate to the most accessible relative comparisons or reference points.

Still, many researchers have effectively suggested that, although the particular task studied is not very common, this finding addresses and reveals an underlying principle of judgment and choice and thus has far reaching implications (beyond refuting a strawman that represents a clearly unreasonable assumption of classical economic theory). A likely reference point for such generalizations has probably been the highly influential work on judgment heuristics (Kahneman, Slovic, & Tversky, 1982), which relied on clever examples to derive important and general principles of judgment. Thus, although the famous Linda (Tversky & Kahneman, 1983) and Tom W. (Tversky & Kahneman, 1974) examples were carefully crafted, the principles they so nicely illustrated (e.g., the tendency to rely on representativeness) taught us about the manner in which judgments are formed more generally.

But, does the ability to extrapolate from examples to general principles and everyday behavior apply similarly to evidence concerning preference reversals between gamble choice and pricing? I think that the answer is much less obvious, and as suggested below, many other demonstrations relied upon to make the case for constructed preferences may not extend much beyond the particular experimental context. Specifically, whereas demonstrations of judgment heuristics provided direct tests of the phenomena of interest, the gamble choice-pricing reversal is of limited interest per se. That is, because pricing gambles is not something people normally do, the manner in which they price gambles may not teach us much about what they actually do in other domains. A main reason that reversal has been regarded as interesting and has had great impact is due to the reversal itself and the demonstration that the preference elicitation method can affect expressed preferences, contrary to a key assumption of economic theory. However, violations of economic theory notwithstanding, it is far from obvious that such preference reversals can be relied upon to derive general lessons about preferences and decision making.

Perhaps the most prominent illustration of the impact of preference elicitation methods, and the "poster child" of preference construction more broadly, is the so-called "Prominence Effect" (Tversky et al., 1988). This effect indicates that the more prominent dimension (e.g., lives saved compared to dollar savings) has a greater weight in choice than in matching. The resulting magnitudes of preference reversals tend to be massive, and it is not uncommon for the differences in (implied) choice proportions to be greater than 70% (or even 90%).

Again, a question that naturally arises is how much can we learn from this phenomenon about preference construction, or stated differently, how relevant is it to a general conclusion that preferences are inherently constructive? It should be noted that, although a matching procedure whereby one needs to enter a missing value that would make two options equally attractive or equivalent is more common than a gamble pricing task, such a matching procedure is still rather uncommon. Again, this indicates that the choice-matching preference reversal is informative if it can teach us about preference construction more generally.

However, it turns out that the matching task has some idiosyncratic features that may not extend to other procedures. Carmon and Simonson (1998) showed that the large demonstrated discrepancy between choice and matching is driven by subjects' failure to enter a missing value that truly makes them indifferent between the options. Instead, when given the matching task, subjects appear to rely on a proportional matching rule, with insufficient adjustment. For example, in the following well-known problem (Tversky et al., 1988), respondents are given background information about two programs to decrease the number of traffic fatalities and asked, "Indicate the cost of Program X that will make it equivalent to Program Y".

	Expected number of casualties	Cost
Program X	500	?
Program Y	570	2 M

When answering this particular question (or other variations), respondents tend to consider the proportion of values on the other dimension (i.e., 500 versus 570) while making some adjustment based on the relative importance of the dimensions. The entered values, however, tend to be much lower than the $55 M figure that is provided in the choice version of the problem. Indeed, if respondents in the matching task are asked to choose between the options assuming the value they entered is the actual value, they overwhelmingly select the same option (i.e., Program X in the above example) that respondents in the choice task tend to prefer (Carmon & Simonson, 1998). Furthermore, given the tendency to rely on proportional matching, one can design the problems in such a way that causes a reversal of the direction of the standard prominence effect.

Thus, the Prominence Effect is driven mainly by the specific characteristics of the matching procedure and, in particular, the failure of subjects to perform the assigned task. Accordingly, it is not at all clear that the choice-matching preference reversal teaches us much about preference construction more generally. Again, as is the case with the gamble choice-pricing reversal, the significance of the Prominence Effect depends on our ability to derive from that phenomenon some general implications regarding the manner in which preferences are constructed, because the fact that subjects fail to match options properly is of limited interest in its own right.

Of course, this analysis is not meant to suggest that preference elicitation effects do not exist or are irrelevant. For example, preference reversals between joint and separate evaluations (e.g., Hsee, 1996; Nowlis and Simonson, 1997) are clearly relevant, though their magnitude tends to be smaller than the choice-matching and choice-pricing reversals. However, the significance of such task effects has been, arguably, overstated. For example, I do not believe that the existing evidence supports the general conclusion that, "If different elicitation procedures produce different orderings of options, how can preferences be defined and in what sense do they

exist?" (Slovic, 1991; Abstract). Specifically, the fact that subjects are not very good at pricing gambles or in matching options does not provide sufficient basis for a general conclusion that preferences may not exist.

Furthermore, the conclusion that preferences are inherently constructive has been supported using experimental procedures that were often likely to overstate the degree of construction (see also Lynch, 1993). That is, unlike many real world situations, the information provided to respondents has often been quite impoverished, making absolute values especially hard to use, thus magnifying the tendency to rely on relative evaluations instead. I will illustrate this point with two studies: (a) research by Drolet, Simonson, and Tversky (2000), which demonstrated "indifference curves that travel with the choice set" and examined the ability of people to predict their choices without knowing the options' attribute values, and (b) the related notion of "coherent arbitrariness" based on "stable demand curves without stable preferences" (Ariely et al., 2003).

Respondents in the Drolet et al. studies were given choice sets of three options in several product categories, which differed in the degree to which consumers tend to select the compromise option in each set. For example, when choosing among three dental insurance plans that are described in terms of percent coverage and annual premium or among ice creams described in terms of fat content and taste ratings, respondents tend to select "extreme" rather than compromise options. Conversely, when choosing among portable grills described in terms of cooking area and weight or among cameras described in terms of their features and prices, respondents tend to choose the compromise/middle option.

Some respondents were only given the product category, the two attributes, and the relative position of each option (e.g., lower fat, higher taste rating). They were then asked to try to predict, without knowing the specific (absolute) attribute values of each option, the likelihood of selecting the compromise alternative in each case (using a 4-point scale from "definitely will compromise" to "definitely will not compromise"). Other respondents were given the same choice problems, but with specific attribute values that maintained the relative ordering. There were different versions with different values (between-subjects). For example, respondents who were given sets with values chose from either Set 1 or Set 2 below:

	Option A	Option B	Option C
Binoculars: Set 1			
Magnification:	6 times	10 times	14 times
Price:	$28	$43	$58
Binoculars: Set 2			
Magnification:	10 times	14 times	18 times
Price:	$43	$58	$73

Thus, the choice share of the compromise options across product categories could be compared between the groups that received absolute values and the predicted share of the compromise options in the group with only relative values. The results indicated that, even without receiving specific attribute values, respondents in the relative position only group were remarkably accurate in terms of predicting the likelihood of selecting the compromise option. For example, in Study 1, the correlation between predicted and actual compromise option shares across nine categories was 0.89. This finding led to the conclusion that people have tastes or preferences relative to other options, but those relative preferences are rather insensitive to the absolute location of the choice sets in the attribute space. Accordingly, the term "Indifference curves that travel with the choice set" indicates that people have an intuitive knowledge of their relative preferences (e.g., the attribute they consider more important), but they give surprisingly little weight to the options' absolute values or location in the attribute space.

However, this evidence that indifference curves travel with the choice set likely exaggerated the degree of preference construction (i.e., the reliance on relative positions). In particular, most real world situations provide decision makers a great deal more information than was provided in the experimental context, and that information offers a much richer context than the one relied upon in the experiment. For example, when buying a pair of binoculars, (a) consumers typically have additional information sources that facilitate making absolute judgments, and (b) they encounter more than three options, which provides more information about the key dimensions and product types, thereby decreasing the dependence on the configuration of any particular option subset.

This analysis suggests more generally that consideration of external validity is essential when studying the construction of preferences. Specifically, because the conditions under which preferences are formed interact with the resulting preferences, one cannot extrapolate from studies that misrepresent reality with respect to the construction of preferences in general. One might counterargue that the fact that preferences are condition-dependent proves that preferences are constructed. However, the mere fact that preferences can be influenced by the available information is not sufficient to characterize preferences as inherently constructive.

Moreover, the Drolet et al. and many other studies of preference construction have arguably "benefited" from the very context effects they were demonstrating. Specifically, if people's preferences are indeed so sensitive to the task and context, as the notion of preference construction suggests, then experimental effects can be obtained with a suitable manipulation of stimuli and tasks. However, such evidence does not mean that the observed effects matter — they matter only if the experimental manipulations correspond to what often occurs where and when real world preferences are formed.

The same conclusion applies to evidence of construction presented in the article titled, "'Coherent Arbitrariness': Stable Demand Curves Without Stable Preferences" (Ariely et al., 2003). Although the conceptual point made in that article is quite similar to that of Drolet et al. (2000), Ariely et al. relied on an anchoring rather than a context-effect experimental paradigm, and their study participants made real rather than hypothetical choices. In one study they found that, after considering the last two digits of their social security number (SSN) as a possible price of a Cotes du Rhone wine,

respondents whose last two SSN digits were high were willing to pay much more for the wine than those with low numbers. Another study demonstrated that the absolute prices stated by respondents in exchange for listening to unpleasant sounds were influenced by such SSN anchors, but once the exchange rate was set, it was applied rather consistently across listening durations. Thus, the conclusion again is that absolute values are arbitrary (i.e., "travel with the anchors"), whereas relative assessments are coherent.

Although having real incentives in an experiment is certainly a positive aspect, which is particularly appreciated by economists and reduces skepticism, in most (but not all) cases such incentives have limited impact on behavior (e.g., Camerer & Hogarth, 1999). Indeed, the frequent reliance on real incentives in BDT studies reflects more the norms set by experimental economics and general suspicions about the motivation of experimental subjects than evidence that such incentives often produce different behavior. On the other hand, as decision researchers and psychologists have demonstrated many times, the context (broadly defined) and available information often matter a great deal. Specifically, typical real world valuations offer participants a much richer context, more information, and they often have greater experience in that domain than they do with respect to pricing polluted lakes, gambles, unpleasant sounds, or French wines. Again, external validity is of the essence in studies of preference construction, because the real world conditions under which preferences are formed or retrieved tend to have significant interactions with the magnitude of construction due to irrelevant factors.

In summary, while the fact that context (e.g., asymmetric dominance set configuration) and task characteristics can impact preferences is not in doubt, some of the most prominent demonstrations of preference construction have arguably had limited relevance and have tended to exaggerate the degree to which preferences are constructed. For example, the finding that gamble pricing generates different gamble valuations than choice violates an (unreasonable) assumption of economics, but it has little relevance to real world preference construction where people do not price gambles. Furthermore, in making the case for preference construction, researchers have often effectively relied on the very effects they were demonstrating. That is, carefully designed tasks and contexts, without the reference points typically available in the marketplace, can indeed affect behavior in predictable ways. Finally, the BDT case for preference construction involves one primary principle: The challenge of evaluating meaningfully absolute attribute values causes people to gravitate to available relative judgments.

These conclusions, of course, should not be interpreted as a general proposition that preference construction effects shown by decision researchers do not occur in reality. Indeed, in addition to the challenge of evaluating absolute values, transient states of mind (e.g., mood), competing judgment criteria, and other influences on what is salient make people susceptible to various effects that can be fairly characterized as preference construction. However, the magnitude of such effects has often been overstated and some of the more prominent examples have limited relevance to preference formation under typical decision conditions. Unlike studies of judgment heuristics that tested these heuristics directly, studies of preference construction have often reached broad conclusions about preferences based on extrapolations from rather narrow and unrepresentative tests. Furthermore, we have been critical of economists who simply assume that the norms of rationality must describe how people behave. Yet, we may have a tendency to assume without much scrutiny that any demonstrated phenomena that violate the axioms of rationality or indicate unstable preferences are likely to be descriptive of typical decision behavior.

Uncovering inherent preferences

The case for inherent preferences

The earlier discussion suggested the principle that people tend to be absolute value-challenged and gravitate instead to relative comparisons, which underlies much of the evidence for preference construction. Does that mean that relative comparisons completely determine preferences? I think that the answer is No and that more stable preference elements that are not determined by context (e.g., for the taste of a licorice candy) often play a key role in shaping revealed object preferences. Consider, for example, a June 13, 2007, *New York Times* article (Markoff, 2007), titled "That iPhone Is Missing a Keyboard", which stated: "If there is a billion-dollar gamble underlying Apple's iPhone, it lies in what this smart cellphone does not have: a mechanical keyboard." The article quotes Bill Moggeridge, a founder of Ideo (an industrial design firm in Palo Alto), who said: "The tactile feedback of a mechanical keyboard is a pretty important aspect of human interaction. If you take that away, you tend to be very insecure." Time will tell whether the bundle of features represented by the iPhone will become a success despite the lack of mechanical keyboard, but it appears that consumers already have an inherent preference for a key (non)feature of that product (i.e., different dispositions regarding adaptation to not having a mechanical keyboard). All indications (a week before the iPhone becomes available) are that there will be a great deal of initial consumer interest in the iPhone, but only after consumers gain more information and experience will we find out if the preference for a mechanical keyboard can be overcome by other features, the Apple brand, and effective marketing strategies.

Thus, the press and probably most people, like experts in areas such as human factors and engineering, assume that, though often unpredictable, consumers' underlying preferences drive the success or failure of new products. For example, one headline following the introduction of the iPhone (*San Jose Mercury News*, Harris, 7/2/2007, p. 1E) reads, "Apple raised the bar on 'ooh,' but history shows innovations succeed or fail on their merits." Of course, there is a great deal of "noise" in the environment (e.g., in/effective marketing strategies, social forces, various preference construction influences) that can interfere and limit the impact of inherent preferences on consumers' decisions concerning the iPhone. However, as discussed below, inherent preferences are likely to play an important role in revealed preferences for experienced objects like the iPhone.

Similarly, even before the Nintendo Wii was introduced, consumers arguably already had a dormant preference for this product's unique motion-sensitive remote, which made them receptive to that new concept. On the other hand, despite extensive market research that suggested likely consumer acceptance, consumers evidently had a strong preference against a caffeine-free, clear cola (known as "Crystal Pepsi"). And after experimenting several times with extreme roller coasters, some people come to like that experience whereas many others do not. Similarly, when the Google search engine was introduced, many consumers, though not all, were evidently receptive to a bare-bone, non-cluttered search page. Thus, one post-hoc indicator of inherent preferences is based on the degree to which people adapt to (i.e., come to like) certain objects and features. Indeed, adaptation and mere exposure notwithstanding, there are many things that most people do not adapt to and continue to dislike. For example, while many consumers have adapted to the need to buy large quantities at club stores and to assemble inexpensive IKEA furniture, they have not adapted to electronic books, and many people never develop a taste for licorice candies or the Bartok string quartets. It is noteworthy that prior research has studied hedonic adaptation (e.g., Frederick & Loewenstein, 1999), showing diminished sensitivity to changes in well-being, but we know very little about factors that moderate a person's degree of adaptation to objects that are not primarily hedonic (for an evolutionary perspective on adaptation, see Konner, 2003).

The proposition that people have inherent preferences for (or disposition to like) things they have or have not yet experienced seems quite intuitive and can be incorporated in models such as random utility models (e.g., Thurstone, 1927) and models that include stable and contextual influences (e.g., Tversky & Simonson, 1993). Once uncovered, (previously "dormant") inherent preferences become "active" and retrievable from memory, such as when one simply retrieves pre-stored liking for jazz, science fiction movies, and cars with a soft ride. For example, my current preference for a pillow can be seen as reflecting an inherent (and "true") preference, because the disposition to like sleeping with a pillow had (arguably) existed before becoming active; it is based on a thorough testing of sleeping with and without a pillow, with little interference from transient construction influences. Some active inherent preferences are obvious and widely-shared, such as preferences for lighter laptops and reliable cars. But even if inherent preferences are not obvious and require discovery, once active and stored in memory, they are likely to be more resistant to change than preferences acquired through construction.

Most inherent preferences are likely to remain dormant and never be revealed, but they may still be conceptualized as relatively stable inherent preferences. In particular, people often have pre-existing preferences for specific features, which are not determined by context and can influence their receptiveness or tendency to dis/like objects that incorporate those features. The notion of dormant inherent preferences is quite different from stored, retrieved, implicit, or unconscious preferences and attitudes. For example, until recently I had a strong, explicit preference for sleeping without a pillow (and behaved accordingly), and no explicit, implicit, or unconscious measure would have revealed otherwise. In hindsight, I must have had in me for some time the disposition or inherent tendency to like sleeping with a pillow, but this inherent preference was not uncovered until a proper pillow test was performed. Whether the uncovering of such a dormant inherent preference enhances one's quality of life is less obvious.

Thus, the term inherent preferences as used here refers to relatively stable preference components or dispositions that are not determined by the context, task, or frame. Such preference components typically relate to categorical, non-quantitative aspects (e.g., the taste of beef jerky, the experience created by a motion-sensitive videogame remote). In many cases where the preference ingredients involve familiar, learned experiences (e.g., with other salty flavors, other motion-sensitive experiences), inherent preferences are likely to be affective rather than cognitive in nature. Some inherent preferences (to be determined) may also reflect innate tendencies and evolutionary influences (like a monkey's innate fear of snakes, or a seemingly innate preference of three-month old infants for friendly companions; see, e.g., Konner, 2003; Tesser, 1993). Whether inherent preferences are uncovered (and maintained) depends on factors such as (a) the availability of options that offer and effectively communicate the preference objects, and (b) that the person properly tests the preference objects (e.g., sufficient testing of sleeping with and without a pillow; reading enough of The Brothers Karamazov to know whether it is a book one truly dis/likes).

As indicated, inherent tendencies to like even yet untested objects reflect the often rather stable (though possibly unknown) preferences for their ingredients, such as the softness of a pillow, the levitation of one's head above the mattress, pillow-compatible sleeping positions, and other pillow experience aspects that add up to an inherent dis/liking for a pillow. We could likewise decompose numerous other preference objects, such as an iPhone, the IKEA experience, and the movie *Mulholland Drive*, to assess one's inherent preferences for them. Inherent preferences for ingredients may often be object specific, such as liking a soft pillow but a hard mattress.

Inherent preferences may in some cases be revealed as a result of a need to articulate a preference or an opinion, without much or any experience. For example, even before considering the idea of a universal, state-run healthcare system, many people already have an inherent preference for or against such a program, based on their prior experiences and pertinent aspects of their political, economic, and social views. Of course, the "noise" level associated with actual revealed preferences for such bundles is high. Although the preference for some objects may be largely determined by one key feature (e.g., a motion-sensitive remote), when there are multiple important features, preferences for different components of an experience are likely to interact, mis/fit, and combine in often unpredictable ways. Furthermore, the revealed preferences for such objects are often susceptible to various construction influences (factors that moderate the relative weights of constructed and inherent preferences are discussed later).

The notion that people have inherent preferences, especially when applied to objects that have not yet been considered and

perhaps do not yet exist, may generate some resistance. For social psychologists and consumer researchers, it could bring to mind the often unsuccessful attempts to explain and predict attitudes and choices based on personality (e.g., the types of people who buy Chevrolet versus Ford; e.g., Evans, 1959; Kassarjian, 1971). Also, the notion of inherent preferences may appear inconsistent with the views that mental construals and resulting judgments are contingent on many things that dwarf any predispositions (e.g., Ross & Nisbett, 1991; Schwarz, 2006). For BDT researchers, the notion of pre-existing preferences may sound like having a utility function or a retrievable master list of preferences and other discredited assumptions of classical economic theory. It is also inconsistent, certainly in its emphasis, with the conclusion that preferences are constructed based on the task, context, and frame.

Still, it seems reasonable and useful to assume that rather stable, inherent preferences that are not determined by context do exist and are sufficiently conceptually separable from preferences/judgments/attitudes that are created under construction influences. As indicated, although people cannot have an explicit, coherent preference for something to which they have not yet been exposed, people often do have explicit or implicit preferences for ingredients of potential object/experience configurations. Such preferences are probably not part of one's DNA and are likely to evolve over time based on various factors, such as changes in lifestyle, priorities, and new information. For example, a person who over time becomes more health conscious may correspondingly develop inherent preferences for never-before considered or tried objects that are consistent with that evolving priority (e.g., a dark chocolate with a 90% cocoa content, assuming such a product will one day be framed as healthy).

There is an infinite number of possible feature combinations and corresponding inherent preferences. Whether inherent preferences for various combinations see the light of day depends on often incidental, unforeseeable factors, such as a marketer's creativity and changes in the environment. For example, had Nintendo's legendary videogame designer, Shigeru Miyamoto, not come up with the idea of a motion-sensitive remote (O'Brien, *Fortune*, "Wii Will Rock You", June 11, 2007, pp. 82–92), consumers' inherent preference for a Wii-like machine might not have been revealed. Other inherent preferences are too obvious and dominant to remain latent. For example, a preferences for lighter laptops (because they are easier to carry) and for smaller cellphones (because they are more convenient and cuter) were bound to be revealed.

Moderators of the weights of inherent and constructed preferences

An important question that arises refers to conditions that moderate the relative weights of inherent preferences versus constructed preferences. Although people tend to believe that their decisions reflect inherent preferences (e.g., that their choice of an asymmetrically dominating option is based on the attractiveness of its absolute attribute values, independent of context), the more significant question refers to the factors that actually allow (even dormant) inherent preferences to be uncovered and potentially impact subsequent decisions.

Importantly, while active and retrievable preferences often play the key role when decisions are made (e.g., deciding whether to pay more for a lighter laptop or to support Planned Parenthood), dormant inherent preferences have a better chance to be revealed through experience (e.g., actually sleeping with a pillow). Dormant inherent preferences tend to be at a significant disadvantage when judgments and decisions are made. They are not known to the decision maker, they are not salient, and (until becoming active) they are not accessible or clearly diagnostic (e.g., Feldman & Lynch, 1988). Furthermore, the objects being evaluated may involve a combination of preference ingredients that has never before been evaluated as a bundle. As pointed out earlier, a great deal of research has demonstrated a tendency to focus on the local context (e.g., Simonson & Tversky, 1992) and salient features (e.g., Higgins, 1996; Legrenzi, Girotto, & Johnson-Laird, 1993) and to gravitate toward available relative comparisons. People's tendency to focus on what is in front of them (and what is chronically accessible) indicates that external, salient inputs have a significant advantage when judgments and decisions are made.

By contrast, although the impact of factors that contribute to the construction of preferences in the decision phase may linger and affect subsequent perceived experience (e.g., Levin & Gaeth, 1988; Shiv, Carmon, & Ariely, 2005; Yoon and Simonson, in press), actual experience provides absolute valuations and dormant inherent preferences the best chance to emerge. Sensory experiences associated with putting one's face on a pillow, moving with the Wii remote, or watching a touching movie tend to become focal, whereas relative comparisons and reference points are less salient during experience. That is, in decision environments where contextual reference points are salient, inherent preferences are likely to be overshadowed by the option set, task, frame, and the tendency to gravitate to relative assessments. Conversely, where contextual reference points are not salient or readily available (i.e., a context-poor environment), (dormant) inherent preferences have the best opportunity to emerge, have impact, change habits (e.g., Wood, Tam, & Witt, 2005), and potentially shape more enduring preferences.

Consider, for example, a person who has never before had a massage and decides to try that experience based on the recommendation of friends. During the massage, it becomes clear that this person has a distaste for oils being rubbed on his skin by a stranger. Although the decision to have a massage was triggered by the recommendation of others, the focus while being massaged is on the sensory experience, rather than on others or other reference points. Under these conditions, this person's inherent preference for the massage experience has the best chance to emerge and affect subsequent decisions.

This analysis suggests that decisions promote and highlight forces of preference construction and reference points whereas experiences focus attention on the stimulus and thus tend to put relatively more emphasis on inherent preferences. Of course, experiences often influence subsequent decisions, such as whether to use a pillow, have another massage, or avoid zombie

movies. It should be noted that experience is conducive to but may not be necessary for the uncovering of inherent preferences. As illustrated by the universal healthcare example above, certain preference objects tend to be less context sensitive, in large part because they can elicit inherent preferences and core values even without a meaningful experience. That is, even though a person might have never before considered the bundle of preference ingredients represented as universal healthcare (e.g., healthcare for all, higher taxes, government-run, giving based on ability and receiving based on need), the existence of active inherent preferences for these ingredients allows the person to form an overall preference when the issue arises.

The conclusion that constructed and inherent preferences play different roles during the decision and experience phases is potentially important, because it informs us about the types of objects most influenced by inherent preferences. Specifically, preference objects vary in the degree to which decisions are experienced, and that experience provides feedback and affects subsequent decisions. Consider, for example, the decision whether to donate one's organs upon death. While such a choice might be influenced by stable religious, family, and other values, once made, the decision is not associated with any meaningful experience. Similarly, preference objects such as voting for a candidate for Congress, 401 k allocations, or giving money to save birds from drowning in oil ponds may involve major decisions but are associated with rather impoverished, if any, subsequent experiences. Some experience-poor objects/decisions, such as whether to buy a detergent that costs $3.89 or one that costs only $3.69, are often associated with disproportional deliberation at the decision phase, despite limited experience (or income) consequences. Thus, forces that influence the construction of preferences for donating one's organs (e.g., whether it is the default option; see Johnson and Goldstein, 2003), 401k allocations, and a $3.69 detergent often determine the decisions made and are not susceptible to any subsequent testing or reexamination based on experience.

Conversely, a desk chair, a TV set, an engaging movie, and a pillow tend to be intensely experienced preference objects, and that experience allows inherent preferences to come through and influence one's enduring preferences and subsequent choices. Other preference objects, such as a home or a spouse, rate highly on both the decision and experience dimensions, that is, they are both intensely decided and intensely experienced. Thus, a person's inherent preferences are likely to be most influential on enduring preferences for experienced objects, whereas forces of construction are most important at the decision phase for yet non-experienced objects and for objects that provide relatively little experience feedback. As an aside, this analysis also indicates that although "decision utility" (Kahneman, 1994) applies to all preference objects, the notion of experienced (and predicted) utility is less relevant with respect to experience-poor preference objects (e.g., the experience utility associated with volunteering to donate organs, voting for candidate X, or saving 20¢ on a detergent).

Since the weight of constructed preferences relative to inherent preferences is greater when conditions are conducive to construction influences, factors that facilitate comparisons or make them salient limit the likely role of inherent preferences. For example, it is reasonable to expect that inherent preferences play a greater role in choices among noncomparable options. Thus, inherent preferences are more likely to surface and influence decisions in choices between a HDTV set and a trip to climb the Himalayas than between two HDTV sets. Similarly, inherent preferences are likely to play a greater role in choices between options that differ on nonalignable, difficult to compare features than in choices between options that differ on comparable, quantitative dimensions such as price and magnification (e.g., Hsee, 1996; Nowlis & Simonson, 1997).

Future research might examine other moderators of the weight of inherent preferences relative to constructed preferences in shaping enduring preferences. For example, the impact of inherent preferences may depend on the characteristics of preference objects, with inherent preferences exerting greater weight for objects involving distinctive characteristics or matters of principle. Furthermore, when objects contain both desirability and feasibility dimensions (e.g., Liberman and Trope, 1998), the relative impact of inherent preferences might be lower. For example, if we get a dog, it will likely become part of the family and a great source of pleasure, easily compensating for the hassle involved. However, because of that hassle, I have (successfully) argued that we should not get a dog. Finally, future research might examine the role of individual differences. Because willingness to experiment with yet nonpreferred objects is conducive to uncovering inherent preferences, individual differences such as self-confidence, stubbornness, and age may affect the weight of inherent preferences.

Discussion

Revealed preferences ~ fn (inherent preferences, constructed preferences)

There is probably no disagreement that revealed preferences often reflect both the conditions (e.g., context, frame) that operate when judgments and decisions are made and preconditions, in particular, characteristics of the decision maker (e.g., gender, need for cognition). Although individual differences have certainly been considered, the overwhelming emphasis over the past three decades has been on the non-inherent, contextual factors that affect preferences. For example, the current social psychological view of judgment formation highlights the role of (often transient) mental construals, which "dwarf" any individual dispositions or stable attitudes (e.g., Ross & Nisbett, 1991; Schwarz, 2006). Similarly, the conclusion of the BDT community that preferences are inherently constructive based on context, task, and frame (e.g., Bettman et al., 1998; Lichtenstein and Slovic, 2006) does not place much weight on what decision makers bring to the construction process and the types of preferences to which people are receptive. Qualifying terms (e.g., "often", as in "preferences are often constructed") tend to get lost in books and essays about The Construction of Preferences.

Although the susceptibility of revealed preferences to various predetermined influences is probably beyond dispute, the apparent aversion to predispositions and inherent preferences may reflect at least two factors. First, the notion that people might be inherently different has had some "baggage" (e.g., has been used to justify prejudice), and prior attempts to explain behavior based on personality have generally been unsuccessful (e.g., Kassarjian, 1971). Second, prior research in both social psychology and consumer behavior has emphasized the decision and judgment phase (e.g., how people answer survey questions or choose among options); conversely, the impact of preferences formed during experience on the evolution of more stable preferences and on subsequent decisions has received much less attention. Even when experience evaluations and resulting preferences have been studied, the research topic typically involved contextual/framing effects (e.g., Levin & Gaeth, 1988) or the impact of the structure/moments of a hedonic experience on judgments of pleasure, happiness, and pain (e.g., Kahneman 2000; Ch. 37).

However, if we focus on more enduring preferences that emerge after experience, the role of factors that make people non/receptive to certain objects becomes central. The conceptualization of more stable preference tendencies or receptiveness to preference objects as inherent preferences also involves a consideration of usefulness. This is not unlike the notion that people choose based on reasons (e.g., Shafir, Simonson, & Tversky, 1993; Simonson, 1989), which may not be exactly "right", but is useful in explaining certain seemingly anomalous choices. Furthermore, although the distinction between constructed and inherent preferences calls for further refinement and elaboration and greater precision (just as the distinction between value- and reasons-based choice is often ambiguous and not clearly defined), it can provide useful insights and is worthy of greater emphasis in decision and consumer research.

For example, understanding what makes consumers receptive or adaptive to certain things (e.g., an iPod, watching American Idol, a keyboard-less cell phone) but not others (e.g., a clear cola, electronic books, Dutch licorice candy) is important from both theoretical and practical perspectives. Similarly, once we accept the notion that dormant (and, of course, active) inherent preferences can play a key role in decision making, studying the factors that promote or inhibit the impact of inherent preferences on revealed preferences becomes important. As suggested earlier, the presence of salient construction influences when preferences are formed and decisions are made is expected to be one key moderator of the impact of inherent preferences. That is, because dormant inherent preferences are not in focus and out of sight during the decision phase, they have the best chance to emerge and make a difference when construction influences and reference points are less salient, most notably, during experience.

The availability of salient comparisons is important not just for our understanding of the relative weights of inherent and constructed preferences, but also for our interpretation of prior research on the construction of preferences. As argued earlier, much of the evidence relied upon to make the BDT case for the construction of preferences involves different manifestations of the principle that people often have difficulty processing absolute values and therefore gravitate to available relative comparisons. It was further proposed that a significant portion of the evidence relied upon to arrive at the conclusion that preferences are inherently constructive has been based on examples that arguably have limited relevance. Unlike problems used to demonstrate judgment heuristics, which directly tested the heuristics at issue, much of the evidence for the construction of preferences requires one to extrapolate from the phenomena actually being tested to other, often quite different problems. Thus, for example, people rarely price gambles, match options, or make choices without access to other reference points, yet some of the most influential illustrations of preference construction were based on such tasks. This critique does not mean, of course, that forces of construction (e.g., choice set effects, a description of options as defaults) do not play a major role in the formation of preferences. However, just because an effect can be experimentally demonstrated and is surprising does not make it descriptive of typical behavior and may not justify sweeping conclusions about preference construction unless it is shown to be relevant.

Research directions

A main focus of decision research over the past 30–40 years has involved demonstrations of different manifestations of preference construction. Such studies often produce surprising results, they tend to be relatively easy to conduct (e.g., adding a third option, contasting theoretically equivalent tasks, changing the frame, reversing the question order), and they challenge the rather easily refutable yet influential classical economic theory. These characteristics have made studies of preference construction potentially interesting, important, and highly accessible to empirical research.

By contrast, there has not been much decision research on inherent preferences and the factors that make people receptive to certain object configurations and not others. Other fields, such as human factors and R&D, do assume and study preference dispositions and the manner in which people use and interact with products and their environment. The limited attention devoted by decision researchers to inherent preferences may reflect the negative associations (mentioned earlier) of the notion that people have stable dispositions, the challenges associated with gaining insights into latent, inherent preferences, and the lack of an obvious benchmark (a la economic theory) for defining what is interesting and important.

Even determining what constitutes an interesting research question regarding inherent preferences is not easy. For example, while discovering that videogame players would enjoy using a motion-sensitive remote was of interest to Nintendo and its competitors, such an insight may be regarded as overly specific and unsuitable for academic research designed to identify general principles. A closer examination, however, reveals that there are many interesting, general questions that are important and worthy of future research.

The following are a few examples of potentially interesting research questions:

a. Adaptation to (i.e., coming to like) attribute values might be seen as an indicator that inherent preferences either do not exist or are malleable, or alternatively, as an indicator of uncovered inherent preferences. The fact that adaptation is far from universal supports the latter interpretation. As noted earlier, prior research has studied hedonic adaptation (e.g., state changes that have less impact over time), but we still know very little about factors that determine the degree to which people adapt to certain attribute value types (e.g., music genres or lack of a mechanical keyboard on a cell phone). This is an interesting and important question that could produce new insights based on rigorous research into inherent preferences and the determinants of adaptation (see, e.g., Rozin & Schiller, 1980).
b. Although each inherent preference has some idiosyncratic characteristics, it is reasonable to expect that such preferences can be divided into key preference types that share underlying common features or reflect more general individual tendencies. For example, a person who likes roller coasters and motorcycles may be more receptive to certain kinds of music and other forms of art. Future research might show ways in which inherent preferences of the same type behave similarly in response to relevant moderators and manipulations.
c. As indicated earlier, many objects consist of a bundle of inherent preferences; thus, even when some or all of the preference ingredients are active, the resulting inherent preference for the bundle may not be active. A question that arises is how overall preferences for objects that contain multiple component inherent preferences are formed. For example, if component inherent preferences are not recognized or consciously considered, would that promote certain preference integration rules, such as lexicographic over compensatory? Furthermore, when integrating active and dormant inherent preference components, one might expect the former to dominate, for the reasons discussed earlier (see also Simonson, 2005b).
d. It might be interesting to study the process of uncovering inherent preferences, such as the process of discovering that one likes a certain movie or music genre, a videogame with a motion-sensitive remote (but not the best resolution), or a firmer pillow. For example, what factors determine whether the process of inherent preference discovery involves a somewhat lengthy experience or happens instantly?
e. Are there certain individual differences that make people more susceptible to revealing and practicing inherent preferences and thus less susceptible to construction influences? And what factors explain the relative weight of inherent preferences across different types of preference objects?
f. It might be interesting to examine the interaction between a person's inherent preferences and the susceptibility of decisions to construction (task, context, framing) influences (see also Tesser, 1993). In particular, are people more susceptible to influence when the direction of that effect is consistent with their (dormant) inherent preferences?
g. It might also be interesting to investigate the impact on the response to new objects of the level of tension (or incongruity) between a person's inherent preferences and the currently revealed preferences (e.g., between a person's practice of sleeping without a pillow and an inherent preference for a pillow). In particular, are inherent preferences more likely to be revealed if they are clearly incongruent with practiced preferences?

An obvious challenge in conducting research to address such questions (with the possible exception of the first question) is that the most interesting inherent preferences are those that are dormant and are therefore not seen and at best might be inferred. However, we might be able to find ways to get around that problem. One approach could be to study recent innovations that have been shown to elicit robust inherent preferences among people who have experienced the object, but many consumers have not yet learned about it. For example, it appears that a high percentage of people, seniors included, enjoy the motion-sensitive remote of the Nintendo Wii. Still, many people have not heard or know very little about the Wii. Accordingly, a researcher could assume that a sample of Wii-unaware consumers includes many who have an inherent preference for a videogame using such a remote. Similarly, at any point in time, there are innovations that appear to tap inherent preferences of people who have experienced the products but are still unknown to most others.

Another example of an approach for studying (dormant) inherent preferences is based on the notion that such preferences emerge through experience. Thus, a researcher may use a longitudinal study that focuses on the evolution of preferences for a new (or an existing but unfamiliar) object that has a distinctive feature. Participants who adapt to that object and come to like it can be assumed to have had an inherent preference for its unique feature; conversely, disliking that object (after having sufficient experience) would be an indicator of a negative inherent preference for that feature. If, for example, the study examines the interaction between inherent preferences and susceptibility to influences of construction, the researcher may test construction manipulations before and after inherent preferences are exposed.

Marketing research implications

Both constructed preferences and inherent preferences pose major challenges to the effectiveness of marketing research, in general, and to the prediction of consumer preferences, in particular. The susceptibility of consumer preferences to influence by the context, task, and option framing indicates that marketing research techniques that rely on an extrapolation from a generic task to a variety of other conditions tend to be poor predictors of actual behavior. Thus, context-free attribute importance ratings, the evaluations of brands and product configurations, and other key measures included in numerous marketing research studies may often provide poor indicators of revealed preferences under particular conditions (e.g., at a particular store).

Accordingly, to the extent possible, researchers should test consumer preferences under the marketplace conditions that apply where consumer decisions are made. Thus, evaluations of a particular brand will depend on the other available brands, the implied choice set configuration (e.g., whether the focal option is a compromise or an extreme option), the position on the shelf, and so on. For example, prior research has shown that the choice share of a high quality, high price brand is significantly greater when it is presented alone rather than next to lower-quality lower-price options (Nowlis & Simonson, 1997).

Companies and academic researchers have recognized the importance of incorporating context into marketing research measures. For example, Procter & Gamble's notion of the "First Moment Of Truth" (FMOT) emphasizes the factors that affect the perceived product value given the conditions at the point-of-purchase. Kivetz et al. (2004) developed a conjoint measurement approach that allows one to capture the tendency to select compromise options. Still, even such more nuanced approaches that attempt to incorporate certain contextual aspects may not significantly improve the ability to predict actual context-dependent preferences. For example, while a web marketer might be able to pretest and then implement a particular choice set configuration, brick-and-mortar stores provide marketers with only limited control over the actual point-of-purchase conditions, whether an option will be a compromise, an extreme, or just one of many options in an assortment that lacks any coherent structure. Of course, a marketing researcher might test preferences for each store and configuration separately, but that tends to be costly and inefficient.

Other limitations of market research practices resulting from consumers' susceptibility to construction influences may be easier to address. In particular, companies routinely rely on absolute measures of brands, customer satisfaction, and other consumer perceptions. For example, respondents are asked to rate brands on numerous adjectives, and marketing strategies are revised accordingly. Putting aside order effects and halo effects that are likely to influence such ratings, the more fundamental problem discussed earlier is that people's decisions tend to be driven by relative rather than by absolute values. Accordingly, absolute measures of perceptions and preferences are unlikely to provide useful information that could allow one to predict actual consumer behavior.

The challenge of using market research to elicit inherent preferences is, of course, even greater. Dormant preferences are not known and cannot be revealed by direct questions, such as a laddering technique that involves repeated questions about what is important to a consumer and why (e.g., Reynolds & Gutman, 1988). Conjoint analysis may be effective for measuring preferences for relatively small modifications in existing categories, but it is less suitable for predicting preferences for new concepts. In fact, because respondents are likely to rely on their current preferences to predict reactions to new concepts, they may often produce misleading data regarding their preferences for and likelihood to adapt to new ideas. Furthermore, product-based descriptions of attributes of potential new concepts may often not correspond to the psychological representation of these dimensions. For example, it is not at all clear that, when first envisioned, words could capture the manner in which the iPod and iTunes interact or even the experience of buying a gourmet coffee in a Starbucks-like environment. Also, the ease of predicting consumer choice depends on the drivers of preferences. When consumers' reactions to a new concept are dominated by their inherent preference for one component, such as a videogame motion-sensitive remote or any existing object to which one key feature is added, using research to predict preferences might be relatively easy. On the other hand, with multiple determinant features, predicting revealed preferences is further complicated by hard to predict interactions and integration rules.

While identifying inherent preferences is challenging, the potential rewards, such as improving our ability to predict the success or failure of innovations, certainly justify the effort. One approach for identifying inherent preferences replaces direct measures with attempts to detect such preferences based on reactions to related other concepts. To illustrate, it is believed that the iPod idea was inspired by the success of Napster and the Starbucks concept was born after its founder determined that people in the U.S. may enjoy a good coffee experience as do people in Italy. That is, many, perhaps most, successful new concepts are related in sometimes nonobvious ways to already existing, successful concepts. Thus, dormant inherent preferences might be revealed by scanning the environment in search of potentially relevant successful concepts that appear different but tap similar inherent values.

In addition, considering that inherent preferences are most likely to be revealed based on (sufficiently long) experience, where feasible, marketing researchers may rely more extensively on procedures that are akin to beta tests that are suitable for consumers. Furthermore, instead of relying on surveys or standard preference measurement tools, marketers may rely on long term marketplace experiments of various concepts. On the Internet, even short term experiments might provide useful feedback regarding reactions to new concepts, which can then be quickly revised and refined. Long term experiments in the marketplace do have some nonnegligible limitations, relating to cost, time, and competitive intelligence. Thus, companies may have to rely instead on creativity and managers with good instincts, recognizing that there will be many failures. Overall, there does not appear to be an easy market research solution for the problem of measuring and predicting dormant inherent preferences for new concepts.

There is little doubt, however, that once we start paying more attention to people's inherent preferences, including trying to learn from our own experiences, we will identify more effective ways to study and predict dormant preferences for new concepts. By the way, since I wrote the first paragraph of this paper, I moved from using the "soft" to the "firm" pillow by the same brand. The "soft" option encouraged a change in sleeping positions, without providing the needed support. In fact, I am starting to wonder if an even firmer pillow by a different brand would be better. Or, perhaps, this anecdote of preference discovery has been constructed and implemented in search of a good illustration of inherent preferences. Time may tell.

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