

Research Dialogue

Preference construction and preference stability: Putting the pillow to rest

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Abstract

We advocate a different approach to the important questions that Simonson raises regarding preference construction. First, we argue that existing literature both acknowledges and addresses preference stability. In particular, we show that stable preferences are not incompatible with theories of preference construction. We note that construction can influence experienced utility as well as prediction of preference and argue that a careful analysis of stability must allow for contextual influences in both these domains. Finally, we note that Simonson's notion of 'inherent' preferences is unclear, and we argue that a better way to take up this important challenge is through existing literatures providing insights into conditions leading to preference stability.

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In his provocative article, [Simonson \(2008\)](#) argues that the notion that preferences are often constructive has been over-emphasized in both consumer research and research on judgment and decision making. He calls for increased focus on stable preferences, which he calls inherent preferences. We agree that understanding the conditions under which preferences are more or less stable is very important. However, we disagree with several of Simonson's claims regarding preference construction and preference stability. In this comment, we make several points: 1) While there is ample evidence for preference construction, preferences are often stable; 2) The construction process is not inherently incompatible with stable preferences, nor does stability necessarily imply inherent preference; 3) Construction can influence experiences; 4) The notion of 'inherent' preferences is unclear; 5) In particular, Simonson's unexpected pillow-preference can be explained without reference to inherent preference; and, more generally, 6) There are existing sources of insights into conditions leading to preference stability.

There is ample evidence for preference construction, but preferences are often stable

There is a great deal of evidence for preference construction, with a large amount contributed by Simonson and his colleagues (e.g., [Simonson, 1989](#); [Simonson, 1990](#); [Nowlis &](#)

[Simonson, 1997](#); [Dhar & Simonson, 2003](#)). Extensive summaries of work showing that preferences can be influenced by various features of the task and decision context are available in the thirty-eight articles cited in [Lichtenstein and Slovic \(2006\)](#) and in [Bettman et al. \(1998\)](#). This evidence in the literature on judgment and decision making is echoed by much evidence in the closely related domain of attitude research arguing that evaluative judgments are often constructed ([Feldman & Lynch, 1988](#); [Schwarz & Bohner, 2001](#); [Schwarz, 2007](#)).

Although this immense body of evidence exists, it is also clear that many preferences exhibit great stability, and this has long been recognized. People (such as the first author) have strong preferences for dark chocolate or other favorite foods or beverages. Consumers have long-term, lasting attachments to particular brands ([Fournier, 1998](#)). [Fischhoff et al. \(1980\)](#) also make clear that people are likely to have stable preferences regarding issues that are familiar, simple, and directly experienced (see [Plott, 1996](#) for the related concept of "discovered" values).

In research examining consumers' verbal protocols while actually shopping for groceries, [Bettman and Zins \(1977\)](#) also provide evidence that preference stability exists. Shoppers' coded protocols showed that over 20% of choices appeared to be clearly constructive; however, over 40% of choices were repetitive (stable), and roughly 35% involved using a rule (such as buy the cheapest) that might result in preferences that appeared stable (see also [Amir & Levav, 2008](#)).

We believe that this evidence for both constructive preferences and preference stability is indicative of a more general conclusion, namely that observing stable preferences

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does not necessarily imply that those preferences did not result from a constructive process. In the next section we detail our view of the process of preference construction and provide an initial discussion of how and when such a process can lead to stable preferences.

The construction process is not inherently incompatible with stable preferences

In earlier work (Bettman & Zins, 1977; Bettman, 1979; Bettman et al., 1998), we focused on constructive processes that influence the strategies consumers use to make choices. We proposed that consumers put together fragments or elements of processes existing in memory or triggered by the environment to construct a strategy on the spot. Next we outline a more general notion of preference construction that is very similar to this original notion (note that Feldman & Lynch, 1988 provided a very similar perspective that was perhaps the first comprehensive theory of labile values or preferences; see also Lynch, 2005).

We first assume that a person has a vocabulary of preference primitives, by which we mean evaluative fragments or elements that can be combined to evaluate a stimulus. Such primitives might include physiological or hard-wired preferences such as an attraction to sweetness and aversion to bitterness (although, as we discuss below, even such preferences can be altered via experience); evaluations of attributes that have been learned via experience; evaluative expectations formed by receiving information; and so on. This vocabulary of preference primitives in some sense represents the individual's potential set of existing preferences, depending upon how these building blocks are assembled.

People thus have idiosyncratic and complex arrays of such primitives that they bring to a situation. Any given situation can affect which primitives are activated based upon experience, associations between characteristics of the situation and some of the primitives, and other factors affecting the accessibility or diagnosticity of the various primitives (Feldman & Lynch, 1988). Thus, in any given situation, the subset of primitives that has the greatest activation strength will reflect both basic values (the primitives) and situation-specific aspects due to task and context effects (the specific mix of the primitives) (Payne et al. 1999). We believe that this process generally is a combination of both automatic and controlled components.

How might such a process lead to stable preferences? One simple route to stability is that individuals often face relatively stable situations, leading to activation of very similar configurations of primitives and hence stable preferences (see Hintzman's (1986) Minerva model of schema abstraction for a related core idea). We will discuss this and other conditions that might lead to preference stability in more detail in a later section.

If such a similar construction process recurs over time in a stable situation, the process may become more automatic. If so, is this automatic process still constructive? Framed in a slightly different way, if the same or a similar set of primitives represents a diagnostic evaluation that consumers repeatedly retrieve

(Feldman & Lynch, 1988), is this still constructive? This is probably a question whose answer becomes an issue of semantics. We believe that even if automated, the process is still inherently constructive; if the situation changes, a new configuration of aspects may be accessed. Hence, the potential for construction remains, even if the environment does not necessarily cause each preference in a sequence to diverge from the others. Also, we believe that memory retrieval itself is an inherently constructive process (Schacter, 2001). However, we do not believe that whether the more automated process is deemed constructive or retrieval is critical; the main point is that constructive processes can lead to stable preferences as the outcome.

Construction can influence experiences

Simonson (2008) argues that inherent preferences are most influential and construction is less salient during experiences, stating that "actual experience provides absolute valuations and dormant inherent preferences the best chance to emerge". We agree with Simonson that it is important to consider the consequences of actual experience for preferences, as experiences have an important role, often mediated by memory, in preference discovery. However, we believe that a careful consideration of the timeline from the decision-making process, to experience, to memory allows for several forms of preference construction, only some of which are considered in Simonson's article.

There is evidence that even experience of sensory aspects such as taste is not free of constructive influences. For example, Plassmann et al. (2007) have participants in an fMRI experiment taste wines that they believe are different and are differentially priced. When the same wine is assigned a higher price and tasted, behavioral reports of pleasantness of taste increase. In addition, however, and critically for our point, neural areas involved in the computation of experienced utility show increased activation. That is, there is neural evidence that the different price context changes actual experienced pleasantness. However, the different price contexts result in no changes in activation in the primary neural taste areas. More generally, the extremely robust phenomenon of placebo effects illustrates that it is quite possible for aspects of the pre-experience context to carry over to experience itself. For instance, Shiv et al. (2005) find that non-conscious activation of expectancies about product efficacy causes price to influence quality perception, even when the price is known to be set independent of product quality.

Levin and Gaeth (1988) also showed that framing, a common context effect in the behavioral decision literature, can affect people's response to experience. In their study, they framed ground beef as either 25% fat or 75% lean. Two groups of their participants rated the ground beef after tasting it, with the framing manipulation done either before or after tasting. When the framing manipulation preceded the tasting, there were significant differences in participants' ratings of the beef across framing conditions, despite the fact that these participants all experienced the taste of the beef. These effects remained, although at reduced levels, if tasting preceded framing.

Additional sources of influence on experience are possible beyond the set of contextual factors that behavioral decision researchers traditionally study as part of the decision process. For instance, Hoch and Ha (1986) found that hypotheses such as a belief in high product quality generated by advertising messages alter product experience in situations where quality is ambiguous. They conclude that processes of learning from product-based experience can be influenced by subtle hypotheses that in turn benefit from a bias towards confirmatory hypothesis testing. Lee et al. (2006) also show that expectations can modify the experience itself. Finally, consumer satisfaction with a product or service may be influenced by contrasts with expectations as much as by objective performance itself (e.g., Tse & Wilton, 1988). Thus, evaluations made during an experience are themselves subject to potential influence from the expectations regarding that experience.

Given the emphasis Simonson places on experience as a potential source for preference primitives, it is worth noting that there is evidence that memory for experiences is also constructive. For instance, Braun (1999) shows that post-experience communications can influence how consumers remember their actual experience (see also Cowley, 2007). Mitchell et al. (1997) show that after a week or a month, people report they had happier experiences than their reports during or right after those experiences indicated. Robinson and Clore (2002a,b) argue that situation-dependent beliefs can influence retrospective self-reports of emotional experiences. As a result, the preference primitives utilized in later situations may be changed by such constructive influences on retrospection. Thus, there is still ample evidence that reports of experiences and even the experience itself can be constructive.

Overall, therefore, there is evidence that construction can occur during prediction of future utility, during experience, and in retrospect. The relevant contextual factors may or may not carry over from one phase to the next. Simonson's paper focuses on evidence for preference construction during the decision process and quite reasonably argues that relevant contextual factors are likely to loom larger in prediction than in experience. We contend that in order to address the true import of preference construction, we must consider constructive influences throughout prediction, experience, and retrospection (see Kahneman, 2000 for more on these distinctions).

The notion of inherent preferences is unclear

We believe that the exact nature of Simonson's notion of inherent preferences is unclear. In particular, we do not believe that "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" (Simonson, 2008). For instance, people must be trained from a young age to overcome natural taste aversion to strong and fiery spices and develop a preference for them (e.g., chili pepper, Rozin & Schiller, 1980). It seems strange to call such a developed preference inherent, since it must overcome a physiological sensory aversion to such tastes. In fact, Simonson (2008) proposes that

in a longitudinal study "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." This seems to us to make the notion of what is inherent essentially unfalsifiable.

Putting the pillow to rest

We now consider Simonson's (2008) pillow example in light of the ideas presented in earlier sections. Two major types of preference primitives relevant to this example are current physical sensations and prior sleeping experiences. We believe that judgments of the sleeping experience would be constructed based upon the relative accessibility (salience) and perceived diagnosticity of those primitives. For example, Simonson's judgment of his experience could be greatly affected by which prior sleeping experiences were more salient and thus served as a reference point for his current judgment. That is, whether recent nights had been particularly restful or had been filled with tossing and turning might matter a great deal. In addition, other primitives, such as Simonson's prior beliefs about pillows, could be more or less relevant depending upon the situation. Suppose Simonson's spouse or a child commented that he had never liked or used pillows just before he tried the pillow. Making such beliefs more salient could change expectations regarding the upcoming experience and thus affect experienced pleasantness (Plasman et al., 2007). In sum, we would argue that Simonson's pillow example can be readily understood in terms of constructed preferences and that judgments of such experiences could be very susceptible to specific aspects of the situation. Finally, Simonson's (2008) discussion of his move from a soft to a firm pillow (and potential future consideration of an even firmer pillow) seems inconsistent with any notion of "inherent" preferences.

Existing sources of insights into conditions leading to preference stability

Several streams of existing research examine conditions associated with preference stability. Some work has examined preferences that appear stable but may still be arbitrarily constructed. The "coherent arbitrariness" work by Ariely et al. (2003) cited in Simonson's article points to one potential source of apparent preference stability, namely that coherence and stability in preference expression are themselves consistent with individual beliefs and societal norms. The strength of coherent arbitrariness in the face of market forces suggests that the meta-preference to express sets of preferences exhibiting overall coherence may result in an under-estimation of preference lability and thus an under-weighting of the importance of construction. Ariely and his colleagues make clear that evidence of coherence in valuation is only a necessary condition for concluding that people have underlying "fundamental" values and that true preference stability

must also involve freedom from the influence of arbitrary irrelevant factors. Other existing frameworks also examine factors that encourage preference stability, and we now review two such frameworks.

One approach is based on Feldman and Lynch's (1988) idea that preferences will be stable when there is a prior, accessible, and diagnostic attitude available for retrieval. One can then examine what conditions lead to this being true. An example of this general approach is provided by Muthukrishnan and his colleagues (Muthukrishnan, 1995; Muthukrishnan & Kardes, 2001; Muthukrishnan & Wathieu, 2007). Muthukrishnan (1995) argues that ambiguity in the original decision environment coupled with experience, belief crystallization, memory-based choices, and greater initial relative attractiveness of an option can lead to increased persistence in preference for an option chosen originally. Muthukrishnan and Kardes (2001) extend this work to show that even uninformative (nondiagnostic) experience can lead to persistence by leading to increased confidence. Finally, Muthukrishnan and Wathieu (2007) demonstrate that adding unnecessary choice steps that have no influence on the outcome can lead to increased perceptions of fluency and the amount of deliberation and thus to increased persistence.

Another source of ideas about preference construction and stability is the literature on attitude construction and stability. Schwarz (Schwarz & Bohner, 2001; Schwarz, 2007) has proposed a model for construction of attitudes that is very similar to our model of preference construction. He proposes that there will be stability when similar inputs to the preference judgment are used on different occasions. This can occur because the context is stable, because individuals have chronically accessible information due to repeated use, when inputs may differ but have the same implications for evaluation,¹ when people are in similar moods, and when processing motivations are the same. In general, Schwarz argues that judgments are likely to be stable over occasions when they are based on matching mental representations (see also Sengupta & Fitzsimons, 2004).

Is it likely that choice situations will be consistent over time? Consumers exist in an environment in which the pace of change seems to be more and more accelerated, with vast and ever-increasing arrays of new technologies and new choice options. Such trends may lessen the comparability of choice situations from one choice to the next, particularly as the interchoice interval increases. Stanovich and West (2000) recently argued that these and other changes are resulting in real life decision making becoming more like the laboratory tasks preferred by behavioral decision researchers (e.g., computer mediation, rapid changes, many and unfamiliar alternatives). Increased novelty and uncertainty in choice environments may both make constructed preferences more likely and make research on decision making under uncer-

tainty and risk more relevant.² On the other hand, individuals may feel discomfort at such changes in environmental complexity (Iyengar & Lepper, 2000; Iyengar et al. 2006) and may cope with their discomfort by resorting to stable preferences (perhaps by bolstering the perceived diagnosticity of their original preferences). Thus, the construction of preferences and conditions leading to preference stability are likely to remain important and fruitful topics for future research.

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¹ A related notion is that even if different decision strategies (e.g., lexicographic vs. weighted adding) are constructed at different occasions, they may lead to the same choice (see Bruno & Wildt (1975) for empirical evidence supporting this point).

² For important real-world examples of consumer decision making under uncertainty and risk, consider the sub-prime mortgage market or retirement savings.

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