Perceptual Boundaries: Helping You See Better But Making You Think Less

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Four studies demonstrated that adding a perceptual frame (or boundary) around a stimulus improves visual processing of the object but interferes with verbal processing of the object. Building on research suggesting that visual processing relies on narrowing of attention whereas verbal processing relies on elaboration, we proposed that the salience of a perceptual boundary can narrow attention. As a consequence, narrowed attention results in increased perceptual fluency towards a visual stimulus, making it appear more eye-catching and attractive and improving its evaluation. However, when the target object is verbal in nature, then a salient perceptual boundary can constrain elaboration and interfere with ease of understanding, making the target appear less fluent conceptually.

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SYMPOSIUM SUMMARY
Novel Approaches to Understanding Context Effects in Choice and Judgment
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SESSION OVERVIEW
A major theme of a large body of research in psychology and consumer behavior has been that judgments and choice are influenced by temporary incidental context. The sources of these contextual effects are “as varied as the sources of information that can serve as input into evaluative judgment” (Schwarz and Clore 2007). Despite the wealth of empirical evidence on the topic, many interesting questions remain unanswered. For example, how can physical context (such as temperature) influence psychological judgments and change preferences? How does context cross modality; how do simple visual cues affect higher order processing? Finally, do context effects have a long-term influence on judgments or are they only capable of affecting immediate evaluations? Answering these questions will help consumer behavior researchers as well as marketers make better predictions about when context effects take place and provide a more integrative framework for this area of research.

By looking beyond a traditional examination of context effects, the current session provides a richer analysis of consumer behavior by proposing novel approaches to understanding context effects. In particular, the papers in the session examine the nature of context effects by looking at the role of metaphorical relationships, the interaction of perceptual fluency and attention, psychological buffers, memory effects and lay theories. Furthermore, the session expands our understanding of context effects by examining two novel context effects: psychological warmth and perceptual boundaries.

In the first paper in the session, Williams & Bargh direct our attention to a novel under researched context effect of physical warmth. They find that physical warmth that is unrelated to the stimuli being evaluated systematically affects judgment and choices. The authors hypothesize that physical warmth is capable of producing feelings of psychological warmth and thus have downstream effect on preferences. Such a metaphorical relationship between fundamental aspects of human life and psychological concepts is proposed to be a cause of this as well as other context effects.

In the next two papers, the authors examine a different context effect of perceptual boundaries. Zhang & Labroo find that perceptual boundary (a simple box) added to stimuli affects judgments of the stimuli. Further, the authors examine the mechanism underlying the effects and find that the perceptual boundary has differential influence on visual vs. verbal stimuli through its effects on perceptual fluency. Continuing this topic, Galak, Kruger & Rozin show that arbitrary perceptual boundaries can create an illusion of distance, reducing risk perceptions and one’s motivation to cross those boundaries. The authors further show that observed effects are not limited to visual spatial representation, but are rather driven by the creation of the sense of isolation that serves as a psychological buffer.

Finally, Pocheptsova & Novemsky look at the mechanisms of context effects from a different angle by examining whether these effects are long-lived. The authors examine this question by looking at a well-established incidental mood effect. They find that in general the effect of context dissipates with time. However, context effects can be prolonged through the use of immediate evaluations and application of consumers’ lay theories.

Taken together the research papers in this session investigate context effects in choice and judgment from multiple, yet related, theoretical perspectives with different conceptualizations of context effects. The authors of the papers span marketing and psychology offering an interdisciplinary view on the topic. As such the session will offer a novel perspective on the ways in which context affects the behavior of consumers and is expected to attract a broad audience at ACR.

EXTENDED ABSTRACTS

“Tactile Experience with Warm Objects Alters Judgments and Decisions”
Lawrence E. Williams, University of Colorado at Boulder, USA
John A. Bargh, Yale University, USA

Over the past 25 years, nonconscious priming research has demonstrated how environmental cues shape people’s thoughts, feelings, and behaviors, often in a direct, literal fashion. This research examines new routes through which the external world influences people’s judgments, via the metaphorical relationship between fundamental aspects of the physical environment (e.g., physical temperature), and psychological concepts (psychological warmth). A consideration of the ways in which the physical environment influences higher-order judgments and decisions increases our understanding of just how deep context effects run.

Psychological warmth is a ubiquitous feature of people’s psychological realities. However, relatively little is known about the experiential basis of the concept of warmth. Based on recent treatments of concept development via metaphor, we tested the hypothesis that physical warmth is a core psychological concept capable of producing feelings of psychological warmth. To do this, we examine the effect of incidentally exposing people to warm or cold temperatures on personality impressions and social choices in two studies. In Study 1, participants who briefly and incidentally hold a hot coffee cup rate an ambiguous person to be warmer. In Study 2, we find that this coffee cup manipulation altered people’s judgments without their awareness, such that people who held the hot coffee cup judged this ambiguous person to be warmer. In Study 2, we find that people who briefly hold a hot therapeutic pad choose a gift for a friend more often than people who hold a cold therapeutic pad, extending these temperature priming effects into the realm of decision-making. Under the guise of product evaluation, participants held either a hot or cold therapeutic pad. After participants rated the effectiveness of either the hot or cold pad, they were asked to choose between a Snapple beverage and a $1 gift certificate to a local ice cream shop as a reward for participating in the study. For
half of the participants, the Snapple option was framed as a personal reward for themselves, and the gift certificate option was framed as a social gift for a friend. For the remaining participants, the Snapple option was framed as a social gift for a friend, and the gift certificate option was framed as a personal reward for themselves. Consistent with our expectations, participants who held the hot pad were significantly more likely to choose reward framed as a social gift for a friend, regardless of whether it was a gift certificate or a Snapple.

These results highlight the importance of sensory experiences on higher-order psychological phenomena, improve our knowledge of how external cues can alter people’s judgments, and provide marketers and managers with a new set of levers for influencing consumer behavior.

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Four studies demonstrated that adding a perceptual frame (or boundary) around a stimulus improves visual processing of the object but interferes with verbal processing of the object. Building on research suggesting that visual processing relies on narrowing of attention whereas verbal processing relies on elaboration, we proposed that a perceptual boundary can help narrow attention. As a consequence, narrowed attention results in increased perceptual fluency towards a visual stimulus, making it appear more eye-catching and attractive and improving its evaluation. However, when the target object is verbal in nature, then the salience of a perceptual boundary can constrain elaboration and interfere with the ease of understanding the object, making the target appear less fluent conceptually. As a consequence, a perceptual boundary (simply adding a box) around a visual target can improve evaluation of the target but can reduce evaluation of a verbal target. A stronger positive effect of perceptual frame is observed on visual processors processing of visual objects, and a stronger negative effect of perceptual frame is observed on verbal processors processing of verbal objects.

Experiment 1 tested this basic premise. Non-Japanese speakers were informed that they would be evaluating Bank of Japan’s new logo. The logo was presented either in Japanese, and was therefore not conceptually fluent to any participant, or was presented in English. In addition, for roughly half of the participants, a box was added around the logo while no box was added for the remaining participants. The data indicated the logo was evaluated more favorably when presented in Japanese and contained a frame vs. not. In contrast, when presented in English, the logo was evaluated less favorably when it contained a frame vs. not. Process measures indicated that for the Japanese logo, the improved evaluation was mediated by increased eye-catchingness of the logo. However, for the English logo, the reduced evaluation was mediated by reduced ease of understanding and elaboration. Variables such as need for cognition or need for closure do not impact the results, nor was there a reliable effect of self report measure of explicit attention to the target. A post test that manipulated perceptual salience in an alternative way by simply highlighting the Japanese and the English logo resulted in similar effects as a frame.

Experiment 2 extended these findings by showing that visual processors who presumably process a painting visually demonstrate an increased liking of an abstract painting comprised of a box vs. no box around it, presumably because the frame facilitates perceptual processing of the painting. In contrast, verbal processors who prefer to elaborate demonstrate reduced liking, presumably because the frame interferes with elaboration about the picture. Experiment 3 replicated these findings in the context of an unfamiliar consumer product, Lanza Shampoo. It demonstrated that only among visual processors, liking was higher when the image was framed by a box (vs. not). In a final experiment, participants were asked to rate a verbal target — the description of a statement describing a psychological effect. High elaborators demonstrated reduced liking and importance rating of the theory when it contained a perceptual frame rather than not. In contrast, low elaborators demonstrated the reverse effect.

Taken together, these experiments add to our understanding of perceptual context effects. They demonstrate that a perceptual frame can serve as a context for evaluation of a target object, but its effect on evaluation diverges based on whether the target object relies on visual or verbal processing and whether people are more inclined to process information visually or verbally. Whereas perceptual frames facilitate visual processing by narrowing attention and making the visual objects appear more eye-catching, they also constrain elaboration and interfere with verbal processing when they are salient.

“Not in My Backyard: The Influence of Arbitrary Boundaries on Consumer Choice”  
Jeff Galak, New York University, USA  
Justin Kruger, New York University, USA  
Paul Rozin, University of Pennsylvania, USA

The present research suggests that symbolic barriers such as political borders act as psychological buffers. Specifically, we show that the context that is defined by the presence or absence of a symbolic barrier affects the decisions that consumers make. Participants in Study 1 played a simple videogame in which the goal was to navigate an automobile to a virtual store as quickly as possible. Several routes were possible, some of which necessitated crossing a political boundary, some of which did not. Participants tended to choose routes that did not require crossing a town border, even though doing so did not result in a shorter (or quicker) route. This was true despite the fact the arbitrary nature of the border was clear (that is, the border was clearly unassociated with any geographical features such as lakes, rivers, etc.).

What, then, caused this reticence to cross borders? The results of Study 2 suggest that one reason is that the presence of a political border increases the perceived distance between locations. Participants were asked to image that they were in the market for a new guitar and to select which of two hypothetical music stores they would visit. The location of each store relative to the participant was depicted on a map. The map was drawn such that the two stores were in fact equidistant from the participant, but whereas one store was located in the same town as the participant, the other was not. Participants were not only more likely to choose the store that did not require crossing the border (replicating the results of Study 1), but also indicated that they were more confident in their decision when the store was “in the same town”. This effect was replicated in a third study involving a non-visual border manipulation, indicating that the effect is not unique to visual spatial representations.

The results of Study 4 suggest that there is more to the buffering effect of borders than the illusion of distance, however. Participants were asked to imagine that an oil refinery was to be built a few miles from their home. A map was provided that depicted the location of both the participant’s home and the proposed refinery, which in one condition included a political boundary separating the two. Participants were less bothered by the threat of toxic waste if the refinery resided on the other side of a border. Of key importance, this was true even after statistically controlling for perceptions of distance. This effect was replicated in our fifth and
final study involving the proposed construction of a nuclear power plant. Here, too, participants were less concerned about the threat of contamination, despite the fact that a political border presumably offers little protection against airborne contaminants (and despite the fact that the arbitrary nature of the border was clear).

Taken together, these results suggest that arbitrary symbolic boundaries such as political borders act as a psychological buffer. Although part of this effect can be traced to the fact that borders make objects seem further away, it is also the case that borders provide a sense of isolation (from desirable objects) and protection (from undesirable ones). It appears that just as symbolic connection can convey the feeling of contamination (Moraes and Fitzsimons, 2007; Rozin and Nemeroff, 2002; Rozin, Millman and Nemeroff, 1986), so too can symbolic disconnection serve as a psychological buffer. Discussion focuses on the relation between these findings and other findings from the judgment and decision making literature, including work on categorization (e.g., Parducci, 1965; Tajfel and Wilkes, 1963), context effects (Payne, Bettman, and Johnson 1993) and pricing (e.g., Thomas and Morwitz, 2005; Stiving and Winer, 1997).

“The Effect of Context on Memory-based Judgments”
Anastasiya Pocheptsova, University of Maryland, USA
Nathan Novemsky, Yale University, USA

Much research suggests that incidental situational factors (e.g., a transient mood) can affect immediate evaluations (Schwarz and Clore 1983; Schwarz 2004), but less is known about how such factors affect memory-based evaluations. Many (if not most) real-life consumer decisions involve memory-based judgments, where the decision is based on the evaluation of earlier experiences. For example, when consumers decide whether to come back to the restaurant they visited last week or heard about from a friend or buy a DVD based on their own or others’ movie theater experience a couple of months ago, they have to rely on memories of past experiences. In the present research, we strive to expand our understanding of mood effects on memory-based judgment in two important ways. First, we investigate the effect of incidental mood present at the time of an experience on judgments made after the mood has dissipated. We propose that memory-based judgments are generally unaffected by context that is present during an experience. However, evaluations made during experience result in the “lock in” of context effects, leading to biased memory-based judgments and choices.

Consistent with these propositions, in the first two studies we found that mood had an influence on memory-based judgments when participants evaluated target stimuli in real time. This led to higher memory-based ratings for people who encountered the target in a positive mood and lower ratings for those who encountered it in a negative mood. However, the assimilating effect of mood disappeared in the absence of real-time evaluations. In the next study we extend our findings to a real choice setting. Because the choice task requires a comparison of several options, it can be argued that individuals might be motivated to recall the attributes of the experience rather than relying on the stored overall evaluation. In contrast, we show that being in a negative mood at the time of decision making lead participants to prefer other options over the one they experienced last time, but only if they evaluated the experience at the time of consumption.

Next, we examine lay beliefs that people hold about the effect of incidental mood on memory-based judgments. In study 3 we show that people are not sensitive to time delay in their beliefs about the effect of incidental mood on memory-based judgments. Additionally, we find that real-time evaluations do not play a role in lay theories and as a result people believe that their memory-based judgments are biased by incidental mood regardless of whether real-time evaluations were made. Finally, next two studies show that when reminded about the context of an experience, participants corrected for the perceived bias in their memory-based judgments consistent with the lay theories uncovered in study 3. This led to context-dependent judgments for participants who held context-free memories of the experience.

Since a multitude of situations involve judgments based on recollections of prior experiences, this line of research sheds some light on when such judgments will be context-dependent or context-free. Our research suggests that people are more likely to make context-free memory-based judgments when 1) there is no immediate evaluation of the experience and 2) context is not brought to the individual’s attention while making a memory-based judgment.

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