Special Session Summary    Implications of Experiential Processing

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SESSION OVERVIEW

A distinction between experiential and rational modes of information processing, with the former relying on spontaneous and relatively thoughtless associations, while the latter is based on more deliberate analysis has appeared in social and cognitive psychology (e.g., Epstein, *JPSP* 1996; Windischtl & Wells, *JPSP* 1998). Besides experiential versus rational, researchers have used terms such as rule-based versus associative (Sloman, *Psych. Bull.* 1996), and reflective versus impulsive (Strack and Deutsch, *PSPB* in press) to refer to similar information processing models. This session focuses on experiential processing, as (1) it remains the least researched route and (2) its study has clear implications for marketing. We present five studies that we expect will foster a discussion of potential future research on experiential processing.

The papers proposed investigate the implications of consumers processing experientially, as opposed to rationally. At a theoretical level, a key issue for consumer research is to understand how engaging in experiential processing differs from engaging in rational processing. All three papers stress the spontaneous and sometimes uncontrollable nature of experiential processing, and show its distinct impact on memory (paper 1), learning (paper 1), attitude formation and persuasion (paper 2), and product differentiation (paper 3). We expect that this session will attract researchers interested in the latter research topics, researchers focussing on automatic processes, and practitioners in advertising.

In addition, we stress that experiential processing does not only occur when consumers have a direct experience of a product or service. An important aspect of this session is that each of the papers focuses on a different level of experience, and as the session unfolds, it would become clear that the investigation of experiential processing has implications on all three levels. The first paper investigates the impact of virtual product experience (defined as online interactivity with the target object) on memory and learning (Schlosser). Object-interactivity is contrasted with the passive watching of a video, and it is shown that virtual contact with a product is enough to create illusory memories. The second paper (Sellier, Brendl and Chattopadhyay) presents evidence for what have been termed experiential contrast effects (Mussweiler and Strack *ERSP* 1999). This distinct type of contrast effect is generated automatically via a comparison process, and is showed to occur even when there is no contact with the target attitude object (i.e., experiences are elicited by written descriptions of the target object). This paper thus suggests that the study of experiential processing is important even when consumers have never directly experienced, or even seen an advertised product. Last, the third paper shows that experiential product attributes (e.g., color) can be processed either deliberately or spontaneously, and when consumers are most likely to engage in each route. This has implications for product differentiation (Brakus, Schmitt and Zhang). In this work, the level of experience with the product attributes is direct. In sum, the three levels investigated are when the contact with the target object is virtual (paper 1) or indirect (paper 2), and when the contact with product attributes is direct (paper 3). Paper 1 (Schlosser) and 3 (Brakus et al.) are still being developed; paper 2 (Sellier et al., two studies) is under review.

EXTENDED ABSTRACTS

“Learning Through Virtual Product Experience: The Role of Direct Manipulation and Imagery on False Memories”

Ann E. Schlosser, University of Washington

Interactive media environments provide a new means for consumers to experience products through object-interactivity. Object-interactivity involves direct manipulation of objects in a virtual world (Schlosser 2003). Direct manipulation occurs when there is a continuous change in images as a result of user behaviors that resemble the corresponding physical behavior. For instance, clicking on the zoom button on a graphic of a camera and then seeing the graphic change to zoom in on the focal object would be an example of object-interactivity. Typing the syntax command “zoom in” or clicking on a hyperlinked text to zoom in on the focal object would not be an example of object-interactivity. Compared to static graphics and text (i.e., a passive site), object-interactivity results in more vivid mental images (Schlosser 2003), and like direct experience, information acquired through object-interactivity will likely be stored in and retrieved from memory as vivid mental images.

It is proposed that the very ease of generating vivid mental images may cause confusion regarding whether a memory was externally triggered (a perceived experience) or internally generated (imagined), thereby increasing the emergence of false memories. Indeed, according to the source-monitoring model (Johnson et al 1993), individuals determine whether a memory was internally generated versus externally triggered by considering the sensory quality of the retrieved mental image (e.g., how vivid is it?) and the cognitive operations involved (e.g., how difficult was it to generate?). When the mental image is clear and distinct and took little cognitive effort to create, individuals attribute it to being perceived rather than imagined. A false memory occurs when individuals can easily create a vivid mental image, and they misattribute the mental image source to an external source.

It follows that more false memories should be observed among individuals who are capable of evoking vivid mental images on their own rather than those less capable of this. Likewise, encouraging individuals to use their imagination should increase the occurrence of false memories. Indeed, instructions to imagine appear to cause individuals to use mental images (Heaps and Nash 2001) and to draw upon experiences they previously had or observed (Wyer et al 2002). Thus, such instructions may cause individuals to (re)construct a representation for an event (Heaps and Nash 2001). Consequently, false memories should emerge more among those who did than did not use their imagination during encoding.

To examine the role that direct manipulation plays on false memories, object-interactivity is compared with instruction interactivity. With the latter, the user controls the pace of the experience using video-recorder functions to play, pause, stop, fast-forward and rewind (Bétrancourt and Tversky 2000). Thus, unlike the object-interactive site, at which individuals participate in creating the experience, the instruction-interactive site allows individuals to be passive observers of the same experience.

Under low imagery conditions (i.e., when individuals are non vivid imagers or are not using their imagination), object-interactivity
should facilitate the creation of vivid memories more than the instruction-interactive site should. However, such rich experiences can cause individuals to “fill in” missing details during retrieval (Bartlett 1932). If the object-interactive site leads to such rich experiences, then those who visited the object-interactive site are more likely to envision attributes that were absent from the product than will individuals who visited the instruction-interactive site — thus, more false memories will be observed.

Under high imagery conditions (i.e., when individuals are vivid imagers or are using their imagination during encoding), object-interactivity may reduce false memories. Some propose that co-created imagery scenarios make imagination more effortful (Arbuthnott et al., 2001). By making imagination more effortful, individuals should remember which mental images they generated versus were externally generated. When imagination is effortless, however, individuals should find it difficult to separate imagined from externally generated memories, thereby leading to a greater number of false memories. Because object-interactivity requires individuals to co-create the experience by directly manipulating the virtual object, it should be more effortful to generate their own images while encoding, thereby resulting in less source confusion than watching a video of the same experience. If so, fewer false memories should emerge among those using their imagination while visiting the object-interactive than instruction-interactive site.

To test this, a 2 (site: object-interactivity vs. instruction-interactivity) x 2 (instructions: imagination vs. general) x 2 (imager: vivid vs. nonvivid) factorial experiment was conducted. The focal products were digital cameras. The instruction-interactive site was a five-minute film of a user’s visit through all aspects of the object-interactive site. After visiting the site, participants were given 10 digital camera attributes and asked to identify which features were present versus absent from the focal camera. Three weeks prior to the main experiment, participants completed the mental imagery scale (Sheehan 1967), which assesses individuals’ ability to evoke vivid mental images.

The results suggest that mental imagery plays an important role in the creation of false memories. More false memories were observed among vivid than nonvivid imagers and among those given imagination than general instructions. These effects were especially pronounced when users visited the instruction-interactive site. In fact, for vivid imagers and those using their imagination during encoding, the object-interactive site led to fewer false memories than the instruction-interactive site. It appears that compared to actively receiving information through object-interactivity, encoding this same information passively makes it easier for individuals to generate their own images, thereby leading to more source confusion and more false memories. This supports speculation that user involvement can reduce the occurrence of false memories (Arbuthnott et al., 2001).

“Explaining the Elusive Matching Effect in Attitude Change: Experiential Contrast”
Anne-Laure Sellier, New York University
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A matching effect occurs when a pre-existing attitude (e.g., emotion-based) is changed more by a matched persuasive appeal (e.g., emotional) than by a mismatched persuasive appeal (e.g., cognitive). The persuasion literature typically assumes dual matching effects, one when the attitudinal basis is emotional and another when it is cognitive (but see Drolet and Aaker 2002).

This research revisits the question of whether such dual matching effects exist. We reviewed the literature supportive of these effects and conducted two experiments that allow us to draw two conclusions. First, there is empirical evidence for emotional matching effects, but not for cognitive matching effects. It is more effective to challenge an emotion-based attitude with an emotional appeal than with a cognitive appeal. However, it is equally effective to challenge a cognition-based attitude with either appeal. Second, emotional matching effects are not caused by the averaging process implicitly assumed in previous research, but instead by a comparison process producing experiential contrast. Next, we summarize the evidence for these conclusions.

In study 1, participants initially formed a negative initial attitude toward a portable CD player that had either an emotional or a cognitive basis. Participants either listened to the CD player playing mildly negative music or they read a mildly negative description of the CD player. Subsequently, the negative initial attitude was attacked by a positive appeal, either an emotional one or a cognitive one: participants either listened to positive music from the CD player or read a positive description of it. Study 1 strongly suggests that an appeal matching the basis of an attitude is more effective than one mismatching it only when the basis is emotional, as - in contrast to previous research - the emotional and cognitive appeals were pretested to be equal in strength. Thus, the emotional appeal was more persuasive than the cognitive appeal in changing an emotion-based attitude, while both appeals were equally persuasive in changing a cognition-based attitude. These results suggest that our minds are subject only to the emotional matching effect, whereas prior theorizing assumed that they are subject to dual matching effects (one for each attitude basis).

Research supportive of dual matching effects assumed a process whereby directly attacking the basis of an attitude would be more effective than attacking another component of an attitude. This presupposes an information integration hypothesis. Our conclusion that matching effects occur only for emotion-based attitudes undermines this hypothesis, because the principle of an averaging process should hold no matter what the attitude basis is.

Study 2 proposes and tests an alternative process explanation for why matching effects have been observed only for emotion-based attitudes, which we refer to as the experiential contrast hypothesis. When processing two consecutive emotional experiences, the mind engages a comparison process rather than an averaging process. Pleasant music seems even more pleasant when followed by unpleasant music. When producing the second experience the mind compares the percept to a previous one rather than averaging the two. A positive emotional appeal should thus be experienced as more positive and hence be more persuasive when it follows a negative emotional experience than when it does not. This hypothesis predicts a contrast effect of initial attitude and subsequent appeal if both are experiential. The averaging process hypothesis predicts the opposite: an assimilation effect. We tested the two hypotheses against each other by adding one factor to the design of study 1, extremity of the initial attitude. We instantiated an initial attitude that was either mildly positive or very positive. Each level of extremity was instantiated either emotionally or cognitively. A negative appeal followed, that was either emotional or cognitive. The design was a 2x2x2 between-subjects factorial of attitude basis (emotional vs. cognitive) x basis extremity (moderate vs. extreme) x persuasive appeal (emotional vs. cognitive).

We found that the same negative emotional appeal changes an emotional attitude more, the more positive the latter is. Such a contrast effect is inconsistent with the information integration hypothesis, because this hypothesis predicts, at best, that the positivity of the prior attitude should not affect the persuasiveness of the appeal. Yet, this contrast effect supports the experiential contrast hypothesis, according to which an emotional appeal is
perceived as hedonically more extreme, the more extreme an oppositely valenced prior experience was. Also consistent with the experiential contrast hypothesis, we observed a contrast effect of persuasive appeal and attitude basis for emotion-based attitudes only. Presumably, the reason is that experiential contrast occurs only when basis and appeal have an experiential component, which is not the case for arguments.

The bulk of modern persuasion research has focused on deliberate reasoning processes and on memory processes. Our studies suggest that investigating perceptual processes can add unique insights to the study of persuasion. The dominant way of thinking about persuasion assumes that the effectiveness of a persuasive appeal is independent of the extremity of the initial attitude, or is attenuated, the more extreme an initial attitude. Our results show the opposite pattern. The effectiveness of an appeal can increase more, the more extremely opposed the initial attitude is to the appeal. It follows that a one-time slip in service quality is perceived as worse for a high quality service provider than for one of mediocre quality. Our contribution is to demonstrate that one source of contrast is an experiential process that is fully automatic, a new idea in persuasion. Motivation and ability to process an appeal should have no effect on the perceived extremity of an appeal. Finally, our findings call for rethinking advertising planning models that assume the existence of dual matching effects. These should instead acknowledge that experiential persuasion is particularly effective when trying to change attitudes based on prior experiences.

“Declarative and Experiential Information in Preference Judgments: The Role of Processing Fluency”
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Bernd H. Schmitt, Columbia University
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We investigate the importance of experiential product attributes in consumer judgments. Experiential attributes are nonverbal stimuli that include sensory cues (e.g., colors and shapes) as well as affective cues (e.g., mascots that appear on products [Keller 1987]). When consumers evaluate products differentiated on functional attributes, they engage in a deliberate reasoning process (Shafir, Simonson, and Tversky 1993; Simonson 1989). In contrast, experiential features can be processed deliberately or spontaneously. In two studies, we suggest that two factors determine whether experiential attributes are processed one way or the other: the diagnosticity of the functional attributes in the product description, and the choice context that may prime experiential attributes (Mandel and Johnson 2002).

In study 1, each subject was in one of four two-option choice situations, and was asked to indicate their likelihood of choosing each option. Each subject executed the same choice task three times. Before each choice task, each subject was exposed to a different banner ad: one containing a sensory cue, one an affective cue, and one a functional cue. The banner said “Welcome to the dot in.com.” The letter ‘o’ in the word ‘dot’ was an orange circle (the sensory cue), a heart symbol (the affective cue), or a plain letter ‘o’ (the functional cue). The choice options were three floppy disks: a “functional” floppy (i.e., a standard black diskette), a “sensory” (i.e., green color), and an “affective” floppy (black with a smiley on it). All floppy disks were described with five functional attributes. Each subject was in one of the following choice situations: choice between (1) two functional floppies such that one was clearly functionally dominant, (2) a functional floppy and a functionally inferior sensory floppy, (3) a functional floppy and a functionally inferior affective floppy, and (4) a sensory and an affective floppy that were functionally equally good. Functional attributes were diagnostic in all situations except situation 4. Thus, study 1 was a 4 (choice situation: functional vs. functional, functional vs. sensory, functional vs. affective, affective vs. sensory) x 3 (context banner: sensory, affective, functional) mixed design. The dependent measure was the likelihood of choosing A versus B.

Our results show that when the choice set consists of two functional options, consumers are likely to choose the functionally dominant alternative irrespective of the context. In situations where both functional and experiential attributes are present, the presence of the experiential attribute can make up for the functional inferiority of the experiential alternative, when subjects are primed with an experiential context, sensory or affective. Subjects are then equally likely to choose between the functionally inferior experiential and the “functional” alternative. In contrast, when primed with a functional context cue, subjects are more likely to pick the “functional” option over the functionally inferior experiential option. Finally, when both functional and experiential attributes are present but the functional attributes are not diagnostic, the floppy most likely to be chosen is the one matching the context cue presented: a “sensory” option is most likely to be selected when subjects are primed with a sensory context cue, and an “affective” option is most likely to be chosen when subjects are primed with an affective cue. Both options are equally likely to be chosen when subjects are primed with a functional cue. In sum, study 1 suggests that different processes operate in different choice situations. Deliberate processing of experiential attributes seems to occur when consumers decide whether experiential attributes offer value in addition to the value provided by functional attributes. Spontaneous processing of experiential attributes seems to occur when the functional information cannot provide value for decision-making. Then, consumers spontaneously engage in a visual categorization process to match the experiential contextual cue with an experiential attribute of the same type (e.g., they match the heart symbol present in the banner with the “smiley” present on the diskette).

In study 2, we show that experiential attributes can be processed faster than functional attributes. Study 2 is a 3 (ad: functional, affective, sensory) x 2 (tempo at which the ad is shown: slow, fast) between-subjects design. The dependent variable is product evaluation. We show that consumers will evaluate the product differentiated with functional attributes less positively under time pressure than when they have more time to process these attributes, while the evaluation of experiential attributes is the same regardless of time pressure.

Together, these studies show that consumers are flexible when they process experiential attributes. We find that both choice context and product attributes play a role in the processing of experiential attributes. The choice context may be used either deliberately or spontaneously. In contrast, for functional attributes, the choice context is irrelevant in judgment.