Do Products Smile? When Fluency Confers Liking and Enhances Purchase Intent

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SPECIAL SESSION SUMMARY
Do Products Smile? When Fluency Confers Liking and Enhances Purchase Intent
Aparna A. Labroo, University of Chicago

SESSION OVERVIEW
A recent ad for a tri-zone watch (where the face of the watch is split in three sections corresponding to three different time zones) carried a picture in which all three zones were simultaneously set at 10:10 am. Other watch-advertisers follow similar practice, employing ads showing several watches all set at 10:10 am, and car manufacturers sometimes curve the edges of the front grill up at the sides just a little. Whereas some suggest aesthetic or functional reasons for these practices, marketing folklore advocates that this makes the product appear as smiling to the consumer, and enhances liking and purchase intent of the product. Academic research based on processing fluency, however, suggests that this is not the case and that although liking and purchase intent sometimes increases, this is not because the product is smiling.

In investigating factors that enhance liking and purchase intent, three papers in this session build on the processing fluency model. The fluency model posits that liking of objects is influenced by the ease (or difficulty) associated with processing physical features of the object (perceptual fluency, e.g., Zajonc 1968) or in assigning meaning to the object (e.g., Whittlesea 1993). Adding to this literature, in the first paper, Labroo, Dhar, and Schwarz show that liking judgments are enhanced from perceptual ease of processing the target, and further suggest that perceptual ease can be manipulated through closely-related specific concepts. They find, in three studies, that prior exposure to a watch enhances later liking of the watch. However, a minor mismatch (displayed time 10:10, resembling a smiling face, vs. 8:20, resembling a sad face) between the watch at exposure and evaluation eliminates this fluency effect. Similarly, overexposure to the watch decreases liking; but again, a minor mismatch (displayed time 10:10 vs. 8:20) eliminates this disfluency effect.

Finally, conceptual priming (“watch” and “smile” words) enhances liking of a “smiling” watch (10:10 display), relative to non-specific activation (“watch” related words only) or baseline conditions.

In the second paper, Aggarwal and McGill test two competing explanations—mimicry versus fluency—for differences in consumer responses to products that have human-like features, such as a smile or a frown. Mimicry-based explanation suggests that people will evaluate an object more positively when it is perceived to be smiling than frowning and that this difference will be larger when the object is seen as a living being. Fluency-based explanation suggests that smiling leads to higher evaluations than frowning when perceived as a living being (people smiling are likely more common than frowning ones) but the reverse when perceived as an inanimate object (if frown is more compatible with product features or goals of the perceiver). Results of a laboratory study provide support for the fluency-based explanation over its alternative.

Extending fluency effects to likelihood of engaging in a behavior, the final paper by Janiszewski and Chandon presents evidence from seven studies showing that processing fluency also contributes to the mere measurement effect. Previously, the mere measurement has been attributed to the increased accessibility of the information supporting the attitude toward the behavior. Janiszewski and Chandon suggest that a second source of the mere measurement effect may be the redundancy in the processes used to generate the mere measurement response and the processes used to decide whether or not to engage in the behavior. Process redundancy creates a fluency that can be interpreted as supportive of the behavioral tendency. That the degree of overlap between the two sets of processes affects extent of behavioral intent is compatible with data reported in this session by Labroo et al. wherein liking of products emerges from an exact match between the prime and target.

Stijn van Osselaer served as discussant on this session. Van Osselaer’s research focuses extensively on understanding memory processes, in particular, how accessibility toward cognitive constructs affects consumer judgment, and the three papers included in the session form a cohesive set within this area, but each with unique findings.

“Of Smiling and Frowning Watches: Stimulus Specificity in Perceptual Fluency”
Aparna A. Labroo, University of Chicago
Ravi Dhar, Yale University
Norbert Schwarz, University of Michigan

Several studies suggest that liking of objects is influenced by the ease (or difficulty) experienced by consumers in processing information relating to the product (see, Schwarz 2004). This facilitation (impairment) is associated with the ease of processing physical features of the object (perceptual fluency, e.g., Zajonc 1968) or in assigning meaning to the object (e.g., Whittlesea 1993). Whereas perceptual fluency is stimulus-specific and sensitive to changes in features (e.g., Mandler, Nakamura, and Van Zandt 1987), conceptual fluency arises without prior exposure to the stimulus, although those results are more mixed. Some authors report enhanced liking from prior conceptual activation (e.g., Lee and Labroo 2004), others do not always find the effect (e.g., Nedungadi 1990). Note that the former authors induced specific expectations of seeing the target by manipulating the context; however, this was not the case in the latter studies. It is possible that conceptual fluency is also stimulus specific and enhances liking only when the primed concepts are closely related to the target. Three studies were designed to investigate this and examine the extent of match required between a prime and a target to enhance liking.

Experiment 1 followed a 3(prime: control; watch set at 10:10, resembling a smiling face; watch set at 8:20, resembling a sad face) x 2(target: watch set at 10:10, watch set at 8:20) between-subjects design. The experiment followed a two-stage procedure whereby participants first evaluated one of three prime-storyboards and then indicated liking toward the target watch. The results indicated that prior exposure to the 10:10 watch increased liking of the 10:10 but not of an 8:20 watch. Similarly, prior exposure to a watch set at 8:20 increased liking of the 8:20 but not of a 10:10 target. Note that the evaluation of storyboard prime did not differ, nor did mood or involvement differ across conditions. The data thereby indicated that an exact perceptual match is required to enhance liking of a target and that a minor mismatch of features can remove any enhancement in liking. Furthermore, conceptual fluency effects were not observed in these data and a single prior exposure of the mismatched watch did not enhance liking of the target over baseline liking. In particular, prior exposure to the 8:20 watch, relative to not seeing any watch, did not increase liking of the 10:10 target; nor did prior exposure to the 10:10 watch enhance liking of the 8:20 target.
It is possible that conceptual fluency requires more extensive elaboration of the prime-watch to enhance liking of other (mismatched) watches. Also, it is possible that participants generated prime-specific meaning (e.g., “10:10 is in the morning and...”), and so liking of the matched but mismatched watch increased. It is not clear why participants should elaborate specifically about the time and not watches in general; however, experiment 2 was set up to rule out these possibilities. Elaboration was manipulated by number of prior exposures, and the experiment followed a 2 (prime: 10:10 vs. 8:20) x 2 (target: 10:10 vs. 8:20) x 2 (exposure of prime: one vs. seven) design. If the results of experiment 1 are a matter of calibration, then seven (vs. one) exposures should enhance liking of the mismatched target (via enhanced elaboration about watches). Also, if prime-specific meaning was generated by participants, then seven (vs. one) exposures should enhance liking of the matched target (via enhanced prime-specific elaboration). However, if the results are from perceptual fluency, then overexposure of the prime (e.g., Kruglanski, Freund, and Bar-Tal 1996) will enhance boredom and decrease liking of the matched but not mismatched target. Indeed, seven relative to one exposure decreased liking of the matching targets. Moreover, liking of the perceptually-mismatched targets was not affected by number of prior exposures. This enhances our confidence that the observed effects are perceptual, not conceptual.

Experiment 3 was designed to test whether perceptual-fluency effects are also stimulus specific when conceptual cues are employed to prime the perceptual features of the target. Participants first completed a word-jumble task (priming phase) in a 2 (prime words: smile versus frown) x 2 (prime words: control versus watch-related) x 2 (target watch: 10:10 versus 8:20) between-subjects design. The data indicate an enhancement in liking of the 10:10 watch when people are primed with words relating to “smile” and “time,” but an enhancement in liking of the 8:20 watch when people are primed with “frown” and “time.” This suggests that conceptual fluency, like perceptual fluency, is stimulus specific and requires prior activation of meaning that is specific to subsequent processing of the target. As a set, these studies speak to the specific nature of perceptual fluency.

"Is That Car Smiling at Me? Schema Congruity as a Basis for Evaluating Anthropomorphized Products"  
Pankaj Aggarwal, University of Toronto  
Ann L. McGill, University of Chicago

Anthropomorphizing, that is, seeing the human in nonhuman forms, pervades human judgment (Guthrie, 1993). Furthermore, marketers commonly encourage consumers to see their products in human terms. Hence, people sometimes see their cars as loyal companions; they argue with, cajole, and scold malfunctioning computers and engines. Prior research also reveals that products may be seen as having consciousness or a soul (Gilmore 1919), an underlying defining essence, analogous to a genetic code (McCill 1998), personalities (Aaker 1997; Keller 2002), and relationships (Aggarwal 2004; Fournier 1998). In addition, people apply social norms of reciprocity in their interactions with computers (Moon 2000; Moon and Nass 1998).

Although the tendency to anthropomorphize is pervasive, people do not anthropomorphize all objects nor are they able to anthropomorphize different objects with equal ease. The ability to anthropomorphize depends on the presence of specific features. For example, movement in an object can often create the impression that it is alive (Hiedert and Simmel 1944; Tremoulet and Feldman 2000) as can sounds/voices, facial features, intentionality, imitation, and communication ability (Dennett 1996).

The primary questions that this research attempts to address are whether an anthropomorphized presentation of a product affects its evaluation and, if so, how? Our central hypothesis is that when marketers encourage consumers to anthropomorphize a product, consumers bring to mind their schema for human beings and that the product is evaluated in part by how well its features fit that human schema (Fiske 1982; Mandler 1982; Meyers-Levy and Tybout 1989). Depending on the characteristics of the object, therefore, consumers may or may not be able to see the analogy suggested by the marketer to successfully anthropomorphize the product. Thus, this research proposes schema congruity as a theoretical basis for examining the effectiveness of marketers’ efforts to anthropomorphize their products.

This overall hypothesis is examined in two laboratory studies. In these studies, a human or an object schema is first triggered by encouraging participants to think of the product as being like a person or an object. Next, a new product is presented to them with a feature that is more or less congruent with the human schema. Finally, the dependent variables are administered.

Study 1 uses a car as the target product. Prior research suggests that smiling faces are more familiar (Baudouin, et al. 2000), and that smile is part of the human face schema (Martin and Rovira 1982). We manipulate the shape of a front grille of the car visual so that the edges point up to resemble a smile or down like a frown. We expected that the “smiling” car would be a better fit with the human schema than the “frowning” car. As a consequence, we predicted that when primed with a person schema, participants would be more likely to perceive a smiling car as a person and evaluate it more positively than a frowning car. The study was a 2 x 2 x 2 design with schema prime (person, object), facial feature (smile, frown) and car model (Lexus, Thunderbird) as the between-participants conditions with 120 undergraduate students as the participants. The results confirmed our hypotheses: participants primed with the human schema (but not the object schema) were more likely to see the car as person (2-item anthropomorphism score) and evaluate it more positively (15-item scale) when the target feature was more congruent (smiling) than less congruent (frowning) with the human schema. Further, the anthropomorphism score partially mediated the product evaluations. Finally, there were no differences across the conditions on an 11-item affect score–ruling out mood as an alternative explanation.

In order to get deeper insights into the underlying mechanism and further validation of the schema congruity hypothesis, study 2 was conducted. Thus, Study 2 also incorporated participants’ thought protocols. We also wanted to rule out two alternative explanations: 1) product mimicry—which suggests that participants mimicked the smile of the car in the human schema condition, and this mimicry resulted in more positive evaluations (Chartrand and Bargh 1999), and 2) contingent quality—which suggests that a smile is seen as a better quality feature than a frown.

In study 2, we primed participants with a person or an object schema by telling them about the product “family” or the product “line” of a new beverage. The visual showed four bottles that were either identical in size, or they differed in size as well and placed in a way so as to suggest different individuals (much like different members of a family). A pre-test confirmed that people expect members of a family to be different sized—suggesting different sized bottles to be congruent with the human schema. As before, we expected participants primed with the human schema to be more likely to see the product as a person and evaluate it more positively when the feature was congruent (different sizes) than incongruent (same sizes). Also, since the bottle sizes (same vs. different) could not be mimicked, nor were they inherently better (or worse), this study rules out the two alternative explanations suggested earlier.
Ninety-two undergraduate students participated in this 2 (schema prime: person, object) x 2 (bottle sizes: same, different) between-participants study. Results showed that participants in the person prime (but not the object prime) condition who saw different sized bottles were more likely to perceive the beverage as a person and evaluate it more positively relative to the other conditions. Further, coding of the thought protocols showed that these participants made more schema-match related comments compared to the others. Finally, the anthropomorphism score (3-items) partially mediated the product evaluation (18-item) score.

Our research offers a framework to better understand the phenomenon of anthropomorphism. Two studies provide support for schema-congruity theory as the underlying theoretical basis for explaining consumers’ evaluations of anthropomorphized products. Our findings also offer marketing managers specific guidelines of how to ensure a successful anthropomorphism of their products. Future research that delves more deeply into the evaluation of anthropomorphized products is awaited.

“Transfer Appropriate Processing, Response Fluency, and the Mere Measurement Effect”
Elise Chandon, University of Florida
Chris Janiszewski, University of Florida

There is considerable evidence that the mere measurement of intent influences subsequent preference judgments, behavioral intent, and behavior (cf. Morwitz and Fitzsimons 2004; Spangenberg and Greenwald 1999). Specific intent questions can influence specific behavior (e.g., Greenwald et al. 1987; Sherman 1980) or general behavior (e.g., Spangenberg and Obermiller 1996) and general intent question can influence general behavior (e.g., Morwitz, Johnson, and Schmittlein 1993) or specific behavior (e.g., Fitzsimons and Morwitz 1996; Morwitz and Fitzsimons 2004). Moreover, mere measurement influences the performance of shopping behaviors, health-related activities, and pro- or anti-social behaviors (cf. Morwitz and Fitzsimons 2004).

The pervasiveness of the mere measurement effect makes the identification of a single underlying process difficult. Short-term, ephemeral mere measurement effects have been attributed to semantic priming and information accessibility. For example, Fitzsimons and Shiv (2001) propose that prior consideration of information about a target will influence subsequent judgments about the target because the prior information remains accessible and contaminates the subsequent judgment (see also Fitzsimons and Williams 2000). Long-term, persistent mere measurement effects have been attributed to the increased accessibility of attitudes (Fitzsimons and Morwitz 1996) and the increased accessibility of normative beliefs (Sprott, Spangenberg, and Fisher 2003), Morwitz and colleagues (Chandon, Morwitz, and Reinartz 2004; Dholakia and Morwitz 2002; Fitzsimons and Morwitz 1996; Morwitz and Fitzsimons 2004) provide evidence suggesting preexisting attitudes exert a strong, long-term influence on brand loyalty and consumption as a consequence of being measured.

It is possible that there is an additional source of the mere measurement effect. There is now considerable evidence that people are not only sensitive to content of the information generated in cognition, but also to the characteristics of the processes used to generate the information (Klinger and Greenwald 1994; Schwarz 2004; Whittlesea and Leboe 2000). Processing fluency refers to the ease of executing a cognitive activity, whether it be the generation of a perception (i.e., perceptual fluency), the retrieval of information from memory (i.e., retrieval fluency), or the assigning of meaning to an event (i.e., conceptual fluency). Attributions about processing fluency have been shown to influence judgments about preference, truth, and memory (Hasher, Goldstein, and Toppino 1977; Mandler, Nakamura, and Van Zandt 1987; Whittlesea, Jacoby, and Girard 1990) as well as influence eating behavior, social interaction, and compliance with requests (Burger et al. 2001; Capaldi 1996; Zajonc 1968). We propose a similar bias, based on the processing fluency of response planning, can contribute to the mere measurement effect.

This article investigates the influence of mere measurement on subsequent intentions to purchase the product. Our objective is to show that attributions about the processing fluency experienced during response planning, termed response fluency, can contribute to the mere measurement effect. We will show that response fluency effects are independent of information accessibility and attitude accessibility effects, while acknowledging both information content and attributions about process contributed to mere measurement effects. In experiment 1, we show that response fluency increases a subsequent purchase intention. Experiments 2A and 2B show that it is the degree of overlap in the processing activities used to answer the mere measurement question and the processing activities used to respond to the purchase intention question that creates the response fluency responsible for the mere measurement effect. Experiment 3 and 4 identify a boundary condition of the response fluency effect, showing attributions about response fluency are limited to situations where response fluency is high relative a baseline. Experiment 5 documents that people will not rely on attributions about response fluency when more diagnostic information is available.

SELECTED REFERENCES
Gilmore, George W. (1919), Animism or Thought Currents of Primitive Peoples, Boston, MA: Jones.


