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## **If I Don't Understand It, It Must Be New: Processing Fluency and Perceived Product Innovativeness**

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If I Don't Understand It, It Must Be New: Processing Fluency and Perceived Product Innovativeness Hyejeung Cho, University of Michigan Norbert Schwarz, University of Michigan We provide the first evidence that processing fluency (the ease or difficulty with which new information is processed) influences judgments of product innovativeness. People assume that 'new information is more difficult to process than familiar information' and infer higher product innovativeness from lower processing fluency (e.g., when the font in which the product description is printed is difficult rather than easy to read). This favorable judgment of innovativeness can result in higher preference for the product, reversing the usually observed high fluency-high liking link.

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## If I Don't Understand It, It Must Be New: Processing Fluency and Perceived Product Innovativeness

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### Extended Abstract

The meta-cognitive experience of the ease or difficulty with which new information is processed, referred to as 'processing fluency', has been shown to influence a wide range of human judgments including judgments of truth and preference (e.g., Lee and Labroo 2005; Reber and Schwarz 1999; Skurnik et al. 2005; Winkielman et al. 2003). In relation to preference, high fluency has typically been found to increase subjective liking of the judgment target due to the positive feelings elicited by the fluency experience (see Winkielman et al. 2003). However, what people conclude from their meta-cognitive experiences of processing fluency should be influenced by which naïve theory of information processing they bring to bear on their fluency experience (see Schwarz 2004). The present study addresses this possibility.

### Study objectives and hypotheses

High processing fluency is hedonically marked and experienced as positive, which can be captured with psychophysiological measures (Winkielman and Cacioppo 2001). This positive affective response, in turn, results in more positive preference judgments. Suppose, however, that the initial judgment pertains to a specific product attribute (e.g., innovativeness). In this case, fluency may serve as input into a more specific judgment, provided that the task brings an applicable naïve theory of information processing to mind that can serve as an inference rule. We test one such naïve theory, namely the (usually correct) assumption that 'new information is more difficult to process than familiar information'. This assumption may influence judgments of the novelty and innovativeness of a described product. Specifically, we predict that a given product is judged as more innovative when consumers have difficulty processing the product information. Once that judgment is made, it may feed into a later judgment of product preference, reversing the typically observed pattern of the fluency-liking link.

Whether consumers rely on their subjective experience of processing fluency in making specific attribute judgments, however, may depend on their willingness to engage in effortful cognitive processing (referred to as Need for Cognition; Cacioppo and Petty 1982). If a judgment of product innovativeness is seen as pertaining to an objective product characteristic, consumers high in NFC may draw on the details of the product description, whereas consumers low in NFC may rely on their processing experience. Hence, the expected influence of fluency on innovativeness judgments may be limited to low NFC consumers.

Finally, judgments of preference always pertain to one's own subjective response to the product. Accordingly, high as well as low NFC consumers may, in principle, draw on their fluency experience in making preference judgments. But they may be more likely to do so if they have not already attributed this experience to a specific product characteristic. The reported experiment explores these possibilities.

### Method

Following a 2 (Fluency: High vs. Low) x 2 (NFC: High vs. Low) between-subjects design, 95 undergraduates read a product review printed in either an easy-to-read font (10 point, black Arial font) or a difficult-to-read font (10 point, dark gray Agency font). Pretests confirmed that the text was differentially easy to read. The product was a multi-functional digital handset which can function as a phone, mp3 player, camera, video recorder, and e-mailer. After reading the product review, participants were asked to indicate how innovative the product was and how much they liked it, each on a 7-point scale. At the end, participants were shown the same product review article (printed in Times New Roman font) where twenty-five key product attributes were underlined, and asked to circle those they thought were false, based on their memory of what they read before. This measure serves to capture participants' substantive processing of the text. NFC was measured using an 18-item NFC scale (Cacioppo, Petty, and Kao 1984); a median split on this variable is used for data analysis.

### Findings

*Innovativeness.* A 2 (Fluency) x 2 (NFC) ANOVA revealed the predicted fluency x NFC interaction on the product innovativeness judgment ( $F(1, 91)=4.264, p=.042$ ). Contrasts confirmed that low NFC participants perceived the product as more innovative when the product information was printed in a difficult-to-read font rather than an easy-to-read font. This provides the first evidence that processing fluency can serve as an experiential basis of judgments of innovativeness. The innovativeness judgments of high NFC participants, in contrast, were not influenced by the fluency manipulation.

*Preference.* A significant fluency x NFC interaction was also obtained for participants' preference judgments ( $F(1, 91)=6.454, p=.013$ ). As predicted, low NFC participants, who just inferred from low processing fluency that the product is highly innovative, drew on this preceding judgment and tended to like the product *more* when its description was *difficult* to process. That is, we obtained a reversal of the commonly observed fluency-liking link. In contrast, high NFC participants liked the product more when its description was easy to process, replicating the standard finding in this area.

*Memory.* It is conceivable that our fluency manipulation affected participants' attention to the presented product information. To address this possibility, we assessed their memory of what they had read. A 2 (Fluency) x 2 (NFC) ANOVA of the product attribute verification judgments measure revealed no difference in participants' memory of the product attributes across the four conditions, putting this concern to rest.

### Conclusions

This study extends our understanding of the role of processing fluency in consumer judgment as follows. First, it provides the first evidence that fluency can serve as a basis for judging the innovativeness of a product. Because familiar information is easier to process

than novel information, consumers may infer from difficulty of processing that the information is novel, resulting in favorable assessments of the product's innovativeness. Second, once low fluency is attributed to innovativeness, it no longer leads to a negative response to the product. Instead, we observed a reversed pattern of the usual high fluency–high liking link. Third, our findings highlight the role of NFC in the use of fluency as a source of information for making specific attribute judgments. In our study, only low NFC participants relied on their fluency experience as a heuristic cue when asked to judge an objective product characteristic, innovativeness. In contrast, high NFC participants' judgments of innovativeness were not affected by fluency, presumably because they relied on the substantive description of the product. Finally, high NFC participants used their fluency experience in making liking judgments, replicating the usual fluency-liking link. This reflects that liking judgments are subjective, rendering one's fluency-related affective response (Winkielman and Cacioppo 2001) highly relevant.

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## The Impact of Regulatory Focus on Brand Choice and Category-Brand Associations

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Consumer decisions vary with the specific wishes and requirements of consumers. For one consumer, a product has to be very reliable whereas, for another consumer, it has to be well designed. Recent research demonstrated that such decision criteria are affected by basic orientations and motivations which are related to hedonic goals of avoiding an undesired state and approaching a desired state. A very sophisticated framework to study the impact of these motivations is provided by Higgins (1997). In his regulatory focus theory, he posits two different self-regulatory strategies: The regulation of behavior according to ideals, hopes, and aspirations, termed promotion focus, and the regulation of behavior according to responsibilities, duties, and security, termed prevention focus. The promotion focus emphasizes the pursuit of positive outcomes. The prevention focus is related to the avoidance of negative outcomes. A basic assumption of regulatory focus theory is that individuals are more concerned with information relevant for the regulatory focus and that attributes compatible to this focus are given more weight in choice (Chernev, 2004; Florack, Scarabis, & Gosejohann, in press).

The main objective of the present paper is to complement this research by showing that the regulatory focus of consumers has an influence on product preferences as well as on the strength of the association of a brand with the product category. In particular, we assumed that category-brand associations vary over different contexts and that products of a category which are compatible to consumers' regulatory focus are more likely to be associated with the category than products that are less compatible with the consumers' regulatory focus. Product preferences and category-brand preferences are two important factors influencing choice. Whereas brand preferences determine the choice between available alternatives of a consideration set, category-brand associations have an influence on whether brands are recalled from memory (Posavac, Sanbonmatsu, Cronley, & Kardes, 2001). The latter is of particular importance when brands are not displayed and when they have to be recalled from memory (Negundgadi, 1990).

To examine our hypotheses, we conducted two experiments. The goal of Experiment 1 (N=415) was to show that the regulatory focus of consumers has an impact on the preferences of sun lotions with different claims. We asked participants to evaluate two different brands of sun lotions (cf. Aaker & Lee, 2004) and to indicate which one they would purchase for their summer holidays at the sea. The two sun lotions were presented by two pictures with an advertising claim for each. For one brand, we used a claim that was concerned with the avoidance of sunburn ("Give sunburn no chance. Brand X provides safe protection.") while for the other brand we used a claim that stressed enjoyment of the sun ("Enjoy the warm rays of the sun. Brand X for a healthy tan."). Before participants evaluated the brands, we induced either a promotion or prevention focus with a few questions. In the promotion focus condition, we provided participants with a list of positive things that could happen during their holidays (e.g., meeting nice people) and asked them to indicate which of these things they would actively pursue. In the prevention focus condition, we provided participants with a list of negative things that could occur during holidays and asked them to indicate those they would actively try to avoid (e.g., risk of terror attacks). As predicted, prevention-focused participants preferred the sun lotion with the claim that stressed protection more than promotion-focused participants. This pattern of