

**WHEN PRODUCTS FEEL SPECIAL: LOW FLUENCY LEADS TO
ENHANCED DESIRABILITY**

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Most prior research demonstrates that feelings of high fluency which signal familiarity with an object improve its evaluation (e.g. Schwarz 2004, 2008, Winkielman et. al 2003). In a departure from those findings, in the current paper we demonstrate that *low* fluency can sometimes enhance evaluation of a product. In the context of everyday objects, increased fluency is a positive cue that the product is familiar and safe which leads to higher evaluation of products, as demonstrated in existing research. However, we argue that in the context of special occasion high-end goods, higher fluency which indicates abundance of the product is a negative cue because it makes the products feel less special, and this translates into lower value. Across four studies we find that a decrease in processing fluency increases preference for special occasion goods and services. We therefore demonstrate that effect of fluency on evaluation depends on naïve theory that people use at the time of judgment that varies by different consumption contexts.

Products evaluation is fundamental to consumers' assessment of preference and choice. A substantial body of research documents that consumer evaluations of products are driven not only by the features of the products being considered, but also by subjective feelings that might arise while processing or recalling information regarding the products (Schwarz 2004). For example, when a consumer decides which restaurant to go to for dinner, this decision is affected not only by the content of information he can recall about different restaurants (location, quality of food), but also by the ease (or difficulty) with which such information comes to mind. Such subjective feelings that accompany thought processes are referred to as fluency experiences.

In general, most prior research demonstrates that feelings of high fluency (feelings of ease) which signal familiarity with an object improve its evaluation (e.g. Schwarz 2004, Winkielman et. al 2003). In a departure from those findings, in the current paper we argue that *low* fluency (feelings of difficulty) can sometimes enhance evaluation of a product. This happens in the domain of special occasion goods. We propose that this occurs because special occasion products, by definition, are consumed only on special occasions that are usually few and far between. Thus, for such products an inference that the product is unusual, unique, out of the ordinary, exceptional, distinctive, or uncommon is associated with positive value. Such an inference can be drawn from a feeling of low fluency, which signals that the product is infrequent. As a consequence, feelings of low fluency rather than high fluency enhance evaluations of special occasion goods.

Our paper thus broadens our understanding of the role of fluency in product evaluations (Janiszewski 1993, Labroo and Lee 2006, Labroo, Dhar and Schwarz 2004, Novemsky et al. 2007, Shen, Jiang and Adaval 2008) in several ways. First, in contrast to previous literature, we demonstrate a context in which feelings of low fluency exert a beneficial influence on product preference and choice, which is a departure from existing research. Second, and importantly, we also show that the impact of fluency on evaluation depends on the naïve theory about product consumption that people use at the time of judgment. When people are making decisions about products for special occasion consumption they are relying on the lay belief that unique or out of the ordinary products are better, thus low rather than high fluency leads to higher product evaluation.

In the next section of the paper we review key findings of the fluency literature and develop our predictions for the effect of fluency experience on preference for special occasion products. Following, we present four studies where we manipulate the type of a product (special vs. everyday) and processing fluency to test our hypotheses. We conclude our paper with a discussion of implications of our findings for the research on fluency experiences and for understanding of consumer preferences.

THE EFFECT OF PROCESSING FLUENCY ON EVALUATIVE JUDGMENTS

A consensus in the literature is that an increase in fluency of processing enhances liking of an object being considered (Schwarz 2004, 2008, Winkielman et al. 2003). The best known finding within this stream of research is the mere exposure effect (Zajonc

1968, 1980). Zajonc (1968) showed that repeat exposure to a neutral stimulus (for example nonsense words) increased preference towards the previously seen words, even though recognition was not higher than chance. This effect has been replicated in many domains and it has been suggested that repeated exposure facilitates the fluency of processing of the perceptual features of the target stimulus (see Bornstein 1989). More recently, other factors that improve the fluency of processing of perceptual features of the stimulus have been found to result in similar effects and improve evaluation (see Schwarz 2008 for review). For example, the visual clarity or brightness of the object being considered has been shown to improve its evaluation (Reber, Winkielman, and Schwarz 1998). In one study, Reber et al. (1998) presented the participants with slightly degraded pictures of everyday objects (target pictures). For some of the participants, the target picture was preceded by its contour, facilitating subsequent processing. This manipulation led to faster recognition of pictures as well as increased evaluation. Further studies have shown that high processing fluency increases positive affective reaction to the stimuli leading researchers to propose that fluency is hedonically marked (Winkielman and Cacioppo 2001).

Similar effects of fluency on preference have been demonstrated in the consumer choice domain. For example, Janiszewski (1993) showed that an increase in fluency through repeated exposure to brand names and product packages resulted in more favorable attitude toward the brand. Labroo and Lee (2006) additionally showed that increased fluency from an incidental exposure to brands addressing the same goal as the target brand increased its evaluation. Further, Labroo, Dhar, and Schwarz (2008) discovered that semantically cueing the perceptual features of the product, without prior

exposure to it, also results in mere-exposure like effects and increases liking of the products.

The positive effect of fluency on evaluative judgments stems from the perceived connection between high fluency and familiarity. High processing fluency is believed to serve as a cue that an object has been seen before and is familiar to the perceiver (Winkielman et al. 2003). In support of this proposition, Whittlesea et al. (1990) have shown that words that were presented with higher visual clarity were recognized more often as being seen before, in other words were judged more familiar. When the experience of high processing fluency is interpreted as familiarity, such feelings of familiarity evoke a positive affective response and enhance liking (Winkielman et al. 2003, Schwarz 2008). This occurs because familiar or frequent objects have an adaptive value; people surround themselves with things that they like, creating a correspondence in their minds between what is familiar and what is liked and personally relevant, at the same time people generally experience caution when they encounter novel or less familiar objects (Zajonc 1968).

Although most research has demonstrated a relationship between increase in fluency and liking, recent research has proposed that exact influence of fluency experiences on judgment depends on the inference that decision-makers draw from such experiences (Schwarz 2004). Further, such lay inferences are defined by accessible naïve theories based on prior experience and can vary for different contexts and judgments (Skurnik, Schwarz, and Winkielman 2000). For example, effect of incidental exposure on brand attitude (Janiszewski 1993) is a function of the lay inference that more familiar brands are easier (or faster) to process and that familiarity is interpreted as a preference

for the brand. Thus, an increase in fluency leads to an increase in evaluation because in this context, familiarity or frequency has positive connotations.

Since the interpretation of fluency relies on lay inference, it is possible that the relationship between familiarity and liking can be reversed in situations where people hold different lay beliefs. In other words, in situations where people do not prefer familiar or frequent objects over objects that feel less familiar and scarce, it is possible that a *decrease* in processing fluency of an object would lead to *higher* liking.

Previous research shows that people acquire lay beliefs from their past experiences or their environments (Morris, Menon and Ames 2001). We believe that there are consumer purchase environments that spontaneously evoke lay inference of the reverse relationship between commonness and evaluation. In particular, special occasion products and services are frequently marketed around the belief that uniqueness indicates higher value. Such products are promoted as being “unique”, “exclusive” or “limited edition” in an effort to highlight their higher value. Similarly, certain variations of products are sold as limited editions and at higher prices, benefiting from the perception that limited production translates into higher value. For example, under the special-occasion gift section of its website, Godiva advertises its “exquisite” Mousse collection of chocolates as “limited edition.” Neuhaus, another high-end chocolate brand, states that it is “virtually the only company” that produces truffles individually by hand and “therein lays the faultless and matchless quality of Neuhaus products”. Furthermore, special-occasion products that are usually also high-end products frequently have limited distribution (for example through exclusive stores), again increasing value through products’ limited availability and uncommonness. In sum, in the domain of special

occasion consumer goods there seem to be a strong belief among consumers that unique products have higher value.

Based on this discussion of the relationship between perception of commonness and assessment of value, we propose that different consumption domains will activate different lay theories of the relationship between stimulus familiarity and corresponding value. In the context of everyday products, increased fluency is a positive cue that the product is familiar and safe which leads to higher evaluation of products, as demonstrated in existing research. However, in the context of special occasion high-end products, higher fluency serves as a negative cue that indicates abundance and familiarity of products that translates into lower value, in a departure from existing research. As the result, any increase in fluency, as shown extensively by previous literature (Janiszewski 1993, Labroo and Lee 2006, Labroo, Dhar and Schwarz 2008, Reber, Winkielman, and Schwarz 1998, Winkielman et al. 2003), would lead to higher evaluation in the domain of everyday consumption. However, in the domain of special-occasion products, we propose that this relationship will reverse due to a different lay theory that is dominant in this domain. In this consumption context feelings of *low fluency* which is associated with a perception of lower frequency of products will improve evaluation. Thus, difficulty (and not ease) of processing of such products will make them feel more special leading consumers to prefer such products more when processing fluency is low.

To sum, we propose that fluency effects on product evaluations and consumer preferences are context-dependent. That is, whereas previous research has shown a positive effect of increasing processing fluency on evaluation and purchase likelihood, in this paper we expand our understanding of the effect of fluency on preference by

identifying domains where lower fluency leads to higher evaluation and purchase likelihood. Further, this paper provides experimental evidence that interpretation of an experience of processing fluency relies on the use of lay theories that are triggered by specific product contexts.

We test our proposition that low fluency leads to higher liking of special occasion products in two ways. First, in Studies 1 and 2 we show that processing fluency has different effect on preference depending on the type of product that is being evaluated (special vs. everyday). We use hard-to-read font as our manipulation of fluency in Study 1 and ease of thought generation as a fluency manipulation in Study 2. Second, Study 3 manipulates the product context by using a word jumble task to prime special vs. everyday concepts and thus making different lay theories accessible, while keeping the product constant, to show the role of lay theories in the interpretation of fluency experience. Study 4 directly measures people's lay beliefs to see if individual differences in beliefs account for the effect of fluency on preference. Importantly, we also use an attribution manipulation to show that the observed effect of fluency on preference indeed stems from people's misattribution of their feeling of fluency to the product and not to the true source of fluency experience.

STUDY 1: PROCESSING FLUENCY AND PREFERENCE FOR SPECIAL OCCASION PRODUCTS

Study 1 examined the effect of fluency of information processing on preference for everyday and special occasion products. For everyday products, where high feelings

of familiarity that are associated with an increased fluency of processing are a positive cue, we expect that increased fluency of processing would increase preference for these products, replicating previous research. However, for special occasion products, feelings of rarity are a cue for higher product value and therefore, a decrease in fluency of processing would lead to higher evaluation.

Method

One hundred and nineteen undergraduate students were approached on campus and asked to fill out a short survey. The study employed a 2 (processing fluency: low vs. high) \times 2 (cheese type: everyday vs. gourmet) between-subjects design. Participants were provided with one of four advertisements describing a new cheese being introduced by an online retailer. The description included a picture of the cheese, name, a brief description of the taste and suggestions for food pairings. In the everyday cheese condition the product was described using words such as “straightforward and all-American” and “great choice for quesadillas or grilled cheese.” In the gourmet cheese condition the product was described using words such as “decadent delight for special occasions” and “appreciates a delicately effervescent white wine.” (Exhibit 1) The two advertisements were pre-tested on a different sample ($n = 20$). Gourmet cheese was judged as being significantly more likely to be consumed on special occasions ($M_{\text{gourmet}} = 3.8$ vs. $M_{\text{everyday}} = 2.2$, $t(18) = 5.00$, $p < .001$, on a 5-pt scale) and was believed to be significantly less widely available ($M_{\text{gourmet}} = 2.7$ vs. $M_{\text{everyday}} = 4.3$, $t(18) = 4.00$, $p < .001$, on a 5-pt scale).

Processing fluency was manipulated similar to Novemsky et al. (2007, also Alter et al. 2008) by presenting the description of cheese to a half of the participants in an

embossed difficult-to-read grey font. The font was designed to be fairly difficult to read, but it could be understood with some effort. The remaining participants read the same description in a regular easy-to-read font. After reading the description of the cheese the participants were asked to rate the likelihood of buying this cheese (1 = not at all likely, 9 = very likely). After this participants were thanked and debriefed.

Results and Discussion

A two-way ANOVA was conducted with processing fluency and product type as the independent variables and purchase likelihood as the dependent variable. The ANOVA revealed a main effect of product type ($F(1,115) = 11.07, p < .01$); as one might expect, participants in general indicated higher purchase intent for everyday cheese ($M = 4.84$) than gourmet cheese ($M = 3.46$). More importantly, this effect was qualified by a predicted interaction between processing ease and product type ($F(1,115) = 10.52, p < .01$). Consistent with the previous literature, ease of processing of the ad increased liking of everyday cheese when described in a regular font ($M = 5.45$) than in a difficult font ($M = 4.24, t(115) = 2.08, p < .05^1$). However, in contrast to previous literature, difficulty and not ease of processing of the ad increased purchase likelihood of gourmet cheese. As predicted, the participants in a difficult font condition were more likely to purchase the gourmet cheese ($M = 4.21$) than the participants who were in the regular font condition ($M = 2.78, t(115) = 2.51, p < .01$).

These results provide initial support for our hypotheses that processing fluency has a differential effect on preference for special occasion versus everyday products. First, we replicated previous findings and showed that for everyday goods an increase in

fluency positively affected purchase likelihood. Second, in contrast to existing research, and consistent with our proposition, we found that in the context of special occasion products, a decrease (vs. increase) in fluency leads to higher purchase likelihood.

STUDY 2: EASE OF THOUGHT GENERATION AND PREFERENCE FOR SPECIAL-OCCASION SERVICES

The first study manipulated processing fluency by changing the ease or difficulty of processing of the information. Study 2 serves as conceptual replication of our findings using a different fluency manipulation. Previous research (see for example, Schwarz et al. 1991) has shown that the feeling of ease or difficulty of thought generation affects preferences in a similar manner to manipulating the ease of processing information. In this study we asked the participants to generate one versus five occasions to go to either a special-occasion upscale or casual everyday restaurant. A pre-test ($n = 48$) showed that on average participants listed 3.5 occasions to go to a restaurant (there was no difference in the number of occasions generated for two types of restaurants, $M_{\text{casual}} = 3.3$ vs. $M_{\text{upscale}} = 3.9$, $t < 1$)². Therefore, coming up with five occasions would feel subjectively difficult whereas coming up with one occasion would feel subjectively easy. Based on our theory, we predicted that subjective difficulty vs. ease (five vs. one occasion conditions) would negatively affect preference for casual restaurant but would positively affect preference for upscale restaurant.

¹ All planned contrasts are one-tailed.

Method

One hundred and thirty-five students who indicated that they were native speakers of English were compensated for participating in this study as a part of a survey session. The experiment followed a 2 (frame: upscale vs. casual) \times 2 (ease of thought generation: low vs. high) between-subjects design. The participants were presented with a description of a restaurant. In the upscale frame the participants saw a description of a fancy French restaurant (“award-winning cuisine”, “a product of passion, intelligence and standards”), whereas the participants in the casual frame saw a description of an everyday Thai restaurant (“affordable establishment”, “casual restaurant”). Next, the participants were asked to list five (one) occasions for going to a casual (upscale) restaurant. After listing the occasions, the participants were asked whether they would recommend the restaurant to their friends on a 9-point scale from 1(not at all likely to recommend) to 9 (very likely to recommend) for a regular dinner (Thai) or a special occasion (French).

Results and Discussion

A frame \times thought generation ANOVA conducted on recommendation ratings revealed a marginally significant effect of frame ($F(1, 131) = 2.81, p < .10$). A casual restaurant was recommended by participants slightly more ($M = 6.87$) than a fancy restaurant ($M = 6.42$), as one might expect among presumably cash-starved undergraduate students. This result was qualified by a predicted significant interaction ($F(1, 131) = 4.10, p < .05$). Simple effects show that for a casual everyday restaurant, there was a slight although not significant improvement in rating when participants

² Even though people may go to casual restaurant more frequently, they not necessarily have more separate “occasions” to go to such restaurant as compared to a more upscale restaurant.

generated one ($M = 7.03$) versus five ($M = 6.69$) occasions, which tends to replicate established findings of the positive effects of ease of processing on evaluation. However, for an upscale special-occasion restaurant the opposite was the case: generating five occasions (low fluency) significantly improved the rating of the restaurant ($M = 6.78$) as compared to generating only one occasion ($M = 6.03$, $F(1, 131) = 4.05, p < .05$). Consistent with the results of Study 1, using different manipulation of fluency, we find that in the domain of special occasion services, a decrease in fluency experience increases evaluation. It may be noted parenthetically that unlike study 1 and in a departure from previous literature, the effect of ease of generating thoughts on the evaluation of a casual restaurant was only directional. One reason for this might be that for a subject pool comprised of undergraduate students, even eating at a casual restaurant could often be a special-occasion activity, thus attenuating the usually observed effect of fluency on evaluation.

Our studies so far used different products as everyday or special occasion goods and demonstrated that difficulty of processing (or thought generation) increases evaluation of special-occasion products. As stated previously, we believe this happens because different lay theories about the relationship between value and familiarity are triggered by different consumption domains. Research shows that previously acquired information can affect the interpretation of new information without conscious awareness (Adaval and Moore 2002, Bargh 1997). Therefore, in Study 3 we used a priming technique in order to allow participants to spontaneously frame an ambiguous target product as everyday or special. This design provided a stronger test of our theory by keeping all information directly associated with the product constant and only altering the

kinds of thoughts that participants spontaneously have regarding the product. We therefore primed either a concept of “everyday” or “special” among participants who subsequently read an advertisement for an ambiguously worded cheese. Existing research has shown that priming leads to judgments of the target object that assimilate towards primed constructs (Srull and Wyer 1979). This happens because people mistakenly interpret high accessibility of primed concepts as their reaction to the target object. Therefore, the participants primed with “everyday” concept would be more likely to view the ambiguously-framed product as everyday compared to participants primed with “special” concept. We predicted that among participants primed with “everyday” concept, increased fluency of processing would increase evaluation of the target product. Conversely, we predicted that among participants primed with “special” concept, decreased fluency of processing would increase evaluation of the target product.

STUDY 3: EFFECT OF PRIMING “EVERYDAY” VERSUS “SPECIAL” CONCEPTS ON THE INTERPRETATION OF FLUENCY EXPERIENCES

Method

Sixty-seven undergraduate students who indicated that they were native speakers of English were each compensated to participate in a study on consumer judgment. The experiment followed a 2 (prime: everyday vs. special) \times 2 (processing fluency: low vs. high) between-subjects design. All participants completed a word-jumble task (priming task) first and then a product evaluation task.

The priming procedure was adapted from Labroo, Dhar, and Schwarz (2008).

Participants were asked to find and circle six words hidden in a word-jumble puzzle and to write each of the words next to the jumble. In the “everyday” prime conditions the words included: everyday, casual, common, daily, frequent and informal. In the “special” prime condition the words in the jumble were: special, unique, exclusive, rare, matchless, and exception. Once participants had circled and listed the six hidden words, they were asked to evaluate the jumble (1 = dislike, negative, puts me in a bad mood, depressing; 7 = like, positive, puts me in a good mood, uplifting). We also measured participants effort completing the jumble (1 = easy, paid little attention, not at all involved; 7 = difficult, paid a lot of attention, very involved).

Next, participants proceeded to an ostensibly unrelated product evaluation task. Similar to Study 1, participants were asked to read an advertisement for a new cheese being introduced by an online retailer. The description included a picture of the cheese, name, a brief description of the taste and suggestions for food pairings. The description was suitably ambiguous and could be associated either with an everyday cheese or with a gourmet cheese (“blended sheep, cow and goat's milk – this combination ensures no one flavor will overpower the whole”, “texture is firm but not dry”). After reading the description participants rated the likelihood of buying this cheese (1 = not at all likely, 9 = very likely) and how much they liked the cheese (1 = not at all, 7 = very much). Participants also indicated how much attention they paid to the advertisement for cheese (1 = not at all, 7 = very much), and how the ad made them feel (1 = disappointing, emotionally vacant; 7 = satisfying, emotionally rich). After this participants answered demographic questions, were thanked, checked for suspicion, and debriefed.

Results and Discussion

Manipulation checks. In order to rule out an effect of differences in initial evaluation of the jumble on our dependent variable of interest (evaluation of cheese), a prime \times processing difficulty ANOVA was conducted on an index formed by averaging the four measures of liking of the jumble ($\alpha = .86$). This revealed no significant main effects or interaction (all F 's < 1). A separate prime \times processing difficulty ANOVA was conducted on an index formed by averaging the three measures indicating effort exerted in completing the jumble ($\alpha = .56$). This revealed a main effect of prime ($F(1, 63) = 5.72, p < .05$) indicating that participants found the “everyday” jumble more difficult ($M = 3.21$) than the “special” jumble ($M = 2.51$) and paid more attention to it. Importantly, the main effect of the processing difficulty manipulation or the interaction between prime and processing difficulty were not significant (both F 's < 1), and further analyses revealed that using this measure as a covariate in the main analysis on measures relating to the subsequent product evaluation task did not impact the results. This allows us to interpret our effects with more confidence.

Three separate prime \times processing difficulty ANOVA's were conducted on participants self reported attention to the cheese advertisement, how emotionally rich the advertisement was, and how satisfying the advertisement was. This revealed no significant interaction or main effects (all F 's < 1 , other than the main effect of prime on attention to the ad, $F(1, 63) = 2.53, p > .10$, and the main effect of processing difficulty on attention to the ad, $F(1, 63) = 1.28, p > .25$), thus reducing the possibility that overt

attention to the ad somehow influenced willingness to pay for cheese and product evaluation.

Hypothesis tests. The purchase intent and product liking measures were conceptually similar and correlated ($r = .72$) and were averaged to form a product evaluation index. A prime \times fluency ANOVA was conducted on this index, controlling for attention and feelings toward the ad. The analyses revealed a significant interaction ($F(1,63) = 8.18, p < .01$); the two main effects were not significant (F 's < 1). As predicted, among participants primed with the “everyday” concept, increased fluency of processing the ad increased evaluation of the product ($M = 4.79$ vs. $3.38, t(63) = 2.62, p < .01$). In contrast, among participants primed with the “special” concept, decreased fluency of processing tended to increase evaluation of the product ($M = 4.80$ vs. $4.05, t(63) = 1.57, p < .06$).

These data thus reveal that products that are associated with “everyday” concepts are preferred when they are associated with high (vs. low) processing fluency. In contrast, products that are associated with “special” concepts are preferred when they are associated with low (vs. high) processing fluency. The effects observed by us were not accounted for by differences in attention to the ad or by differences in feelings evoked by the ad, nor were they accounted for by differences in effort required to complete the priming task. That framing of the same product was manipulated by a priming technique and it led to different effects on evaluation based on ease or difficulty of processing the product based on the type of prime is also particularly interesting. Existing literature had demonstrated that merely activating different concepts in a consumer's mind can affect the way a product is construed, and that subjective experience of processing fluency

influence evaluation of a product. We instead demonstrated that the evaluation of a product is determined interactively by the types of constructs that come to a consumers mind and their processing fluency experiences.

Studies 1 through 3 demonstrated that low fluency experience increases evaluation of special-occasion products. We believe this happens because people misattribute low fluency experience to the product they are evaluating and infer that the product is less available and less familiar. Further, since in the context of special occasion products people hold the lay theory that lower familiarity signals higher value, low fluency leads to an increase in evaluation. Study 4 extends our understanding of the underlying process by looking at the role of misattribution of processing fluency of the special-occasion product. We expect that the effect of low processing fluency on increased evaluation of special occasion products would be attenuated when the participants can attribute fluency experience to the correct source (difficult-to-read font). When participants can correctly attribute difficulty of processing to its true source (font), the evaluation of the high-end product would be similar to that in the regular font condition.

In addition, study 4 provides a further test of the role of lay theories in the interpretation of fluency experiences by examining how individual differences in the belief about the extent to which a product is to be consumed on special occasions would influence the evaluation of the product. To test this proposition, in study 4 we selected a product usually consumed on special occasions (chocolate truffles) and measured participants' individual differences in the extent of belief that this product is to be consumed on special occasions. We used this measure of lay belief as an independent

variable to determine the effect of processing fluency on evaluation of the product. We expect that low processing fluency will improve evaluation of chocolate truffles only for respondents who hold the lay belief that chocolate truffles are to be consumed on special occasions, and this effect will be mitigated when participants can correctly identify font as the source of feelings of low processing fluency.

STUDY 4: THE ROLE OF LAY BELIEFS AND CORRECT ATTRIBUTION OF THE SOURCE OF FLUENCY OF PROCESSING

Method

One hundred and eighty-eight undergraduate students completed this short survey as part of a survey session and were compensated for their participation. Participants were assigned to one of the three conditions: regular font, difficult-to-read font, and difficult-to-read font with source attribution. On the first page of the survey all participants were asked to read an advertisement for chocolate truffles. The description provided information about the content of the truffles (“chocolate shells with whipped chocolate”), taste (“a little creamy, a little crunchy”) and included a picture of a box of chocolates. Similar to studies 1 and 3, participants in the regular font condition read the description typed in a regular font and black color, in the difficult font conditions the description was printed in same font but using embossed grey color. Further, the participants in the difficult font and source attribution condition, prior to reading the information about the truffles, were told that “This information may be difficult to read

because of the font.” Next all participants rated the likelihood of buying the truffles (1 = not at all likely, 9 = very likely). Participants then completed some unrelated surveys.

At the end of the survey session, participants were asked to provide demographic measures and answer miscellaneous questions. In addition, in order to sort participants based on their attitudes about chocolate consumption, participants were asked to rate their agreement with the statement: “Chocolate truffles are for special occasions” (1 = strongly disagree, 5 = strongly agree). In our analyses we classified the participants into two groups that either agreed or disagreed with this statement (excluding the participants who responded “neither”). As a result the study employed a 3 (processing fluency: high vs. low vs. source attribution) \times 2 (lay belief: hold vs. do not hold) mixed design.

Results and Discussion

A processing fluency \times lay belief ANOVA was run using purchase intent for the chocolate truffles as dependent variable. This revealed only the expected interaction between processing fluency and lay belief ($F(2, 124) = 3.30, p < .05$). The two main effects were not significant (processing fluency: $F(2, 124) = 2.16, p > .10, M_{high}$ vs. low vs. source attribution = 4.20 vs. 5.05 vs. 4.30; special: $F(1, 124) = 1.17, p > .25, M_{hold}$ vs. do not hold = 4.71 vs. 4.32). Planned contrasts revealed, as expected and replicating our previous studies, that among participants who held a belief that chocolate is for special occasions, low processing fluency increased evaluation of the chocolate truffles ($M_{low} = 5.90$ vs. $M_{high} = 4.08, t(124) = 3.03, p < .01$). In contrast, when the instructions mentioned that the font may be difficult to read, participants’ evaluation of the chocolate truffles was no different from that of the participants in high fluency condition ($M = 4.15$

vs. 4.08, $t(124) < .1$). In addition, no difference in preference was observed for the participants who did not hold a belief that chocolate is for special occasions (M_{high} vs. M_{low} vs. source attribution = 4.31 vs. 4.20 vs. 4.45).³ It may be noted that this non-effect of fluency is to be expected among participants who do not consider chocolate is for special occasions, because they might have various personal reasons for their beliefs. We would have predicted the standard positive effect of fluency (replicating existing research) only for that subset of these participants who believe that chocolate is for everyday consumption.

The findings of this study help us understand the underlying mechanism of the positive effect of low fluency on preference in two ways. First, they show that the effect of perceptual fluency on preference in fact depends on the lay beliefs that people hold. Only when participants believe that the chocolate is for special occasions, *low* processing fluency has positive effect on preferences; when people do not hold this belief processing fluency does not have an effect. Secondly, the effect of the attribution manipulation shows that when the participants attributed the feeling of processing fluency to the font, the effect of low processing fluency was attenuated. This suggests, consistent with the previous literature, that when attention is not drawn to the font, the participants attribute the feeling of low processing fluency to the product and not to the actual source of low fluency (font).

GENERAL DISCUSSION

³ Similar results are obtained if responses of participants who answered “neither” are combined with those who disagreed that chocolate is for special occasions.

Previous research indicates that products that are processed more easily also feel more familiar (Schwarz 2004), and because people prefer familiar objects (Zajonc 1968), ease of processing results in enhanced liking of the target product. However, special-occasion products are usually consumed infrequently and perceptions of uniqueness rather than familiarity drive their consumption. We proposed, as a consequence, that for such products, consumers bring different lay theories to mind such that the subjective feelings of difficulty might increase liking, because lower fluency is associated with a perception of lower frequency or limited occurrence of a product. Thus, difficulty of processing of such products will make them feel more special and positively affect judgments. As a result, consumers might prefer special occasion product more when processing fluency is low versus high.

Consistent with this proposition, we find, across four studies, that consumers rate special occasion products as more attractive when fluency is low. In Study 1 we show that consumers are willing to pay more for gourmet cheese when its description is printed in a hard-to-read vs. easy-to-read font. However, the effect of font on evaluation reverses for regular cheese, which is consistent with the existing literature. In Study 2 we observe a similar effect, while using a different fluency manipulation: ease (or difficulty) of thought generation. When the participants were asked to list one (vs. five) occasions to go to a fancy restaurant they were less likely to recommend that restaurant to others.

Studies 3 and 4 provided evidence for the underlying mechanism of the observed effects of fluency on preference for special occasion products. In Study 3 we used a priming technique to frame an ambiguous product as either “special” or “everyday” and thus experimentally manipulate lay inferences of fluency experiences. As predicted,

activating “special” concept lead to a positive inference from the feeling of low processing fluency and increased products liking, but the opposite was the case for activating “everyday” concept. By using a priming technique to affect consumer thoughts about the product while keeping product’s information constant, study 3 serves as a more direct test of the role of lay inferences in the interpretation of fluency experiences. Study 4 measured individual differences in the belief about product consumption to predict the effect of fluency on product evaluations. We find that positive effect of decreased processing fluency on product evaluation is only observed for people who have a belief that the product is for special occasions. Further, we show that when participants correctly attribute the difficulty of processing to the font, the effect of fluency on preference is diminished.

Future Research and Implications for Marketing

Our findings contribute to the growing literature on the effect of fluency on evaluation of consumer products by reversing the well-established positive effects of fluency to show when and why processing difficulty will improve evaluation. We posit that the effect of fluency on judgments is context dependent and show that contrary to previous findings low fluency can lead to an increase in liking. We provide experimental evidence for such effect in the domain of special occasion purchases. However, our results should not be interpreted as being only limited to this particular domain. Rather the findings in this paper question the prevailing assumption that higher fluency unequivocally leads to an increase in preferences and provide evidence for when such

effect will reverse. Future research should explore other consumer choice contexts where a decrease in processing fluency would increase product evaluations.

Recent research by Novemsky and colleagues (2007) shows that the low fluency experience of processing information about products can be interpreted as difficulty of making a decision and leads to a higher deferral rate. Based on the findings of the current research, however, we would predict that in the domains where difficulty of making a decision is a positive sign an opposite would be the case. One such possible consumer domain is high involvement purchases, for example buying a house or a car. In these contexts consumers frequently hold a lay theory that coming up with a purchase decisions should be hard, which a reflection of time and effort invested in this high value purchase. Similar to the consumption context of this paper, context of high involvement purchases may activate a lay theory that leads to a positive interpretation of low fluency and hence consumers might be more likely to make a choice from a low fluent rather than a high fluent choice set.

Further, future research might also investigate to what extent fluency of processing increases the evaluation of luxury products rather than just special-occasion products, and conditions under which such effects might arise. For example, although we showed that our participants were less likely to recommend upscale restaurants when they thought of one versus several reasons to visit such places, Wanke, Bohner and Jurkowitsch (1997) reported that people preferred BMW cars when they thought of one versus several reasons to drive the car. One reason for the divergence of our effects from those reported by Wanke et al (1997) might be that in our studies participants clearly associated processing experiences with special versus everyday products, and the framing

of the product clearly impacted the way in which the processing experiences were used as information. In contrast, Wanke et al (1997) asked participants to come up with reasons to drive a car, and based on the ease with which people came up with reasons to drive a car they inferred liking of the car. Had participants instead come up with occasions when people might drive the advertised special occasion car, it is likely that effects similar to ours wherein a special-occasion car is seen as more special the more limited the opportunities to drive it seem might have emerged. The similarities and contrasts between the two sets of studies therefore is particularly interesting because it highlights the subtle ways in which fluency experiences can be molded to change inferences about the same product.

For marketers, our results suggest that decreasing fluency of product advertisements or product descriptions in the domain of special-occasion products can enhance the perception of exclusivity of the products being sold. For example, advertisers are frequently faced with a tough investment decision between reach and frequency of exposure. High processing fluency that results from repeated exposure to advertisements may actually lead to a decrease in preference for special occasion goods as such good will no longer appear to be unique and less frequently available. Instead a lower advertisement investment in frequency (and thus lower fluency) might be better for such products. Similarly, using advertising strategy which encourages consumers to self-generate product usage occasions (which is significantly less fluent task than reading ones provided by marketers) might highlight product's exclusivity in consumers mind and allow marketers to charge premium price.

Understanding the role of fluency in consumer decisions provides the marketers with the set of new tools to lure customers to buy their products. Current paper highlights the importance of consumption domains and consumers lay theories in the interpretation of fluency experiences and thus suggest more nuanced marketing tactics for creating attractive product offerings and improving sales.

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Exhibit 1: Study 1 Materials: Gourmet cheese conditions

La Tur



A decadent delight as an appetizer or dessert, you'll find this smooth operator pairs nicely with dessert wines and appreciates a delicately effervescent white.

Study 1 Materials: Regular cheese conditions

MONTEREY JACK CHEESE



Its first name reveals its place of origin: Monterey, California. But it's the jauntiness of "Jack" that tells us what this cheese is all about: simple, straightforward, all-American. A mild, semi-soft cheese with a pleasing saltiness, Monterey Jack melts well, making it a great choice for quesadillas or grilled cheese.

