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The Role of Concept Exaggeration in Promoting New Products

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DICHIARA

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31 gennaio 2011

F.to

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Essay 3
Fashion Leadership, Processing Fluency, and Adoption of a New Fashion

PREFACE

Companies often showcase preliminary versions of their new products several months, or even years, before the product is actually launched and produced. These preliminary versions exaggerate the features of the product that is later going o be marketed, both in terms of design and of technical functionalities. For example, in the fashion industry, twice a year designers present their new stylistic proposals in the form of extravagant showpieces. These showpieces visually exaggerate the style of the products that are going to be actually marketed in the forthcoming season. Similarly, in the automotive industry companies make huge investments in developing and exhibiting concept cars that embed their visions about the design and the technical functionalities of future cars. These concept cars feature both visual and functional exaggeration because they implement technologies that are yet to be commercially developed, and futuristic design lines.

In the three essays I investigate how exposure to exaggerated product exemplars such as runway showpieces or concept cars influences consumer evaluations of the products that are actually marketed, i.e., products that are more realistic. Each of the three essays analyzes a different side of the phenomenon under

investigation, and discusses the results of empirical analyses based on experimental studies.

Essay 1 focuses on the effect of visual exaggeration in fashion, and shows how exposure to visually exaggerated product exemplars improves the evaluation of more realistic products featuring the same design by creating an illusion of familiarity due to processing fluency. This essay contributes to the theories on processing fluency by examining the effects of a novel variable, i.e., visual exaggeration, on the ease experienced when processing a target product after being exposed to its exaggerated version, and on the misattribution of this processing ease to product evaluations. In addition, results contribute to fashion theory by proposing a specific psychological mechanism to explain how consumers can be familiarized with a new style concept launched by designers.

Essay 2 combines the analysis of visual exaggeration with the analysis of exaggeration in the product technical functionalities, as in the case of concept cars. This essay contributes to the literature on consumer behavior and innovation, by showing the specific effects of each type of exaggeration, as well as of their interaction, on the evaluation of marketed products. In addition, the analysis of the interaction between design and product functionalities highlights the influence that design exaggeration may have on product categorization, thus contributing to theory on product aesthetics. Finally, the findings provide guidelines for companies that wish to use concept products for promoting their innovations.

Essay 3 further develops the theoretical framework of Essay 1, by adding a new variable, namely the knowledge capital that consumers have in the domain of fashion. This essay demonstrates the psychological process that induces fashion leaders (i.e., consumers high in fashion knowledge) to evaluate a new style more favorably than regular consumers after being exposed to designer showpieces that exaggerate that style. Results contribute to consumer behavior and fashion theory by explaining how consumers perceive and elaborate new styles, how preferences for a new style are formed, and how owning relevant knowledge capital influences the way in which information is processed.

ESSAY 1

EFFECTS OF EXAGGERATED PRIMING

ON PROCESSING FLUENCY AND JUDGMENT

1.1 Introduction

Fashion is made to become unfashionable
Coco Chanel (1957)

You can't change fashion by parading twenty-five navy suits down the runway.
Anna Wintour, editor in chief of Vogue magazine
(Foley 2004, 16)

Change is a fundamental requirement of fashion. At the turn of the 20th century the couturier Paul Poiret declared that 'Dress is an industry whose raison d'être is novelty' (Leymarie 1987, 21). The survival of the fashion industry depends on regular style changes, in that annually or even seasonally a substantial proportion of consumers must be persuaded to replace older clothes that are neither worn out

nor functionally obsolete for giving way to the novel and unfamiliar (Davis 1992; Sproles 1981). However, the fast adoption of a novel style goes against consumer natural and innate preference toward the familiar (Berlyne 1966, 1970; Zajonc 1968). An extensive body of research has demonstrated that repeated exposure to a stimulus results in more favorable evaluations (see Bornstein 1989 for a review), providing robust evidence in support of the idea that familiarity breeds liking. If this is the case, then we should observe few and slow preference shifts in many domains. Nevertheless, we observe the constant turnover of fashions, and styles that would have been trendy one year are perceived as outdated or even embarrassing just a few seasons later and are replaced by new ones (Moulson and Sproles 2000; Sproles 1981).

Fashion theorists propose that the fashion industry, and in particular the established and well publicized high fashion designers, have a powerful impact as initiators and propagators of new fashion styles (Behling and Dickey 1980; Davis 1992; Pesendorfer 1995). The main means through which designers are thought to initiate new fashion styles is the set up of fashion shows (Evans 2001; Tolini Finamore 2000). By exhibiting their runway extravaganza, fashion innovators sketch out the lines along which the incipient style should direct (Blumer 1969; Hochsvender 1988), although the link between fashion shows and what we actually wear in our daily lives is not immediately evident to an external observer. Some designers indeed exhibit on the runway extravagant showpieces with theatrical stagings that go

beyond the garment and into the realm of conceptual fantasy (Hochswender 1989). Normally less than one third of what is showcased on the runway is eventually produced and marketed exactly as it is presented in the show, with most of the styles presented reaching the stores only in a scaled down version (Lipke 2003; Davis 1992, 131). For this reason, lay consumers often think of fashion shows as merely an exhibition of designers' creativity, lacking any market appeal (Erlichman 2001; Fisher-Mirkin 1995; Spindler 1995). Many designers, however, showcase a peculiar type of extravaganza based on the visual exaggeration of the features of the style concepts (e.g., volumes, patterns, cuts, etc.) they are proposing for the forthcoming season (Davis 1992). For example, the extravagant ruffled blouses in figures 1A and 1B are runway showpieces based on the same style concept as the ruffled blouse in figure 1C, but exaggerate the features of the style concept.

Figure 1A, 1B, and 1C here

In this paper we argue that the use of visual exaggeration plays an important role in familiarization with and in evaluation of new styles concepts. More generally, we contend that the use of visual exaggeration in the initial exposures to a target stimulus improves the evaluation of that target by enhancing its processing fluency and by favoring the misattribution of fluency to affect. Visual exaggeration distorts the appearance of a stimulus in a specific way: it emphasizes the distinctive features

of the stimulus while discarding the irrelevant ones, thus making those features easier to access (Reber, Schwarz, and Winkielman 2004). This enhanced accessibility would make the target easier to process when eventually attended (Schwarz and Clore 1983), and stimuli that are processed more fluently are evaluated more favorably because the positive affect elicited by fluency is misattributed to the target stimulus (Reber, Winkielman, and Schwarz 1998; Schwarz 2004; Winkielman et al. 2003). Processing fluency, however, is used as an input for judgments only when the experience of fluency deviates from expectations (Hansen and Wanke 2008; Raghubir and Menon 2005). Since exaggeration is a distortion of the target stimulus, it is unlikely that the processing fluency experienced when attending the target is expected as a product of the exaggerated priming. Therefore, the processing fluency generated by an exaggerated prime, is perceived as informative and misattributed to the evaluation of the target. Ultimately, exposing consumers to exaggerated versions of a new style should improve their judgment of that style, thereby increasing the likelihood that the new style will take off.

This paper isolates a previously unobserved effect of priming on processing fluency by showing that primes that visually exaggerate the features of a target stimulus make processing the target easier, despite being a distortion of it. While previous research has shown that primes that distort the features of a target are less likely to enhance processing fluency (Reber et al. 1998; Gordon and Holyoak 1983), we show that exaggeration does not have this disadvantage, and that the lack of

perceptual match between the exaggerated primes and the target makes the experience of fluency more likely to be unexpected, hence informative (Schwarz and Clore 1983) and misattributed to the evaluation of the target.

In three experiments using real fashion products as stimuli we investigate the effects of primes that visually exaggerate the features of a target on processing fluency and evaluation of the target. Results show that exposure to exaggerated primes improves the evaluations of the target (Experiment 1), the ease of processing the target (Experiment 2), and the misattribution of fluency to the evaluation of the target (Experiment 3). Beyond documenting these effects, alternative explanations are ruled out by comparing primes that exaggerated the features of the target with exaggerated primes that are not related to the target and with non-exaggerated (moderate) primes that have higher perceptual match with the target.

1.2 Theoretical Background

The relationship between familiarity and liking is a reliable and robust phenomenon. Zajonc (1968) first documented that repeated exposure to initially unfamiliar stimuli (such as nonsense words, ideograms, and human faces) improved the evaluations of these stimuli. A great deal of empirical research over the past decades have confirmed the observation that merely exposing an individual to an object on multiple occasions makes the individual's evaluation of this objects more

favorable across a variety of contexts (see Bornstein 1989 for a review and meta-analysis). The presumed reasons behind this innate preference for familiarity are that it signals safety, i.e., that the stimulus is unlikely to be harmful (Zajonc 1968; 1998), and that recognition is always an agreeable and relaxing process (Carver and Scheier 1990; Schwarz 2004). This stream of research predicts that we should generally prefer familiar stimuli to novel ones. Nevertheless, we observe systematic preference shifts in many domains.

One possible explanation is that even if a stimulus is not familiar, our metacognitions may induce us to perceive it as familiar. More recent research has shown that judgments of familiarity can be biased by the ease with which a stimulus is elaborated, i.e., stimuli that are easy to process are perceived as familiar (Schwarz 2004). These "illusions of familiarity" (Whittlesea 1993) can be promoted by facilitation in either processing the physical features of a stimulus (perceptual fluency), or of the meaning of a stimulus (conceptual fluency). When a stimulus is easy to process, individuals attribute this processing fluency to the familiarity of the stimulus (Whittlesea, Jacoby, and Girard 1990). In addition, processing fluency automatically elicits positive affect that can be used as a source of information for judgments and that is usually attributed to the stimuli that are being judged (Winkielman et al. 2003). Processing fluency can be produced or enhanced by means of perceptual and semantic priming. Prior exposure to either the physical features of a target stimulus (i.e., perceptual priming) or to concepts associated with a target

stimulus (i.e., semantic priming) increases the ease of processing the target by making it more accessible in mind (Berger and Fitzsimons 2008; Janiszewski 1993; Labroo, Dhar and Schwarz 2008; Labroo and Lee 2006; Reber et al. 1998; Schwarz 2004; Shapiro 1999). For example, mere exposure acts as a perceptual priming and enhances the perceptual fluency of the visual features of the primed stimulus when this is eventually encountered and rated (Zajonc 1968).

The mere exposure literature shows that perceptual priming is sensitive to minor mismatches in visual detail between the perceptual prime and the target stimulus. Even though the effects of perceptual priming may generalize to stimuli that are different from the primed ones, producing the so-called structural mere-exposure effect, enhancements in the evaluation of the target decrease as the level of distortion between the prime and the target increases (e.g., Gordon and Holyoak 1983; Jacoby and Dallas 1981; Mandler et al. 1987; Reber et al. 1998). Accordingly, perceptual priming may require prior exposure to the exact target stimulus or to stimuli that differ only slightly from the target, and a lack of perceptual match can limit the occurrence of perceptual fluency.

In contrast, perceptual match between the prime and the target is not required by semantic priming, which improves conceptual fluency by increasing the accessibility of the meaning of the target. Semantic priming, in the form of exposure to words, music, objects, or cues belonging to the same associative network as the target systematically improves target evaluations, purchase likelihood, and choice by

means of enhanced conceptual fluency (Berger and Fitzsimons 2008; Lee and Labroo 2004; North, Hargreaves, and McKendrick 1997). In addition, semantic priming can also enhance the perceptual fluency of a target stimulus. For example, priming a familiar visual identifier (e.g., a frog) that has no meaningful relation with a product category (e.g., wine) will increase preference for a product that displays the visual identifier (e.g., a wine label that features a frog; Labroo et al. 2008). Semantic priming in this case helps processing the physical features of the target even though the target and the prime do not belong to the same associative network.

In summary, existing research has demonstrated that perceptual priming (i.e., prior exposure to a target) improves the perceptual fluency of a target stimulus provided that there is perceptual match between the prime and the target, and that semantic priming (i.e., prior exposure to stimuli associated with the target) improves both conceptual and perceptual fluency. Enhanced processing fluency, either perceptual or conceptual, results in more favorable evaluations (Winkielman et al. 2003). We argue that exaggerated primes, despite lacking perceptual match with the target, can increase the ease of processing the target visual features.

Visual exaggeration is a representation technique that makes the features of a stimulus more prominent and noticeable, either by emphasizing them or by rendering them in a hyperbolic way, thereby enhancing the ease with which those feature can be decoded (Ramachandran and Hirstein 2001). Figurative artists make extensive use of exaggeration and of 'supernormal' stimuli (i.e., exaggerated versions of

stimuli), in order to capture and amplify the essence of an object more than by using natural stimuli, and to elicit a stronger response from the perceiver (Ramachandran and Hirstein 1999; Reber et al. 2004). The notion of supernormal stimulus derives from the ethologists' observation that different animal species respond more vigorously to artificial stimuli that exaggerate the features of natural stimuli (Tinbergen 1954). Furthermore, research has shown that caricatures, i.e., pictorial distortions that exaggerate the distinctive features of people and objects ('superportraits', Rhodes 1997; 'superfidelity representations' Perkins, 1975), which are a type of supernormal stimulus, are processed faster and more accurately than veridical depictions (Benson and Perret 1991; Mauro and Kubovy 1992; Rhodes, Brennan and Carey 1987; Rhodes and Tremewan 1996).

Reber et al. (2004), suggest that processing fluency theory may account for the observation that exaggerated stimuli enhance the accessibility of a target stimulus features. Specifically, exaggeration can increase the accessibility of a stimulus by helping to focus on its distinctive features while discarding irrelevant ones, thus making the processing more efficient. Therefore, priming an exaggerated version of a target stimulus should favor the formation of a feature-based representation of the stimulus relevant features in mind, i.e., it should enhance its processing fluency, despite the exaggerated prime lacks exact perceptual match with the target. In turn, such enhanced fluency should improve evaluations of the target (Winkielman et al. 2003).

In addition, we contend that the low perceptual match between the exaggerated prime and the target should favor the misattribution to the evaluations of the target. Although the positive effect of fluency on judgment is a pervasive and reliable phenomenon, research has drawn attention on some boundary conditions. One of these boundary conditions is that the misattribution of fluency to judgment occurs only as long as individuals are not aware of the actual source of processing ease. People use fluency as an input for judgment only as long as it is considered informative (Schwarz and Clore 1983), and research has shown that in general fluency is more informative when it deviates from expectations (Raghubir and Menon 2005; Hansen and Wanke 2008). Thus, processing fluency enhances evaluations only when the ease of processing is unexpected. Very overt exposures to a target, for instance, make the source of the fluency experienced when evaluating the target particularly salient. In other words, prior exposures can be recognized as the source of the ease of processing, so individuals realize why their processing is fluent and the target feels familiar (Bornstein and D'Agostino 1992). In this case fluency is not unexpected, thus not informative. Therefore the positive effects of fluency on stimulus judgment disappear because no misattribution occurs.

Exaggerated primes feature a distortion of the target. Being a distortion, they have lower perceptual match with the target than non-exaggerated primes. For this reason, prior exposure to stimuli that exaggerate the features of a target should be less likely to be recognized as the source of the processing fluency experienced when

attending the target, so that the experience of fluency will be unexpected and perceived as informative. Hence, we argue that the misattribution of processing fluency to the evaluation of the target, and the resulting increased preference for the target, is more likely to occur upon priming an exaggerated version of the target than a non-exaggerated one.

1.3 Experiment 1

Experiment 1 is a one-way between subjects design. This experiment compares the effect of priming an exaggerated version of the target with a condition in which an exaggerated stimulus is primed, but it is not related to the target, and a control condition. We use pictures of real fashion items as stimuli. The condition of exaggerated primes unrelated to the target was included in the design in order to assess whether it is exaggeration per se to improve the evaluations of the target rather than the specific exaggeration of the target.

Method

Stimuli Development.

We use pictures of real female apparel as stimuli for the study. In the context of female apparel, a product embeds a specific style concept, which is defined as the combination of any of the following elements (Cappetta, Cillo, and Ponti 2006; Davis 1992): cut (e.g., close-fitting, constructed, soft, etc.); color (e.g., muted, bright,

etc.); length (especially for skirts and trousers: mini-skirts, knee-length or calf-length skirts, etc.); fabric (e.g., synthetic or natural, processed or unprocessed material, etc.); and pattern (e.g., printed, geometric, flowers, etc.). Two consultants with over thirty years of work experience in the fashion industry selected from the WGSN database a set of fashion show pictures to be used as stimuli in the study. They first selected a target fashion item, specifically a skirt, featuring a style concept characterized by voluminous and ruffled cut, black and white colors, processed fabric, and *pied-de-poule* pattern. Then, they selected two pictures of runway showpieces featuring an exaggeration of the target style concept (exaggerated prime condition) and two pictures featuring an exaggeration of a different style concept (exaggerated-unrelated prime condition) to be used as primes. Exaggerated primes emphasized the style concept of the target, by featuring more voluminous cuts, more ruffles, and higher redundancy with respect to the colors and patterns of the target. Exaggerated-unrelated primes were runway showpieces of white, furry, and voluminous coats. All stimuli are reported in the Appendix.

All fashion items were selected from the archives of at least three years before the experiment, in order to minimize the impact of potential earlier exposure to the stimuli. In order to avoid that relying on experts' judgment for the selection of the stimuli would yield a biased perception of exaggeration or of relatedness to the style concept featured by the target, the stimuli were pretested on a sample of female undergraduates (N = 23) drawn from the same population as the participants in the

main experiment for the perceived degree of exaggeration (1 = not at all exaggerated, not at all extravagant; 7 = very exaggerated, very extravagant) and for the perceived similarity with the target (1 = not at all similar; 7 = very similar). A set of one-way ANOVAs with the type of prime (exaggerated vs. exaggerated-unrelated) as between subjects factor showed that while there were no differences between the sets of pictures on the average of the two measures of primes exaggeration (α = .93; $F(1, 21) = 0.10$, *ns*), the degree of perceived relatedness between the primes and the target varied significantly consistently with the manipulation intent (α = .70; $M_{exaggerated} = 3.50$; $M_{exaggerated\_unrelated} = 2.08$; $F(1, 21) = 7.73$, $p < .01$).

Procedure. The experiment was run on computers and consisted of a priming phase and of a test phase. All participants (63 female undergraduates at a large European university) were seated at individual workstations, and were told that the purpose of the experiment was to evaluate and select fashion pictures for a fashion website. In the priming phase, all participants were exposed to a sequence of pictures that appeared on the screen for 5 seconds each. The exposure duration was defined so as to give participants sufficient time to attend the stimulus in its entirety, without leaving too much time for a conscious elaboration. The sequence contained the pictures of the primes corresponding to each condition and three filler pictures equal across conditions. In place of the primes, for participants in the control condition the sequence included two pictures of make-up products. After being exposed to the pictures of the primes, participants completed the test phase of the

experiment in which they were presented with a picture of the target stimulus and asked to evaluate it on a set of seven-point evaluative scales (1 = do not like at all, unlikely to buy; 7 = like very much, likely to buy). After this, participants completed a set of manipulation checks intended to measure the perceived exaggeration of each of the primes (1 = not at all exaggerated, not at all extravagant; 7 = very exaggerated, very extravagant) and the perceived degree of relatedness between each of the primes and the target (1 = not at all similar; 7 = highly similar). Finally, they responded to miscellaneous demographic questions and were then debriefed.

Results and Discussion

Manipulation Checks. A one-way ANOVA with the type of prime as between subjects factor showed that there were no differences in the average of the two measures of primes exaggeration (α = .91; $M_{exaggerated}$ = 5.43; $M_{exaggerated\_unrelated}$ = 5.74; $F(1, 40) = .94$, $p > .30$). A one-sample t-test showed that both exaggeration scores differed significantly from the mid-point of the 7-point scales used to measure the perceived exaggeration ($t(41) = 13.04$, $p < .001$). An additional one-way ANOVA with the type of prime as between subjects factor showed that the degree of perceived relatedness between the primes and the target varied significantly across conditions consistently with the manipulation intent (α = .71; $M_{exaggerated}$ = 2.90; $M_{exaggerated\_unrelated}$ = 1.95; $F(1, 40) = 17.92$, $p < .001$).

Hypothesis Testing. An index of attitude toward the target was computed by averaging the two measures indicating liking of the target (1 = do not like at all, unlikely to buy; 9 = like very much, likely to buy; α = .87). A one-way ANOVA conducted on this attitude index revealed the predicted main effect of type of priming ($F(2, 60) = 3.38$, $p < .05$). Supporting our prediction, a planned contrast indicated that participants who were exposed to exaggerated primes related to the target evaluated the target more favorably ($M_{exaggerated} = 4.88$) than participants who were exposed to exaggerated primes not related to the target ($M_{exaggerated\_unrelated} = 3.98$), and participants in the control group ($M_{control} = 3.76$; $t(60) = 2.56$, $p < .05$). Means of the dependent variable are plotted in Figure 2.

Figure 2 here

Experiment 1 provided preliminary evidence of the effect of exaggerated priming on the evaluation of a target stimulus. Specifically, results show that exposure to primes that exaggerate the features of a target stimulus improves the evaluation of the target, despite the fact that the primes are a distortion of the target. In addition, by comparing this effect with exposure to primes that exaggerate the features of a different stimulus, results suggest that it is not exaggeration per se that influences the evaluation of the target, and that the increased accessibility of the stimulus-specific features is likely to influence the evaluations of the target.

It might be argued, however, that exaggerated primes improve the judgment of the target stimulus not because of enhanced processing fluency, but because a contrast effect underlies the evaluation of the target. Research has shown that exposure to an extreme exemplar of a category may set a new standard for the evaluation of other exemplars within the same category, resulting in a contrast effect in the eventual judgment of other non-extreme exemplars (Herr, Sherman, and Fazio 1983; Herr 1986). Thus, upon extreme priming, the evaluation of a non-extreme exemplar usually shifts away from the extreme more than if the non-extreme exemplar were evaluated in isolation (Herr 1986; Manis, Nelson, and Shedler 1988; Sherif and Hovland 1961).

An exaggerated prime may provide an extreme standard of comparison for the target stimulus, since exaggeration entails the extremization of the target stimulus features. Thus, the evaluation of the target may be affected by the exaggeration of the contextual information, e.g., the target may be evaluated more positively since it is perceived as less extreme and more prototypical than the exaggerated prime. However, if a contrast effect in the evaluation of the target occurs due to the exaggeration of the prime, any exaggerated prime within the same stimulus category (e.g., female apparel) should have produced enhanced evaluations of the target by creating an extreme standard of comparison for the evaluation of the target.

Results of Experiment 1 seem to suggest that the creation of a new standard of comparison is not a satisfactory account for the observed effect, and that it is not

exaggeration per se to drive the improvements in the evaluation of the target. In addition, a contrast effect due to the extremity of the prime would predict an improvement in the evaluative judgment of the target, but not an improvement in the ease of processing the target. Experiment 2, by directly measuring ease of processing, aims at providing further support for a fluency-based account of the effects of exaggerated priming.

1.4 Experiment 2

Method

Experiment 2 aims at replicating the effects observed in Experiment 1 and at directly measuring the effect of exaggerated priming on processing fluency. In addition, results of Experiment 1 do not clarify whether the observed effect of exaggerated primes is driven by the exaggeration of the prime or by the relation between the prime and the target. Therefore, in Experiment 2 a condition is added in which primes are related to the target but do not exaggerate its features. We expected that also in this type of prime would increase the ease of processing the target, because of higher perceptual match with the target. However, since the misattribution of processing fluency to judgments occurs only when fluency is unexpected, we predict that the higher perceptual match between the moderate

primes and the target will make the experience of fluency less unexpected, and reduce the likelihood of misattribution fluency to the evaluation of the target

Design and Stimuli Selection

The design and the procedure of Experiment 2 replicate those of Experiment 1, with the addition of a moderate prime condition. A different set of stimuli was used, in order to increase the generalizability of the effect. Stimuli were again selected by two experts. The style concept featured by the target stimulus was a blouse characterized by light (white and ivory) colors, sheer silk fabric, and the motive of ruffles. The exaggerated primes featured runway showpieces characterized by the same color, but by bigger and more voluminous ruffles, so that the style concept was more prominent. The exaggerated primes unrelated to the target featured the exaggeration of a different style concept, i.e., pink, satin material, and the motive of bows. The moderate primes featured the same style concept as the target, but were not identical to the target. In the control condition, picture of makeup and fashion accessories were used in place of the primes. All the stimuli are reported in the Appendix.

The stimuli were pretested on a sample of undergraduates (N = 18) for the perceived degree of exaggeration (1 = not at all exaggerated, not at all extravagant; 9 = very exaggerated, very extravagant) and for the perceived perceptual match between the visual features of each prime and the target stimulus (1 = not at all similar; 9 = very similar). A one-way ANOVA with the type of prime (exaggerated vs.

moderate vs. exaggerated-unrelated) as between subjects factor on the average of the two items measuring the perceived exaggeration of the stimulus (α = .95) showed that the perceived exaggeration varied consistently with the intended manipulation ($F(2, 15) = 33.53$, $p < .001$). Specifically, both sets of exaggerated primes were perceived as significantly more exaggerate than the set of moderate primes ($M_{exaggerated}$ = 8.10; $M_{exaggerated\_unrelated}$ = 8.50; $M_{moderate}$ = 4.55; $t(15) = 7.99$, $p < .001$), while there were no significant differences between the perceived exaggeration ratings of the two sets of exaggerate primes ($t(15) = .79$, $p > .40$). A second one-way ANOVA with the type of prime (exaggerated vs. moderate vs. exaggerated-unrelated) as between subjects factor on the degree of perceived perceptual match between each of the primes and the target (α = .86) showed significant differences consistent with the manipulation intent ($F(2, 15) = 13.87$, $p < .001$). Specifically, moderate primes were perceived as significantly more similar to the target than exaggerated primes ($M_{moderate}$ = 5.90; $M_{exaggerated}$ = 4.10; $t(15) = 2.50$, $p < .03$), and exaggerated primes were perceived as significantly more similar to the target than exaggerated-unrelated primes ($M_{exaggerated}$ = 4.10; $M_{exaggerated\_unrelated}$; $t(15) = 2.47$, $p < .03$).

Participants and Procedure

Participants in this between subjects experiment were 99 female undergraduates at a large European university. After being exposed to the set of pictures corresponding to their condition, participants were presented with a picture

of the target stimulus and asked to evaluate it on a set of nine-point evaluative scales (see Experiment 1). In addition, as a direct measure of processing fluency (Labroo et al. 2008; Labroo and Lee 2006), they were asked how difficult it was to process the style of the target stimulus (1 = difficult to process; 9 = easy to process). Participants also completed a set of manipulation checks intended to measure the perceived exaggeration of the primes and the degree of perceptual match between the primes and the target (see Experiment 1). In addition, confounding checks for mood (1 = I feel in a bad mood; 9 = I feel in a good mood) and interestingness of the primes (1 = not interesting at all; 9 = very interesting) were administered. Finally, participants responded to miscellaneous demographic questions and were debriefed and thanked.

Results and Discussion

Manipulation and Confounding Checks. A one-way ANOVA with the type of prime (exaggerated vs. moderate vs. exaggerated-unrelated) as between subjects factor on the average of the two items measuring the perceived exaggeration of the primes (α = .89) showed that the perceived exaggeration of the primes varied consistently with the intended manipulation ($F(2, 72) = 26.26$, $p < .001$). Specifically, both sets of exaggerated primes were perceived as significantly more exaggerated than the set of moderate primes ($M_{exaggerated}$ = 7.81; $M_{exaggerated\_unrelated}$ = 7.71; $M_{moderate}$ = 5.49; $t(72) = 3.61$, p =.001), while there were no significant

differences between the perceived exaggeration ratings of the two sets of exaggerate primes ($t(72) = .28$, $p > .70$). A second one-way ANOVA with the type of prime (exaggerated vs. moderate vs. exaggerated-unrelated) as between subjects factor on the degree of perceived perceptual match between each of the primes and the target ($\alpha = .90$) showed significant differences consistent with the manipulation intent ($F(2, 72) = 26.07$, $p < .001$). Specifically, moderate primes were perceived as significantly more similar to the target than exaggerated primes ($M_{moderate} = 5.11$; $M_{exaggerated} = 3.98$; $t(72) = 2.63$ $p = .01$), and exaggerated primes were perceived as significantly more similar to the target than exaggerated-unrelated primes ($M_{exaggerated} = 3.98$; $M_{exaggerated\_unrelated} = 2.14$; $t(72) = 4.53$, $p < .001$).

A series of additional one-way ANOVAs with the type of prime (exaggerated vs. moderate vs. exaggerated-unrelated vs. control) as between subjects factor showed that participants' mood did not vary across conditions ($F(3, 95) = .87$, $p > .40$), nor did participants' perception of interestingness of the primes ($F(3, 95) = .40$, $p > .70$).

Target Evaluation. An index of attitude toward the target was computed by averaging the two measures indicating liking of the target (1 = do not like at all, not likely to buy; 9 = like very much, likely to buy; $\alpha = .75$). A one-way ANOVA conducted on this attitude index revealed a main effect of type of priming ($F(3, 95) = 3.48$, $p < .02$). A planned contrast analysis indicated that participants who were exposed to exaggerated primes evaluated the target more favorably ($M_{exaggerated} =$

4.98) than participants in all the other conditions ($M_{moderate}$ = 3.77; $M_{exaggerated\_unrelated}$ = 3.48; $M_{control}$ = 3.90; t(95) 3.17, $p < .01$). Means of the dependent variable are plotted in Figure 3.

Figure 3 here

Ease of Processing. A one-way ANOVA conducted on the processing fluency measure revealed a significant effect of type of priming (F(3, 95) = 4.83, $p < .05$). A planned contrast analysis showed that participants exposed to exaggerated primes found it easier to process the target ($M_{exaggerated}$ = 4.96) than both participants exposed to exaggerated primes not related to the target ($M_{exaggerated\_unrelated}$ = 3.71), and participants in the control group ($M_{control}$ = 4.17; t(95) = 3.07, $p < .01$), but not easier than participants exposed to the moderate prime ($M_{moderate}$ = 5.14; t(95) = 3.25, $p < .01$). Mean levels of ease of processing are plotted in Figure 4.

Figure 4 here

Experiment 2 replicates the results of Experiment 1 in showing that priming an exaggerated form of a target stimulus enhances the evaluations of the target. Not only exaggerated primes result in more favorable evaluations of the target than exaggerated primes unrelated to the target, but also than moderate primes

characterized by higher perceptual match with respect to the target. However, this pattern of results is not mirrored by results on the fluency measure. In this case, both exaggerated and moderate primes generate significantly higher levels of processing fluency than the exaggerated-unrelated primes. These results seem to suggest that the more favorable evaluations of the target upon exaggerated priming are not simply a direct function of the amount of processing fluency generated by the priming, but rather of the occurrence of a misattribution of the processing fluency to the evaluation of the target.

We expected that in the condition of moderate priming, processing fluency would be less likely to be misattributed to the evaluation of the target because the high perceptual match between the moderate prime and the target would make prior exposure very salient as the source of fluent processing. Therefore, the experience of fluency would be not unexpected, and thus not perceived as relevant in judging the target. However, in the condition of exaggerated priming, the experience of fluency when processing the target occurs more unexpectedly, and therefore fluency is misattributed to the evaluation of the target making it more favorable. Results of Experiment 2 seem to be in line with this conjecture. In Experiment 3 we directly test this conjecture by manipulating the misattribution of processing fluency. Specifically, we examine how the evaluations of the target vary between the conditions of exaggerated vs. moderate priming when providing participants an external factor to which they can misattribute the positive feelings elicited by fluent processing.

Since in the case of moderate priming a factor to which the experience of fluency can be misattributed (i.e., prior exposure to a very similar stimulus) should be already available, providing information about an additional factor that could have generated the positive feelings of fluency should not affect the evaluations of the target. In the case of exaggerated priming, however, we argue that processing fluency is misattributed to the evaluation of the target because the source of fluency is not salient. In this case, providing explicit information regarding the source of the processing fluency experienced when elaborating the target stimulus should lead to a correction of the evaluations, and to less favorable judgments of the target (Fang et al. 2007).

1.5 Experiment 3

Method

Design and Stimuli Selection

Experiment 3 uses a 2 (type of prime: exaggerated vs. moderate) x 2 (misattribution: fluency misattribution vs. misattribution to external factor) between-subjects factorial design. Stimuli were selected by experts as in previous experiments. The target stimulus featured the style concept of an 'armor dress', characterized by the use of metallic fabrics, constructed cut, and golden color. Both the exaggerated and the moderate primes featured the same style concept, but in

the exaggerated primes the usage of real metal plackets covering the entire body emphasized the idea of armor.

The primes were pretested on a sample of female undergraduates (N = 44) for the perceived degree of exaggeration (1 = not at all exaggerated, not at all extravagant; 9 = very exaggerated, very extravagant), and for the perceived perceptual match between the visual features of each prime and the target stimulus (1 = not at all similar; 9 = very similar). A set of one-way analyses of variance with the type of prime (exaggerated vs. moderate) as between subjects factor showed that the two sets of pictures were perceived as significantly different on the average of the two measures of primes exaggeration (α = .86; $M_{exaggerated}$ = 7.97; $M_{moderate}$ = 5.14; $F(1, 42) = 72.41$, $p < .001$), and on the degree of perceived perceptual match between the primes and the target consistently with the manipulation intent (α = .80; $M_{exaggerated}$ = 2.83; $M_{moderate}$ = 5.25; $F(1, 42) = 24.76$, $p < .001$).

Participants and Procedure

The procedure used to administer Experiment 3 was consistent with that of previous experiments. Participants were 130 female students at a large European university. After being exposed to the set of pictures corresponding to their type of prime condition, participants completed the test phase of the experiment in which they were presented the target stimulus and asked to evaluate it on a set of nine-point scales measuring their evaluation of the target and the ease of processing the target (see Experiment 1 and 2). After this, participants completed a set of

manipulation checks intended to measure the perceived exaggeration of the primes and the perceived perceptual match between the primes and the target and a set of confounding checks for mood and interestingness of the primes (see Experiment 1 and 2). Finally, they responded to miscellaneous demographic questions and were debriefed.

The misattribution manipulation was inspired by previous studies (Fazio, Zanna, and Cooper 1977; Zanna and Cooper 1976; Schwarz et al. 1991) and was developed so that the external factor could be plausibly portrayed as causing an improvement in the evaluation of the target. Prior to the evaluation task, participants in the misattribution to external factor condition were informed that while evaluating the target, they might be influenced by the fact that models are wearing it and therefore, the target may appear as more attractive than it actually is. Finally, they were asked to evaluate the target trying not to be influenced by this factor. Participants in the fluency misattribution condition were not given any instructions before evaluating the target. We expected that providing participants an external source to which they could attribute the positive feelings aroused by fluency would reduce target evaluations in the exaggerated prime condition, but not in the moderate prime condition, because in the latter case the positive feelings aroused by fluency are not unexpected since the prime and the target have higher perceptual match.

Results and Discussion

Manipulation Checks. A 2 (type of prime: exaggerated vs. moderate) x 2 (misattribution: fluency misattribution vs. misattribution to external factor) ANOVA was conducted on the average of the two measures of prime exaggeration (α = .89). The results show that the main effect of the type of prime was significant ($M_{exaggerated}$ = 7.64; $M_{moderate}$ = 4.90; $F(1, 126) = 117.38$, $p < .001$), while neither the main effect of misattribution ($F(1, 126) = 1.54$, $p > .20$), nor the interaction ($F < 1$) was significant. An additional 2 (type of prime: exaggerated vs. moderate) x 2 (misattribution: fluency misattribution vs. misattribution to external factor) ANOVA was conducted on the measures of perceived perceptual match between the prime and the target (α = .79). The results show that also in this case the main effect of the type of prime was significant ($M_{exaggerated}$ = 3.33; $M_{moderate}$ = 5.46; $F(1, 126) = 56.18$, $p < .001$), while neither the main effect of misattribution ($F(1, 126) = 1.19$, $p > .20$), nor the interaction ($F < 1$) was significant.

Confounding Checks. In order to check that the manipulations did not affect participants' mood, which could in turn affect their evaluations of the target, we conducted a 2 (type of prime: exaggerated vs. moderate) x 2 (misattribution: fluency misattribution vs. misattribution to external factor) ANOVA on the measure of participants' mood. No significant differences in perceived complexity of the descriptions emerged from this analysis (all *F*s < 1.00, all *p*s > .80). Similarly, a 2 (type of prime: exaggerated vs. moderate) x 2 (misattribution: fluency misattribution

vs. misattribution to external factor) ANOVA on the measure interestingness of the primes resulted in no significant differences (all *F*s < 1.00, all *p*s > .30).

Target Evaluation and Ease of Processing. An index of attitude toward the target was computed by averaging the two measures indicating liking of the target (1 = do not like at all, not likely to buy; 9 = like very much, likely to buy; α = .75). A 2 (type of prime: exaggerated vs. moderate) x 2 (misattribution: fluency misattribution vs. misattribution to external factor) ANOVA conducted on this attitude index yielded a significant main effect of misattribution ($M_{fluency}$ = 4.75; $M_{external\_factor}$ = 3.65; $F(1, 126) = 9.41$, $p < .01$) and a non-significant, although directional, effect of type of prime $M_{exaggerated}$ = 4.40; $M_{moderate}$ = 3.65; $F(1, 126) = 1.99$, $p = .16$). More relevantly, the analysis revealed an interaction effect between type of prime and misattribution ($F(1, 126) = 4.27$, $p < .05$), as predicted. A planned contrasts analysis revealed that while in the condition of fluency misattribution, the evaluations of the target were significantly more favorable for participants exposed to the exaggerated primes than for participants exposed to moderate primes ($M_{exaggerated}$ = 5.36; $M_{moderate}$ = 4.13; $F(1, 126) = 5.88$, $p < .02$), this difference was not observed in the misattribution to external factor condition ($M_{exaggerated}$ = 5.54; $M_{moderate}$ = 3.77; $F(1, 126) = .22$, $p > .60$).

We also looked at the effect of the independent variables on the direct measure of the ease of processing the style of the target stimulus. A 2 (type of prime: exaggerated vs. moderate) x 2 (misattribution: fluency misattribution vs.

misattribution to external factor) ANOVA on the ease of processing measure yield no significant main effect, nor interaction effect (all *F*s < 1.00, all *p*s > .50). These results replicate the results of Experiment 2, in that no differences in ease of processing are observed between the exaggerated prime and the moderate prime condition. In addition, the misattribution manipulation did not affect the perception of processing ease, but only the misattribution of the processing ease to the evaluation of the target. Means of the two dependent variables are plotted in Figure 5 and 6.

Figure 5 and 6 here

Results of Experiment 3 show that when participants are provided with an external factor to which they can misattribute the positive feelings due to processing fluency, their evaluations of the target becomes less favorable. However, this occurs only in the exaggerated prime condition, since in this condition the experience of processing fluency is unexpected because of the low perceptual match between the primes and the target. In absence of a factor to which one could misattribute the feelings of fluency, participants use these feelings as an input for their evaluations, and misattribute them to more favorable evaluations of the target. In contrast, the misattribution manipulation does not affect the evaluations of the target in the moderate prime condition because in this case the ease of processing the target is

not unexpected, but correctly attributed to its actual source (i.e., prior exposure to a similar stimulus). Therefore the ease of processing is not used as an input for evaluative judgments, irrespective of the misattribution manipulation. In sum, results of Experiment 3 point out the efficiency of exaggerated primes: exaggerated primes do not perform worse than more perceptually matched primes at generating processing fluency, and, more importantly, they make the target more accessible without undermining the misattribution of fluency to judgments.

1.6 General Discussion

The acceptance of a new fashion style provides a unique opportunity to observe how preferences are not static, but shift systematically (Miller, McIntyre, and Mantrala 1993). The rapid turnover of styles in very short timeframes suggests that some peculiar familiarization process has to take place for consumers to overcome their natural approach tendency toward the novel (Zajonc 1968), and to actually substitute the familiar for the novel. In this paper we show that the strategy of exposing consumers to runway showpieces that feature the visual exaggeration of a style concept, used by many fashion designers, contributes to make that style easier to process and improves its evaluations. The enhanced processing fluency creates an illusion of familiarity (Whittlesea 1993) but does so in a very surreptitious way, because the exaggerated prime features a distortion of the target that makes the

fluency experienced when processing the target less likely to be attributed to its actual source. For this reason, fluency is used as an input for judging the target, and makes the evaluations of the target more favorable (Winkielman et al. 2003).

Our findings add to the literature on the effects of processing fluency by proposing and testing a novel way in which processing fluency of a target may be enhanced, i.e., by priming an exaggeration of the target stimulus. This extends previous observations that priming enhances fluency either in the form of prior exposure to the exact same stimulus (Zajonc 1968), or of semantic primes that are part of a network of meaningful associations with the target stimulus in memory (Berger and Fitzsimons 2008), or of semantic primes that help processing the physical features of a target even if the prime and the target are not part of the same associative network (Labroo et al. 2008).

Our conjecture is that exaggerate primes may often be more efficient in facilitating the processing of visual stimuli than perceptually matched primes, because they increase the likelihood that fluency is perceived as informative. The mere exposure literature showed that perceptual priming is sensitive to minor mismatches in visual detail between the perceptual prime and perceptual target (Jacoby and Dallas 1981; Mandler et al. 1987; Zajonc 1968). Exaggeration is a distortion of the target, and as such implies a lack of perceptual match with respect to the target. We argue that previous exposure is less likely to be recognized as the actual source of processing ease in the case of exaggerate primes than in the case of

primes characterized by higher perceptual match with the target. However, exaggeration is a distortion that increases the ease of processing a stimulus by focusing on its distinctive features while discarding the irrelevant ones (Ramachandran and Hirstein 1999). Therefore, exaggerated primes do not generate less processing fluency than perceptually matched primes while increasing the likelihood that processing fluency is misattributed to the evaluations of the target. These results contribute to clarify the role of exaggeration in improving the processing fluency of a stimulus, as proposed by Reber et al. (2004).

This research also contributes to fashion theory. To the best of our knowledge, this paper is the first one to propose a specific mechanism to explain how consumers can be familiarized with a new style concept launched by designers. Despite acknowledging the key role of both designers and consumers in determining a change in fashion trends (Sproles 1981), neither fashion research nor consumer research has explained what are the mechanisms driving the acceptance of new styles by consumers. Our results suggest that the use of exaggeration by designers presenting new styles may improve judgments of the new style, thus increasing the likelihood that the new style is accepted and adopted and that the illusion of familiarity caused by the ease of the processing a style is one of the mechanisms driving the acceptance of new fashion trends.

One might argue that our results are biased by the contiguity of the primes and the judgment, while in reality fashion shows and their publicity on the mass

media and on the magazines occurs several weeks before the style hits the stores or the consumers may be faced with the opportunity to buy it. However, earlier research has shown that a delay between exposure and judgment of a stimulus results in stronger mere exposure effects, even with delays up to two weeks (Seamon, Brody, and Kauff 1983; Stang 1974). Despite far from conclusive, these results seem to suggest that our results may hold even when a delay occurs between priming and evaluation.

Results of this research may be extended to all contexts in which systematic preference shifts are desirable or necessary and companies need to overcome consumers' innate preference for the familiar before the natural time interval after which repeated exposure to a stimulus instigates boredom (Bornstein, Kale, and Cornell 1990). Labroo et al. (2008) have shown that visual cues that have no meaningful association with a target product may improve judgments of the target by means of enhanced processing fluency, provided that these visual cues are familiar to consumers. We show that unfamiliar stimuli such as a new style can be made easier to process by exposing consumer with an exaggerated version of it.

Our findings mostly refer to visual exaggeration, since fashion is the *appearance-alteration* industry, one in which the product featured is a design, and not the means to obtain it (Polhemus and Procter 1978). The effects of exaggerated primes may be different when it is not the appearance of a product to be exaggerated, but rather its performance. Processes other than fluency may intervene

when consumers are exposed to exaggerated product performances, such as in the case of concept cars, and then evaluate a more realistic marketed product (Cato 2003). The elaboration of information related to product performance, and in general, to technical functionalities, may occur in a more piecemeal and deliberate way, and generate more explicit comparisons between the prime and the target. Future research may want to extend our analysis to take into account such differences in processing, as well as the potential interaction between exaggeration of product design and exaggeration of product technical functionalities within a prime.

The prediction of fashion trends success is often seen more as a gamble than as the outcome of scientific investigation, since it is hard to predict which styles are more likely to takeoff. Our results are a first step toward providing a more scientific view of how a style concept may succeed by means of a careful balance of designers' creativity and research findings.

Figures

Figure 1A and 1B. Exaggerated Fashion Showpieces

Figure 1C. Marketed Fashion Item

Figure 2. Evaluations of the Target as a Function of the Type of Prime (Experiment 1)

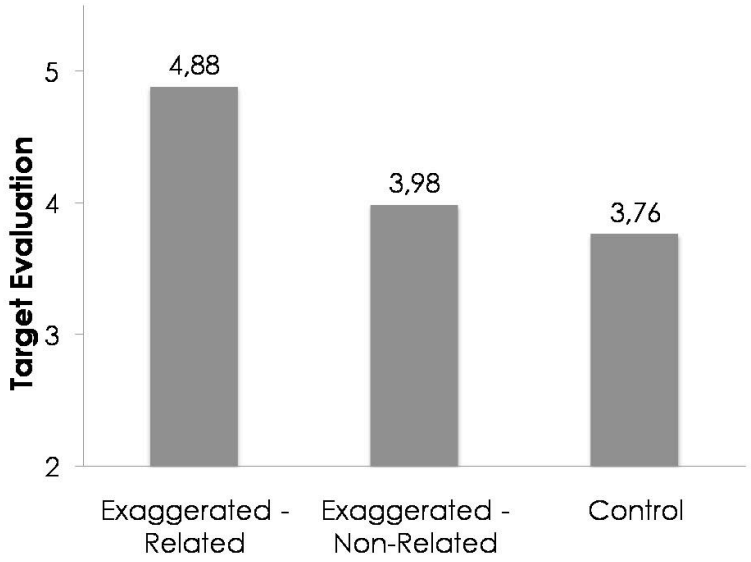


Figure 3. Evaluation of the Target as a Function of the Type of Prime (Experiment 2)

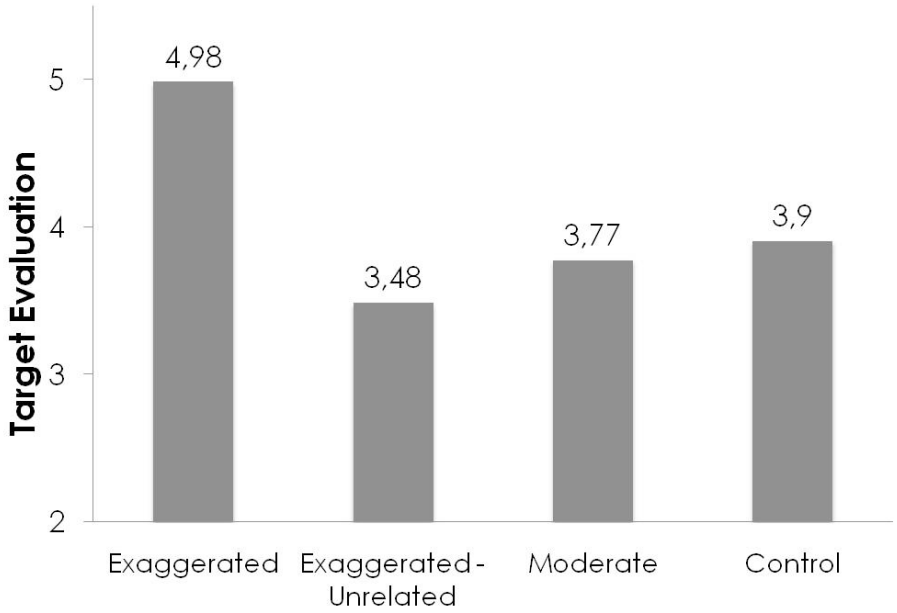


Figure 4. Ease of Processing the Target as a Function of the Type of Prime (Experiment 2)

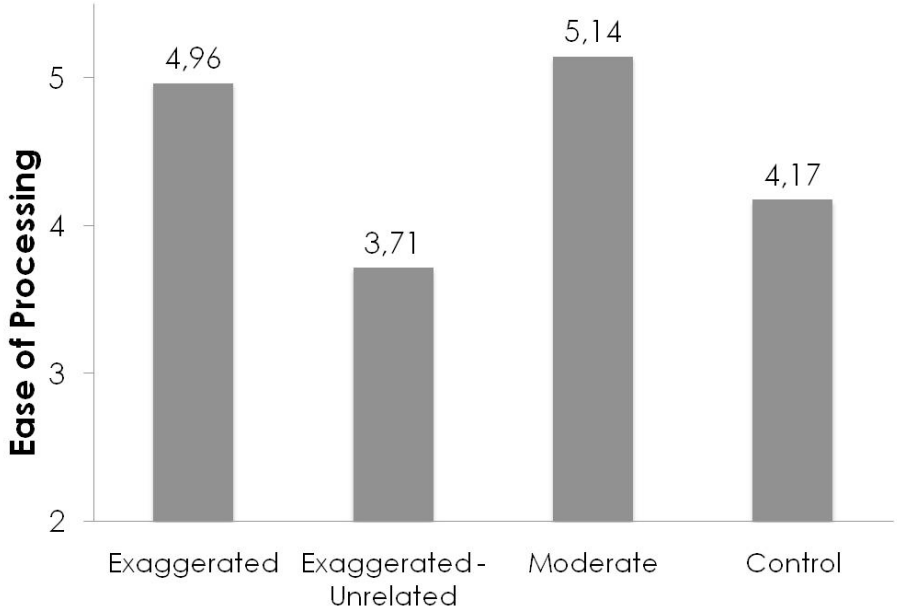


Figure 5. Evaluations of the Target as a Function of the Type of Prime and Misattribution (Experiment 3)

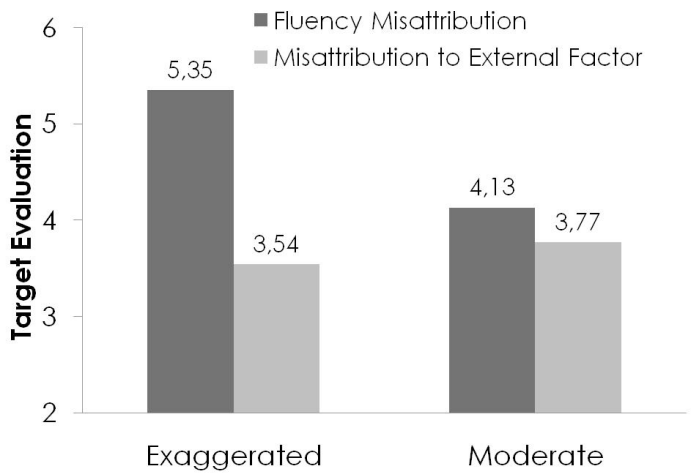
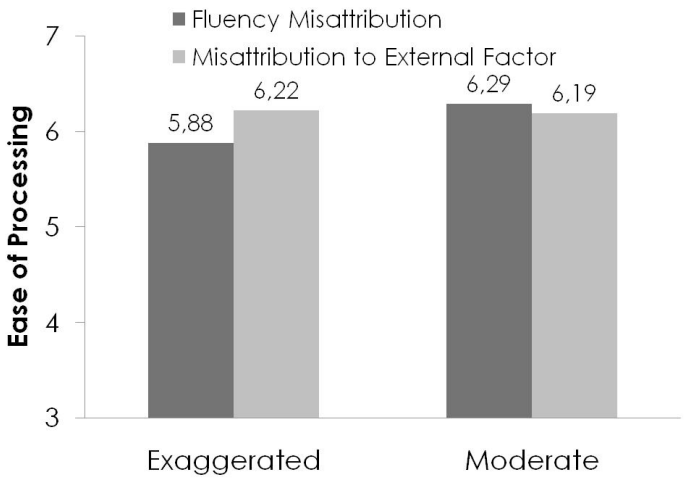


Figure 6. Ease of Processing the Target as a Function of the Type of Prime and Misattribution (Experiment 3)



Appendix

Figure A1. Stimuli used in experiment 1

Exaggerated Primes

Exaggerated Primes – Unrelated to Target

Control Condition Primes

Target Stimulus

Figure A2. Stimuli used in experiment 2

Exaggerated Primes

Exaggerated Primes – Unrelated to Target

Moderate Primes

Control Condition Primes

Target Stimulus

Figure A3. Stimuli used in experiment 3

Exaggerated Primes

Moderate Primes

Target Stimulus

ESSAY 2

DOES EXPOSURE TO CONCEPT PRODUCTS AFFECT CONSUMER JUDGMENT OF MARKETED PRODUCTS?

2.1 Introduction

Many companies choose to showcase their visions about the future by developing *concept products*, one-of-a-kind product exemplars that anticipate the design and the technical functionalities of future products. Concept products are developed to experiment with new ideas both in the domain of product design and of technology, and allow a preliminary test of how the market would react to such ideas. The development of concept products has been a standard practice in the automotive industry since the first concept car, the Buick Y-Job, was developed in 1930 (Dredge 2001). Nowadays the average car manufacturer releases two to three

concept vehicles per year (Bell 2003; Cato 2007) and the development of concept products is widely adopted in many other industries where companies need proactive strategies for probing and influencing the future, ranging from home appliances to consumer electronics (Keinonen and Takala 2006).

Some concept products are exhibited as preliminary exemplars of products that will be marketed in the future. For instance, in 2010, ASUS showcased at Las Vegas Consumer Electronic Shows its Waveface tablet concept, a tablet reader entirely made of a highly flexible polymer, so that it can be easily bended and used interchangeably as a reader or as a laptop. Asus chairman, Jonney Shih, explained that the Waveface tablet is a vision about the future of the product category, and that it is planned to become a marketed product, but in no less than five years (Clark 2010). In the same year, at its five-yearly company event, Canon presented its 'Wonder Camera', a concept product that claims to revolutionize the way people take pictures. By means of a constant focus, the 'Wonder Camera' constantly captures massive-resolution video and then lets users choose a photo from a plethora of images taken over the course of a few seconds. This functionality makes sure that a photographer has no chance to miss the exact moment she intended to capture, with no loss of information even when zooming in several times. In addition, the camera features a radical design, extremely distant from the typical design of the reflex cameras on the market: it has no visible mechanical knobs and buttons but minimal

touch controls, and rather than the usual hard black finish, it features a white glossy finish. Canon stated that the 'Wonder Camera' could be released for sale in 2030.

Both the Waveface tablet and the 'Wonder Camera' have been developed to be produced and sold in the future. Nevertheless, some concept products are excessively 'conceptual', i.e., they are too far away from current products and technologies, or would require too many technological breakthrough for a company to be able to forecast a release date. One example of this type of concept product is the Morph, a concept phone developed by Nokia in 2008 in collaboration with the Nanoscience Centre of the University of Cambridge. The Morph concept aims at demonstrating some of the possibilities that nanotechnologies might enable in future communication devices: it can sense its environment, it is energy harvesting and can adapt its shape to different use modes, assuming rigid forms on demand. These features of the Morph are currently not feasible from a technical point of view, and would only be implemented on consumer electronics products if and once nanotechnology leads to low-cost manufacturing solutions.

Concept products receive extensive coverage in the media. They are a powerful means to gather attention on the company, and to tease the market about new products. However, they are often just visions about what future products may look like. Many concept products, like the Nokia Morph, will never hit the market. Some of them will become marketed products, but upon substantial scaling down or modifications in both design and technical functionalities (Harrar 1990). For others,

only some technical functionalities will be implemented in future marketed products. Therefore, it is not clear whether exposing concept products to consumers may be beneficial or detrimental for companies.

Concept products embed the vision a company has about the future. The farther the future that the company is envisioning, the more the design and technical functionalities of the concept product will be distant from those of products that are on the market by the time the concept is released. We refer to such distance as the degree of conceptualization featured by the concept product. In this paper we argue that exposure to concept products may influence the way consumers judge marketed products, and that conceptualization of the design and conceptualization of the technical functionalities have different effects. On the one hand, exposing consumers to a radically conceptual design may attract their attention and help them get familiarized with novel lines and shapes. As a consequence, when the same lines and shapes are encountered in the design of marketed products, consumers may feel such lines and shapes as already familiar, process them more fluently, and evaluate them more favorably. On the other hand, exposing consumers to breakthrough technical functionalities may induce them to see such features as new standards for the entire product category and expect to find the same features in marketed products. However, some technologies or components are not yet available, or are too costly to be implemented on a large-scale production. Thus, marketed products often do not feature the same technical functionalities as the concept product, and

consumers may judge the marketed product less favorably than they would if not exposed to the concept product.

Across three experimental studies we analyze the effects of conceptualization of design and of technical functionalities, as well as of their interaction, on judgment of marketed products. In addition, we show that conceptualization of design, by influencing the perceived similarity between the concept product and marketed products, prompts comparisons between the technical functionalities of the concept product and those of marketed products, which are detrimental for judgments of marketed products. Implications for theory and for new product development are discussed.

2.2 Theoretical Framework

We consider concept products as defined by two main dimensions: product design and product technical functionalities. Product design refers to product form, i.e., the external surfaces that house or protect the inner workings of a product and are observable by consumers (Bloch 1995; Veryzer 1995). Product technical functionalities refer to the technologies, architectures, components and materials that allow the product to deliver its benefits to the customer. We define the extent of conceptualization as the distance between the features of the concept product and those of marketed products. Concept products may vary based on how conceptual

they are, i.e., on how distant their design and technical functionalities are from those of marketed products (Ciferri 2007). For instance, some concept products are previews of products that will be marketed in the near future, and their design and technical functionalities feature only minor conceptualization, typically eliminated when moving to the production stage (Bell 2003; Ciferri 2007). Other concept products push the boundaries of existing technologies, or feature newly discovered technologies that have not yet been tested for large-scale production, and are characterized by a radical design that makes them stand out from the current standards of the respective product categories (Bell 2003). The next sections analyze in greater detail conceptualization of product design and conceptualization of product technical functionalities, highlighting what their predicted effect on judgment of marketed products would be.

2.3 Design Conceptualization

We define conceptualization of product design (hereafter CPD) as the distance between the design of a concept product and the design of marketed products. CPD is characterized by the use of design techniques that confer a futuristic imagery to the product, such as visual exaggeration and abstraction. Exaggeration and abstraction are two techniques that have a common feature: they both emphasize the central and distinctive features of an object while discarding the less relevant

ones (Reber et al. 2004). Visual exaggeration involves the deliberate pictorial distortion of the elements that discriminate a stimulus, in order to make such elements more noticeable than usual (Ramachandran and Hirstein 1999). Abstraction is the enhancement of the form and contour of a visual stimulus by means of linear outlines; outlines give sufficient information to characterize a visual stimulus and the addition of other pictorial elements to make the representation more realistic provides only redundant information with respect to the identification of the stimulus (Jung 1974; Ratliff 1972).

Both exaggeration and abstraction have a common property: they help the viewer focus on what is important, putting in background or omitting other aspects, while realistic design draws attention also to details that are not distinctive rather than to the conceptual whole (Stappers et al. 2000). The ability of the designer to abstract or emphasize the 'distinctive features' of an image and discard redundant information is essentially identical to what the visual areas of the brain have evolved to do, since memorization is based on the identification of how a specific stimulus deviates in its features from a prototypical stimulus (Mauro and Kubovy 1992; Jung and Baumgartner 1965; Zeki 1998).

By emphasizing central features and discarding others, both exaggeration and abstraction facilitate the elaboration of a visual stimulus, i.e., they increase the stimulus processing fluency (Reber et al. 2004). Processing fluency refers to the formation of a feature-based representation of the stimulus in memory (Bornstein

and D'Agostino 1992; Jacoby et al. 1989). Such representation, in turn, facilitates further processing of that same stimulus, or of other stimuli featuring similar structural elements, in subsequent exposures (Gordon and Holyoak 1983). A smooth and easy processing improves evaluations of a stimulus, because it elicits positive feelings in the beholder, and this affect is usually misattributed to the stimulus (Winkielman et al. 2003; Fang et al. 2007).

When a new product is preceded by exposure to a concept product featuring high CPD, exaggeration and abstraction of the design are likely to 'stand out', and to attract consumers' attention, since they typically give origin to radical and unfamiliar shapes (Schoormans and Robben 1997). In addition, and more importantly, high CPD, by using representation techniques aimed at making the distinctive features of the design more prominent, are more likely to facilitate the elaboration of the design. Following the definition of perceptual fluency, they are more likely to create a stronger feature-based representation of the distinctive features of that design in consumers' memory than concept products characterized by a moderate CPD (Reber et al. 2004). Such feature-based representation of the product design will, in turn, facilitate the processing of the same, although de-conceptualized, design in the marketed product, improving its evaluation. Thus, we argue that

H1*: Exposure to concept products with high CPD (vs. moderate CPD) positively influences the judgment of a marketed product implementing a moderate version of the same design.*

We test H1 in Experiment 1 using pictures of real products (cars and concept cars) as stimuli. We chose automobiles as stimuli because concept products characterized by different degrees of CPD are very common for this product category.

2.4 Experiment 1

Experiment 1 is designed to test whether exposure to concept products affects judgment of marketed products, with specific reference to the effects of different levels of design conceptualization (H1).

Method

Design and Stimuli Development. We manipulated exposure to concept products between subjects (exposure to high CPD vs. exposure to moderate CPD vs. control – no exposure) and measured participants' judgment of a target product featuring a similar design. The marketed product stimulus (target product) was a picture of a SUV, and the concept product stimuli were two pictures of SUV concepts, one featuring radical conceptualization of design, and the other featuring moderate conceptualization of design. All stimuli are reported in the Appendix.

Participants and Procedure. 102 participants from an online panel completed the experiment. Participants were informed that they were taking part in an

experiment on new cars, and that they would be shown some new cars showcased by an automotive company at a recent motor show. A first screenshot showed the picture of the concept car corresponding to their condition. Afterwards, all participants were exposed to the target car. Participants in the control (no exposure) condition were exposed directly to the target car. In subsequent screenshots participants were asked to evaluate the target car. The evaluation of the target car was measured asking how much they liked the target car, how much they would like driving the target car, and how much they would enjoy driving the target car (1 = not at all; 9 = very much). Afterwards, we collected a set of manipulation checks for visual conceptualization, asking how much the concept car featured exaggeration in the design; and how novel was its design (1 = not at all; 9 = very much). Finally, in order to ensure that the concept cars were perceived as equally attractive, we asked participants how much they liked the concept car they saw at the beginning of the experiment (1 = not at all; 9 = very much).

Results and Discussion

Manipulation and Confound Checks. In order to assess the success of the visual conceptualization manipulation, we averaged the two items intended to measure the perceived conceptualization of the concept car design (α = .70) into an overall index. A one-way ANOVA was conducted on this index with the type of exposure as between subjects factor. The results show that the design of the high

CPD concept car was perceived as significantly more conceptual than the design of the low CPD concept car ($M_{moderate\_CPD}$ = 5.82; M_{high_CPD} = 6.95; $F(1, 58) = 8.78$, $p < .01$). In addition, in order to exclude the possibility that the differences observed in the dependent variable were due to the attractiveness of the two concept cars rather than to their degree of CPD, we conducted a one-way ANOVA on attitude toward the concept car with the type of exposure as independent variable. The results show that the two concept cars were perceived as equally attractive ($M_{moderate\_CPD}$ = 6.04; M_{high_CPD} = 5.81; $F(1, 58) = .20$, *ns*).

Judgment of the Target Product. Measures of attitude toward the target car were averaged into an overall evaluative measure ($\alpha = .80$). In order to understand whether exposure to concept products influenced judgments of marketed products, and to provide an initial test of H1, we conducted a one-way ANOVA with the type of exposure (exposure to high CPD vs. exposure to moderate CPD vs. control – no exposure) as between subjects factor and the overall evaluative judgment of the target car measure as dependent variable. Results show that the type of exposure influences judgments of the target car ($F(1, 100) = 4.79$, $p = .01$). H1 predicted that exposure to concept products with high CPD (vs. low CPD) positively influences the judgment of a marketed product implementing a moderate version of the same design. A planned contrast revealed that exposure to high CPD yielded significantly more favorable judgments of the target car than both exposure to moderate CPD and no exposure to concept cars (M_{high_CPD} = 6.03; $M_{moderate\_CPD}$ = 5.10; $M_{no\ exposure}$ =

5.15; $t(100) = 3.05$, $p < .01$). Interestingly, there were no significant differences in judgments of the target car between the conditions of exposure to concept cars with moderate CPD and of no exposure to concept cars ($t(100) = .16$, *ns*). Means of the dependent variable are plotted in Figure 1.

Figure 1 here

Thus, overall participants evaluated the target car more favorably when they were exposed to a concept car, but only when the concept car was characterized by high CPD.

Discussion. Results of Experiment 1 suggest that exposure to concept products positively affects judgment of marketed products. However, results also show that only exposure to concept products featuring high CPD influence positively the judgment of a target product featuring a moderate form of the same design. This last result, in particular, seems to suggest that a simple transfer of positive image, due to the awareness that the company is involved in an innovative activity such as developing concept products, may not be enough to enhance the favorability of the judgments of the target product. Results of Experiment 1 seem to suggest that CPD may impact judgments of the target product per se.

2.5 Conceptualization of Technical Functionalities

Also with respect to product technical functionalities concept products can be more or less distant from marketed products in terms of technologies implemented and of their performance levels. We define conceptualization of the product technical functionalities (hereafter CPTF) as the distance between the technical functionalities featured by the concept product and those featured by marketed products. High CPTF products typically feature the frontier of technology, i.e., technologies that have recently been discovered and are not yet implemented in commercial products (e.g., the nanotechnologies implemented in Nokia Morph), and performance levels that are very high compared to the ones featured by marketed products (e.g., a camera featuring a resolution of 500 megapixel while currently marketed cameras have a typical resolution of 12 megapixels). Since concept products are not subject to constraints of economic, legal, or technical large-scale production feasibility, development managers can push performance to the boundaries in order to impress the market. Exposure to concept products characterized by high CPTF may create expectations, since it primes consumers with extremely high levels of performance or with very new and efficient technologies. Such priming may hurt consumer judgment of marketed products models that for obvious reasons feature lower, less attractive, levels of performance.

Exposure to an exemplar featuring very extreme levels of a given characteristic may indeed influence the judgment of other exemplars featuring that same characteristic, because such exposure sets a new and very high standard of evaluation for other exemplars on that characteristic (Herr, Sherman and Fazio 1983; Herr 1986). Thus, upon exposure to an extremely high value of a feature, the judgment of an exemplar featuring lower values of that feature shifts away from the extreme more than if the same exemplar were evaluated in isolation (Manis, Nelson and Shedler 1988; Herr 1986; Sherif and Hovland 1961). This shift in judgments occurs only when individuals are exposed to extreme levels of a feature, and not to moderate levels, since extreme context information is more likely than moderate context information to be used as an anchor with which a target stimulus is contrasted (Hogarth and Einhorn 1992). Therefore, only exposure to high CPTF, and not exposure to moderate CPTF, is expected to be detrimental to judgment of marketed products.

Another reason why exposure to radical conceptualization of product functionalities may be detrimental to the judgment of marketed products is a puffery effect. Puffery is the use of exaggerated claims in presenting a product (Wyckham 1985). Exaggerated claims affect the formation of product-related beliefs and influence consumer judgments (Marks and Kamins 1988). Specifically, the more exaggerated the claim, the higher the likelihood that a high discrepancy will be perceived or experienced when facing a product that features standard levels of

performance on the features that the claim exaggerates, resulting in less favorable judgments of that product (Marks and Kamins 1988; Olson and Dover 1979; Cowley 2006). Since concept products are not actually marketed, consumers never actually experience those extreme levels of performance. The concept product, however, may contribute to the formation of beliefs related to the performance of the marketed product. The higher the CPTF of the concept product, the higher will be the expectations about the technical functionalities of the marketed product. Since the marketed product may be unlikely to fulfill such expectations, its evaluations would be less favorable than in the case of exposure to a concept product featuring more moderate CPTF, i.e., technical functionalities that are less distant from the performance standards of marketed products. Formally, we predict that

H2*: Exposure to concept products with high CPTF (vs. moderate CPTF) negatively influences the judgment of a marketed product implementing a moderate version of the same technical functionalities.*

We argue, however, that the negative effect of CPTF depends on the likelihood that consumers engage in comparisons between the features of the concept product and those of the marketed product. Specifically, such effect should occur only in the case in which high CPTF is accompanied by moderate CPD.

Research on assimilation and contrast effects has shown that the occurrence of contrast effects due to extreme priming on judgment is contingent upon the

degree of context-target similarity, i.e., occurs only when both the prime (e.g., the concept product) and the target (e.g., the marketed product) are judged as belonging to the same category (Stapel and Winkielman 1998). Research has also shown that visual information is elaborated before verbal information (MacInnis et al. 1991; Page and Herr 2002). Therefore, product design (visual information) is likely to be elaborated before product technical functionalities (verbal information). Based on the above arguments, we argue that an assessment of similarity/dissimilarity between the design of concept product and that of target product occurs before the product technical functionalities are elaborated and evaluated. The likelihood that the concept product and the target product are assigned to the same category and explicitly compared should depend from the outcome of such similarity assessment (Goldstone 1994a). The more the concept product and the marketed product are perceived as similar with respect to product design, the higher the likelihood that their technical functionalities will be explicitly compared.

On the one hand, high CPD may favor the perception of the concept product as less similar to the marketed product, and hence as belonging to a different category. In this case the contrast effect caused by exposure to high CPTF on judgments of the marketed product is expected to be alleviated. On the other hand, a moderate CPD would make the concept product more likely to be perceived as similar to the marketed product. In this case, it is more likely that consumers will engage in a comparison between the technical functionalities of the concept product

and those of the marketed product, and that the concept product will be used as a standard of evaluation. As a consequence, a contrast effect is likely to be observed in the judgment of the marketed product, i.e., the marketed product will be judged less favorably. Summarizing, we expect the following:

H3: There is an interaction between CPD and CPTF on judgment of a marketed product featuring a scaling down of the same design and of the same technical functionalities: if the concept product features moderate CPD, then CPTF will negatively affect judgments of the marketed product, while if the concept product features high CPD, then CPTF will not affect judgments of the marketed product.

We test H1, H2 and H3 in Experiment 2. In addition, we assess whether the degree of perceived similarity between the concept product and the marketed product mediates the hypothesized interaction between CPD and CPTF. As in Experiment 1, we use pictures of real products (cars and concept cars) as stimuli.

2.6 Experiment 2

Experiment 2 provides an additional test of the effects of CPD (H1), and investigates the effect of CPTF (H2), as well as the interaction between CPD and CPTF (H3).

Method

Design and Stimuli Development. In order to test H1, H2, and H3, we used a 2 (CPD: moderate vs. high) x 2 (CPTF: moderate vs. high) between subjects factorial design. The marketed product stimulus (target product) was a Photoshop edited image of a BMW Z8 accompanied by a verbal description of the following features: type of automatic light system, type of information projection system, and fuel consumption. The selection of key attributes was based on a review of concept car press releases. The concept car stimuli were pictures of two BMW concept cars consistent with the design of the target car, of which one featured moderate CPD and the other featured high CPD. The images of the concept cars, too, were accompanied by verbal descriptions of a set of technical functionalities, and were characterized either by moderate CPTF or by high CPTF. For instance, the feature related to automatic light system was presented as "Assisted light technology that automatically recognizes weather conditions and adapts the lights", in the high CPTF condition, and as "Automatic front LED lights using a photosensitive sensor", in the moderate CPTF condition. Previous research has shown that the use of this type of combination of pictures and verbal descriptions is able to generate consumer reactions that are reliably consistent with the ones elicited by the actual product (Dahan and Srinivasan 2000). All stimuli are reported in the Appendix.

Participants and Procedure. Participants in the experiment were 116 students at a large European university that took part in the study in exchange for entry into

an iPod Touch mp3 player lottery. The administration of the experiment was computer-based. Participants were informed that they were taking part in an experiment on new cars, and that they would be shown some new cars presented by a car company at a recent motor show. Upon arrival at the lab, participants were randomly assigned to one of four conditions. A first screenshot showed the picture and the verbal description of the concept car corresponding to their condition. Afterwards, all participants were exposed to the target car and were asked to evaluate it on a set of nine-point scales asking how much they liked the target car and how likely they would be to purchase the target car (1 = not at all; 9 = very much). In order to assess whether the interaction of CPD and CPTF was driven by the perceived similarity between the concept car and the target car, participants were asked to rate the overall similarity and the similarity of the design between the concept car in their condition and the target car (1 = not similar at all; 9 = very similar). Finally, they completed a set of manipulation checks for the CPD and the CPTF of the concept car, asking how exaggerated and how novel were the design and the technical functionalities of the concept car respectively (1 = not at all; 9 = very much). In addition, participants completed a set of confound checks, asking how much they liked the concept car, how difficult was it to understand the description of the concept car, and how difficult was it to process the description of the concept car (1 = not at all; 9 = very much).

Results and Discussion

Manipulation and Confound Checks. In order to assess the success of the CPD manipulation, we conducted a 2 (CPD: moderate vs. high) x 2 (CPTF: moderate vs. high) ANOVA on the average of the two measures of perceived CPD of the concept car (α = .77). The results show that the main effect of CPD was significant ($M_{moderate\_CPD}$ = 5.78; M_{high_CPD} = 7.28; $F(1, 112) = 37.89$, $p < .01$), while neither the main effect of CPTF, nor the interaction was significant (all Fs < 1, ps > .65). Similarly, in order to assess the success of the CPTF manipulation, we conducted a 2 (CPD: moderate vs. high) x 2 (CPTF: moderate vs. high) ANOVA on the average of the two measures of perceived CPTF of the concept car (α = .80). The results show that in this case the main effect of functional exaggeration was significant ($M_{moderate\_CPTF}$ = 5.92; M_{high_CPTF} = 6.91; $F(1, 112) = 11.14$, $p < .01$), while neither the main effect of visual exaggeration, nor the interaction was significant (all Fs < 1, ps > .60).

In order to ensure that the effects of the manipulations of CPD and of CPTF were not confounded with variations in attitude toward the concept cars, we conducted an additional 2 (CPD: moderate vs. high) x 2 (CPTF: moderate vs. high) ANOVA on attitude toward the concept car. No significant differences resulted in attitude toward the concept car (F = 1.22, p > .30). Similarly, in order to check that the manipulation of the CPTF did not result in different levels of difficulty perceived by the participant reading the description of the technical functionalities, we

conducted a 2 (CPD: moderate vs. high) x 2 (CPTF: moderate vs. high) ANOVA on the average of the two measures of perceived difficulty of the description (α = .90). No significant differences in perceived difficulty of the descriptions emerged from this analysis ($F < 1$, $p > .60$).

Judgment of the Target Product. We hypothesized that CPD would positively affect the judgment of a marketed product implementing a moderate form of the same design (H1), that CPTF would negatively affect the judgment of a moderate target product implementing a scaling down of the same technical functionalities (H2), and that the latter effect would occur only in the condition of moderate CPD (H3). Measures of attitude toward the target car and of likelihood to buy the target car were averaged into an overall evaluative measure (α = .87). In order to test our predictions we conducted a 2 (CPD: moderate vs. high) x 2 (CPTF: moderate vs. high) ANOVA on this measure. As predicted by H1, this analysis yielded a significant main effect of CPD on judgment of the target car ($M_{moderate\_CPD} = 4.14$; $M_{high\_CPD} = 5.42$; $F(1, 112) = 14.10$, $p < .01$). In the direction suggested by H2, the main effect of CPTF was marginally significant ($M_{moderate\_CPTF} = 5.08$; $M_{high\_CPTF} = 4.54$; $F(1, 112) = 2.83$, $p < .10$) In addition, the interaction between CPD and CPTF was also significant ($F(1, 112) = 4.00$, $p < .05$). In line with the predictions of H3, while in presence of high CPD, CPTF did not affect significantly the judgment of the target car ($M_{moderate\_CPTF} = 5.36$; $M_{high\_CPTF} = 5.47$; $F(1, 112) = .52$, $p > .80$), in presence of moderate CPD the effect of CPTF affected negatively the judgment of the target car

($M_{moderate\_CPTF}$ = 4.78; M_{high_CPTF} = 3.55; $F(1, 112) = 6.55$, $p = .01$). Means of the dependent variable are plotted in Figure 2.

Figure 2 here

Mediation Analysis. In order to assess whether the interaction effect between CPD and CPTF on judgment of the target product was mediated by the perceived similarity between the concept product and the target product, we conducted a mediation analysis (Baron and Kenny 1986). A perceived similarity score was computed by averaging the two measures of similarity between the concept car and the target car ($\alpha = .64$). First, when judgments of the target car were regressed on CPD, CPTF, and their interaction, the two-way interaction was significant ($b = 1.33$, $SE = .67$, $t(116) = 2.00$, $p < .05$). Second, when the perceived similarity score was regressed on CPD, CPTF, and their interaction, the two-way interaction significantly predicted perceived similarity ($b = 1.64$, $SE = .85$, $t(116) = 1.93$, $p < .06$). In addition, the perceived similarity score significantly predicted judgments of the target car ($b = .26$, $SE = .07$, $t(116) = 3.79$, $p < .01$). Last, when judgment of the target car were regressed on perceived similarity, CPD, CPTF, and their interaction, the latter was no longer significant ($b = .90$, $SE = .64$, $t(116) = 1.40$, $p = .16$). Results of a Sobel test showed that the mediating effect of perceived similarity on judgments of the target car is marginally significant ($z = 1.72$, $p = .09$). The same mediation test

was conducted using the recently recommended more powerful bootstrap approach (Zhao et al. 2010) developed by Preacher and Hayes (2004). The bootstrapped estimate of the indirect effect using 5,000 bootstrap resamples and a bias-corrected and accelerated 95% confidence interval (Preacher and Hayes 2008) revealed a significant mediation effect. Specifically, the analysis revealed that the confidence interval for the conditional indirect effect of similarity on the evaluation of the target ranged from .02 to .99, and therefore the hypothesis that the mediator has no indirect effect on the evaluation of the target was rejected at the .05 alpha level.

Discussion. Results of Experiment 2 show that exposure to a concept product characterized by high CPD (vs. moderate CPD) positively affects judgments of a target product featuring a moderate form of the same design. Results also show that exposure to a concept product characterized by high CPTF negatively affects the judgment of a target product featuring a scaling down of the same technical functionalities. In addition, results show that CPD interacts with CPTF in affecting judgments of the target product. Specifically, by influencing the perception of similarity between the concept product and the target product, i.e., by determining whether the concept product and the target product are judged as belonging to the same or to different sets, CPD moderates the effect of CPTF. When CPD is high, judgments of the target product were substantially not affected by CPTF. However, when CPD was moderate, judgments of the target product were made significantly less favorable by CPTF.

We argued that the visual similarity between a concept product with moderate CPD and the marketed product favors the occurrence of comparisons between the technical functionalities of the concept product and those of the marketed product. When the concept product features high CPD, however, the low similarity should reduce the likelihood that comparisons between the technical functionalities of the concept product and those of the marketed product occur. Results of a mediation analysis support the idea that perceived similarity between the concept product and the marketed product mediates the interaction between CPD and CPTF on judgments of the marketed product.

While in experiment 2 we measured similarity and we make inferences about the likelihood of engaging in comparisons, in Experiment 3 we manipulate the visual similarity between the concept product and the target product, as well as the ability to engage in comparisons between the concept product and the target product. Specifically, we manipulate visual similarity by choosing concept products that feature either the same design (high design similarity condition) or a different design (low design similarity condition) with respect to the target product. Consistently with what is suggested by the results of Experiment 2, we expect that a comparison between the technical functionalities of the concept product and those of the marketed product will occur only in the condition of high similarity between the two products.

In addition, we also manipulate the ability to engage in comparisons between the concept product and the target product by choosing concept products featuring technical functionalities that are either aligned (high comparability condition) or non aligned (low comparability condition) to those of the target product. By changing the alignability of the differences between the technical functionalities of the concept product and those of the target product it is possible to change the ease with which the concept product and the target product can be compared. Research on similarity (Gentner and Markman 1994, 1997; Goldstone 1994b; Markman and Gentner 1993a, b; Medin, Goldstone and Gentner 1993) has shown that comparison involves a structural alignment process that gives rise to three types of represented properties: commonalities (i.e., matching elements between a pair of items); alignable differences (i.e., corresponding aspects of a pair of items that differ); and nonalignable differences (i.e., aspects of one object that have no correspondence with the other). Alignable differences refer to some matching relations between items of two objects (e.g., two brands of microwave popcorns one of which pops in a bag, the other comes with a disposable microwaveable bowl), or to corresponding elements in the two objects that occupy different points on the same dimension (e.g., of the aforementioned brands of microwave popcorns, one has medium-size kernels and the other has large kernels; Zhang and Markman 2001). Nonalignable differences are aspects of one item that have no correspondence in the other item. They can be features mentioned in one option but not in the other (e.g., missing

information about features), or features uniquely associated with one of the options (e.g., unique features; Zhang and Markman 2001).

The structural alignment model predicts that alignable differences, having a dual nature of differences and commonalities, will be given more attention and more weight in comparison tasks, while nonalignable differences, being not related to the commonalities of the pair, are often ignored (Gentner and Markman 1994; Markman and Gentner 1997; Markman and Medin 1995). More importantly, alignable differences are easier to evaluate than nonalignable differences because consumers are more likely to decide, either subjectively or objectively, which contrasting value is better along a common dimension, while to evaluate a nonalignable difference the consumer must know how good a particular attribute is on some global scale (Hsee 1996).

Zhang and Markman (1998) have shown that alignable differences are recalled better than nonalignable differences, and serve as an input for preference construction. Specifically, the authors have found that, within a product category, brands are represented by a common set of alignable differences. Therefore, values of such aligned properties from established brands or initial entrants will be used as retrieval cues for the corresponding values from new entrant brands. The same retrieval effect was not observed for non aligned properties. Following Zhang and Markman (1998), we argue that when the technical functionalities of the concept product are aligned to those of the of the marketed product, the value from the

concept product may serve as a retrieval cue for the corresponding value in the marketed product, since alignable differences involve contrasting values from different products, while no such cueing effect should occur for nonalignable differences.

In the high comparability condition, the technical functionalities of the concept product and those of the target product are framed as alignable differences, i.e., the concept product and the target product feature the same technical functionalities but the former features higher levels of performance than the latter. In such a case, the extreme levels of performance of the concept technical functionalities are likely to influence negatively the judgment of the marketed product. Exposure to the concept product primes consumers with very high levels performance that become a standard of comparison for the marketed product, which is then evaluated less favorably than it would be otherwise.

In the low comparability condition, the technical functionalities of the concept product and those of the target product are framed as nonalignable differences, i.e., the technical functionalities of the concept product are not mentioned in the description of the target product and vice versa (nonalignable difference due to missing information about features, see Zhang and Markman 2001). In this case, it will be more difficult for a consumer to make a comparison between the technical features of the concept product and those of the target product, since nonalignable differences are harder to compare than alignable differences, and a clear preference

ranking is not typical of nonaligned attribute comparisons (Markman and Gentner 1997; Gentner and Markman 1993). Therefore, consumers would be less likely to be influenced by the extreme performance of the concept product when they evaluate the target product.

2.7 Experiment 3

Experiment 3 aims at providing additional evidence on the role of similarity in determining the likelihood of engaging in comparisons between the concept product and marketed products, as well as on the role of such explicit comparisons in affecting judgments of marketed products.

Method

Design and Stimuli Development. Experiment 3 uses a 2 (design similarity between the concept product and the target product: low vs. high) x 2 (comparability of the technical functionalities: low vs. high) between subjects factorial design. The marketed product stimulus (target product) was the combination of a Photoshop edited image of a Ford Kuga accompanied by a verbal description of the product technical functionalities. The concept car stimuli were based on the image of two Photoshop-edited concept cars, one featuring a design similar to that of the target car, the other featuring a design different from that of the target car. The images of

the concept cars were accompanied by verbal descriptions of a set of technical functionalities, selected as in Experiment 2. The technical functionalities featured a high level of performance, and were aligned to the ones in the description of the target car (high comparability condition), or nonaligned to the ones in the description of the target car (low comparability condition). All stimuli are reported in the Appendix.

Procedure. Participants (n = 144) and procedure were analogous to those of Experiment 2. After being shown the concept car corresponding to their condition, all participants were exposed to the target car and eventually asked to evaluate it on a set of evaluative nine-point scales asking how much they liked the target car and how likely they would be to purchase the target car (1 = not at all; 9 = very much). Subsequently, they rated the similarity of design between the concept car and the target car on a nine-point scale (1 = not at all; 9 = very much), and, as a check for the comparability of the technical functionalities manipulation, they answered an open-ended question asking the respondent to identify and list any correspondence between the technical functionalities of concept car in their condition and the target car. Finally, participants completed a set of confound checks asking how difficult it was to understand and to process the description of the concept car (1 = not at all; 9 = very much).

Results and Discussion

Manipulation and Confound Checks. In order to assess the success of the design similarity manipulation, we conducted a 2 (design similarity between the concept product and the target product: low vs. high) x 2 (comparability of the technical functionalities: low vs. high) ANOVA on the design similarity measure. The results show that the main effect of design similarity was significant ($M_{low\ ds}$ = 1.61; $M_{high\ ds}$ = 3.61; $F(1, 140) = 27.97$, $p < .01$), while neither the main effect of comparability of the technical functionalities ($F(1, 140) = 1.34$, $p > .25$), nor the interaction ($F < 1$) was significant.

Answers to the open-ended question asking to identify any correspondence between the technical functionalities of the concept car and the target car were content analyzed and the identified corresponding items were counted. This count was used as a manipulation check for the comparability of the technical functionalities manipulation. We conducted a 2 (design similarity between the concept product and the target product: low vs. high) x 2 (comparability of the technical functionalities: low vs. high) ANOVA on this count. The results show that the main effect of comparability was significant ($M_{low\ comparability}$ = .34; $M_{high\ comparability}$ = 1.20; $F(1, 140) = 31.34$, $p < .01$), while neither the main effect of design similarity, nor the interaction was significant (Fs < 1). These results signal the effectiveness and the independence of both manipulations.

Similarly, in order to check that the manipulation of comparability, by involving the use of descriptions of different technical functionalities, did not result in different levels of perceived difficulty for the participant reading the description, we conducted a 2 (design similarity between the concept product and the target product: low vs. high) x 2 (comparability of the technical functionalities: low vs. high) on the average of the two difficulty of the description measures (α = .93). No significant differences in perceived difficulty of the descriptions emerged from this analysis (F = 1.45, p > .20).

Judgment of the Target Product. We predicted that design similarity would influence the likelihood of engaging in comparisons between the concept product and the target product, so that we would observe a negative effect of comparability of the technical functionalities on judgments of the target product only in the condition of high design similarity, but not in the condition of low design similarity. Measures of attitude toward the target car, and of likelihood to buy the target car were averaged into an overall evaluative measure (α = .80). In order to test our predictions we conducted a 2 (design similarity between the concept product and the target product: low vs. high) x 2 (comparability of the technical functionalities: low vs. high) ANOVA on this measure. This analysis yielded a significant main effect of comparability of the technical functionalities on judgments of the target car ($M_{low\ comparability}$ = 5.70; $M_{high\ comparability}$ = 4.97; $F(1, 140) = 7.08$, $p < .01$). More interestingly, the predicted interaction between design similarity and comparability of

the technical functionalities was also significant ($F(1, 140) = 13.52$, $p < .01$). In line with our prediction, while in the condition of high design similarity the comparability of the technical functionalities between the concept product and the target product negatively affected judgments of the target product ($M_{low\ comparability} = 6.28$; $M_{high\ comparability} = 4.57$; $F(1, 140) = 20.36$, $p < .01$), in presence of low design similarity the effect of comparability of the technical functionalities was not significant ($M_{low\ comparability} = 5.11$; $M_{high\ comparability} = 5.39$; $F < 1$). Means of the dependent variable are plotted in Figure 3.

Figure 3 here

Discussion. Results of Experiment 3 provide additional insights on the role of similarity and of explicit comparisons in driving the effects of exposure to concept products on judgments of marketed products. Specifically, results show that comparisons between concept products and marketed products critically affect judgments of marketed products, but that such effect is contingent on the degree of design similarity between the concept product and the marketed product. When the concept product and the marketed product feature a similar design, the perceived similarity prompts the relevance of the concept product as a standard to evaluate the marketed products. However, when the object of the comparison, i.e., the technical functionalities, are framed as nonalignable difference, then the concept product

cannot be easily used as a standard of comparison for the marketed product. Therefore, a contrast effect in the evaluation of the marketed product is not observed. When the technical functionalities are instead framed as alignable differences, then the concept product is easily used as a standard of evaluation for the marketed product, and judgments of the marketed product are less favorable.

2.8 General Discussion

The development of concept products is nowadays common in many industries. This paper investigates how consumer judgment of marketed products may be affected by exposure to concept products. We define the degree of conceptualization of a concept product as the distance between the features of the concept product and those of marketed products. Since different degrees of conceptualization may characterize both the concept product design and its technical functionalities, we propose a theoretical framework to analyze the effect of both facets of conceptualization on judgments of marketed products.

Theories on stimulus-based processing fluency suggest that exposing consumers to high CPD may increase the processing ease of that design when it is implemented in marketed products (Reber et al. 2004). However, CPD also influences whether the concept product and the marketed product are perceived as belonging to the same category (Goldstone 1994a) and whether they are explicitly

compared. Such comparisons are particularly harmful in case the concept product features high CPTF, since its technical functionalities may be perceived as new standards for the product category, or may contribute to create product-related beliefs that are then disconfirmed when facing the more realistic performance of marketed products, resulting in a detrimental effect for judgments of marketed products.

Results of three experimental studies show that exposure to high CPTF can hurt consumer judgment of marketed products, but that such effect is contingent on the degree of CPD featured by the concept product, i.e., it occurs when the concept product feature moderate rather than high CPD. Specifically, moderate CPD increases the perceived similarity between the concept product and the marketed product, such that it is natural for the consumer to engage in explicit comparisons between the technical functionalities of the concept product and those of the marketed product. Since the former are typically superior to the latter because concept products are not subject to any economical, legal, or production constraint, the result is a contrast effect in the judgment of marketed products.

Previous research on product aesthetics has shown that design can influence choice when information related to product performance is absent or ambiguous (Yamamoto and Lambert 1994) and, more recently, that product design can modify the way in which objective information related to product features is elaborated and judged (Hoegg et al. 2010). Our results expand this line of research by showing that

product design can prompt categorization and comparisons in terms of product technical functionalities.

In a more general framework, research on innovation has focused on trying to understand why some new products are more successful than others? Research so far has investigated many factors affecting new product performance (Hauser et al. 2006; Henard and Szymanski 2001). We focus on the use of concept products as a critical factor contributing to a new product success. Our experimental studies, using real products and concept products as stimuli, show that exposure to concept products affects consumers' judgment of marketed products and that CPD and CPTF have different and interdependent effects. CPD may help reducing the negative effects that CPTF exerts on judgment of marketed products by determining whether the concept product and the marketed product are considered as belonging to the same or to different categories.

Implications for product managers may be drawn from our results. Firstly, the critical role of design is highlighted by our results, in that promoting high CPTF unaccompanied by high CPD may be dangerous for the products that are actually marketed. By setting the concept product apart from the marketed products category, high CPD can alleviate the negative effects of exposing consumers to overly desirable technical functionalities that are not available on the market. In addition, our results point out the relevance of explicit comparisons in determining the effects of exposure to concept products. By framing the technical functionalities

of the concept product as nonalignable differences with respect to the marketed products, managers may make it harder for consumers to compare concept products and marketed products. Since the difference between alignable differences and nonalignable differences is psychological (Markman and Gentner 1993a, b; Zhang and Markman 2001), then consumers may not be able to engage in an explicit comparison if they cannot find a property in the marketed product that corresponds to the one featured by the concept product.

Finally, design can also be used as a means to differentiate the concept products and marketed products categories irrespective of the degree of conceptualization. If the concept product features a totally different design from the one featured by marketed products, than the negative effect of comparisons of the technical functionalities is reduced. However, some tradeoffs should be taken into account, because our results also show that CPD has per se a positive impact on judgment of a marketed product featuring a similar design because of improved processing fluency.

Some limitations of the present research should be acknowledged. The three studies presented here are constrained by the type of product we chose. We deliberately selected cars as stimuli because of the very high diffusion of concept products in such product categories, and of the different degrees of conceptualization that characterize concept cars, both in terms of design and of technical functionalities. However, consumers are highly familiar with this product

category, and hence our results are not easily generalizable to really new products (e.g., Moreau et al., 2001). Moreover, since we relied on a simulated exposure to concept product, we did not take into account the potential delay between exposure to concept products and judgment of marketed products. We suspect that the occurrence of a delay, by reducing the intuitive or forecasted waiting time for the features of the concept product, would amplify our results.

Altogether, the results of the three experiments provide evidence that both the design and the technical functionalities of a concept product can influence judgments of marketed products technical functionalities. While CPTF has a direct effect on judgments of marketed products, CPD has both a direct and an indirect effect: by determining how the concept product is categorized with respect to the marketed product, CPD may reduce the negative effect of CPTF. In contrast to conventional wisdom, we demonstrate that the design of concept products is not an irrelevant artistic exercise, but has an impact on the way the technical functionalities of marketed products are judged. These results contribute to shed light on the role of concept products in affecting judgment of marketed products, and emphasize a different way in which the use of design in the initial stages of new product development may enhance new product performance.

Figures

Figure 1. Judgment of Target Product (Experiment 1)

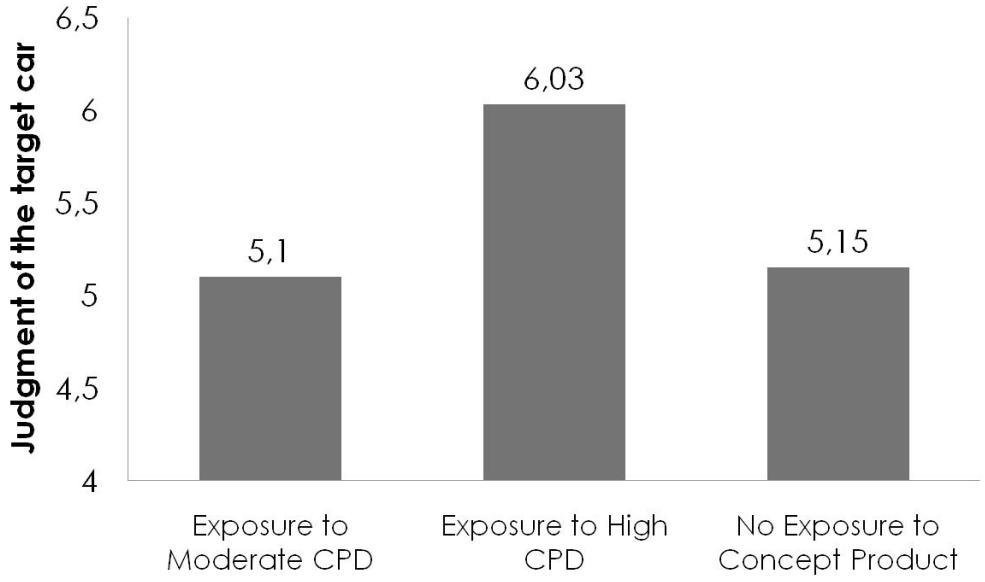


Figure 2. Judgment of Target Product (Experiment 2)

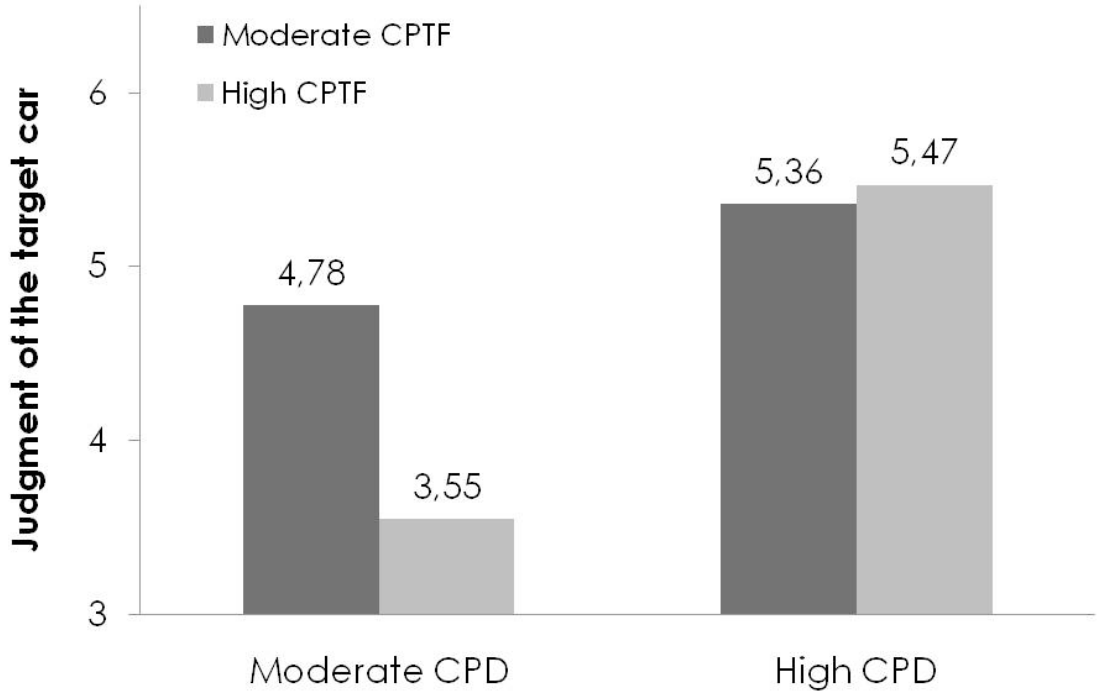
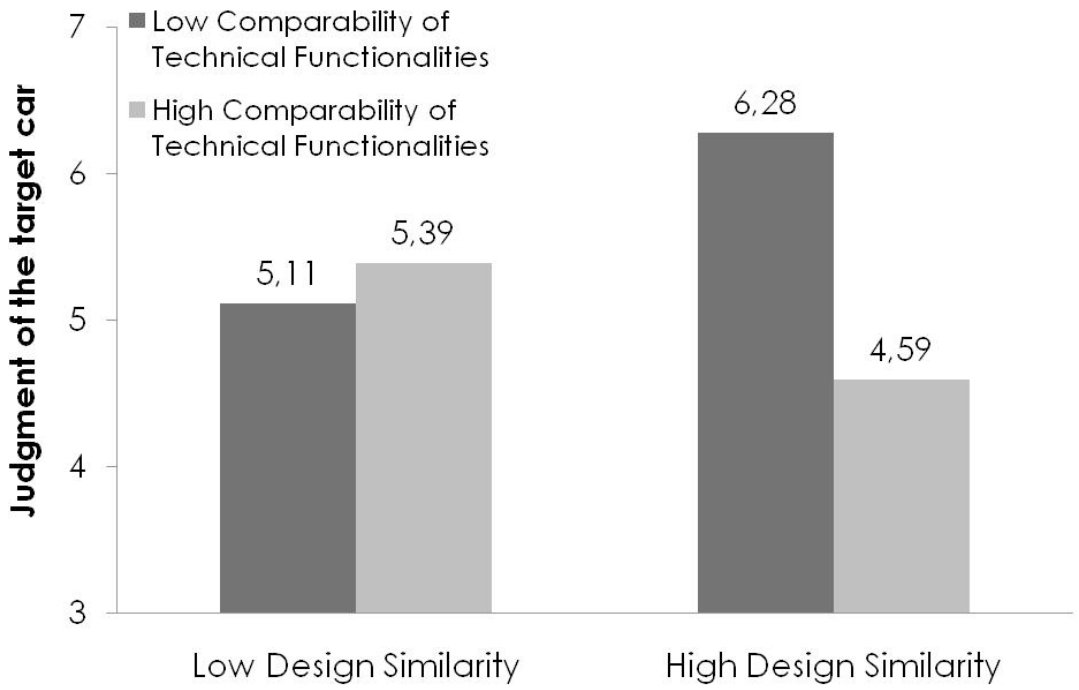


Figure 3. Judgment of Target Product (Experiment 3)



Appendix

Figure A1. Stimuli Used in experiment 1

Target Car

Concept Cars Pictures

High CPD

Moderate CPD

Figure A2. Stimuli Used in experiment 2

Target Car

- *Automatic lights switching on thanks to a photosensitive sensor*
- *Low fuel consumption (7 litres/100km)*
- *Integrated multifuctional screen*

Concept Car Pictures

High CPD

Moderate CPD

Concept Car Technical Functionalities

High CPTF

- *Innovative Head-Up Display projects information on to the windscreen*
- *Assisted light technology that recognizes weather conditions and automatically adapts the lights*
- *Fuel consumption of just 3.6 litres/100km*

Moderate CPTF

- *Dashboard with an integrated multifunctional screen*
- *Automatical front LED lights*
- *Fuel consumption of just 4.6 litres/100km*

Figure A3. Stimuli Used in experiment 3

Target Car

- *Automatic lights switching on thanks to special photosensitive sensors*
- *Low fuel consumption (7 litres/100 km)*
- *Integrated multifuctional screen*

Concept Car Pictures

High Design Similarity

Low Design Similarity

Concept Car Technical Functionalities

High Comparability

- *Innovative Head-Up Display projects information on to the windscreen*
- *Assisted light technology that recognizes weather conditions and automatically adapts the lights*
- *Fuel consumption of just 3.6 litres/100km*

Low Comparability

- *Speeds up in 11 seconds (0-100 km/h) and in 9 seconds (60-120 km/h)*
- *A special sensor detects the traffic conditions, recognizes the lanes, and measures the field of view*
- *New "freestyle" door opening system*

ESSAY 3

FASHION LEADERSHIP, PROCESSING FLUENCY, AND ADOPTION OF A NEW FASHION

3.1 Introduction

The desire to be 'in fashion' captures a significant aspect of social life and cultural life, and we constantly observe the influence of fashion in many domains. In particular, the effect of fashion on the way we dress is so profound that the design, production, and marketing of clothing, which encompasses many industries, is collectively known as 'the fashion industry' (Eckman and Wagner ACR 1995). Fashion is one of the world's most important creative industries, with annual US sales of more than $200 billions (Hemphill and Suk 2009).

Scholars from many disciplines, including virtually all the social sciences and the humanities, have proposed descriptions and commentaries about fashion consumer behavior (Svendsen 2006). This work presents a variety of perspectives on fashion: psychologists see fashion as the seeking of individuality; sociologist as the manifestation of class competition and social conformity; economist as the pursuit of rarity (Sproles 1985). However, this body of literature has not produced a single comprehensive model of consumer behavior in the domain of fashion. The underlying idea to most models of fashion is that some consumers, the fashion leaders, initiate the fashion cycle by adopting a new style before the others (King 1963; Grindereng 1967; Summers 1970; Darden and Reynolds 1972). Fashion leaders are more interested in fashion, are more involved in fashion activities, and influence other consumers by providing them with exposure to the new styles (Beaudoin 1994; Chowdhary 1989; Goldsmith, Heitmeyer, and Freiden 1991; Painter and Pinegar 1971; King, Ring, and Tigert 1979). However, despite the crucial role of fashion leaders in influencing the diffusion of fashion, research has not explained the psychological process behind their choice to adopt new styles.

This paper aims at providing a conceptualization of the role of fashion leaders within the fashion diffusion process by explaining the motivations that induce fashion leaders to adopt a new style proposed by designers, and, more centrally, by demonstrating the psychological process that induces fashion leaders to evaluate a new style more favorably than regular consumers. Since new style are launched by

designer in the form of a code, fashion leaders, by having higher knowledge capital, are the only consumers that can easily interpret the code, and find instances of the code in fashion products featuring the new style. This process of style code recognition generates positive feelings related to processing fluency, and contributes to improve the evaluation of the new style and of clothes that feature it.

In the following sections we first examine the most relevant concepts and theories in the domain of fashion, we review existing literature on fashion leadership, and propose our perspective. We then describe the three experimental studies conducted and report their results. Finally, we discuss implications of our results for consumer research and fashion theory.

3.2 Conceptual Background

Fashion has been defined as the prevailing style at any given time (Nystrom 1928). A style of clothing is a particular configuration of an apparel item based on several design dimensions, such as silhouette, line, hem length, color, fabric, waist length and so forth (Davis 1992; Cappetta et al. 2006). When enough members of a particular social group adopt a style, the style becomes a fashion (King and Ring 1980). Style is a temporary phenomenon, and has a short life span, since it is inevitably subject to change, obsolescence, and eventual abandonment to be

replaced by a new style because of its own popularity (Simmel 1985; Robinson 1961).

Fashions evolve consistent with the theoretical product life cycle (Rogers 1995), having stages of introduction and adoption by opinion leaders, increasing public acceptance (growth), mass conformity (maturation), decline and obsolescence. The diffusion of fashion may be conceptualized as a basic application of the general theory of the adoption and diffusion of innovations (Rogers and Shoemaker 1971; Robertson 1971). However, the fashion product has some specificities that qualify fashion as a significantly unique diffusion phenomenon (Sproles 1981). The diffusion of technological innovations may be motivated by innovation characteristics such as technical superiority or perceived functional (economical or technical) utility (Rogers 1995; Nelson, Peterhansl, and Sampat 2001) whereas the forces behind fashion diffusion have been largely ascribed to qualities other than functional utility, such as aesthetic motives, social acceptability and conformity, ego gratification, status symbolism (Leibenstein 1950; Coelho and McClure 1993; Pesendorfer 1995; Robinson 1961; Stigler and Becker 1977; Sproles 1974). The oddity and the discomfort associated with many styles of dress that nevertheless become fashionable seem to suggest that these social and psychological motives often overcome the effects of a negative level of functional utility.

Several models have been proposed to explain the diffusion of fashion. Classical fashion theory (also called 'trickle-down' theory, Simmel 1904) has a social

class orientation. According to this theory, fashion leadership belongs exclusively to the upper class. Once adopted by the upper class, fashions are imitated by each succeeding lower class until they have 'trickled-down' to the lowest class. The theory is linked to Veblen's (1912) theory of conspicuous consumption and sees fashion as a symbolic expenditure practiced more actively by the wealthiest social stratum, because increasing wealth creates the need to display conspicuous consumption of products symbolizing wealth, such as fashionable apparel.

Since trickle-down theory has proven hard to document, over the years a number of alternative conceptualizations have emerged. One of these is Blumer's collective selection theory (Blumer 1969). The theory takes the trickle-down theory as a starting point, but denies that the adoption of fashion appears in response to a need for class differentiation and class emulation, but in response to a wish to be in fashion. Thus, people belonging to other social classes who consciously imitate the elite do so because it is the fashion, and not because of the separate prestige of the elite group (Blumer 1969). Both the trickle-down theory and the collective selection theory fail to adequately consider the influence of the elaborate institutional apparatus surrounding the propagation of fashion in the domain of dress (Davis 1992).

The economist Nystrom (1928) proposed a more comprehensive model of fashion diffusion. According to the model, people of prominence, taste, and affluence are 'fashion conscious', and prefer to differentiate themselves from the rest of the

population. For this reason, each year they look at the style offerings of designers who have a good reputation for style sense, and select the styles that satisfy their individual taste. As other consumers copy these styles, the styles become fashionable, and are offered by the stores selling high-priced merchandise. After a short time, the same styles start being produced with cheaper materials and offered for sale at lower-priced stores. At this point, the original style leaders have already sought new styles to distinguish themselves.

A similar conceptualization has been proposed by King's 'mass market theory' (King 1963). According to the mass market theory, during a fashion season the marketing strategy of the fashion system makes the new styles available to all consumers at the same time, and consumers choose freely from a large variety of new styles rather than follow the choices of the upper class. This theory differs from Nystrom's model in proposing that fashions tend to spread simultaneously within all social classes. The key assumption behind this 'horizontal flow' of fashion is that mass production makes new fashions almost simultaneously available at all price levels, and mass communications rapidly disseminates information and influence on new fashion offerings. The mass market theory is very consistent with the structure of the contemporary fashion market, in which the differences between price ranges is always quality based rather than style based, style differentiation across social classes is essentially non-existent (King and Ring 1980).

The mass market theory highlights the active role of the industry players in initiating or in managing the diffusion of a fashion. The industry players, and in particular the well-publicized high fashion designers in Europe and the U.S., have been ascribed a powerful impact as initiators of fashion trends (Behling and Dickey 1980; Davis 1992). By innovating, the designer introduces a new signaling device and by doing this he destroys the value of the previous design (Pesendorfer 1995). By exhibiting their runway extravaganza, designers sketch out the lines along which the incipient style should direct (Blumer 1969; Hochsvender 1988). In addition, designers convey meaning and symbolic propertied to fashion objects (McCracken 1986). Little empirical documentation has investigated the industry's role in propagating fashion trends, and findings seem to suggest that changing fashion is not exclusively an industry-centered phenomenon, but rather involves an interplay between fashion creators and consumers (Behling and Dickey 1980; Reynolds and Darden 1972).

Research on fashion diffusion has focused in particular on the identification of the characteristics of those consumers who adopt new styles first (King 1964). These consumers, called 'fashion leaders', perform simultaneously a variety of roles that stimulate the fashion adoption and diffusion process. Specifically, they buy a fashion innovation earlier than other consumers, and influence other consumers by providing exposure to the new style (Greenberg, Lumpkin, and Bruner 1982; Polegato and Wall 1980; Schrank and Guilmore 1973). Several studies, mostly correlational in nature,

have identified the characteristics of fashion leaders: they tend to spend more money on apparel and shop more often than other consumers (Goldsmith et al. 1991; Beaudoin, Moore, and Goldsmith 1998); they read more fashion magazines than do non-leaders, and are more interested in fashion trends, new style offerings, and the social environment of fashion (Chowdhary 1989; Goldsmith et al. 1991; Painter and Pinegar 1971; King et al. 1979); they tend to buy more apparel on impulse than other fashion consumers (Horridge and Richards 1984). However, research is virtually silent on the reasons why fashion leaders adopt a new style before other consumers, and on the psychological processes that induce them to adopt the new style before other consumers.

Fashion leaders are innovative consumers, but they do not innovate by themselves, because designers initiate stylistic innovation. Twice a year, fashion designers introduce new styles and present them within their runway shows. During the shows, the new styles are presented in the form of runway showpieces, i.e., renderings of the style that are different from the form in which the style is going to be marketed. Specifically, the style is often presented in a very exaggerated and extravagant form (Davis 1992), and therefore it is misperceived by lay consumers, who see the runway shows as merely an exhibition of designers' creativity lacking any market appeal (Erlichman 2001; Fischer-Mirkin 1995; Spindler 1995). Normally less than one third of what is showcased on the runway is eventually produced and marketed exactly as it is presented in the show, with most of the styles reaching the

stores only in a scaled down version (Lipke 2003; Davis 1992, 131). However, this presentation strategy, involving the use of exaggeration and extravaganza, gives to the new styles the features of a code, i.e., they can be decoded only by the ones who have the appropriate knowledge capital to understand that the show rendering is different from the marketed product (Davis 1992, p.5).

Being more interested in fashion than regular consumers and having higher exposure to fashion activities (Chowdhary 1989; Goldsmith et al. 1991; Painter and Pinegar 1971; King et al. 1979), fashion leaders develop the appropriate knowledge capital needed to decode the style from the runway showpieces and figure out how it will be featured by marketed products. Thus, in order to gather information on the new styles, fashion leaders look at what designers, the innovators, propose for the forthcoming seasons in the runway shows. We argue that they do so, because they are motivated by the goal of maintaining and communicating their identity of leaders both within their group and to the rest of consumers. In general people consume products, especially conspicuous products, in order to communicate their identity to others (Veblen 1912; Douglas and Isherwood 1978; Berger and Heath 2007; Berger and Ward 2010; Belk 1988). By adopting a novel style 'legitimized' by a designer, fashion leaders look for differentiation and distinction, but also for recognizability as an elite group (Bourdieu 1979; Barthes 1967). The adoption of a new style proposed by a designer reflects the desire to own not only something new, but to own the 'right' style in order to signal their status (Han, Nunes, and Drèze 2010; Pesendorfer

1995). While adopting anything novel would be enough for fashion leaders to discriminate themselves from the non-leaders, it would not be enough to be perceived as a fashion leader within its own group, i.e., by other fashion leaders.

When fashion leaders are exposed to the designer showpieces, they are exposed to the new style in its codified form. We argue that their knowledge capital makes them able to decode the showpieces and to assimilate the new style, without being distracted by the way in which the style is presented, because prior knowledge influences the way in which product cues are evaluated (Alba and Hutchinson 1987). Exposure to the designer showpieces favors familiarization with the new style, and let consumers process it in a more fluent way when they are later faced with the decision to purchase a product featuring the same style. Research has demonstrated that stimuli that are processed more fluently are evaluated more favorably because the positive affect elicited by fluency is misattributed to the target stimulus (Winkielman et al. 2003; Schwarz 2004). For this reason a fashion product that features the new style should be evaluated more favorably.

We believe that this improvement in processing fluency has a dual origin. Exposure to an exaggerated form of a target stimulus (i.e., exposure to a runway showpiece featuring a given style) is likely to improve the evaluation of that target (i.e., a fashion product featuring that style) by enhancing its processing fluency and by favoring the misattribution of fluency to affect (Scopelliti, Cillo, and Mazursky 2010). Visual exaggeration emphasizes the distinctive features of the stimulus while

discarding the irrelevant ones, thus making those features easier to access (Reber, Schwarz, and Winkielman 2004). This enhanced accessibility makes the target easier to process when eventually attended (Schwarz and Clore 1983). In addition, exaggeration is a distortion of the target stimulus, thus makes it more likely that the fluency generated is misattributed to evaluations because the experience of fluency is not as expected as it would be if one were exposed to the exact same target stimulus (Hansen and Wanke 2008; Raghubir and Menon 2005). This basic form of processing fluency does not require specific knowledge to be experienced, thus should affect the general population irrespective of whether they are fashion leaders or not. However, scholars have proposed that the subjective experience of processing fluency may involve differences based on people knowledge of the domain under judgment (Reber et al. 2004).

Thus, we argue that people with knowledge capital in the domain of fashion evaluate a target fashion item more favorably after being exposed to a fashion showpiece featuring the same style concept because of an additional form of fluency. Specifically, fashion leaders should also experience a form of fluency related to the subjective experience of recognizing the stylistic link between the designer showpiece and marketed fashion items featuring the same style. The ease experienced when processing the target generates metacognitions (Schwarz 2004) that indicate progress toward successful recognition and interpretation of the stimulus (Carver and Scheier 1990; Vallacher and Nowak 1999; Camacho, Higgins,

and Luger 2003). This type of metacognitive experience triggers affective responses because it provides feedback about the ongoing cognitive operations (Winkielman et al. 2003). We contend that this is specific of people with the appropriate knowledge capital to identify the stylistic link between the designer showpiece and the target fashion item, but not for people who are unaware of this link. For this reason, exposure to a designer showpiece featuring a new style should improve the evaluations of a fashion product featuring that same style more for fashion leaders than for non leaders. A series of three experimental studies using real fashion products as stimuli investigates these predictions.

3.3 Experiment 1

Experiment 1 examines whether fashion leaders, i.e., consumers with the appropriate knowledge capital, evaluate a target fashion item more favorably after being exposed to designer showpieces featuring the same style.

Method

We manipulated exposure to designer showpieces (exposure vs. control) in a between subjects design. One hundred thirty-eight students participated in the experiment. In order to collect a mix of both regular participants and people with the appropriate knowledge capital in the domain of fashion, we recruited both business

majors and fashion majors to participate in the study. While these two groups should be similar on other dimensions, fashion majors have more knowledge and interest toward fashion. Participants in the exposure condition were shown three color pictures of runway showpieces featuring the same style concept. A style concept is defined as the combination of any following elements (Cappetta, Cillo, and Ponti 2006; Davis 1992): cut (e.g., close-fitting, constructed, soft, etc.); color (e.g., muted, bright, etc.); length (especially for skirts and trousers: mini-skirts, knee-length or calf-length skirts, etc.); fabric (e.g., synthetic or natural, processed or unprocessed material, etc.); and pattern (e.g., printed, geometric, flowers, etc.). All stimuli are reported in the Appendix. Participants in the control condition were not exposed to any picture. Afterwards, all participants were administered a short filler questionnaire about fashion. Finally, they were presented with a sellable fashion item featuring the same style concept as the runway showpieces, and were asked to rate it on a series of 7-point scales measuring how much they liked the item, and how likely they would be to wear it (1 = do not like at all, unlikely to wear; 7 = like very much, likely to wear).

Results and Discussion

Measures of attitude toward and likelihood to wear the target fashion item were averaged into an overall evaluative measure (α = .76). A 2 (exposure to exaggerated exemplars: exposure vs. no exposure) x 2 (type of participant: regular

vs. fashion insider) ANOVA conducted on this measure yielded a significant main effect of exposure to runway showpieces ($F(1, 134) = 22.01$, $p < .001$). Participants who had been exposed to the runway showpieces evaluated the target fashion item more favorably ($M_{exposure} = 3.61$) than subjects who directly evaluated the target design ($M_{control} = 2.71$). Also the type of participant had a significant main effect on the dependent variable, ($F(1, 134) = 35.01$, $p < .001$), with fashion insiders evaluating the target fashion item more favorably ($M_{insider} = 3.76$) than regular participants ($M_{regular} = 2.58$). This analysis also yielded a significant exposure x type of participant interaction ($F(1, 134) = 4.23$, $p < .05$). Planned contrasts reveal that both regular participants and fashion insiders evaluated the target fashion item more favorably after being exposed to the fashion showpieces. However, the effect was more pronounced for fashion insiders ($M_{exposure} = 4.59$; $M_{control} = 3.14$; $F(1, 134) = 20.77$, $p < .001$) than for regular participants ($M_{exposure} = 2.88$; $M_{control} = 2.30$; $F(1, 134) = 3.84$, $p = .05$). Means of the dependent variable are plotted in Figure 1.

Figure 1 here

Results of Experiment 1 provide preliminary evidence in support of the idea that exposure to designer showpieces, while generally improving the evaluation of fashion items featuring the same style concept by means of fluency-based reactions driven by the effects of exaggeration, has a stronger effect on people with

knowledge capital in the specific domain. Exposure to designer showpieces generally improved the evaluation of the target fashion item, but the evaluations improved significantly more for fashion insiders than for regular consumers, signaling that familiarity with the domain of fashion boosts the effect of exposure to showpieces. We must acknowledge that Experiment 1 is subject to some limitations. A first limitation lays in the usage of fashion students as a proxy for knowledge capital in the domain of fashion. Being a fashion leader has multiple components, and merely being a fashion student does not encompass all of these components. There are also some limitations with respect to the administration of the stimuli: participants were free to look at the fashion showpieces on a booklet, and we did not control for the exposure time; furthermore, we did not use any device to disguise participants from hypothesis guessing (e.g., filler pictures between the fashion showpieces; administration of pictures in the control condition). We try to address these shortcomings in Experiment 2.

3.4 Experiment 2

Method

The design of Experiment 2 replicates that of Experiment 1, with some variations. In this study, we did not rely on fashion students as a proxy for fashion leadership, but we measured the extent to which participants (N = 110) featured the

characteristics of a fashion leader by using the Fashion Leadership scale developed by Goldsmith, Freiden, and Kilsheimer (1993). The scale consists of six items measuring the different components of the fashion leadership trait (e.g., the ability to recognize fashion trends, the desire to try new fashion trends before others, spending time on fashion-related activities). The scale items are reported in the Appendix. The experiment was entirely computer-administered, and participants in both exposure conditions were exposed to a sequence of pictures. Specifically participants in the exposure to fashion showpiece conditions saw a sequence of five pictures, in which picture number four was the focal showpiece picture, and the remaining four pictures were fillers (generic fashion and beauty images). Participants in the control condition saw the same sequence of pictures, but in place of the fashion showpiece picture they saw an additional generic fashion picture. Each picture appeared on the screen for 5 seconds. This type of manipulation allows to rule out the possibility that in Experiment 1 the mere exposure to a fashion stimulus results in more favorable evaluations of the target fashion item, as well as the possibility that fashion leaders, being more interested in fashion, dedicated more time to attending to the pictures and for this reason evaluated the target fashion item more favorably. After the sequence of pictures participants were administered the Fashion Leadership scale, and evaluated the target fashion item as in Experiment 1.

Results and Discussion

The six items of the Fashion Leadership scale were averaged into a fashion leadership score (α = .87). Similarly, measures of attitude toward and likelihood to wear the target fashion item were averaged into an overall evaluative measure (α = .78). In order to test our prediction that exposure to runway showpieces would improve the evaluations of a target fashion item more for people with the appropriate fashion knowledge capital, we used the procedures outlined by Aiken and West (1991) to test and decompose our predicted interaction using multiple regression. First, participants' fashion leadership scores were mean-centered by subtracting the mean fashion leadership score from all observations. Second, we contrast-coded the exposure to runway showpiece factor and created the interaction term of exposure by (mean-centered) fashion leadership score. Next, we regressed the evaluations of the target fashion item on the type of exposure (fashion showpiece vs. control), mean-centered fashion leadership score, and the interaction between these two variables. The analysis revealed the expected main effect of exposure to fashion showpiece (β = .297, t = 1.91, p = .06) such that participants in the exposure to fashion showpiece condition evaluated the target fashion item more favorably than participants in the control condition (M = 5.82 vs. M = 5.26 respectively). The analysis yielded also a significant effect of fashion leadership (β = .176, t = 2.13, p < .05). More important, these main effects were qualified by a significant interaction of exposure by fashion leadership (β = .175, t = 2.12, p <

.05), which we probed further using a spotlight analysis (Irwin and McClelland 2003). To this end, fashion leadership was plotted at one standard deviation above and below the mean, which enabled us to observe the simple effect of exposure for high versus low fashion leadership participants.

Figure 2 here

As can be seen in figure 2, decomposition of the interaction term at one standard deviation above and below the mean reveals that there was a significant effect of exposure to fashion showpiece for participants high in fashion leadership (β = .612, t = 2.78, p < .01), a marginally significant effect of exposure to fashion showpiece at the mean level of fashion leadership (β = .280, t = 1.81, p = .07), but a non significant effect for participants low in fashion leadership (β = -.051, t = -.23, p > .50). In particular, for high and average levels of fashion leadership, exposure to fashion showpiece (vs. no exposure) induced more favorable evaluations of the target fashion item.

Experiment 2 replicated the results of Experiment 1 by showing that people with knowledge capital in the domain of fashion evaluate a target fashion item more favorably when they are exposed to a fashion showpiece featuring the same style concept. We attribute this effect to a specific facet of processing fluency, related to the subjective experience of recognizing the stylistic link between the designer

showpiece and the sellable fashion item. This type of fluency improves the evaluations of the target fashion item by people with the appropriate knowledge capital to identify the link between the showpiece and the target fashion item, but not for people who are unaware of this link. People low in fashion leadership do not experience this type of positive subjective experience, and therefore their evaluation of the target fashion item is unaffected by the exposure to the fashion showpiece.

We designed Experiment 3 in order to understand whether by means of a training designed to enhance the detection of the stylistic link between the designer showpieces and marketed fashion items, regular participants improve their evaluation of the target fashion item. Training participants to detect the stylistic link between the stimuli should let them experience the extra processing fluency otherwise experienced only by participants who are fashion insiders. If our prediction is correct, we should observe a more favorable evaluation of the target fashion items by participants who receive an ad hoc training on the detection of the stylistic link, but we should not observe any improvement in the evaluations by participants who receive a general training on fashion.

3.5 Experiment 3

Method

Experiment 3 uses a between subjects manipulation of training (ad hoc training

vs. general training). After a training phase, described in detail in the next section, all participants were exposed to the same sequence of pictures, including a fashion showpiece, and then evaluated a target fashion item based on the same style as the showpiece. Participants in this study were 138 students at a large European university. Upon arrival in the lab they were seated in front of a computer screen and randomly assigned to one of the two experimental conditions.

Participants in one condition received an ad hoc training designed to enhance their ability to recognize the link between the fashion showpiece and sellable fashion items featuring the same style (ad hoc training condition). These participants read a text passage and saw five examples of showpiece- target fashion item sets with a clear explanation of their stylistic analogies. Participants in the other condition (general training condition) received a training designed to provide a general background on fashion shows. Subjects in this condition were given general information on when and where fashion shows take place and, and afterwards they saw some pictures taken at runway shows accompanied by a brief descriptive comment on the general theme of each fashion season. The number of pictures shown during the training process was the same for both conditions. After the training, six pictures appeared on the screen for five seconds each: the two fashion showpiece pictures, and four filler pictures. Subsequently, participants were administered the Fashion Leadership scale (Goldsmith, et al. 1993). Afterwards, participants rated the moderate target design on a set of 7-point scales asking how

much they liked the item, and how likely they would be to wear it (1 = do not like at all, unlikely to wear; 7 = like very much, likely to wear).

Results and Discussion

Experiment 3 was conducted in order to assess the effect of a training aimed at improving the detection of the link between fashion showpieces and of sellable fashion items, on the evaluation of a target fashion item. The six items of the Fashion Leadership scale were averaged into a fashion leadership score (α = .92). Similarly, measures of attitude toward and likelihood to wear the target fashion item were averaged into an overall evaluative measure (α = .75). In order to test our prediction that learning how to see the link between the fashion showpiece and the target fashion item would improve the evaluations of a target fashion item for people that do not have this preexistent ability, we used the procedures outlined by Aiken and West (1991) to test and decompose our predicted interaction using multiple regression, as we did in Experiment 2. First, participants' fashion leadership scores were mean-centered by subtracting the mean fashion leadership score from all observations. Second, we contrast-coded the training factor and created the interaction term of training by (mean-centered) fashion leadership score. Next, we regressed the evaluations of the target fashion item on the type of training (ad hoc vs. general), mean-centered fashion leadership score, and the interaction between these two variables.

The analysis revealed a main effect of training (β = .351, t = 2.81, p < .01) such that participants in the ad hoc training condition evaluated the target fashion item more favorably than participants in the general training condition (M = 4.54 vs. M = 3.79 respectively). The analysis yielded also a significant effect of fashion leadership (β = .167, t = 2.06, p < .05). More important, these main effects were qualified by a significant interaction of training by fashion leadership (β = -.170, t = -2.10, p < .05), which we probed further using a spotlight analysis (Irwin and McClelland 2003). To this end, fashion leadership was plotted at one standard deviation above and below the mean, which enabled us to observe the simple effect of training for high versus low fashion leadership participants.

Figure 3 here

As can be seen in Figure 3, decomposition of the interaction term at one standard deviation above and below the mean reveals that there was a significant effect of training for participants low in fashion leadership (β = .618, t = 3.48, p < .001), a less strong but significant effect of exposure to fashion showpiece at the mean level of fashion leadership (β = .354, t = 2.84, p < .01), but a non significant effect for participants high in fashion leadership (β = .091, t = .51, p > .50). In particular, for low and average levels of fashion leadership, ad hoc (vs. general) training induced more favorable evaluations of the target fashion item.

Results of Experiment 3 show that the ability to detect the stylistic link between the designer showpiece and the target fashion item significantly improves the evaluations of the target design. While this effect occurs naturally for fashion leaders, the effect is also observed for participants that do not have a preexistent knowledge capital in the domain of fashion but receive a training designed ad hoc to increase their ability to detect the stylistic link between the stimuli. Interestingly, the evaluations of the target fashion item provided by participants low in fashion leadership that received the ad hoc training reach the evaluations provided by fashion leaders. This result signals that the detection of the stylistic link, and the subjective experience of fluency related to this cognitive process is the source of more favorable evaluations of the target fashion item.

3.6 General Discussion

Fashion theory is virtually unanimous in considering the fashion market as divided into two clearly distinct groups of consumers: the fashion leaders and the fashion followers. Since fashion leaders have a crucial role in initiating the diffusion process of a new style, research has focused on the identification of their distinctive characteristics. The assumption underlying this stream of research was that if marketers were able to identify and reach the fashion leaders, then it would be very

likely that the rest of the market would follow. However, research has not explained why fashion leaders adopt a new style before the rest of the market.

In our framework, fashion leaders are the consumers endowed with the appropriate knowledge capital to decode and understand the new style in the codified form in which designer typically launch new styles. Since new styles have to satisfy a need for differentiation, the new style must not be accessible to anyone. For this reason, designers promote it with extravagant renderings that make it inaccessible to regular consumers. Rather than being distracted by designers' extravaganza, fashion leaders know how to read the style concept behind the showpiece. Therefore, exposure to the showpiece allows them to recognize the new style when they look at marketed products and eventually evaluate them. This process of recognition is metacognitively experienced as positive, and results in more favorable evaluations of fashion items featuring the styles that they have decoded. We isolate this specific recognition process and show its impact on attitude toward and willingness to wear fashion items that feature a style that has been previously exhibited in the form of a designer showpiece.

Our results contribute to several areas of research. Fashion theory converges in considering the new styles initially favored only by fashion leaders. We provide a psychological explanation for the differences the initial evaluation of a style between insiders and regular consumers. In this sense, we contribute to explain how consumers perceive and elaborate new styles, and how preferences for a new style

are formed. Moreover, we look at how owning relevant knowledge capital influences the way in which a style is processed, by favoring the efficient detection of the stylistic link between designers' proposals and fashion products available in the market, as well as favoring the experience of higher levels of processing fluency reflected in more favorable evaluations of the new style.

One might argue that our results have limited relevance because consumer attendance to runway shows, and hence, direct exposure to designer showpieces is very limited. While this may be true in terms of physical attendance, the mass media guarantee that consumers receive massive exposure to the new styles presented on the runway. Within hours, and with the advent of the Internet virtually in real time, designers' creations reach mass audience through television, magazines, and websites, so that even the least fashion conscious consumer is left unexposed (Menkes 2005; Beatty 2002; King 1963). However, as our results show, exposure affects differently consumers who have different knowledge capital in the domain of fashion.

Figures

Figure 1. Mean Evaluations of the Target Fashion Item as a Function of Exposure and Type of Participant (Experiment 1).

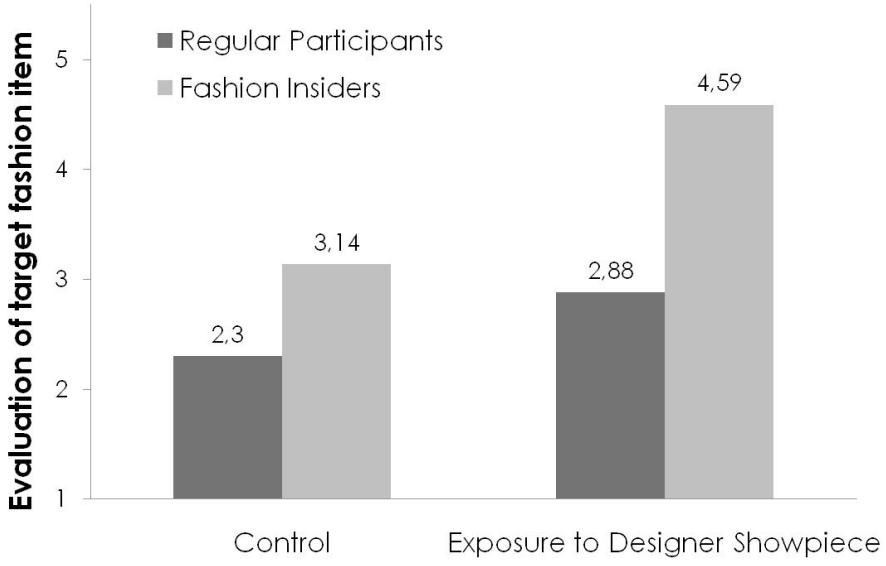


Figure 2. Evaluations of the Target Fashion Item as a Function of Exposure and Type of Participant (Experiment 2).

Figure 3. Evaluations of the Target Fashion Item as a Function of Type of Training and Type of Participant (Experiment 3).

Appendix

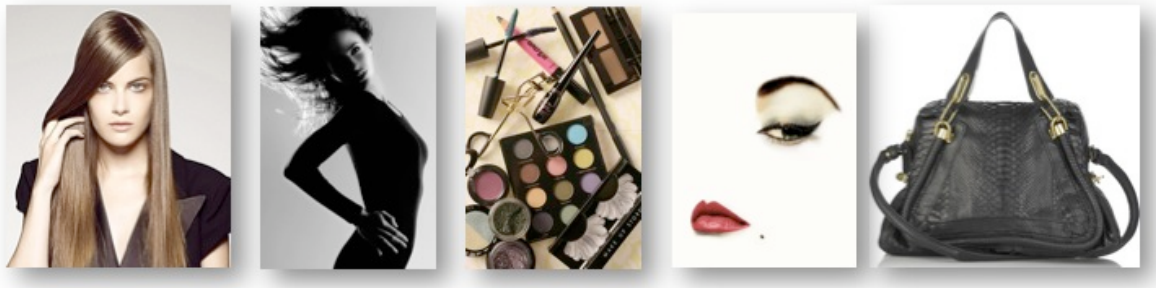
A1. Stimuli Used in the Experiments

Experiment 1. Designer Showpieces

Experiment 1. Target fashion item

Experiment 2**.** Sequence of Pictures for the Exposure to Designer Showpiece Condition

Experiment 2**.** Sequence of Pictures for the Control Condition



Experiment 2**.** Target Fashion Item

A2. Fashion Leadership Scale Items

1. I am aware of fashion trends and want to be one of the first to try them.
2. I am the first to try new fashion; therefore, many people regard me as being a fashion leader.
3. It is important for me to be a fashion leader.
4. I am confident in my ability to recognize fashion trends.
5. Clothes are one of the most important ways I have of expressing my individuality.
6. I don't spend a lot of time on fashion related activities. (R)

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