Delighted By Deviating Design: the Relation Between Construal Level and Surface Mimicry

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Products that incorporate visual features of unrelated objects into their design ("surface mimicry") evoke more abstract processing. People who are placed in an abstract mindset are willing to pay more for products with such atypical (versus typical) design. These effects are the strongest for people who generally appreciate product design.

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EXTENDED ABSTRACT
Previous research demonstrated that people respond more favorably to new product designs that are good representations of their product category (Vergyzer and Hutchinson 1998). However, evaluations of atypical products are not per definition negative, but depend on the degree of incongruity between the product and its associated category (Mandler 1982). In current paper, we advance the idea that consumers’ processing mode or the degree of abstract versus concrete construal may as well affect ensuing product evaluations. Previous research on construal level theory has demonstrated extensively how mentally constructing objects or events at either abstract, higher-level construals or concrete, lower-level construals can affect several consumer behaviors (Dhar and Kim 2007). Yet, how construal level may affect consumers’ attitude towards product designs received little or no research attention. Nevertheless, resolving the incongruity between a product and its general category may be easier when people think more abstractly than concretely.

To answer this question, we focused on products that incorporate visual features of unrelated objects, fauna, or flora into their visual design (Lidwell, Holden, and Butler 2010). This technique called “surface mimicry” transfers some constituting attributes of one category to an unrelated category, and hence introduces some incongruity. To resolve this incongruity, and to appreciate such atypical product designs, people need to recognize that some atypical product attributes refer to another product category. As such, they need to be able to make relevant abstractions to categorize these attributes into a broader, unrelated category. Therefore, we expect that this type of product design will evoke more abstract, higher-level processes.

In Study 1, 99 participants evaluated ten products of everyday use with either a typical design or an atypical design following the principle of surface mimicry. Next, we offered a categorization task adapted from Rosch (1975). This categorization task involves deciding upon the category membership of exemplars that were pretested as good, mediocre, or poor members of their category (9xFurniture, 9xVehicles, and 9xVegetables). Participants indicated how well each exemplar fits within its category (1=“very poor”, 10=“very good”). The results showed a main effect of both type of exemplar (F(1.61,157.77)=2260.50,p<.001) and product design (F(1.98)=20.23,p<.001). More importantly, the interaction between product design and exemplars yielded significant (F(1.61,157.77)=4.82,p=.015). Follow-up analysis demonstrated that evaluating atypical product designs did not alter participants’ classification of good exemplars (Matypical*good=6.83 vs. Mtypical*good=6.76; F(1.98)=2.36,p=.13). However, participants who evaluated atypical designs did find that the mediocre (Matypical*mediocre=6.83 vs. Mtypical*mediocre=6.76; F(1.98)=9.48, p<0.001) and poor exemplars (Matypical*poor=2.76 vs. Mtypical*poor=2.32; F(1, 98)=6.73,p<0.01) were better exemplars than participants who evaluated the typical product designs. This difference in degree of category membership was the largest for the poor exemplars. These results demonstrate that evaluating products with atypical designs compared to typical ones evoked a higher level, abstract form of cognitive processing.

In study 2, we aim to replicate these findings and investigate whether this cognitive process is moderated by the personal tendency to attach great value to the visual aspects of products (CVPA; Bloch et al., 2003). As in the previous study, we presented 78 participants with ten pictures of either typical product designs or atypical ones applying surface mimicry. Next, we administered the BIF-questionnaire (Vallacher and Wegner 1987) that asks how respondents mentally construct 24 different activities: concrete or abstract. Finally, we assessed the CVPA scale. In line with previous results, we found that participants who evaluated the atypical product designs more frequently chose the higher level description of the BIF-items (Mtypical=13.13 vs. Mtypical=12.31; F(1.77)=4.60,p=.035), indicating a more abstract way of processing. In general, a higher score on the CVPA-scale was not related to a preference for the higher or lower level descriptions (F(1.77)=0.01,p=.942). Interestingly, the interaction between the CVPA-scale and type of product design yielded significant (F(1.77)=5.25,p=.025). Johnson-Neyman follow-up analysis of the interaction revealed that participants scoring at least 3.8 (out of 5) on the CVPA-scale construed the activities as more abstract after they evaluated products with atypical designs compared to typical designs. No significant differences arose for people scoring lower than 3.8 on CVPA-scale.

In the final study, we wonder whether people will not only engage in abstract thinking when seeing atypical designs, but will also be more likely to pay a premium price for products with such atypical designs when they are placed in an abstract mindset. Participants were assigned to either an abstract or a concrete mindset condition by answering why versus how they would engage in an activity (Freitas, Gollwitzer, and Trope 2004). Next participants indicated the amount (in EUR) they wanted to pay for five products that either had a typical or atypical design developed by the principle of surface mimicry. In line with our expectations, we found a significant interaction between mindset and product design (F(1.118)=5.72, p=.02). When an abstract mindset is activated, people are willing to pay more for products with an atypical design (M=7.54) compared to a typical design (M=4.72; B=2.83,t(118)=3.63,p<.001). In contrast, when people think more concretely, they want to pay as much for atypical designs (M=5.99) as for typical ones (M=5.82; B=17,t(118)=22, p=.83). Another regression analysis with CVPA as additional variable yielded a significant three-way interaction between mindset, product design, and CVPA (F(1,118)=4.38, p=.04). When people score low on the CVPA scale they do not differentiate between typical and atypical designs irrespective of their mindset (B=39,t(118)=25,p=.80). When people score high on the CVPA scale, however, they would pay significantly more for atypical products when they are thinking more abstract (B=5.00,t(118)=3.25, p=.001).

Taken together, we found that atypical product designs can instigate abstract processing (1), that bringing people in such a higher-level construal results in more favorable evaluations of products with atypical designs (2), and that this is especially true for people who show a higher than average concern for product design. As such, we contribute both to construal level theory and research on product design and prototypicality in particular. Future research could further investigate how marketers can promote atypical products by activating an abstract mindset. For now, we can conclude that abstract minds are delighted by designs that deviate from prototypicality.
REFERENCES


