Design and the Big Five: Linking Product Aesthetics to Product Personality

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While there have been some important advances in understanding how consumers evaluate specific aspects of visual product aesthetics, there is a lack of a systematic understanding of the processes that link product design aesthetics to broader consumer perceptions. In this research, we show that consumers’ assessment of visual product aesthetics are linked to perceptions of product personality. Across several real products, selected for their aesthetics variations, this research conceptually and empirically links perceptions of seven aesthetic dimensions (Simplicity/Complexity, Harmony, Balance, Unity, Dynamics, Timeliness/Fashion, and Novelty) to perceptions of five product personality characteristics (Sincerity, Excitement Competence, Sophistication and Ruggedness).

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EXTENDED ABSTRACT

Design is not just a cultural phenomenon; it is also a key strategic variable that can assist companies in securing or defending a marketplace advantage. Even though practitioners and consumers have embraced design, consumer research seems to lag behind, and design research is rather fragmented (Veryzer 1999, Bloch, Brunel and Arnold 2003). We believe that this is an important area for consumer researchers and that design research can impact theory and practice.

This research concentrates on visual product aesthetics or those characteristics that create a product’s appearance and have the capacity to affect observers and consumers (Lawson 1983). Such characteristics include materials, proportion, color, ornamentation, shape, size and reflectivity. Visual product aesthetics influence consumers’ perceptions in at least three ways. First, product design distinguishes products from competitors and helps gain market recognition (Bloch 1995; Schmitt and Simonson 1997). Second, product aesthetics serve a symbolic role that influences product perception, comprehension, and evaluation (Yalch and Brunel 1996). Finally, product appearance is a central channel through which consumers might form relationships with products (Hollins and Pugh 1990; Lewalski 1988), and as such it has been shown to be a source of product attachment (Govers and Mugge 2004).

In this project, we contend that visual product aesthetics are marketing variables that can be used to create and influence consumers’ perceptions of brand and product personality. We focus our investigation on understanding how visual aesthetic characteristics are linked to product personality perceptions (how the physical product is described in terms of human personality characteristics) (Jordan 1997). It has been shown that consumers’ perceptions of product personality can be influenced by variations in design shapes (Govers, Hekkert and Schoormans 2004) and material choices (Kesteren, Stappers and Kandachar 2005). Further, it has been evidenced that designers seem able to convert abstract personality descriptions into actual designs and that downstream, consumers are able to identify these intended product personalities (Govers, Hekkert and Schoormans 2004). Finally, it was demonstrated that consumers prefer product designs with product personalities congruent with their own (Govers, and Schoormans 2005). Yet, even though these findings provide valuable evidence for the importance of the product personality construct, they do not provide a systematic understanding of the perceptual processes that link product design aesthetics to product personality perceptions.

Based on psychological studies on interpersonal personality judgments, we know that attributions of personality traits based on superficial visual judgments are not only prevalent, they are also efficient. Second, although there might be a “hard-wired” ability to perform these personality judgments, it seems that learning and experience also play a key role. Finally, it has been advanced that these attributions or perceptions are implicit and might happen automatically, without direct awareness of their sources.

Though consumers might not be aware of the implicit processes that they automatically use in making product personality perceptions, they can nonetheless reveal to us what their product personality perceptions are and we can also ask them to explicitly articulate evaluations of the design facets of target products. With these two sets of data, across individuals and products, we uncover the relationships between design facets evaluations and product personality perceptions. Following this research approach can provide insights into the sources and processes behind product personality assessment.

To this end, we conducted a laboratory study designed to test that systematic relationships between visual product aesthetics and product personality could be established. Real products (without identifiable brand names) were used. We selected products in multiple categories (automobiles, telephones, TV sets, and wall-clocks) and with varying design executions. Two hundred fifty one students participated in this study. Each participant was randomly assigned two products (not in the same category) to evaluate. We used Aaker’s (1997) 42-item scale to assess the five dimensions of product personality (sincerity, excitement, competence, sophistication, and ruggedness), and we used Ellis (1993) 43-item scale to measure seven design facets (simplicity, harmony, balance, unity, dynamics, timeliness/fashion, and novelty) Manipulation checks based on an overall product style measure confirmed that the products selected for this study reflected different levels of design.

With respect to evaluations of the individual aesthetic characteristics (facets), the results showed significant differences across and within product categories. We also found significant differences for all five product personality dimensions. Although not unexpected, this is a rather remarkable result as respondents had no other information about the products besides the physical appearance as shown in a black and white picture (no brand or feature information was provided). This seems to confirm that consistent and visually-based assessments are made across individuals.

In the second part of the analysis, we used multiple linear regressions to investigate the relationships between each product personality trait (as dependant measure) and the seven aesthetic facets (used as independent measures in the regression). All five models were significant. This result alone is supporting evidence for our contention that product aesthetic evaluations are linked to product personality perceptions, and that our research approach can uncover underlying perceptual processes that drive perceptions of product personality. Further, it should be noted that for at least three personality traits, the variance in product personality that was explained was rather large (adjusted R^2 for excitement: .811; sophistication: .588; and competence: .385).

In summary, three main sets of findings emerged: 1) there were systematic differences in aesthetic facets and personality evaluations across the eight products, suggesting that consumers are able to produce convergent assessments based solely on the visual information about the products; 2) the regression analyses provided convergent evidence that evaluations of product aesthetic facets are linked to perceptions of product personality, and in some cases it seems that this association is very strong and explain a large portion of the variance, but 3) there is a need to further research the linear combinations of different aesthetic facets in order to uncover their potential interactive effects.

REFERENCES


