



The battle of the sexes: The effects of gender, product category, & design complexity on product purchase intention and likeability

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Background and Purpose. Gender serves as an important basis for market segmentation and is frequently used because market segments are large enough to be profitable and are easily identified (Darley and Smith, 1995). Product aesthetics has been growing in importance for all industries and product categories, as it increases customer satisfaction and loyalty (Schmitt and Simonson, 1997). Perception of elements of aesthetics such as design complexity may be different among men and women as a result of the gender differences in information processing (Meyers-Levy, 1989). These differences may be credited to dissimilarities in schemas (mental organization of information) from which men and women operate. Different social roles in which men and women are engaged (Meyers-Levy and Sternathal, 1991), as well as, differences in early childhood conditioning (e.g. boys are given more utilitarian toys such as trucks, whereas girls receive more hedonic toys such as dolls and tiaras) give rise to gendered schemas.

According to the selectivity model described below, males and females differ in the way in which they process information (Meyers-Levy, 1989). Men are selective processors and use heuristic devices instead of comprehensive processing as a basis for judgment. These devices are determined by the nature of the task and are reliant on cues that are salient and readily available. In contrast, women are comprehensive processors and exhibit greater sensitivity to holistic information when forming judgments. Women use all available cues and attempt to engage in comprehensive itemized analysis. Differences in information processing and self-schemas will result in men and women perceiving design complexity differently in hedonic and utilitarian products. Men may be expected to have more complex schemas for utilitarian products, whereas women's schemas for hedonic products may be more complex. Hence, the purpose of this research is to explore how gender interacts with design complexity of hedonic and utilitarian products to influence consumers' aesthetic preferences.

Hypotheses. H1a: For hedonic products, men will prefer low than high complexity designs; whereas, women will prefer high than low complexity designs. H1b: For hedonic products, men will have higher purchase intent for low than high complexity designs; whereas, women will have higher purchase intent for high than low complexity designs. H2a: For utilitarian products, men will prefer high than low complexity designs; whereas, women will prefer low than high complexity designs. H2b: For utilitarian products, men will have higher purchase intent for high than low complexity designs; whereas, women will have higher purchase intent for low than high complexity designs.

Method. In order to test the hypotheses, 79 undergraduate and graduate students were recruited from classes at a large southern university. The sample included 46 males (58.2%) and 33 females (41.8%). We designed a 2 (product complexity: high, low) x 2 (product category:

utilitarian, hedonic) x 2 (gender: male, female) mixed factorial experiment. Product category was within subjects, and complexity and gender were between subjects. Respondents, who were randomly assigned to high/low complexity conditions, took an online experiment where they evaluated two hedonic (male and female sunglasses) and two utilitarian (can opener) products. These stimuli were evaluated on a 7-point Likert type scale measuring complexity, likeability and purchase intentions.

Results. Independent sample t tests were run to determine if manipulations for complexity were valid. For both utilitarian products, low complexity can openers ($M = 3.88, 4.91$) were rated higher on complexity than the high complexity can openers ($M = 3.22, 4.18$); therefore, the utilitarian product category was removed from the factorial design. As result, H2a and b could not be tested. A repeated measures ANOVA revealed a significant interaction effect for sunglasses (male or female), gender and complexity level for purchase intention [$F_{1, 75} = 20.019, p < .01$] and likeability [$F_{1, 75} = 9.013, p = .004$]. When evaluating women's sunglasses, men preferred low ($M = 4.794$) over high ($M = 4.293$) complexity designs but preferred high ($M = 5.907$) over low ($M = 3.825$) complexity designs when evaluating men's sunglasses. When evaluating women's sunglasses, women preferred high ($M = 5.146$) over low ($M = 4.627$) complexity designs and preferred high ($M = 5.354$) over low ($M = 4.922$) complexity designs when evaluating men's sunglasses. Thus, H1a was partially supported. Similarly, purchase intention was greater for low ($M = 3.794$) versus high ($M = 2.187$) complexity designs when men evaluated female sunglasses and greater for high ($M = 4.373$) versus low ($M = 2.698$) complexity designs when men evaluated male sunglasses. Purchase intention was slightly greater for high ($M = 3.979$) versus low ($M = 3.922$) complexity designs when women evaluated female sunglasses and slightly greater for low ($M = 4.000$) versus high ($M = 3.813$) complexity designs when women evaluated male sunglasses. Hence, H1b was partially supported.

Conclusions. Previous research has found differences in the way in which men and women process information. However no prior research has studied how these differences may lead to variations in the way in which they perceive complexity in product designs. Our findings add to the literature by differentiating complexity preferences in gendered products. These findings demonstrate the importance of complexity in design aesthetics when creating products for both men and women. The findings suggest that design complexity should differ when products are intended to be purchased by members of the opposite sex. These findings have ramifications for product developers when designing products for holidays such as Christmas, Valentine's Day, Father's Day, and Mother's Day.

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