Can Visual Storytelling Transform the Aesthetic Experience? A Case for Novel Designs

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Significance. In the age of visual social media such as Vines, Pinterest and Instagram, visual advertising content has become more important than ever before. People think in images, with the human brain being able to process visuals 60,000 times faster than text (Walter & Gioglio, 2014). Meaningful visual stories linked to a product design can transform consumers’ perceptions and create a ‘conceptual’ understanding for a ‘perceptually’ unfamiliar product. This benefit is critical for novel product designs. Even though consumers desire novelty, many are initially hesitant to purchase innovatively designed products, resulting in new design launch failures. No prior research has examined the how visual storytelling can transform the aesthetic experience related to novel product designs. In response to this gap in knowledge, this study intends to provide a holistic understanding of how visual storytelling (conceptual product cue) can aid in the overall aesthetic experience related to the novelty of product designs (perceptual product cue) (see Figure 1).

Theory and Literature. An aesthetic experience is a process of the interplay between cognition and emotion evoked by the aesthetic processing of a product (Leder et al., 2004). This study utilizes the information processing model of aesthetic appreciation and aesthetic judgments by Leder et al. (2004) that differentiates two aesthetic output variables – aesthetic emotion and aesthetic judgment as independent outcomes of the aesthetic experience. Crilly et al.’s (2004) conceptual framework of consumer response to the visual domain in product design further justifies two distinct cognitive responses to product aesthetics: 1) subjective aesthetic association, which refers to decoding the perceived symbolism and sense in the product’s design, and 2) objective aesthetic impression, which relates to the perceived order, form, and structural composition of the product’s design. Based on our research model, these two distinct cognitive responses together with the two aesthetic output variables are positively affected by the conceptual (presence vs. absence of visual story) and perceptual (moderate vs. high design novelty) product cues (H1-H4 in Figure 1). The model also examines the structural relations between cognitive responses and the aesthetic output variables (H5-H6 in Figure 1).

Method. Hypotheses were tested through a 2 (Visual Story: present/absent) X 2 (Novelty: moderate/high) x 2 (product category: chairs and lamps) X 2 Stimulus number (1 and 2) mixed-factorial experimental design, with design novelty and visual design story as the between-subjects factors, and product category and stimulus number as the within-subjects factors. Based on four pretests, four stimuli (2 chairs and 2 lamps: moderate vs. high novelty) were selected for
the visual design story condition (absent vs. present). The visual story was created based on ‘associations’ that came to people’s mind when looking at the product, such as flower, bird, or diamond. Product and visual design story were presented in form of a color catalog page spread with the product on the left and the visual story on the right page. An Internet experiment was conducted using Qualtrics with a nationwide sample of 397 female consumers (25-37 years). Pre-existing and newly developed scales measuring objective aesthetic impression (DV), subjective aesthetic impression (DV), aesthetic emotions (DV), aesthetic judgment (DV), design novelty (manipulation check), visual communication of symbolic and expressive product associations (manipulation check) appeared after each stimulus.

**Results.** The manipulations of visual design story and design novelty were successful and all scaled measures demonstrated adequate reliability. The hypotheses were tested through repeated measures analysis of covariance with product category and stimulus number as the within-subjects factor, design novelty and visual story as the between-subjects factors, age as the covariate and aesthetic emotions, aesthetic judgment, objective aesthetic impression and subjective aesthetic association as the dependent variables. Results revealed that visual story had significant main effects on: upbeat aesthetic emotion \( F(2/387) = 3.200, p = 0.042 \) (but not on negative emotions \( p>.05 \)), aesthetic judgment \( F(2/387) = 7.150, p = 0.001 \), objective aesthetic impression \( F(2/387) = 4.205, p = 0.016 \), and subjective aesthetic association \( F(2/387) = 10.154, p = 0.000 \); with visual design stories (vs. absent) generating more positive emotions, judgments and objective and subjective cognitive responses. Novelty had significant main effects on negative aesthetic emotions \( F(1/384) = 7.658, p = 0.006 \), but not on positive emotions \( p>.05 \), aesthetic judgment \( F(1/387) = 10.652, p = 0.001 \), objective aesthetic impression \( F(1/387) = 67.108, p = 0.000 \), and subjective aesthetic association \( F(1/387) = 11.523, p = 0.001 \); with moderate novelty (vs. high novelty) products receiving more positive judgment, objective and subjective cognitive responses and less negative emotions. There were no significant interaction effects for story and novelty on the DV’s. Results of the multiple linear regression revealed that both cognitive responses influenced positive aesthetic emotions and judgment \( F(2/394) = 287.650, p = .000, R^2=.594 \); for set 2 of lamps \( F(2/392) = 313.045, p = .000, R^2=.615 \); for set 1 of chairs \( F(2/392) = 309.892, p = .000, R^2=.613 \); and for set 2 of chairs \( F(2/394) = 319.894, p = .000, R^2=.619 \).

**Conclusions.** Findings of this study indicate that conceptual and perceptual product cues are similarly important for shaping consumers’ objective and subjective cognitive responses as well as aesthetic judgments. Most importantly, visual storytelling linked to product design is a critical tool for design communication as it transforms information into product meaning, provides conceptual understanding and has the power to connect with consumers on an emotional level. Thus, visual storytelling mitigates the risk that is present in introducing a novel design since it has the potential to transform the aesthetic experience.