The Product-Agnosia Effect: How Increased Visual Scrutiny Reduces Distinctiveness

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Although lay intuition suggests that increased visual observations helps distinguish products, we find across four experiments that increased visual observations of products can actually decrease their distinctiveness and attractiveness. We argue that this effect (product-agnosia) is driven by a shift in perceptual focus, from increased local- and decreased global- processing.

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EXTENDED ABSTRACT
A picture is said to be worth a thousand words. But does that mean two pictures are worth two thousand words? And what about seven pictures? Situations abound where consumer decisions are based on visual appeal, whether we are looking at cars, shoes, or birthday cakes. When comparing objects visually, our intuition suggests that more visual scrutiny should aid information processing. However, this simple intuition does not consider the possibility that acquiring more visual information may alter the structure and style of visual information processing – with potentially detrimental effects. Thus, looking more can end up yielding less if it changes how we look.

Specifically, increased viewing of choice objects leads to more local-level processing and less global-level processing. Since products are often distinguished through global-level features such as style and brand, increased focus on a product’s local-level features can result in a relative decline in uniqueness and attractiveness. Conceptually, such a shift in perceptual focus is akin to comparing brush strokes in a painting rather than the overall picture, or contrasting individual trees instead of entire forests. Across four studies, we explored how more visual exposures can generate product-agnosia (the loss of ability to distinguish between products) through shifts in perceptual focus.

STUDY 1
To demonstrate the basic effect, participants (n=105) in Study 1 were randomly assigned to one of three conditions to evaluate two pairs of shoes. In the single picture condition, subjects were exposed to one picture of each shoe. In the multiple-repeated picture condition, subjects were exposed to seven of the same picture of each shoe. In the multiple-unique picture condition, subjects were exposed to seven unique pictures of each shoe (see Figure 1). To simulate a real purchasing context, the pictures were obtained from a leading online retailer (zappos.com), which like many other retail websites has the option of viewing more pictures of products from “additional views”.

We found that similarity ratings of the shoes were higher in the multiple-unique picture condition than in the single and multiple-repeated picture conditions (p < .05). There was no significant difference between the single and multiple-repeated picture conditions. In other words, the products became relatively less distinct after multiple visual scrutiny to new visual images.

STUDY 2
Study 2 expanded the findings of Study 1 to another product category (duffel bags) and contained a thought listing task to explore the mechanism driving product-agnosia. Participants (n=102) were randomly assigned to the single-picture or multiple-picture condition using the same experimental paradigm as Study 1. At the end of the survey, participants were also asked to list their thoughts about the products presented. The thoughts were coded for perceptual focus (local vs. global-level) by two independent coders (alpha = .98).

Consistent with Study 1, we found that perceptions of product uniqueness (p < .05) and predicted liking (p < .1) was lower in the multiple picture condition. The thought listing task showed a higher proportion of local-level thoughts (p < .05) in the multiple exposure condition, and no difference in total number of thoughts between the two conditions (p = .39). Thus, in addition to providing a further demonstration of the main effect, Study 2 yielded evidence that increased visual exposure can lead to a shift to more local and less global-level processing.

STUDY 3
In Study 3, we demonstrated the causal link between local and global-level processing and the product-agnosia effect by directly manipulating perceptual scope using a 2 (global, local processing) X 2 (single, multiple visual exposures) ANOVA design. In Part 1, we induced global versus local processing using a procedure similar to Friedman et al (2003). Participants (n = 124) were shown seven maps of different American states sequentially, each on a different page. In the global condition, subjects were asked to look at the overall features of each state map, whereas in the local condition, subjects were asked to focus their attention on a marker that pointed to a city near the center of the map. In Part 2, we used the same single versus multiple exposures experimental paradigm as in Study 1 (as well as the same products and images).

We found significant interactions for perceptions of uniqueness (Figure 2), attention-grabbing, predicted liking, and choice strategy (p’s < .05). Under induced-local processing, increased visual exposures resulted in an analogous pattern of results as Study 1, where the shoes became less distinct, attention-grabbing, and attractive, and participants were less likely to engage in a global-level choice strategy (‘focus on style’). But under induced global processing, we found the opposite trend, and that increased visual exposures resulted in the shoes being rated as more distinct, attention-grabbing, and attractive, and a global-level choice strategy was more prevalent.

STUDY 4
In Study 4 (n = 84), we found an analogous reversal of the product-agnosia effect under different memory conditions. The intuition for such an effect is that when evaluating from memory, we recall gestalt (global) features more than details (local). Under stimulus-evaluations (not memory based), we find that the multiple picture condition induces product-agnosia (less distinctiveness, lower willingness to pay, p’s < .05). However, under recall-evaluation (memory based), we find that the multiple picture condition increases perceived distinctiveness and willingness to pay (Figure 3, Figure 4, p’s < .05).

Overall, the persistence of the effect after inducing local processing but its reversal after inducing global processing provides evidence that the product-agnosia effect is driven by perceptual scope. When one’s perceptual scope is local and focused on narrow details, new information through multiple observations were disadvantageous for ratings of distinctiveness and predicted liking. However, when one takes a metaphorical step back under global processing, increased visual exposures begin to have benefits for a product’s perceived distinctiveness and predicted liking. These effects have numerous implications for marketing strategy, product positioning, and optimal consideration set construction: For example, generic or entry brands may seek to induce product-agnosia to better compete with premium brands, while brands that desire to maintain unique positioning would do best to carefully manage the perceptual scope of their own advertising.