VARIED EFFECTIVENESS OF THE CANCELLATION-AND-FOCUS MODEL IN DIFFERENT PRESENTATION SCENARIOS WITH EVIDENCES FROM GAZE

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Introduction

Existing Cancellation-and-focus (C&F) model summarizes how options with both shared and unique attributes are compared for preference judgments: effects of the shared attributes are cancelled while the unique ones, especially those in a focal option, are being focused. It predicts preference and post-preference evaluation trends for unique-good pair of options (the options share the same bad attributes while having their unique good attributes) and unique-bad pair (the options share the same good attributes while having their unique bad attributes). According to the model, when options are shown sequentially, the second option is more likely to be preferred in the unique-good (UG) pair while the first option is more likely to be preferred in the unique-bad (UB) pair. The UG pair is also more likely to leave better overall impressions than the UB pair.

Based on the C&F model, options provided for comparison could be manipulated purposefully so as to control preference decisions. In real world, series of products offered by a brand or a product line may have some product attributes in common while having their unique attributes. For example, most of the cars by BMW share the same kidney-like grill design but have unique designs for headlights, side mirrors and so forth. It creates situations in which preferences for different product designs could be affected by the evaluation strategies summarized in the C&F model. However, the effectiveness of the C&F model has been only tested when options are described by text attributes alone [1-7]. It is unclear if the model would remain effective when the options are product designs shown as images. If the model remains effective, it could guide the product design so as to control the preference trend and overall impressions.

The study here tests effectiveness of the C&F model in more conditions, regarding product options, which are determined by how the options are represented (by image alone, text alone, or image-with-text) and how the options are provided (sequentially or side by side). Sample stimuli used in the study are provided in Figure 1. The study employs the eye-tracking technology to test the evaluation strategies described in the C&F model. Effects of the evaluation strategies on preference decisions and post-preference evaluations are tested through survey questions [1, 4].

Results validate the model's effectiveness in some situations, and show areas where the model is ineffective or opposed. The eye-tracking technology helps to justify the results and to uncover the model's effectiveness, which was hidden previously [4], in the Text & Side-by-Side condition. The results dispel designers' concern that just the configuration of product features' designs (good vs. bad and shared vs. unique) and the pairing of products could determine the preference. The results

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Figure 1. Sample stimuli used in the study

also raise up the importance of the shared product features. They remind designers to carefully select the feature designs to be shared among products. Otherwise, the overall impressions of the product series will suffer.

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