The Effect of Item Presentation (Pictorial, Verbal, and Combination) on Choice Overload and Tendency to Opt-Out of Choice

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Abstract

Previous studies support the existence of two phenomena: choice overload, where more choices have negative effects for a consumer; and the pictorial superiority effect, where people prefer pictorial stimuli as opposed to written words. Townsend and Kahn (2014) studied these effects by examining different sized choice sets and stimuli types, specifically pictorial (visual) and verbal (word-based). In this study, I extend the work of Townsend and Kahn (2014) by introducing a combination presentation of verbal and visual elements in addition to the pictorial and verbal presentations studied before. This study examines the effect of presentation of options (pictorial, verbal or combination) and choice set size (8 or 27) on choice overload, measured through perceived variety and perceived complexity, and likelihood to opt out of choice. I anticipate to replicate the findings of Townsend and Kahn (2014). I also anticipate that participants will be more likely to opt out of choice for combination presentation of pictorial and word based stimuli when presented with a choice set of 27 options in comparison to 8 options.

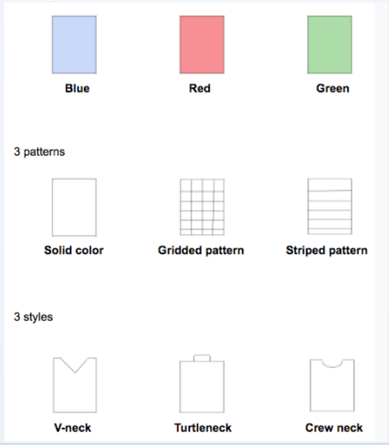
Methodology

Participants

- 309 participants from Amazon Mechanical Turk.
- $1 payment for completing survey
- The sample includes: 198 males, 108 females, 1 individual identifying as non-binary/ third gender, and 2 individuals who prefer not to say. The mean age is 38 years. 77.67% of participants are white and 77.02% of participants are employed full time.

Design

- 2 x 3 between subjects design:
  - 2 sizes of choice set options: 8, 27
  - 3 presentation type: pictorial, verbal, combination
- Participants were told to imagine shopping for sweaters online.
- Participants were then shown an informational graphic to prepare them for the stimuli they would be viewing.



Methodology (continued)

- Participants were randomly assigned to a choice set of sweater stimuli.

(Combination presentation of 8 options)

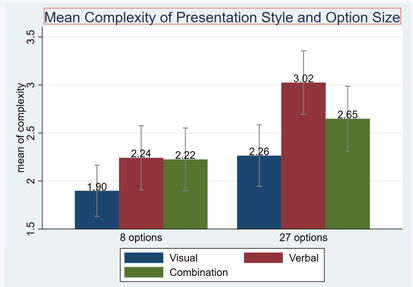
- Participants rated the presented choice set on its variety and complexity using a 5-point scale via the following statements:
  - How much variety do you think there is in this assortment?
  - This assortment of sweaters offers a lot of variety.
  - This assortment of sweaters gives me at least one option I like.
  - This assortment of sweaters is too complex to consider.
  - It is difficult to keep track of all the various options in this sweater assortment.
  - There are too many options in this assortment of sweaters.
- Participants viewed the choice set again and responded to whether they would select “one option, more than one option, or ‘none of the above.’” (Townsend and Kahn 2014, 1007)
- Participants answered a short survey on demographics and online shopping behavior.

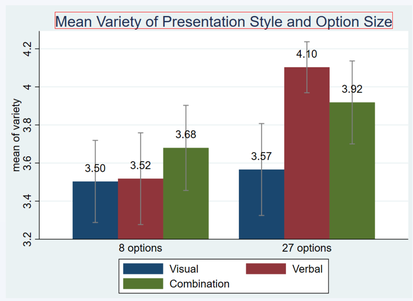
Analysis

- Cronbach's alpha confirmed the internal consistency of the perceived complexity variable (Scale reliability coefficient= 0.91) and the perceived variety variable (Scale reliability coefficient= 0.73).
- Performed Individual t tests for option size and analysis of variance tests for presentation style, both in relationship to complexity and variety.

Results

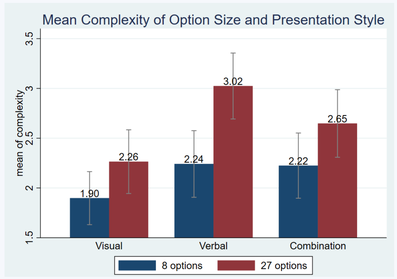
- Perceived complexity differed as a function of option size t(307)= -3.89, *p*= 0.0001, such that 27 options were perceived to have higher complexity (M= 2.65, SE= 0.10) than 8 options (M= 2.12, SE= 0.09).
- Perceived variety differed as a function of option size t(307)= -3.28, *p*= 0.0012, such that 27 options were perceived to have more variety (M= 3.87, SE= 0.06) than 8 options (M= 3.57, SE= 0.07).

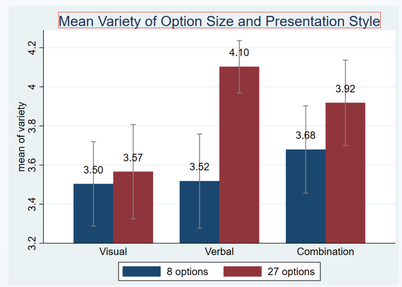




- Perceived complexity differed as a function of presentation style F(309)= 5.93, *p*= 0.003. Post hoc Tukey tests revealed that verbal presentation (M= 2.66, SE= 0.13) had higher complexity ratings than pictorial presentation (M= 2.09, SE= 0.11). No comparisons with combination presentation (M= 2.44, SE= 0.12) were statistically significant at *p*= 0.05. However, there was marginal significance (*p*= 0.093*)* for the comparison between combination presentation and pictorial presentation, where combination presentation (M= 2.44, SE= 0.12) had higher complexity ratings than did pictorial presentation (M= 2.09, SE= 0.11).
- Perceived variety differed as a function of presentation style F(309)= 4.28, *p*= 0.015. Post hoc Tukey tests revealed that verbal presentation (M= 3.83, SE= 0.07) had higher perceived variety than pictorial presentation (M= 3.54, SE= 0.08). Additionally, combination presentation (M= 3.8, SE= 0.08) had higher perceived variety than pictorial presentation. The comparison between combination presentation and verbal presentation was insignificant.

Results (continued)





Conclusions

- Option size matters for both perceived complexity and perceived variety.
  - **Perceived complexity.** More options have higher perceived complexity than fewer options.
  - **Perceived variety**. More options have higher perceived variety than fewer options.
- **Conclusion.** These findings support the concept of choice overload.
- Presentation style matters for both perceived complexity and perceived variety.
  - **Perceived complexity.** Text-based presentation has higher perceived complexity than image-based presentation. At a marginal significance, combination presentation of word-based and image-based stimuli has higher perceived complexity than image-based presentation.
  - **Perceived variety.** Text-based presentation has higher perceived variety than image-based presentation. Combination presentation of word-based and image-based stimuli has higher perceived variety than image-based presentation.
- **Conclusion.** These findings support the pictorial superiority effect. Additionally, the findings illustrate a new derivative of the pictorial superiority effect where image-based stimuli is preferred in comparison to the combination of word-based and image-based stimuli.

References

Townsend, Claudia, and Barbara E. Kahn. "The “visual preference heuristic”: The influence of visual versus verbal depiction on assortment processing, perceived variety, and choice overload." *Journal of Consumer Research* 40, (2014): 993-1015.