Name(s)	Project Number
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Project Title

Shape vs. Color Phase II: Do Similar and Alternating Patterns Take Precedence Over Shape or Color Primary Perception?

Abstract

Objectives/Goals
The objective of this experiment is to determine whether similar or alternating patterns take precedence over the subject's shape or color primary perception. I hypothesized that most subjects would respond based on the sequence patterns, rather than their original primary perception of shape or color.

Methods/Materials
Informed consent was obtained from 100 randomly selected people, 50 men and 50 women, in three locations. A control test was developed where a trick card (a heart playing card with the hearts colored black) was quickly shown to the subject for identification of its suit. Subjects that responded by saying "hearts" noticed the shape of the black heart first while those that said "spades" noticed the color first. After establishing the subject's shape or color primary perception, two more tests were administered: one that contained similar patterns (multiple cards of the same suit in a row) and one that contained alternating patterns (rotating between two suits). The trick card was placed at the end of the pattern sequence. When the subject named the suit of the trick card this time, their response could be compared to their answer in the control test to determine whether patterns overruled their shape or color primary perception.

Results
When comparing the responses from the control test to the pattern tests, it is clear that many subjects followed patterns rather than their shape or color primary perception. For the Similar Trick Card Test, 35% more of the subjects responded "hearts," following the pattern, than in the control test. For the Alternating Trick Card Test, 48% more of the subjects responded "spades," following this pattern, than in the control test. Females were far more affected by the alternating pattern and males were more affected by the similar pattern.

Conclusions/Discussion
My conclusion is that most subjects notice patterns before their shape or color primary perception. The data collected suggests that the designers of advertisements, web pages, and educational tools should utilize patterns effectively to catch the consumer's eye.

Summary Statement

This project tests whether subjects notice patterns before their shape or color primary perception.

Help Received

None