The Effects of Proportion Congruent on the Magnitude of Stroop Interference: Controlling for the Display Frequency Confound

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Proportion Congruency Effect

- The Stroop effect is known to be dependent on the proportion of congruent trials: larger when there are more congruent trials in a block (e.g., Tzelgov, Henik, & Berger, 1992)
- This had been shown to be true for a within block manipulation: words which are mostly congruent (e.g., GREEN and BLUE) show larger Stroop effect than words which are mostly incongruent (e.g., WHITE and YELLOW; Jacoby, Lindsay & Hessels, 2003)
- The true proportion congruency effect was estimated by subtracting neutral trials from the congruency trials
- Note that the proportion congruent (in a Stroop task) cannot be manipulated without changing the frequency of the color/word pairings

Measuring the Effect of Display Frequency

- Neutral trials were used to measure the display frequency effect
- All features had equal marginal frequency
- The true proportion congruency effect was estimated by subtracting neutral trials from the congruency trials

Reference