

Abstract

The present study aimed at investigating the role of color in object representation, by looking at the color naming task on objects and words. The study of Naor-Raz et al. (2003) showed Stroop-like effect in color naming of color-associated objects and an inverted Stroop effect – showing a longer response time in typical condition than in atypical ones in words using color-associated words as stimuli. Such finding suggested the Stroop effect could apply to objects, but not in words only. The more important point was the result of Naor-Raz et al.'s color naming task in word condition (the inverted Stroop effect) contradicting the prediction of traditional Stroop studies. Thus a study investigating the Stroop effect in color-associated object representation was called for. In Experiment 1, words and objects were shown in typical and atypical color, the participants were required to name the color of the objects or words as fast as possible meanwhile accuracy was needed. Though insignificant results were obtained, however, the trend of Stroop influence (typical color condition showed a faster response time than in atypical condition) in both objects and words were showed. In Experiment 2, a further study focusing on word condition was conducted, which using three different conditions- color words, color-associated words and neutral words, again, shown in typical or atypical color. The typical/atypical response time differences were compared across three conditions. A significant main effect of condition and typicality effect was found, moreover, by comparing color-associated words and neutral words, the typical/atypical difference in color-associated words was significantly greater than neutral word condition. Such finding demonstrated a typicality facilitation effect in color-associated condition which consistent with traditional Stroop studies, meanwhile incompatible to Naor-Raz et al.'s study.