THE IMPACT OF SIZE ON THE CORRELATION BETWEEN HOLISTIC PROCESSING AND FACIAL RECOGNITION

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Abstract

Holistic processing has been hypothesized to impact the perception of upright same-race faces to a greater extent in comparison to inverted faces. The composite face effect (CFE) is an experiment that has been used as a measure of holistic processing when examining its correlation to the accuracy of face-identification. While holistic processing has long been assumed to play an integral role in facial identification, study results have widely varied in terms of the degree of correlation demonstrated. Research conducted by Konar, Bennett and Sekuler (2010) found no correlation between facial identification accuracy and holistic processing and established that less than 2.2% of variance found in the identification of faces could be attributed to the CFE. A new hypothesis by Yang et al., (2014) has suggested that the variance amongst results in these experiments is an implication of varying stimuli sizes. They suggest that different forms of processing are used depending on the size of the object, with holistic processing being activated for larger stimuli. The current study examines the impact stimuli size has on the correlation between facial identification accuracy and holistic processing. The experimental design used by Konar et al. (2010) was modified to encompass a larger stimuli size of approximately 9 degrees. 48 participants partook in a CFE task followed by a facial identification task. Analyses have found no correlation between facial identification accuracy and CFE results. Therefore, the experimental results provide no evidence to suggest that size impacts the type of facial processing used in face perception.

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