

Abstract

Face recognition involves holistic processing and featural processing. The present study investigates the relationship between these two processes at early stage of encoding by varying the exposure duration of the second photo in face composite task. One model suggests that the two processes function independently while another model suggests that they converge to form a holistic representation and they are interdependent. Five conditions are given depend on the exposure duration, 30ms, 60ms, 90ms, 120ms and 150ms. A marked decrease in average accuracy for aligned same trials is found in the 30ms condition, which suggests that holistic representation emerge within 30 to 60ms. The results also suggest that the two processes converge to form a holistic representation. A breakdown of this representation disrupts both processes at an early stage. It provides evidence for model that the processes are interdependent, at least at an early stage of encoding. Explanation of the results roots on Farah et al.'s model of dominance of holistic processing in face recognition.