

Abstract

Previous research suggests the N170 component of the event related potential is a marker of configural processing in the pre-categorical analysis of faces. The present study used elicitation of this component by upright and inverted own-race stimuli as a tool to determine whether configural and feature-based processing of faces can be contingent on task. Sixteen participants were recruited for the experiment. There were two tasks, the Friend Detection Task and the Westerner Detection Task. In the Friend Detection Task, participants had to classify unfamiliar Asian faces as non-targets and infrequent friend faces as targets. In the Westerner Detection Task, participants had to classify the unfamiliar Asian faces as non-targets and infrequent Westerner faces as targets. Only responses to non-targets, the Asian faces, were analyzed. Participants classified upright faces faster and more accurately than inverted faces. Compared to upright faces, inverted faces elicited enhanced and delayed N170s. This implies more processing was needed for the detection of facial features in inverted faces. However, Task did not influence the early face analysis processes reflected in the N170.