

Abstract

There has been a debate on whether emotions are universal or culture-specific. Past studies found mixed findings on whether there exist any differences in the process of emotion categorization of different races. The current study aims to investigate such difference and tell if it is due to perceptual or cognitive underlying processes. Chinese participants rapidly categorized images that varied from strong anger, through emotionally intermediate, to strong happiness of either Asian or Black male faces. Our binary choice reaction time data was fitted using the Ratcliff diffusion model. This model provides detailed information of decision processes. Three parameters of the model were used. The boundary distance (a) indicates the amount of evidence needed to make decisions. the evidence accumulation rate (v) indicates how much evidence conveyed by the stimulus and how sensitive the individual is towards a particular stimulus. It is used to refer to perceptual process in the categorization task. The priori bias (β) indicates the starting point of evidence accumulation. It represents the cognitive bias of people. We found no good evidence in the differences in all three parameters. Therefore, we cannot draw conclusion on differences in perceptual or cognitive processes of emotion categorization of different races.