

Exploring the Own-Race Face Encoding Advantage and the Other-Race Face Categorization Bias in Taiwanese Adults: Using a Morphing Face Paradigm

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The own-race recognition advantage and the other-race categorization bias have been robustly demonstrated (Levin, 1996). Using a morphing face paradigm similar to Walker and Tanaka (2003), the present study designed two experiments to test whether the own-race encoding advantage and the other-race classification advantage exist in Taiwanese participants. In Experiment 1: Same/different face discrimination task, we examined the participants' perceptual discriminability for Asian-parent and Caucasian-parent conditions with swathes of morphed images of Caucasian and Asian faces of the same gender. In Experiment 2: Race categorization task, the participants were asked to categorize (Asian or Caucasian) a series of faces that were morphed by different proportions of Asian- and Caucasian-parent faces (in 10% increment or decrement). The results of Experiment 1 showed that participants ($N = 20$) had a higher rejection rate for Asian-parent condition than that of Caucasian-parent condition. Furthermore, fitted with a sigmoidal function, the participants' data exhibited a significantly lower discrimination threshold for the own-race condition (23% for Asian vs. 32% for Caucasian), supporting the own-race encoding/discrimination advantage. The results of Experiment 2 revealed that the response time increased as the morph level moved from the two end points (0%, 100%) to the middle value (50%). Moreover, the 50% morphing face (physically half Asian and half Caucasian) was judged to be more like a "Caucasian" face, indicating the other-race categorization bias. In sum, our results lend support for the relativity hypothesis showing the own-race recognition advantage and the other-race categorization bias in Taiwanese participants.

Keywords: *other-race effect, perceptual encoding, race categorization, face perception, morph face*

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