Title: The Effects of Global and Local Processing on the Own-Race Bias in Face Recognition

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Summary

The own-race bias (ORB) describes the phenomenon of individuals having greater accuracy for their own race, compared to other races. This study aimed to examine the potential that global or local processing could reduce or eliminate the ORB. Global processing involves the orientation to focus on the whole stimuli. This orientation is the default processing style when viewing people of your own race. Local processing involves the orientation to focus on specific details of the stimuli. This orientation is the default processing style when viewing people of a different race from yourself. Within the current study, participants received Navon letters (i.e., the processing task) to prime a global or local processing orientation. Navon letters are large letters composed of smaller letters; for example, an “H” made up of “Fs”. Instructing the participants to report the large letter on subsequent trials primes a global orientation. In contrast, instructing the participants to report the smaller letters primes a local orientation. It was predicted that a primed local orientation would enhance recognition of Black faces in White participants, hence, reducing or eliminating the ORB. Undergraduate students at Brandon University (n=40) were randomly assigned to either a global, local, or control condition. Participants were also given a memory test that contained White and Black faces, to examine the effects of global and local processing on face recognition. Participants’ were first presented a set of 18 faces to study. Next, the global and local conditions were presented the Navon letter task to prime their processing orientation. The control conditions were not administered the Navon letters. Instead they were instructed to perform a filler task (i.e., a ball toss task). At the testing stage, the participants were

presented the 18 faces again with another set of 18 faces to test recognition accuracy. Participants had to indicate if they had seen the presented face at study (i.e., an “old” face), or if they had not seen the face before (i.e., a “new” face). The results indicated global and local processing had no effect on recognition. Under d’ prime (i.e., recognition accuracy), the main effect of race, processing task, and interaction of race by processing task was not significant. More participants are needed to achieve a significant ORB, and to test the effects of a primed global and local processing orientation on recognition accuracy of own-race and other-race faces.