

82:449 Honours Thesis Summary

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This study observed the effects of processing style and race cues in the recognition of in-group and out-group faces in photographs. According to research on the 'own race bias', photographs of once seen in-group members are better recognized than photographs of once seen out-group members. This could be due to the use of processing style - mental strategies used to encode, store and later recall information. Further research has shown that the recognition of in-group faces may be dependent on a global processing style (seeing a face as a whole) while out-group face recognition may be dependent on a local processing style (seeing a face as individual features).

To demonstrate the influence of processing style on facial memory, participants were asked to complete memory recognition tasks that used photographs of faces of in-group (same-race) and out-group (different-race) members. For this study, faces of European or African descent were used and tasks were completed on a laptop computer. Participants were volunteers of European or African descent from Introduction to Psychology courses at Brandon University and their participation was rewarded with a bonus 1% on their final grade in their course.

Participants in the experimental groups completed Navon-letter tasks to manipulate their processing styles to a local or global processing style and participants in the control groups completed a ball task instead of the Navon-letter task. Participants were asked to learn sets of faces, half of which were in-group members and half out-group members, for a recall task where twice as many photographs (half in-group, half-out-group) were used. In the recall task, the faces

from the learning task ('old' faces) and faces that had never been seen before ('new' faces) were presented and for each face participants were asked to indicate whether it was 'old' or 'new'. Participant recognition accuracy was measured using the criterion d' , a score created from subtracting the number of incorrect responses (indicating an 'old' face as 'new') from the number of correct responses (indicating an 'old' face as 'old').

The present study investigated if global and local processing styles improved or inhibited facial recognition accuracy as well as when in the experimental procedure participants should be introduced to the local or global processing task. Some participants were introduced to the Navon-letter task prior to facial encoding (*before* condition) whereas other participants were introduced after encoding but before recognition (*after* condition). Data was analyzed using a mixed factorial analysis of variance (ANOVA) to address main effects and interactions of task order (before vs after), processing style (local vs global) and group membership (in-group vs out-group) on measures of recognition accuracy. Two separate mixed factorial ANOVAs were used to analyze the recognition accuracy (d') of the *before* and *after* conditions to their respective control groups. Results show that processing style may not be sufficient in mediating the own race bias, but the placement of the processing style in experimental procedures did show significant effects.