



Recollection and familiarity in recognizing faces from own and other ethnic groups

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"It is well known that, other things being equal, individuals of a given race are distinguishable from each other in proportion to our familiarity, to our contact with the race as a whole. Thus to the uninitiated American, all Asiatics look alike, while to the Asiatic all White men look alike"

Feingold (1914, p. 50)

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The Other-Ethnicity Effect (OEE)

- Increased accuracy for recognising own-ethnicity faces than for recognising other-ethnicity faces
- Higher FA rates, lower hit rates. "Mirror effect".
- Contact, prejudice/stereotyping, in-group/out-group model

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The Other-Ethnicity Effect (OEE)

Replicated with several different ethnic groups

BUT most research conducted in USA or Europe

A few studies in Africa (Chiroro & Valentine, 1995; Chiroro et al., 2008; Wright et al., 2001, 2003)

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Dual-process theory and the OEE

Impairment in recollection when recognizing other-ethnicity faces? (Meissner, Brigham, & Butz, 2005)

Implications for eyewitness memory

Source monitoring

Mugshot exposure, bystander misidentification

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Study aims

1. To examine the OEE in samples of participants outside of Europe or North America
2. To investigate Remembering and Knowing in own- and other-ethnicity identifications
3. To test participants' memory for context for correctly recognized own- and other-ethnicity faces.

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Procedure



Encoding: White and Black faces each shown on one of four different backgrounds

Testing: Faces shown on a blank screen. Participants answer three questions.

1. Old/new judgment
2. Remember/Know/Guess judgment
3. Context judgment

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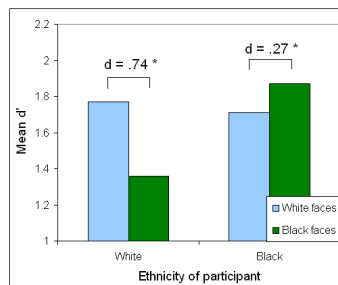
Participants and Design

- **Participants:** 41 White and 44 Black participants from the University of Cape Town
- **Stimuli:** 80 White faces, 80 Black faces. 2 poses. Counterbalanced.
- **Design:** 2 (ethnicity of participant) x 2 (ethnicity of face) x 4 (context)

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Face recognition

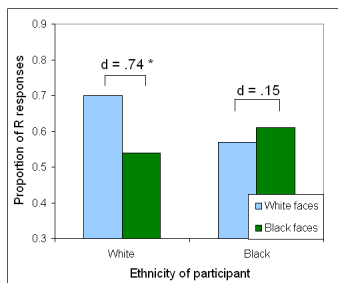
Figure 1. Mean d' for White and Black faces and participants



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Remember responses

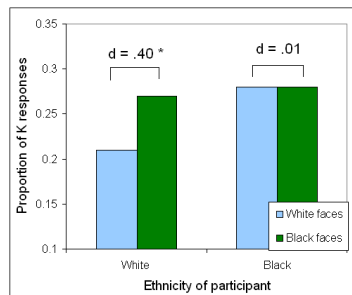
Figure 2. Proportion of Remember (R) responses on hit trials



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Know responses

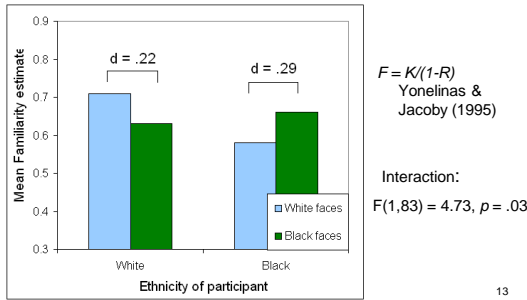
Figure 3. Proportion of Know (K) responses on hit trials



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Independence R-K procedure

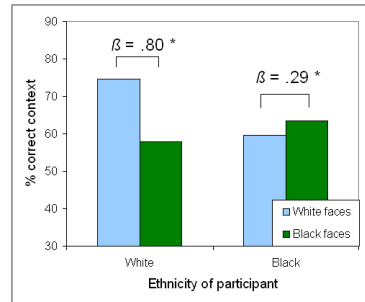
Figure 4. Mean *F* estimates from IRK procedure



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Context accuracy

Figure 5. Context accuracy for White and Black faces and Ps



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Summary of results

- Both groups of participants showed a significant OEE for face recognition – although asymmetric
- Participants are less likely to Remember other-ethnicity faces than own-ethnicity faces
- Context memory is also impaired for other-ethnicity faces

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Recollection and theories of the OEE

In-group/out-group model: Out-group faces encoded less elaborately? Fewer cues for recollection?

Face space model: Dense clustering makes retrieval of specific information more difficult?

Processing demands: Processing other-ethnicity faces requires more effort. Less resources available for encoding peripheral detail

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Future directions

- Using eyewitness paradigms
- Mugshot exposure, lineup construction, bystander misidentification
- Questions: Can recollection for other-ethnicity faces be improved? Can anything be done at the identification stage to increase recollection?

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