

The Effect of Race and Behavior on Facial Recognition

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Introduction

Background

- Manipulating scenario details to be negative can skew memory for details of that scenario (Pizarro et al., 2006).
- An actor in a story perceived to cause harm has more blame attributed to them (Ames & Fiske, 2013).
- Story actors committing an immoral act were remembered as having more untrustworthy facial characteristics, such as a larger nose and lower eyebrows (Baker et al., 2013).
- Events stereotypically portraying a race in a criminal way may alter memories for details of that story, including the race of the actor in the story (Hurwitz & Peffley, 1997).

Research Questions

- Do story scenarios and stereotypical racial contexts affect:
 - memory for the race of the story actor?
 - memory for story details?
- Do the amount of news sources read mediate the effect of scenario and context on memory?

Hypothesis

- Stereotypically racial contexts in a criminal scenario will cause skin pigmentation of the story actor to be misremembered as more congruent with the stereotyped race.

Independent Variables

- Story scenario (altruistic, criminal, neutral)
- Racial context (black, white)

Dependent Variables

- Memory for skin pigmentation
- Memory for story details

Acknowledgements

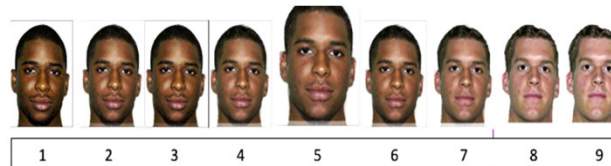
We thank Professor Coane for providing the news and media questionnaire, and Colby students for participating in the survey. Attendance at this conference was supported by the Colby College Student Projects Fund.

Method

Participants: 97 Colby College students aged 18-22 (56 females).

Materials:

Facial Morphs: The face morph was created using Abrasoft's Fantamorph software with faces from Goff et al., (2008). Still images were taken at 9 equally spaced points through the video to test for memory of skin pigmentation.



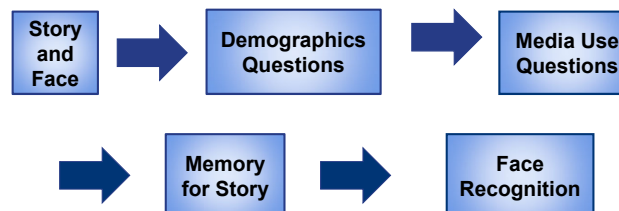
Example Vignettes: Vignettes were modelled after Pizarro et al.'s (2006) study on moral blame. Researchers adjusted the vignettes to create 6 separate conditions:

| | | Scenario | | |
|---------|------------------|-------------------------------------|--------------------------------------|--|
| | | Altruistic | Neutral | Criminal |
| Context | Black Stereotype | Tyler helps gang violence victim | Tyler witnesses gang violence. | Tyler harms someone in a gang altercation. |
| | White Stereotype | Tyler embezzles to help a hospital. | Tyler witnesses his boss embezzling. | Tyler embezzles for personal gain. |

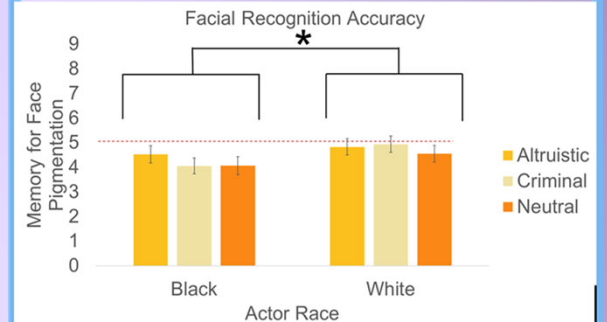
News and Media Questionnaire- Included Social media and news sources format and frequency of usage.

Memory Questions- Contextual information from the scenario. Correct remembrance of vignette details=1, incorrect=2, score out of 2.

Procedure:



Face Recognition



There is a significant main effect of actor race on Facial recognition. $F(1, 91) = 3.99, p = .049, \text{partial } \eta^2 = .04$



There is a significant main effect of actor race on memory for story details. $F(1, 91) = 10.97, p = .001, \text{partial } \eta^2 = .12$

Discussion

- In the criminal scenario, Tyler was remembered as being more pigmented in the gang violence condition and less pigmented in the embezzlement condition.
 - Extends research done by Baker et. al (2013)
- Participants remembered story details better in black contexts than white contexts
- The number of news sources read did not mediate the effect of scenario and context on memory
- No evidence of a difference in facial memory between scenarios
 - Inconsistent with research done by Pizarro et al. (2006)