The Effects of Own-Race Bias on Memory and Perception

Yuhan Dong
Larry Kwon
George Lin
Katarina Madiraca
Ahmed Meleis
Elizabeth Ortiz
Daphne Oz
Nilay Patel
Anam Qureshi
Patrick Rastelli
Dipal Shah

Dr. Patrick Dolan
Jennifer Sissman
Memory and the Justice System

- Our justice system relies heavily on eyewitness accounts

- 77,000 people become criminal defendants after being identified from a lineup
Fallacies in Eyewitness Identification

• Difficult to commit a clear image of the perpetrator to memory under stressful conditions

• Eyewitness confidence is a poor gauge of accuracy

• Eyewitnesses are almost as likely to be wrong as they are to be correct when identifying a suspect
Own-Race Bias (ORB)/Cross-Race Identification Bias

- Own-Race Bias (ORB)
- More accurate in recalling faces of one’s own race than of other races
Methods

Subjects:
• 61 GS Students
• 8 counselors
• 34 Males
• 35 Females
• Racial Composition:
  – 52% Caucasian
  – 25% Asian
  – 19% South Asian
  – 4% Other

Materials:
• Consent Forms
• 2 videos
  – Asian
  – Caucasian
• Questionnaires
• 2 lineups
• Demographics Forms
Video

• Staged crime shown
  – Committed by Asian or Caucasian
  – Purse stolen from 1 of 3 people on bench
  – Brief frontal view of perpetrator
• Filmed in Madison in Center Square
• 1 Minute Length
Video (cont’d)

- Change Blindness
  - To test subject’s attentiveness
  - Change between cuts
    - Articles of clothing, sunglasses, shoes, purses, and people
- 3 camera angles
- Improvised, casual conversation
Questionnaire

• Minor details
  – Perceived Changes
    • Test to see subject’s attentiveness
  – Distraction from the real purpose of study
• Race of perpetrator
• Description and/or sketch of the perpetrator
• Questionnaire served to:
  – Pass time between witnessing crime and identifying perpetrator
  – Gather information
Lineup

- Uniform quality and white background
- One lineup for each video
- Mug shots shown of perpetrator and three other suspects of same race (filler)
- Confidence rated from 1 to 5
Demographics Form

• Race of subjects

• Racial composition of school
  – Environmental effect on racial identification

• Races of friends
  – Interaction with people of the same or different race
Results

- 69 total subjects
  - 42 watched the Asian video
  - 27 watched the Caucasian video

Racial Breakdown of Subjects
Attentiveness of Subjects

Percentage of Subjects

Element of Movie

- # of Boys/Girls
- Bag Item
- Cell Phone
- Police Car
- Topic of Conv.

Comparison between Asian and Caucasian subjects.
What’s “His” Race?

• 26% incorrectly identified the race of the perpetrators

• 16% were not sure
Perpetrator Recollection

• Provided sketch and description
  – Clothing and color
  – Hair
  – Height
  – Build

• 2 subjects claimed culprit to be classmate:
  – Larry/Yuhan
  – Lee-Shing
Lineup Identification

• For all subjects & all videos, 62% correctly identified the perpetrator from the lineup

• For the Asian video, 67% correctly identified the perpetrator

• For the Caucasian video, 56% correctly identified the perpetrator
Were You Confident?

Confidence of Subjects in Choosing Perpetrator

Confidence (1-5)

Correct
Incorrect

Asian Video
Caucasian Video
What About Own-Race Bias?

• Own-Race Bias – individuals are best at identifying people of their own race

• For our experiment, subjects should be better at identifying a perpetrator of their own race
Was There Own-Race Bias?

Percentage of Subjects that Identified Perpetrator Correctly

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Asian Video</th>
<th>Caucasian Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Own-Race Bias

<table>
<thead>
<tr>
<th></th>
<th>Caucasian Video</th>
<th>Asian Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian Subjects</td>
<td>62%</td>
<td>74%</td>
</tr>
<tr>
<td>Asian Subjects</td>
<td>71%</td>
<td>50%</td>
</tr>
</tbody>
</table>
Does Environment Influence?

- One way the environment could have influenced our findings is if our subjects happened to primarily associate with members of the other race.

- However, the demographics collected suggested that this is not the case.

- Regardless of their race, subjects tended to have friends and/or schools that were primarily Caucasian.
Change Detection

• Minor Changes
  – Addition/Removal of Sunglasses
  – Purse Placement
  – Shoe Swap
  – Water Bottle swap
• Non-existent changes claimed
Own-Race Bias in Change Detection

• A significant change was in the Asian video
  – Larry turned into Yuhan

• Actor swap – 72% of subjects noticed
  – 90% of Asian subjects
  – 61% of Caucasian subjects
Potential Flaws and Improvements

• Quantity Irregularity
  – Proportion of subjects watching the Asian video and the Caucasian video was disparate

• Subjects were not entirely representative of the human population

• Video quality was not ideal

• Hairstyle of Asian perpetrator
THE END
Thank you Dr. Miyamoto, Dr. Quinn, and Dr. Surace.

five criminals. one line up. no coincidence.

The Usual Suspects