

## The Super Bowl Sampler and the Other-Race Effect<sup>1</sup>

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Our capability to distinguish among faces is superior when the race of the stimulus face matches our own. However, the more a person is exposed to a racial group the better they will be able to distinguish among faces of that group. Television has the potential to provide a wide exposure to all racial groups equally. To the extent that television represents races unequally, it seems reasonable that the other race effect might be affected. The present study analyzed commercials presented during the Super Bowl to determine the relative representation of race and gender. In addition, college students were asked to generate as many names of famous people (differing in gender and race) as possible within two minutes for each race-gender combination. The results of these analyses were compared.

### Introduction

The capability to distinguish and remember a face tends to be superior when the subject is shown a face of the same race as the subjects'. This phenomenon is called the other-race effect or the own-race bias (Lindsey, Jack, & Christian, 1991). This effect tends to vary with the type of interaction the subject has with the person of the other race. Someone may remember a person from another race more readily if that person is someone of power, authority, or fame rather than someone just walking by them on the street (Sporer, 2001a). Previous research has also shown that White subjects tend to show higher levels of the other-race effect than of African Americans (Meissner & Brigham, 2001).

Meissner and Brigham (2001) explored the own-race bias and found that some studies have a mirror effect pattern. The mirror effect pattern means that own-race faces have a higher percentage of positive identifications and a lower percentage of false identifications. The mirror race effect pattern then becomes important in the aspect of discrimination. Meissner and Brigham (2001) discussed the case known as the Quincy Five in which five black men were identified in a robbery and murder. There was no forensic evidence to link the men. Even so, the men were all convicted because they were identified by five white eye witnesses. The five black men were wrongfully identified but an unidentified time later the police

caught the three black men who truly committed the crimes. In this case, one woman who testified against the men believed she was able to identify one of the men because of his eyes and hands. In the end, when the prosecutor asked her if she believed that all black people look the same, she agreed. This shows how discrimination plays a major role in the own-race bias and more importantly in eyewitness testimony. When discussing the own-race bias one common justification is that people who have racial prejudices tend to be less motivated to make a distinction with other-race subjects (Meissner & Brigham, 2001).

The other-race effect becomes an important aspect in suspect identification and eye witness testimony. The other-race effect becomes a problem when a subject is trying to identify a suspect from a different race (Lindsey, Jack, & Christian, 1991). There have been multiple incidences of eye witness testimony which have sent defendants to prison for crimes they did not commit (Sporer, 2001b). Many of these prisoners were later exonerated due to the use of forensic DNA, which was introduced in the late 1990s (Meissner & Brigham, 2001). Further research is needed so more accurate facial recognition and memorization of other race faces can be achieved.

Eyewitness testimony is largely based on individual facial features (MacLin & Malpass, 2001). The subject selects certain facial features

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and then comes up with an overall composite face or suspect. Research has shown that these faces poorly identify the target face (MacLin & Malpass, 2001). In a recent study of the other-race effect, Michel, Rossion, Han, Chung, and Caldara (2006) tested both Caucasian and Asian individuals. The other-race effect, defined by the researchers, was defined in terms of having difficulty in recognizing individual faces outside one's own race. Both the Caucasians and Asians were tested to see how faces were processed. In the study, researchers used a composite face stimulus and split the faces into upper and lower regions. They aligned and misaligned the faces and made the individuals identify each face and race. The results of the study showed that the same race faces were processed better as a whole. Identifying a face or race most often can be based on visual experiences. It is believed that the more a person is exposed to his or her own race or another race the better they will be able to identify them (Michel, et al., 2006).

The U.S. Justice System has started to improve eyewitness identifications through the use of scientific experiments (Sporer, 2001b). In order to improve accuracy, the U.S. Court of Appeals for the District of Columbia stated that jurors must take into consideration situational details of the testimony (Meissner & Brigham, 2001). Jurors were instructed to consider the length of time that had passed between the crime and the next time the witness had seen the defendant. Jurors were also instructed to evaluate whether the witness had adequate opportunity to identify the suspect and to take into consideration the level of certainty the eyewitness had of their identification (Meissner & Brigham). Another step in the right direction was made when the New Jersey Supreme Court made it so the defendant is permitted to ask for the jury to receive information about the other-race effect. The jury was able to find out that the other-race effect had, in past cases, led to misidentifications of suspects (Meissner & Brigham).

Many eyewitness identifications are other-race identifications, so the judicial system is having difficulty convicting criminals based on facial recognition (MacLin & Malpass, 2001). MacLin and Malpass (2001) examined racial markers that can cause a face to be recognized and remembered or not. Racial markers are features of individuals

within certain racial groups that mark group membership to that specific race. If a subject encounters a distinctive face, the brain becomes activated. If a person encounters a classic face, the brain is activated in a heavily populated area which makes it difficult to determine the difference in the faces among all the faces activated. MacLin and Malpass discussed how eyewitness identification used to be enough to convict and apprehend criminals. However, because of today's studies on the other-race effect and racial bias it is difficult to convict based only on eyewitness identification. Many people identify people of other races by their features that act as a racial marker. This can cause faces to be remembered differently. For example, most Asians are categorized as having slanted eyes and black hair whereas African Americans can be categorized by a dominant nose and mouth. This concept supports the thought that people of a different race tend to look similar to one another and many people believe this to be true in their day-to-day life.

The present study was designed to test the other-race effect among college students and compare the effects to media portrayals of race. The hypothesis was that there exists a relationship between the amount of certain racial groups shown daily through the media and the capability of remembering those individuals of different races. To further extend this study, the idea of gender was brought in by comparing the result of both women and that of men completing the study and the subject that was recalled. Men were asked to identify ten white men and ten white women. The same occurred for African American participants. In order to examine the sex difference, along with that of racial groups, the commercials during the Super Bowl were analyzed to see the proportions of each gender and race portrayed in each commercial.

The primary prediction was that each race will be best at identifying faces within their own race based on Meissner and Brigham's (2001) study. However, another prediction, due to the media, was that white individuals overall are remembered and identified more readily due to the largely disproportionate number of whites represented in the media (as evidenced through the Super Bowl results).

**Method**

**Participants**

There were 30 white undergraduates involved in this study. Of the 30 participants, 18 were female and 12 were male. The population chosen was traditionally aged college students from Robert Morris University located in Moon Township, Pennsylvania. Some of the students earned extra credit from the professor of the class in which the study was conducted. The students were enrolled in undergraduate general psychology classes during the spring semester of 2008.

**Design**

The present study used a 2 x 2 within subjects factorial design. The independent variables were Race-to-Recall (Caucasian, African American) and Gender-of-Target (male, female). The dependent variable was the number of representatives each participant was able to list per condition.

**Materials**

Each participant was given four tasks in one of sixteen random orders. One task was to generate a list of names of as many famous White Males as possible within 30 seconds. Another task was to generate a list of names of as many famous White Females as possible within 30 seconds. The remaining tasks required participants to generate a list of names of as many famous African American Males as possible within 30 seconds and finally, to list as many famous African American Females as possible within 30 seconds.

**Procedure**

After signing the consent forms, participants completed the surveys together in their General Psychology classes. The experimenter explained that each task was limited to 30 seconds and that their task was described at the top of each page of their packets. The order the students received each of the 4 lists was varied randomly for each participant. Once all surveys were completed, the participants were thanked and the details of the study were discussed so that any remaining questions could be answered.

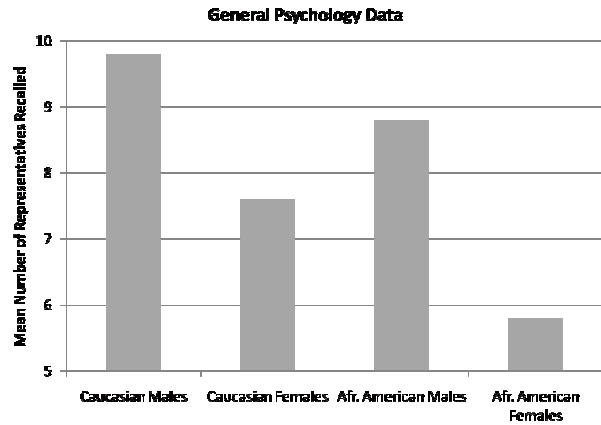
**Results**

A 2 (race) x 2 (gender) within subjects analysis of variance (ANOVA) was performed on the mean number of names generated by participants for each condition.

The main effect of Race was significant,  $F(1, 29) = 8.6, p < .01$ , in which more names were averaged for Caucasians ( $m = 8.7$ ) than African Americans ( $m = 7.3$ ).

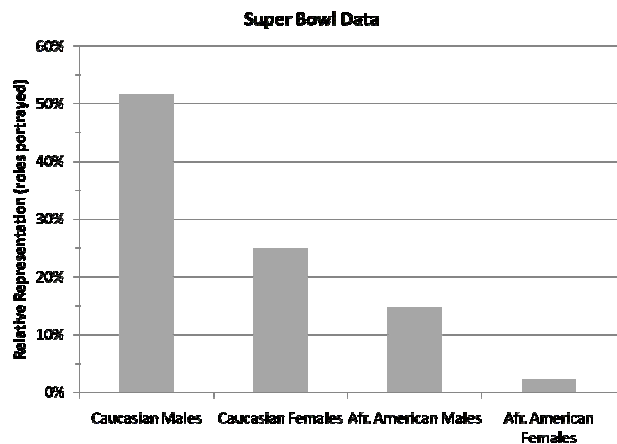
The main effect of Gender was significant,  $F(1, 29) = 37.8, p < .01$ , in which more names were averaged for Males ( $m = 9.3$ ) than for Females ( $m = 6.7$ ). The interaction was not significant ( $p > .40$ ). The means for each condition are depicted in Figure 1.

**Figure 1:** Mean number of names generated for all conditions.



The overall pattern of results was visually compared to the Super Bowl data (see Figure 2).

**Figure 2:** Representation of race and gender in all commercials presented during Super Bowl 2008.



### Conclusions

Clearly, there are many similarities between what is shown in the media and what a subject can recall. However, there is one major difference.

When looking at the percentage of African American Males shown during the Super Bowl, that percentage is much lower compared to the number of famous African American Males recalled by the participants.

This shows a clear discrimination towards African American Males in the media.

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