Racial Effects in Sentencing: The Influence of Facial Features and Skin Tone

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ABSTRACT

The effects of physiognomy and skin tone on perceived likelihood of guilt and length of sentencing were examined in the current study. One hundred-forty undergraduates from the University of WI–La Crosse participated in this 2x2 factorial design. Unexpectedly, photographs with European skin tone were sentenced to more years and were perceived to be more guilty than their African American counterparts. There was no effect of physiognomy on perceived likelihood of guilt or on sentencing.

INTRODUCTION

The states of Illinois, Wisconsin, and Minnesota are the top three states with the most racial disparities. In these states, African American men are imprisoned on drug charges at 27-57 times the rate of white men. Nationwide, there are 13 African Americans per one white for drug offenses, even though the rate of drug use for the two races is similar (Talvi, 2002). It is obvious there is bias in the guilt and sentencing between African-Americans and whites, however, what is it that causes this bias?

It is evident the recognition of race is a factor and this idea has been studied as the "other-race" effect. This effect refers to the finding that recognition memory tends to be better for faces of participants' own race than for faces of other races (Lindsay, Jack & Christian, 1991, p. 587). For example, Caucasians are able to recognize other Caucasian faces more accurately than faces of another race. These findings have been repeatedly supported in laboratory settings (Alley & Schultheis, 2001, Goldstein & Chance, 1980, Ng & Lindsay, 1994, Levin, 2000, Teitelbaum & Geiselman, 1997).

The cause of the other-race effect remains unknown. Numerous theories have been explored but no conclusive results have been found. Four theories have received the most attention: the contact hypothesis, prejudice, in-group/out-group theory, and physiognomy. The contact hypothesis states that the more often one engages with a people of a particular ethnicity, the more they are likely to be able to recognize members of that ethnic group (Sporer, 2001a). Sporer (2001) has found support for the contact hypothesis, however, Ng & Lindsay (1994) have found no evidence that the increase in exposure to a racial group improves recognition of unfamiliar members. Therefore, more research in the area is needed.

A second theory proposes that prejudice has also been a factor in the other-race effect. Whereas those who are highly prejudiced are more likely to categorize faces by race, the results reveal that prejudice does not affect the ability to recognize faces (Ferguson, Rhodes, & Lee, 2001). Thirdly, the in-group/out-group theory suggests that faces are categorized by processing (Sporer, 2001b). In-groups are considered members of one's own ethnicity, while out-groups consist of people in other ethnic groups than one's own. Out-group members are scrutinized less carefully and are analyzed less thoroughly, or along the wrong dimensions. In other words, members of out-groups are distinguished first by what makes them different from the in-group, whether it be skin tone or facial dimensions, and does not allow them to be explored completely. Classifying a person as an out-group member leads to an increased use of out-group labels and schemata and combined with the processing mentioned, leads to the other-race effect. This suggests that the process of categorizing leads to misidentification more so than does prejudice. Therefore the bias would be expected in all ethnic groups.

Finally, Sporer (2001b) views the other-race effect as due to the influencing factor of physiognomic characteristics. Physiognomy refers to facial features and expression. For example, nose and eye shape, and cheek bone structure. Similarly, Wells (2001) holds the view that "race is one of many possible dimensions along which there are patterns of physiognomic variation between groups" (p.4). Consequently, these theories hold that facial features may play a larger role than the skin tone in the other-race effect.

The studies of these theories have revealed inconclusive results. There is no single explanation for the other-race effect. More research must be done to advance this field. In particular, the physiognomy aspect of the other-race effect has been understudied. Further research on the physiognomy angle of the other-race effect may result in more conclusive data. If it is determined that more attention is paid to features of the face rather than the skin color, it could help explain the other-race effect.

The few studies that have examined physiognomy effects have challenged the psychological assumption of less accurate recognition due to the larger perceived homogeneity of out-groups. For example, Goldstein and Chance (1976) investigated whether participants would make more errors and respond with longer reaction times when asked to judge whether a pair of photographs are of the same or different persons (Caucasian or Asian pairs). They found nearly identical reaction times, as well as errors, for both groups of faces with white participants. Sporer (2001b) believes this study to be one that directly supports the theory that members of an out-group "all look alike." This study suggests that the facial features of the Asian race do not have greater variance between them than those of the Caucasian race. For example, the difference in the average distances between the eyes of Asians is not different from the average distances of Caucasians. Variance does not appear to be the cause of the other-race effect, however, the features themselves may be to blame.

Physiognomic features may also be related to biases in perceived likelihood of guilt and/or on biasing in sentencing in criminal cases. Across many conditions it has been shown that defendants from minority groups generally receive longer sentences and are perceived to be guiltier than Caucasian defendants (e.g., DeSantis & Kayson, 1997; Gordon, 1990). Minority defendants are also sentenced to longer terms before they are allowed to be eligible for parole (Gordon, 1990). Many of the minorities convicted and sentenced may have been wrongfully accused because of factors such as inaccurate eyewitness identification (Lindsay & Wells, 1980s) and a belief that minorities are likely to be guilty (Bridges, 1998; DeSantis & Kayson, 1997). Skin tone has generally been thought to be the reason for the biases. The current study, however, will focus on the physiognomy of the defendant as an influence on guilt and sentencing.

We hypothesize that for European Americans considering the guilt of a perpetrator, faces with African American physiognomic features will be perceived as guiltier than those with European American features. Similarly, faces with African American physiognomic features will receive harsher sentences than those faces with European American features. If we are able to support our hypotheses, our results would back up the claim that it is the differences in physiognomic facial features between races that influence difficulty in recognition, not the skin tone of the face.

METHOD

Participants

The participants were 140 European-American college undergraduate students enrolled in General Psychology at the University of Wisconsin – La Crosse, a Midwestern public college. Each student will receive extra credit toward his or her course grade for participation. The participants' ages will range from about 18 to 22 years old.

Materials

A computer photo program was used to create the faces in which skin tone physiognomy were manipulated. The original photos consisted of one African American man and one European man, similar in amount of hair, shape of face, and facial hair, as well as general facial expression. Two of the faces created were dark skinned, one with classic European features, (i.e. narrow nose, relatively thin lips) and one with classic African features (i.e. broad nose, full lips). The remaining two were light skinned, one with European features and one with African features.

Procedure

Participants were randomly assigned into four groups. The participants were met in a classroom with the experimenters where they first received a brief description of what would be involved in the experiment. Informed consent was then obtained from the participants. Each group received the same written scenario but only one of the four target faces. The scenario consisted of a male suspect being arrested for burglary. He matched the description provided by a witness, was found in the area of the burglary, and had no alibi for the time of the crime. One group received the scenario with the darker skinned face and African features; another group received the scenario with a darker skinned face and European features. Similarly, the other two groups received the scenario, and one group had a lighter skinned face and African features, and the other had lighter skinned and European features. The participants read through the scenario and were asked to answer a series of questions about the degree of guilt on a ten point

Likert Scale (ten being guilty) and the length of sentence recommended. Once the participants viewed the face, read the scenario, and completed the questionnaire, the papers were collected and the participants were debriefed.

Dissemination and Data Analysis

This study is a 2 X 2 factorial design. There are two independent variables with two levels each, physiognomy (African American features or European features), and skin tone (dark or light). The dependent variable is a continuous level variable that measured the participant's perception of guilt and length of sentencing recommended for the suspect. SPSS was used for statistical analysis and ANOVA (analysis of variance) was used to allow us to explore the independent effects of each independent variable and view any relationships that occurred.

RESULTS

Separate 2x2 ANOVAS were used to examine the effects of physiognomy and skin tone on perceived likelihood of guilt and years sentenced, respectively. We hypothesized that for European-Americans judging the degree of perceived guilt and length of sentencing of a perpetrator, those faces with African American physiognomy and African American skin tone will be judged more likely to be guilty and will receive longer sentences. In the analysis with guilt as the dependent variable, a main effect for race $F(1, 140=5.97, p=.016)$ was found. There was no significant main effect of physiognomy and no physiognomy by race interaction. Mean likelihood of guilt by physiognomy and skin tone can be seen in Table 1. The main effect of race indicates that those with European skin tone were perceived as more likely to be guilty than those with African American skin tone, opposite of the stated hypothesis.

Table 1. Likelihood of Guilt

	European Skin Tone	African Skin Tone	Total
European Physiognomy	M= 6.16	M= 5.35	M=5.72
	SD= 1.42	SD= 1.99	
African Physiognomy	M= 5.86	M= 5.19	M= 5.52
	SD= 1.68	SD= 1.94	
Total	M= 6.00	M= 5.27	

In the analysis with length of sentencing of the perpetrator as the dependent variable, a main effect for race $F(1, 140=4.35, p=.039)$ was found. Again, there was no main effect of physiognomy and no physiognomy by race interaction. Similar to the degree of guilt of the perpetrator, the length of sentence was longest for the faces with European skin tone. Mean years sentenced by physiognomy and skin tone can be seen in Table 2.

Table 2. Length of Sentencing in years

	European Skin Tone	African Skin Tone	Total
European Physiognomy	M= 3.44	M= 3.07	M=3.23
	SD= 3.20	SD= 2.39	
African Physiognomy	M= 4.15	M= 2.53	M= 3.34
	SD=3.51	SD= 1.99	
Total	M= 3.82	M= 2.80	

When examining the relationship between likelihood of guilt and years sentenced, with an alpha level of .05, there was not a significant correlation ($p = .10$). This reveals the response to the items of degree of guilt and years sentenced were independent of each other.

Finally, we examined a relationship between likelihood of guilt and years sentenced for the four cells. This revealed a significant positive correlation for the degree of guilt and years sentenced for the face with African skin tone and African physiognomy, as well as African skin tone and European physiognomy ($r = .41$ and $.31$, respectively, both p's $=.05$) indicating that the more guilty the perpetrator was perceived as, the more years he was sentenced.

DISCUSSION

Many different theories have been explored as to what causes those of a particular race to be able to identify those of the same race more accurately than those of different race. The main purpose of this research was to determine the role of physiognomy in the other-race effect. Based on the other-race effect and that African Americans generally receive longer prison sentences and are found more guilty than European Americans, we hypothesized that faces with African American physiognomic features would be perceived as more guilty and would be sentenced longer than those with European American features (e.g., DeSantis & Kayson, 1997, Gordon, 1990) . The results showed that contrary to our hypothesis, physiognomy did not play a role in determining the degree of guilt or length of sentencing of the perpetrator. There are a number of possible explanations for the discrepancy between our hypothesis and the results. These results have led us to explore the idea of whether physiognomy plays a role in observed and reported biases. Previous research has left it unclear whether biases are strictly related to skin color, or whether facial features plays a role. This study reveals that race appeared to be the only factor in determining the guilt and length of sentencing of the perpetrator as well as bias.

The first probable reason for the outcome is the participants' overcompensation for racial biases. Racial biases are prominent in today's American culture and these biases are given constant attention in the media, schools, and businesses. Because of this, participants were conscious of their own racial biases and attempted not to fall into these assumptions. There is a belief that minorities are likely to be guilty and participants may have been aware of this belief. To compensate for this racial prejudice, the faces with European skin tone were perceived to be guiltier and received longer sentences than those with African American skin tone, unexpectedly (Bridges, 1998, DeSantis & Kayson, 1997). Skin tone, as has been reported, does lead to bias, but in this study it is the European American skin tone that is biases against. While minorities are currently found guilty more often and are sentenced longer in reality, this trend is notable in that the reverse may occur. The overcompensation for racial biases may become apparent in courtrooms but also in our society, and we should be aware of the reasons behind these compensations.

Another explanation for the results is that the face with the European American skin tone and European physiognomy inherently looked more like a criminal than all other target faces. It is possible that particular features of the face, when paired with European physiognomy result in a more threatening demeanor. This phenomenon may cause controversy in a criminal line-up situation. Certain facial features that are perceived as hostile may interfere with a witness' ability to correctly identify the perpetrator.

A possible limitation to this study is that it was conducted with only African American and European American skin tone and physiognomy, and therefore is only generalizable to these two populations. It is probable that physiognomy plays a role in different races. Future studies should examine a broader range of races, including European, African, and Asian skin tone and physiognomy. The role of physiognomy may be more prominent in a more versatile study. It is also possible that the photos used did not accurately depict the true physiognomy of the races. Access to more precise instruments might have improved the clarity of the faces and resulted in different perceptions of the African and European physiognomy.

In conclusion, while physiognomy did not play a significant role in determining the degree of guilt and length of sentencing of a perpetrator, future research is needed to continue advancement in the causes of the other-race effect and the impact of physiognomy. The various explanations discussed for the outcome of this experiment need to be further explored. Their importance in explaining observed and reported racial biases, as well as their influence on the other race effect is notable.

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