



**MONTCLAIR STATE**  
UNIVERSITY

Montclair State University  
**Montclair State University Digital  
Commons**

---

Theses, Dissertations and Culminating Projects

---

5-2021

## Does Racial Bias in Size Perception Extend to Women?

Eliana Legelen  
*Montclair State University*

Follow this and additional works at: <https://digitalcommons.montclair.edu/etd>



Part of the [Psychology Commons](#)

---

### Recommended Citation

Legelen, Eliana, "Does Racial Bias in Size Perception Extend to Women?" (2021). *Theses, Dissertations and Culminating Projects*. 741.

<https://digitalcommons.montclair.edu/etd/741>

This Thesis is brought to you for free and open access by Montclair State University Digital Commons. It has been accepted for inclusion in Theses, Dissertations and Culminating Projects by an authorized administrator of Montclair State University Digital Commons. For more information, please contact [digitalcommons@montclair.edu](mailto:digitalcommons@montclair.edu).

### Abstract

Race and gender biases are embedded in society in various forms, and decades of research in social psychology have examined these biases. As demonstrated in previous psychological research, Black people, compared with White people, are subject to automatic negative stereotypes and prejudice (Devine, 1989). Much research has investigated the effect that racial biases have on the lives of individuals. Although prior research on racial bias has often focused on bias across gender lines, there is also a prominent strain of research that argues that intergroup bias is gendered. For example, the outgroup male target hypothesis (Navarrete et al., 2010) predicts that men will be targeted more than women in conflictual intergroup situations, largely because men tend to be more physically aggressive and dominant. This idea is particularly relevant for research that investigates racial bias in perceptions of threat, conflict, and criminality (e.g., Correll et al., 2002, Wilson et al., 2017). However, to focus solely on men in such work would be overly narrow. The present work extends one such line of research to include female targets in a more systematic fashion than has previously been done. Specifically, it will investigate the extent to which racial bias in perceptions of physical size extends to women. The present study's findings yielded mixed results regarding whether race-based size biases are extended to women in similar ways that they are for men. However, the results indicated interactions between target race, participant gender and participant race that should be considered and investigated in further research.

*Keywords:* person perception, stereotypes, biases, race, gender, size, threat, height

MONTCLAIR STATE UNIVERSITY

Does Racial Bias in Size Perception Extend to Women?

By

Eliana Legelen

A Master's Thesis Submitted to the Faculty of

Montclair State University

In Partial Fulfillment of the Requirements

For the Degree of

Master of Arts

May 2021

College of Humanities and Social Sciences

Thesis Committee:

Department of Psychology



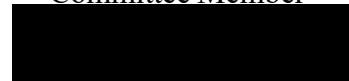
Dr. John Paul Wilson

Thesis Sponsor



Dr. Michael Bixter

Committee Member



Dr. Laura Lakusta

Committee Member

DOES RACIAL BIAS IN SIZE PERCEPTION EXTEND TO WOMEN?

A THESIS

Submitted in partial fulfillment of the requirements

For the degree of Master of Arts

by

Eliana Legelen

Montclair State University

Montclair, NJ

2021

## Table of Contents

Does Racial Bias in Size Perception Extend to Women? .....	5
Method .....	11
Participants .....	11
Materials and Procedures .....	11
Results .....	12
Discussion .....	15
References .....	20
Figures .....	22

### Does Racial Bias in Size Perception Extend to Women?

The social world is complex, and social perceivers constantly need to make sense of others and their many attributes. Unfortunately, this sense-making process is subject to a host of biases. For example, what we think of as objective judgments of others are actually formed through the lens of group-based stereotypes (e.g., Sagar & Schofield, 1980) and facial resemblance to traits (Oosterhof & Todorov, 2008). One such bias among North Americans that is particularly harmful is a strong linkage between race and threat. A body of work has shown that non-Black perceivers mentally associate African Americans with crime (Correll et al., 2002) and threat (Cottrell & Neuberg, 2005), to the extent that merely seeing the face of an African American can perceptually tune perceivers to threat-based objects (Eberhardt et al., 2004). These perceptions can be particularly dangerous for African Americans, who are disproportionately likely to be the victims of police homicide and other forms of excessive force (Miller & Vittrup, 2020).

One particular type of bias that may have implications for policing and other threat-relevant decisions is the tendency to overestimate the size of Black men. In some recent work, Holbrook et al. (2016) studied the racial stereotypes that are prevalent. Within three studies, they used these stereotypes to examine the representation of threat and how threat is related to physical size among races. Holbrook et al. (2016) hypothesized that individuals who belonged to groups who were stereotyped as being threateningly violent would be seen as more physically formidable, and this physical formidability would contribute to perceptions of physical aggression. Their results demonstrated that Black men are envisioned to be physically larger and higher in aggression than White men (Holbrook et al., 2016). In fact, just learning that a person had a stereotypically Black name led participants to render increased estimates of physical formidability, which mediated perceptions of Black men being prone to higher levels of physical

aggression. This study provided support for the hypothesis that race-based threat perceptions may be partially due to stereotypes about physical size and formidability.

Whereas some work showed that people *envision* or *conceptualize* hypothetical Black men to be larger than White men, subsequent work tested the idea that people may even *see* or *judge* Black men to be larger than White men upon sight. This work went beyond looking at how people imagine others to how people actually see others. In one set of studies, Wilson et al. (2017) collected a set of Black and White male stimulus faces, along with information about their true height and weight. This approach allowed the researchers to test for a *bias* and not just a *difference* in perception. That is, a race difference in perceptions would show that participants over-perceived the size of Black men relative to White men. Confirming their hypotheses, they found that perceivers judged Black men to be taller, heavier, more muscular, and stronger than White men who were actually the same size. These size perceptions fed into judgments of harm capability and the extent to which police would be justified in using force against those targets. Namely, the “size bias” observed in the initial studies mediated racial differences in judgments of force justification in later studies – Black men were judged to be larger than White men and were thus judged to be more deserving of force in an encounter with police. Similar effects were found among targets whose upper body strength was known and controlled for.

Racial bias in size stereotypes and perceptions may play a role in interpersonal perceptions beyond the use of force and violence. Take for example racial profiling in policies such as “stop and frisk.” Some research has been conducted to address questions regarding the stop, question and frisk practices that police use and whether police officers are engaging in racial profiling while doing so. Morrow et al. (2017) investigated the events that occur after a stop-and-frisk, specifically the use of force that police officers use. They wanted to determine

whether or not there is racial profiling and if this influences the amount of force used in these situations. This study collected data from the New York Police Department's (NYPD) 2012 stop, frisk and question database ( $N=519,948$ ) and the U.S. Census Bureau. The NYPD database has specific data regarding the stop-and-frisk, such as the individual's race, outcome of the stop and whether force was used. The results showed that although use of force was an infrequent event in NYPD stops, and weapon use was rare, Black and Hispanic individuals were more likely to experience use of force than White individuals (Morrow et al., 2017). Morrow et al. (2017) also found that minority groups, such as Black and Hispanic, were more likely to get stopped by police officers. This study demonstrated that racial profiling and racial biases occur all throughout society, even within individuals who are meant to protect and serve their citizens.

Recent work found that size perceptions may be implicated in these stop-and-frisk scenarios. Hester and Gray (2018) investigated the stereotypes made against Black men in their interactions with police officers. In three studies, they aimed to demonstrate how size, and specifically height, is detrimental for Black men in encounters with police officers. Hester and Gray (2018) hypothesized that taller Black men are more likely to be seen as more threatening than shorter Black men, as well as more threatening than *both* taller and shorter White men. Their overall results supported their hypothesis, as the effect of height on perceptions of threat and the likelihood of actual stop-and-frisk stops was more extreme for Black men than it was for White men. In other words, height makes a person be perceived as more of a threat, and this effect is disproportionately greater for Black men (Hester & Gray, 2018).

Racial profiling and biases are not limited to stop-and-frisk interactions with police officers. They are also present in the circumstances of protests and activism. Davenport et al. (2011) investigated the different behaviors that police officers present at protests. They examined



over 15,000 protests that occurred in the United States between 1960 and 1990. Their findings showed that African American protests were more likely than White protests events to draw police presence. Not only that but police officers were also more likely to take action at a protest populated by African Americans (Davenport et al., 2011). The presence of police as well as the actions taken by them can suggest that there are racial biases present, as they occur more frequently at an African American protest than at a White protest event.

Policing work also includes public health-relevant actions. This is another factor within the police and law enforcement in which racial biases can be seen. Dunbar and Jones (2021) investigated how race plays a role in public health policing, specifically during the COVID-19 pandemic. Due to the pandemic, many states have placed social distancing guidelines along with other protocols. Dunbar and Jones (2021) looked at the social construction of race and how race may influence the outcomes when an individual does not follow COVID-19 guidelines. Their findings showed that Black people may be at a greater risk for police intervention when not abiding by public health guidelines. The greater need for police intervention can be based on the anti-Black stereotypes about criminality (Dunbar & Jones, 2021).

Importantly, most existing research on size bias has focused on men. There is reason, however, to believe that women are likely subject to these biases as well. Despite some work suggesting that some of the most extreme prejudice and stereotypes aimed at Black Americans are specific to young Black men (Cottrell & Neuberg, 2005; Navarrete et al., 2010), much other work shows that Black women are disadvantaged by harmful stereotypes as well. For example, people often stereotype Black women as confrontational and aggressive (Smith-Evans et al., 2014), and Black girls are seen as more adultlike than White girls (Epstein et al., 2012). In their report, Smith-Evans et al. (2014) examined the barriers that young Black girls face. Their goal

was to assess these barriers and determine how they impact their education as well as their economic status. After analyzing existing data, their findings showed that Black girls graduate high school at far lower rates than White girls and boys, and thus, this results in severe economic consequences for Black women (Smith-Evans et al., 2014). Epstein et al. (2012) also examined data in attempt to illustrate that Black women are perceived to be at a disadvantage in society, compared to White women. Epstein et al. (2012) wanted to determine whether adults assigned Black girls qualities that made them appear more like adults, and less innocent, than their White peers. To do so, they adapted a scale that was developed by Goff and colleagues; they adjusted the scale to assess childhood innocence. They recruited adults to complete a questionnaire, and participants were asked their beliefs about children's development in the 21<sup>st</sup> century. The results showed that across all age ranges, participants viewed Black girls collectively as more adult than White girls (Epstein et al., 2012).

Additionally, as mentioned earlier, racial profiling is seen within policing, specifically in stop, question and frisk encounters. Past research has demonstrated that minority groups are more likely to get stopped by police officers and are more likely to have use of force used than White individuals. Racial profiling with the police is not only limited to men. Women of minority groups have also been targets of racial biases, which may dictate their encounters with police officers. McMahon and Kahn (2018) examined the components of threat and racial biases in situations where police officers are meant to protect citizens. Specifically, within two studies, they looked at the relationship that protective paternalism has with both racial bias and threat. Protective paternalism refers to the belief that men should protect and care for women (McMahon & Kahn, 2018). The results showed that paternalism is stronger for Whites than for racial minorities. Also, for White men in particular, news of crime and danger increases their

racial biases (McMahon & Kahn, 2018). These racial biases may cause White men to not protect and care for Black women when they are in a dangerous or harmful situation. Their study demonstrated that police officers engage in racial profiling, as this bias influences their protective behaviors.

Follow-up work confirmed these findings and began to investigate perceptions of female targets as well, but without a systematic look at size perceptions (Johnson & Wilson, 2019). Within two studies, Johnson and Wilson (2019) examined whether race-based threat perceptions occur similarly for male and female targets. Using images of Black, White and Asian young men and women, they found that Black men and women were judged to be more threatening and stronger than White and Asian targets, controlling for actual physical strength. However, this research did not include objective measurements of the height or weight of targets, and as such, the authors were not able to systematically investigate whether size judgments, like strength judgments, were subject to racial bias.

It is important to test whether the “size bias” observed in previous research extends to women, and it is perhaps equally important to test whether that size bias results in elevated threat perceptions. It was hypothesized that participants viewing a set of Black and White female targets of the same aggregate height would judge Black targets to be taller and more threatening than White targets. Further, threat perceptions were predicted to be positively correlated with size perceptions, such that participants who show more “height bias” will tend to show more “threat bias.” This work can serve as an important advance in research on social perception and contribute to our understanding of the sources of harmful disparate treatment suffered by Black women in American society. It will also inform future work that will more directly assess the link between harmful perceptions and harmful behaviors, such as the actual decision to use force.

## Method

### Participants

The pre-registered planned sample size was 120 non-Black participants. Participants were oversampled to account for anticipated exclusions due to race. A total of 142 participants completed the study, and the final sample was 124 after Black participants were excluded. Of these, 78 were from the Sona participant pool at Montclair State University and 46 were from MTurk. These additional MTurk participants were recruited to facilitate completion of data collection before the end of the semester. A noticeable difference between participants were that participants recruited by MTurk were much older. Montclair State University students' ages ranged from 18 to mid 20s, whereas the Mturk participants' ages ranged from mid 20s to 71 years old. 72 participants were female, 51 were male, and 1 did not report gender. 72 participants were non-Hispanic White, and the remaining 52 were from a diverse array of ethnic groups, none large enough for meaningful subgroup analyses. The mean age was 27.2 ( $SD = 12.06$ ).

### Materials and Procedures

The stimuli used for this study were gathered from websites for women's college basketball rosters from across the United States. This method of stimulus collection was employed because it was important to gather information about the actual height of targets, and athletic rosters typically feature such information. Facial images of 139 Black and White athletes were downloaded in the stimulus collection phase, and the height and race of each target were recorded. Since the race of each target was not provided on the athletic rosters, I judged the targets myself by their appearances. The original stimulus set was then reduced to 100 (50 White and 50 Black), and care was taken to ensure that Black targets ( $M = 70.40$ ,  $SD = 2.86$ ) were no taller than White targets ( $M = 70.46$ ,  $SD = 2.93$ ),  $t(98) = .10$ ,  $p = .92$ , in the final target sample. It

was important to ensure that participants were unaware that the targets were basketball players, as this may have distorted their height judgments. Thus, they were not informed that the faces shown were athletes. Each image was cropped using Microsoft Paint, and each was cropped with a rectangle that closely frames only the face. All images were resized to 200 pixels wide (see Figure 1 for examples).

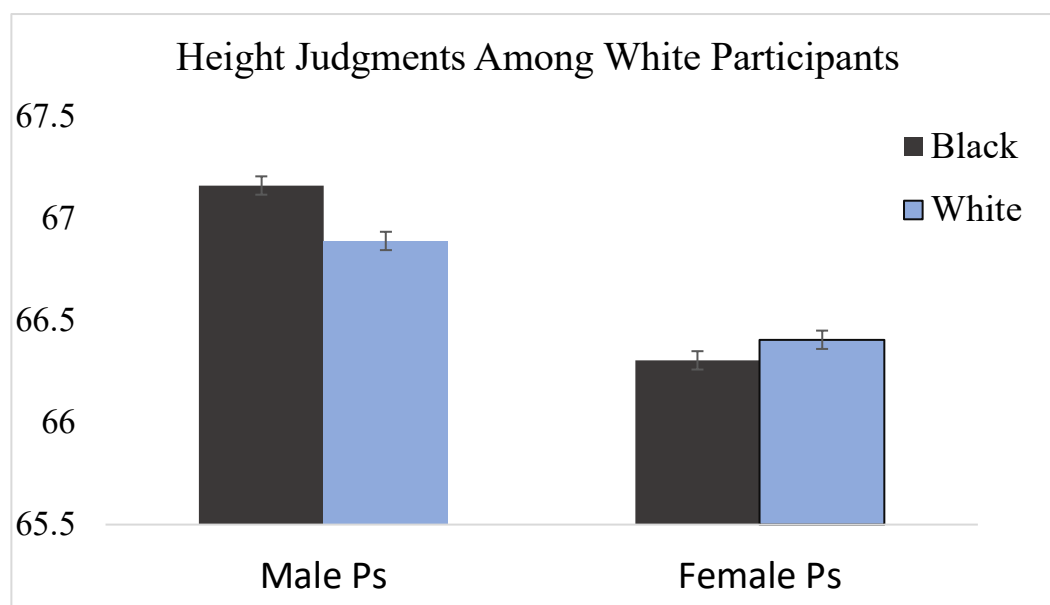
Once participants accessed the survey and agreed to participate, they were given instructions on the rating task. They completed two separate rating blocks, presented in randomly determined order. In each block, the 100 faces were presented one at a time in random order. In one block, they made estimates of the height of each target, in inches. In order to constrain ratings to realistic values, each face was presented above a slider scale with endpoints of 58 inches and 78 inches. Labels were presented above the first, middle, and highest values on the slider scale to indicate the corresponding value in feet and inches. In the other block, participants were asked to judge how threatening they would find each person in a physical altercation. Threat ratings were provided on a 7-point Likert-type scale (see Figure 2 for examples). After completing both rating blocks, participants provided demographic information. Gender and ethnicity were collected using open-ended responses. They then were presented a debriefing statement.

## Results

In order to perform the primary hypothesis test, it was necessary to first compute means for Black and White targets for each DV. After means were computed, they were subjected to separate 2 (Target Race: Black vs. White)  $\times$  2 (Participant Gender: Female vs. Male)  $\times$  2 (Participant Race: White vs. Nonwhite) mixed ANOVAs, with repeated measures on the first factor. The between-subjects variables were included to test for possible interactions.

**Height.** Contrary to the focal hypothesis, there was no main effect of target race on height judgments,  $F(1, 119) = 1.40, p = .24, \eta^2_{\text{partial}} = .012$ . Black targets ( $M = 66.49, SD = 1.5$ ) were judged no taller than White targets ( $M = 66.44, SD = 1.4$ ). However, there was a significant interaction between target race and participant gender,  $F(1, 119) = 4.4, p = .04, \eta^2_{\text{partial}} = .05$ . Post hoc comparisons showed that women did not show size bias,  $t(71) = .85, p = .40$ , meaning women did not judge Black targets to be taller than White targets. Men, however, did show size bias,  $t(50) = 2.55, p = .01$ , such that they judged Black targets to be taller than White targets. This gender difference is consistent with the findings of Wilson et al. (2017), in which men sometimes tended to show more racial bias on various judgments than women.

Finally, there was a marginally significant three-way interaction between target race, participant gender, and participant race,  $F(1, 119) = 3.9, p = .052, \eta^2_{\text{partial}} = .03$ . Although this unhypothesized interaction did not reach significance, inspection of the means indicates that the aforementioned two-way interaction was driven mostly by White men, who tended to show more “size bias” than non-White men or women of any ethnicity.



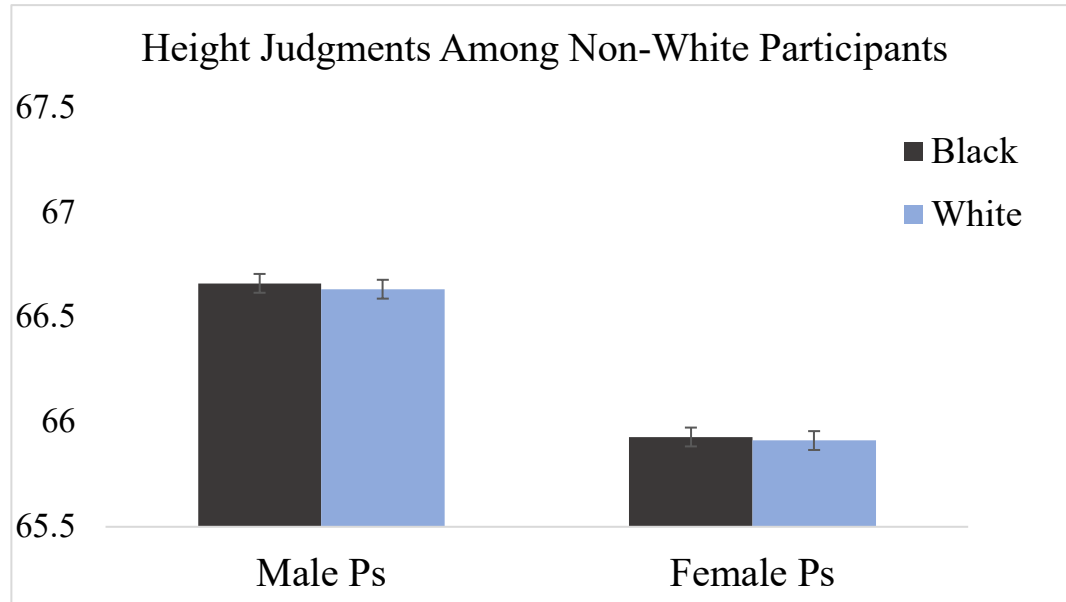


Figure 3: Marginally significant three-way interaction for height, plotted separately for White vs. Non-White participants. Error bars denote two within-subjects standard errors

**Threat.** Contrary to the focal hypothesis, there was no main effect of target race on threat judgments,  $F(1, 119) = 1.64, p = .2, \eta^2_{\text{partial}} = .01$ . Black targets ( $M = 1.85, SD = .86$ ) were judged no more threatening than White targets ( $M = 1.83, SD = .84$ ). There was no significant interactions,  $ps > .4$ . Although it is not a significant effect, the effect for participant gender was noted,  $F(1, 119) = .33, p = .57, \eta^2_{\text{partial}} = .003$ , such that men rated targets more threatening than women, across target race.

A correlational analysis tested the relationship between “height bias” and “threat bias.” That is, despite the lack of main effects, it was still possible to test whether participants who showed more height bias tended to also show more threat bias. First, measures of height and threat bias were calculated by taking the difference score between Black height/threat and White height/threat. As predicted, there was a correlation between “height bias” and “threat bias,”  $r =$

.29,  $p = .001$ . Participants who judged Black targets to be taller than White targets also judged them to be more threatening.

Finally, analyses were conducted by target to investigate whether the relationship between perceived height and perceived threat differ based on target race. First, there was a calculation for the mean height and mean threat rating for each target, across all participants. Then, calculations for the height-threat correlation were done separately for Black and White targets. Among Black targets, there was a strong positive correlation,  $r(48) = .55, p < .001$ . However, among White targets, the correlation was weak and non-significant,  $r(48) = .20, p = .16$ . These two coefficients are significantly different from one another,  $z = 1.97, p = .04$ . This difference suggests that the link between perceived height and threat may be stronger for Black than White targets.

### Discussion

The present investigation yielded mixed results regarding the question of whether women are subject to race-based size biases similar to those reported for men in past work. On one hand, there was no main effect for race for either DV. However, race was a significant factor in the three-way interaction between target race, participant gender and participant race. Men, specifically, did tend to show a significant “size bias,” and evidence tentatively shows that this pattern was driven by White men. Women did not show size bias regardless of ethnicity. These interactions demonstrate that at least some of the biases observed in past work extend to female targets, for at least some groups of perceivers. These biases may have implications for considering the role of both participant and target identity in predicting how people will perceive and interact with others in the world.



The current study demonstrated that these biases were driven mostly by White men. Previous studies also have similar findings, and they have shown that men may be more attuned to intergroup conflict and may show more xenophobic and ethnocentric attitudes than women (Wilson et al., 2017). The male warrior hypothesis may be used to explain why men exhibited these judgments regarding size and women did not. The male warrior hypothesis suggested that men are more competitive with outgroup members and more cooperative with ingroup members when the intergroup context is salient. If men are more likely than women to show signs of intergroup conflict, they may also be more likely to perceive outgroup members as more capable of causing harm (Wilson et al., 2017). This study's findings are consistent with the male warrior hypothesis, and it may explain why men showed size bias, as they perceived Black women to be the "outgroup members." The findings are consistent with those of Wilson et al. (2017), as they also found that gender may moderate racial biases.

This work may advance our understanding of how race can impact perceptions of basic physical characteristics. As was summarized above, people do tend to judge Black targets to be larger and more threatening than White targets (Johnson & Wilson, 2019; Wilson et al., 2017), and such perceptions may partially explain racial discrepancies in the use of force. This work expands upon earlier work showing that Black men are envisioned as larger and more aggressive than White men (Holbrook et al., 2016), and it further contextualizes work by Hester & Gray showing that race and size interact in both police decisions to stop-and-frisk and the perceptions that lay participants have of similar targets. Put simply, perceptions of threat and size are very much racialized in North American society.

Overall, previous studies have shown that there is racial and size bias among Black individuals. Although majority of the prior research has focused on men, some studies have

examined these biases on Black females. Johnson and Wilson (2019) examined whether race features were generalized towards women. They found that participants' judgments were mainly influenced by the individual's strength and gender, which supports that people hold prejudice towards an individual's race. They also found that Black females are generally seen as stronger and larger than White women (Johnson & Wilson, 2019). Using existing data, Smith-Evans et al. (2014) findings show that Black women are stereotyped as being more confrontational and aggressive.

The present study contains some limitations that will need to be addressed in future work. One that is important to note is that there are limitations to generalizability due to the stimuli used. The stimuli in this study were young women on college basketball rosters. This was done for practical reasons – it was necessary to find stimuli whose height was known. However, this stimulus source presents some issues. For example, this specific population of targets may not generalize well to the rest of the population. These targets tend to be taller than average, although that is not particularly apparent from the images themselves. Regardless, the study's results may be difficult to extend to the overall population, since the sample size used is specific to a single category of women. To avoid this limitation, future studies should include a broader range of stimuli. For instance, researchers should expand on the stimuli and use various groups of women, not just college basketball players. By doing so, this will expand the findings and allow them to be applicable to the overall population.

Another limitation that arises is due to the method that the stimuli is presented. The images of the Black and White women are carefully cropped in a way that just their faces are shown. Since the participants only rated cropped face images, this may interfere with real-world judgments. In the real-world, faces are not the only feature that are seen by others; people seen

their whole body, such as how tall they are. Since the current study only uses faces, it may limit the types of conclusions that are made in real-world interactions, as it is not incorporating a person's full body.

Additionally, the target persons were typically smiling in their roster photographs. The positive facial affect likely impacted threat perceptions in particular and may have impacted the potential for finding meaningful variability in these judgments. To wit, the mean threat rating for each group was approximately 1.8 on a 7-point scale, showing evidence of a floor effect. A more neutral stimulus set may be able to better elicit realistic threat ratings that may vary meaningfully between groups. It may also be important to include other expressions, such as anger. Such an approach may mitigate this limitation and may make it more applicable to real-life interactions and perceptions.

The participants recruited in the study are also a potential limitation. The majority of the participants ( $N = 78$ ) were recruited from Montclair State University. Since a majority of the participants were from the same university, the results found may not be able to represent the overall population. Future replications should try to resolve this limitation by including students from various universities and more people from various parts of the United States. This can expand the participation pool, as it may include individuals from different regions and backgrounds.

The present study included only non-Black individuals. The correlation analyses conducted separately for height-threat correlation for Black and White targets illustrated that the link for perceived height and threat may be stronger for Black targets than White targets. Future work may consider including Black participants as well as non-Black participants. This can help expand upon the current findings and demonstrate whether Black participants exhibit similar

biases as non-Black individuals. Including Black participants as well can show if they perceive targets of the same race to be taller and more threatening than White targets.

Future work would also benefit from in-person judgments, rather than just photo-based judgments. The present pandemic has made such work difficult but going forward it is imperative to measure racial bias in real-world interactions in addition to measuring perceptions based on photographs.

The current study can truly contribute to the field of social psychology. The majority of the prior research on racial and size perceptions have focused on men. It is important to also study women, as it can demonstrate that these racial and size biases can also extend to them, specifically to Black women. The present study can expand upon prior research and show further support in its findings. It can demonstrate the perceptions that individuals in today's society hold in regard to race and size. It can help psychologists, as well as others, understand how individuals view others and how their biases may affect the behaviors they present to other people.

## References

- Correll, J., Park, B., Judd, C.M., & Wittenbrink, B. (2002). The police officer's dilemma: Using ethnicity to disambiguate potentially threatening individuals. *Journal of Personality and Social Psychology, 83*(6), 1314-1329.
- Cottrell, C.A., & Neuberg, S.L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to "prejudice." *Journal of Personality and Social Psychology, 88*(5), 770-789.
- Davenport, C., Soule, S.A., & Armstrong II, D.A. (2011) Protesting while Black? The differential policing of American Activism, 1960 to 1990. *American Sociological Review, 76*(1), 152-178.
- Devine, P.G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56*, 5-18
- Dunbar, A., & Jones, N.E. (2021). Race, police, and the pandemic: Considering the role of race in public health policing. *Ethnic and Racial Studies, 44*(5), 773-782.
- Eberhardt, J.L., Goff, P.A., Purdie, V.J., & Davies, P.G. (2004). Seeing black: Race, crime and visual processing. *Journal of Personality and Social Psychology, 87*(6), 876-893.
- Epstein, R., Blake, J. J., & Gonzalez, T. (2017). *Girlhood interrupted: The erasure of Black girls' childhood*. Washington, DC: The Center on Poverty and Inequality, Georgetown.
- Hester, N., & Gray, K. (2018). For Black men, being tall increases threat stereotyping and police stops. *PNAS Proceedings of the National Academy of Sciences of the United States of America, 115*(11), p. 2711-2715.
- Holbrook, C., Fessler, D.M.T., & Navarrete, C.D. (2016). Looming large in others' eyes: Racial

stereotypes illuminate dual adaptations for representing threat versus prestige as physical size. *Evolution and Human Behavior*, 37, 67-78.

Johnson, D.J., & Wilson, J.P. (2019). Racial bias in perceptions of size and strength: The impact of stereotypes and group differences. *Psychological Science*, 30(4), 553-562.

McMahon, J.M., & Kahn, K.B. (2018). When sexism leads to racism: Threat, protecting women, and racial bias. *Sex Roles*, 78, 591-605.

Miller, C., & Vittrup, B. (2020). The indirect effects of police racial bias on African American families. *Journal of Family Issues*, 41(10), 1699-1722.

Morrow, W.J., White, M.D., & Fradella, H.F. (2017). After the stop: Exploring the racial/ethnic disparities in police use of force during *Terry* stops. *Police Quarterly*, 20(4), 367-396.

H

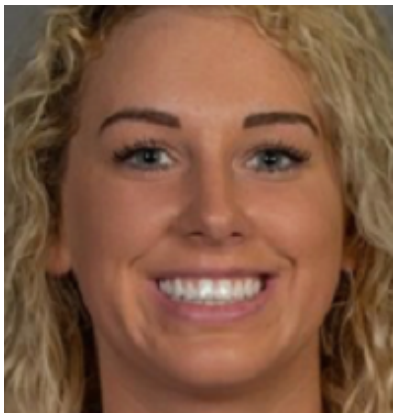
Oosterhof, N.N., & Todorov, A. (2008). The functional basis of face evaluation. *PNAS*, 105(32), 11087-11092.

Sagar, H.A., & Schofield, J.W. (1980). Racial and behavioral cues in Black and White children's perceptions of ambiguously aggressive acts. *Journal of Personality and Social Psychology*, 39(4), 590-598.

Smith-Evans, L., George, J., Graves, F. G., Kaufmann, L S., & Frolich, L. (2014). *Unlocking opportunity for African American girls: A call to action for educational equity*. Washington, DC: National Women's Law Center.

Wilson, J.P., Hugenberg, K., & Rule, N.O. (2017). Racial bias in judgements of physical size and formidability: From size to threat. *Journal of Personality and Social Psychology*, 113.

Figures



*Figure 1:* Sample stimuli for Black and White women

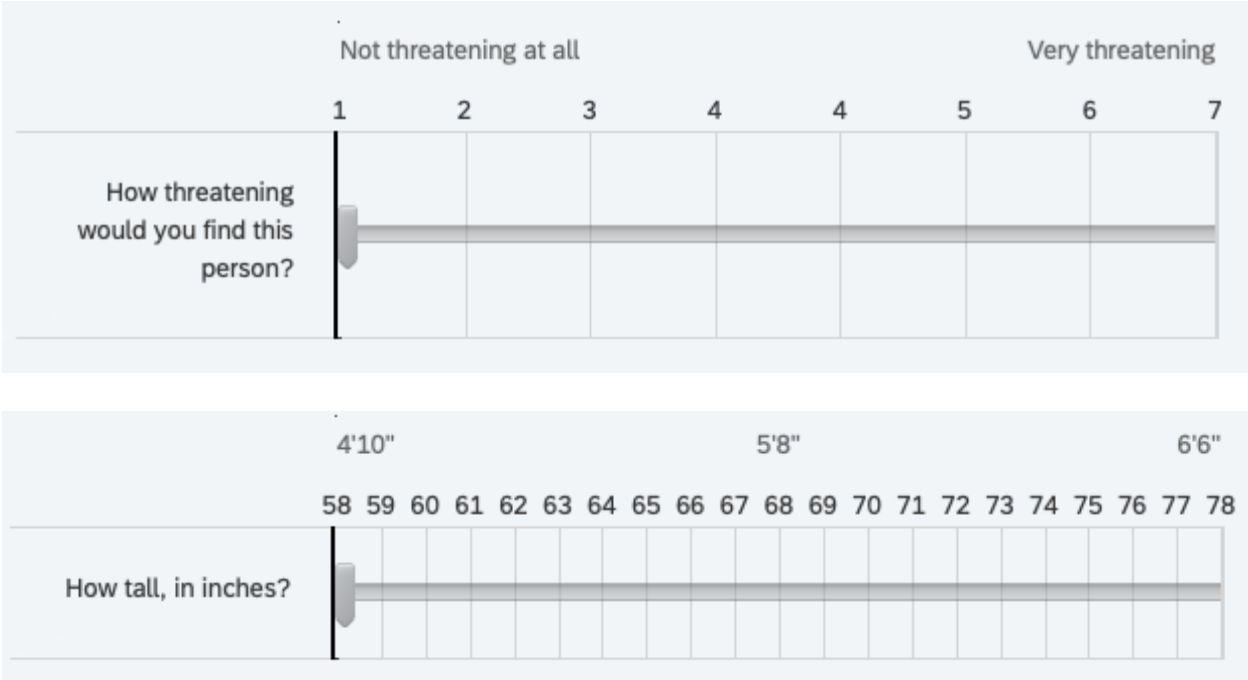


Figure 2: Scales that participants used to assess threat and height