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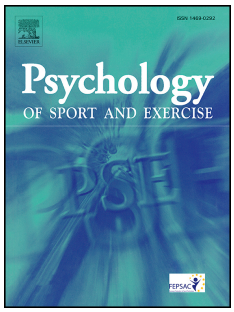

"Sinking" or sinking?: Identity salience and shifts in black Women's athletic performance

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"Sinking" or Sinking?: Identity Salience and Shifts in Black Women's Athletic Performance.

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Abstract

Objectives: Based on the theories of stereotype threat and stereotype boost, this study explored the influence of identity salience on athletic performance of individuals (i.e., Black women) who possess one identity that is negatively stereotyped and one identity that is positively stereotyped in the domain of athletics. Black women's racial identity is positively stereotyped in regard to athletic performance, whereas their gender identity is negatively stereotyped.

Design: We used a between subjects design with three conditions (race salient, gender salient, and control). Athletic performance served as the dependent measure.

Method: Black women basketball players (*N*= 91) were randomly assigned to one of three identity salience conditions: race salient, gender salient, or age salient (control). Social identities were made salient by having participants complete a questionnaire before attempting to shoot free-throws.

Results: Participants whose racial identity before shooting free-throws was made salient had significantly better free-throw accuracy than both participants whose gender identity or age identity was made salient. Additionally, participants whose gender identity was made salient performed significantly worse than participants in the control condition.

Conclusion: Identity salience can play a role in either improving (i.e., stereotype boost effect) or harming (e.g., stereotype threat effect) athletic performance within the same individual. Future directions involving other individuals who possess both positively and negatively stereotyped social identities' in a particular sports domain, such as Asian male basketball players are discussed.

Keywords: identity salience, stereotype threat, stereotype boost, athletic performance, Black women

"Sinking" or Sinking?: Identify Salience and Shifts in Black Women's Athletic Performance.

In the domain of sports, many stereotypes exist that are associated with an individual's social identity. In some cases, these stereotypes are negative. For example, women are often stereotyped as being athletically inferior to men and poor at sports in general (Bernat & Vescio, 2002; Chalabaev, Sarrzin, Fontayne, Boiché, & Clement-Guillotin, 2013). In other cases, social stereotypes are positive[1]. For example, Black individuals are often stereotyped as having superior athletic ability relative to individuals from other races (Devine & Elliot, 1995). For over two decades, research in social psychology has documented the influence that the conscious or unconscious activation of stereotypes can have on individuals' performance in domains in which they are stereotyped (for a review, see Inzlicht & Schmader, 2012). The majority of these studies have demonstrated that the activation of a negative stereotype prior to or during a performance situation in a stereotyped domain can lead a stereotyped individual to perform poorly in that domain (e.g., Steele & Aronson, 1995, Hively & El-Alayli, 2014). Performance can also be impaired by simply making salient the social identity associated with a negative stereotype. This phenomenon has been dubbed *stereotype threat* and is defined as a situational predicament in which people are or feel themselves to be at risk of confirming stereotypes about their social group (Steele & Aronson, 1995). It is important to note that the decrease in stereotyped individuals' performance is not a result of these individuals internalizing the negative stereotypes about their group. Indeed,

[1] Although positive stereotypes, relative to negative stereotypes, are often treated or believed to be harmless and/or flattering, research has shown they can have negative psychological consequences on stereotyped targets (e.g., feeling depersonalized, impaired cognitive performance; Cheryan & Bodenhausen, 2000).

while the majority of individuals impacted by stereotype threat reject the negative stereotypes about their group, the awareness of the cultural stereotypes about one's group is enough to trigger stereotype threat processes (Steele, 2010). Additionally, the effects of stereotype threat are not due to a lack of motivation or interest. In fact, research suggests that those most susceptible to stereotype threat are individuals who are strongly identified with the stereotyped domain (e.g., athletics, academics; Davis, Aronson, & Salinas, 2006; Steele, 1997;) and those who strongly value the stereotyped domain (Leyens, Désert, Croizet, & Darcis, 2000).

In their seminal study, Steele and Aronson (1995) first demonstrated stereotype threat by assigning Black and White students to one of three conditions in which they were administered a difficult verbal test. In the stereotype threat condition, participants were told that the test was diagnostic of their intellectual ability; in the other conditions, the test was either framed in a non-diagnostic manner or there was no frame for the test. By framing a test as being diagnostic of intellectual ability, the negative stereotype that Black individuals have poor verbal abilities and are unintelligent is made salient. Results indicated that only the performance of Black participants in the stereotype threat condition was impaired; Black participants in the other two conditions performed comparably to their White counterparts. White participants' performance was not impaired in the stereotype threat condition since they are not stereotyped negatively in this domain. In a subsequent experiment, Steele and Aronson (1995; Experiment 4) also demonstrated stereotype threat could be induced for Black participants by simply having them indicate their race before (versus after) taking a test. Black participants whose race was made salient by marking their race before the verbal test performed more poorly than

those who marked their race after taking the test. It is important to note that these performance differences were found even when adjusting for prior performance levels.

While the majority of empirical investigations on the effects of stereotype threat have been on cognitive performance in the academic domain (for reviews, see Spencer, Logel, & Davies, 2016; and Steele, Spencer, & Aronson, 2002), a few studies have also examined its effects on sensorimotor performance. For example, Stone, Lynch, Sjomeling, and Darley (1999) found that framing an athletic task as diagnostic of negative racial stereotypes about Black or White athletes could impair their performance in a sports domain. When a golf task was framed as being diagnostic of "sports intelligence" Black participants performed significantly worse than participants in the nondiagnostic control condition (i.e., no mention of sports intelligence). In comparison, when the same golf task was framed as being one that was diagnostic of "natural athletic ability," White participants performed worse than did participants in the nondiagnostic control condition. In a similar study with female soccer players as participants, stereotype threat was induced by framing a soccer dribbling drill as being a task that was diagnostic of either athletic ability or technical soccer ability. Women in the nondiagnostic control condition were told that the task was related to sports psychology. For women who were told that the task was diagnostic of either athletic ability or technical soccer ability, their performance was impaired relative to women in the control condition (Chalabaev, Sarrazin, Stone, & Cury, 2008).

More recently, in an experiment that included both men and women athletes from two different sports (tennis and basketball), Hively and El-Alayli (2014) found that after informing these college student athletes that there were performance differences based on

gender, women performed worse than men on a task related to their respected sports (e.g., shooting three-point shots and serving two tennis balls to four small targets). When this same task, however, was introduced without the mention of gender differences in performance, women performed just as well as men.

Together, these results confirm the idea that the activation of negative stereotypes can disrupt the athletic performance of stereotyped individuals (Stone, Chalabaev, & Harrison, 2012). The majority of the studies that have investigated stereotype threat effects in the sensorimotor domain, however, have classified participants along only one dimension of social identity (race or gender). For example, studies that have been interested in how gender stereotypes influence athletic performance have primarily been conducted with White samples and/or did not mention their race of their participants (e.g., Chalabaev, et al., 2008; Chalabaev, et al., 2013; Stone & McWhinnie, 2008). The studies that have investigated the influence of racial stereotypes on athletic performance have primarily used Black and White men (e.g., Stone, 2002; Stone, et al., 1999).

To date, however, no known studies have included participants whose gender and racial identities are associated with conflicting stereotypes (i.e., positive and negative) in the sports domain. For example, Black female basketball players face competing stereotypes. While their racial identity is stereotyped positively in regard to general athletic ability and basketball performance specifically (e.g., Devine & Elliot, 1995), their gender identity is negatively stereotyped in regards to overall athletic and sports ability. The theory of stereotype threat would suggest that when Black female basketball players' gender identity is made salient, their performance would be impaired relative to Black female players whose gender identity is not made salient. On the other hand, what would

happen if these women's racial identity, which is positively stereotyped, was made salient before a basketball performance situation? Would their performance be facilitated, perhaps in the form of "sinking" more shots? Research indeed suggests that when positive stereotypes about a social group are activated people perform better than they otherwise would have if the positive stereotype was not activated (Shih, Pittinsky & Ho 2012). This phenomenon is known as *stereotype boost*. One of the first experiments to document stereotype boost was a study by Shih, Pittinsky and Ambady (1999). In this experiment, Asian women were primed with either their racial identity, which is associated with positive stereotypes about math performance, their gender identity, which is associated with negative stereotypes about math performance, or a neutral identity not related to math performance, before taking a challenging math test. Results indicated that Asian female participants primed with their Asian identity scored higher on a math test than participants who were primed with their gender identity or a neutral identity. Additionally, Asian women primed with their gender identity experienced stereotype threat and performed worse than Asian women primed with a neutral identity. These findings were later replicated with Asian children (Ambady, Shih, Kim, & Pittinsky, 2001).

In the current study, we extend previous research on the effects of stereotypes on sensorimotor performance by focusing on individuals' whose gender and racial identities are associated with divergent athletic stereotypes. To our knowledge this is the first empirical investigation to combine theories on stereotype threat and stereotype boost to predict outcomes in sensorimotor performance within the same individual based on their racial and gender identities. Although previous research (Martiny et al., 2015) has found

evidence that activating a positive social identity in addition to a negative social identity can protect athletic performance among women compared to activating a negative social identity alone, the current study differs from previous research in two important ways.

First, in the current study we explore the effect of the activation of individuals' identities that are associated with divergent athletic stereotypes. In other words, we explore whether the activation of a positively stereotyped identity alone (i.e., race) may *facilitate* athletic performance (stereotype boost) and whether the activation of a negatively stereotyped identity alone (gender) may decrease performance (stereotype threat), whereas Martiny and colleagues investigated whether the simultaneous activation of two identities (i.e., one positive [member of a sports team] and one negative) would buffer against stereotype threat effects on athletic performance. This is an important theoretical distinction given that previous research has shown that social identity complexity (i.e., reminding individual women of their multiple roles and identities) can alleviate stereotype threat (Gresky, Eyck Lord, & McIntyre, 2005). However, the investigation of how the activation of a positively stereotyped identity may lead to stereotype boost effects on sensorimotor performance have not yet been explored.

Second, the current study uses race as a positively stereotyped identity, whereas Martiny et al. used being a member of a sport team. Although being a member of a sports team can be construed as a positive social identity in certain contexts, it may not be a positively *stereotyped* identity in the same way as race is in the context of sports. In the United States (but elsewhere as well) there exist century old stereotypes associated with Black individuals' genetic natural physicality and athletic ability (Hoberman, 1997). This is not the case with sports team membership identity. Consequently, Black

individuals, regardless if they are members of a sports team, are stereotyped to be athletic and good at sports. Although, it is possible for non-Black individuals on a sport team to be automatically be assumed to have great ability just because said individual is on a sports team, we think believe this to be context dependent (e.g., in the presence of non-athletes) and even in those situations to a far lessor extent that racial membership. As such, the findings that a female basketball player who is reminded that she is a woman and a member of a basketball team may perform better relative to her counterparts only reminded about their female identity, may have more to do with social identity complexity than team membership being a positively stereotyped identity. Past research has shown that social identity complexity, even identities presumably to be unrelated to the stereotyped domain (e.g., school, family, hobbies, friend groups), can alleviate stereotype threat effects (Gresky, Eyck Lord, & McIntyre, 2005). Based on the theory of stereotype boost, however, the activation of positively stereotyped identities should lead to performance being facilitated.

Given that the same individual's performance may be impaired or facilitated in performance situations depending on which one of their social identities is salient, it was predicted that Black female athletes would underperform when their gender identity was activated, but would over perform when their racial identity was made salient relative to Black women athletes primed with an identity not stereotyped in the sports domain (i.e., age[2]).

Method

[2] While Stone et al. (2012) note that age may be a relevant stereotype for athletic performance, we believed the age range of our sample (M = 22.91, SD = 3.33) would be less likely affected by an age prime manipulation because it might hold less personal relevance to their performance.

Participants

Ninety-four Black women from the Greater Milwaukee area were recruited and compensated five dollars (USD) for their participation in this experiment. Data from three participants were not recorded due to human error resulting in a sample of 91 Black female participants (M_{age} = 22.91, *SD* = 3.33). Participants were recruited from word of mouth, printed flyers, and an online advertisement indicating that we sought the participation of women who were former or current women basketball players for a study interested in athletic performance. To be eligible for the experiment, participants had to have played basketball competitively for at least one year from the high school level and beyond. Participants who played in competitive summer leagues and intermural teams were also eligible. The sample self-reported that basketball was moderately to highly associated to their overall life and overall identity (*M* = 5.38, *SD* =1.06, on a 7-point Likert scale). They also self-reported a relatively high ability to play basketball (*M* = 5.35, *SD* =.81, on a 7-point Likert scale) and overall level of athleticism (*M* = 5.27, *SD* =1.02, on a 7-point Likert scale). On average, participants self-reported playing basketball competitively for 5.5 years (*SD* = 2.33), nonconsecutively.

Materials

Basketball Experience and Athletic Ability Questionnaire. In line with the cover story, participants were asked to answer four questions regarding their basketball playing history and their athletic ability. Participants were asked how many years have they played basketball competitively, to estimate their own ability to play basketball on a 7-point Likert scale (1 = not very good to 7 = very good), how athletic they believed themselves to be on a 7-point Likert scale (1 = not very athletic to 7 = Very athletic) and

how tied basketball was to their overall life/identity on a 7-point Likert scale (1 = not very much to 7= very much).

Identity Salience. In order to make race, gender or age (control) identity salient the identity importance subscale from the Collective Self-Esteem-Race Scale (CSE-R; Crocker et al., 1994) was used. The CSE-R consists of four items and was modified so that each item was either asking about race, gender or age depending on the experimental condition the participant was randomly assigned. An example item from the CSE-R reads "The racial/ethnic [gender, age] group I belong to is an important reflection of who I am." Participants are asked to rate how much they agree with each statement on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Basketball Courts. All experimental sessions took place on indoor NCAA regulated basketball courts.

Basketball. An official 28.5 in (72.4 cm) Women's Wilson Solution NCAA Game Basketball was used for this experiment.

Athletic Performance

To measure athletic performance, participants were asked to shoot 15 free throws while imaging they were at a game. Participants were given 10 seconds to shoot each free throw. Performance was determined by dividing the total number of free throws completed by total number of free throws attempted (i.e., 15) to obtain an overall percent accurate (M = 62.81%, SD = 15.71%).

Procedure

Participants were randomly assigned to one of three identity salience conditions: race salient, gender salient, or age salient (control). Upon arriving at the gym and

consenting to participate in the experiment, all participants were told that they would fill out a brief questionnaire containing questions related to their basketball sports history and other personality questions. The personality questions referenced were actually the four CSE items that either focused on race, age or gender identity depending on which condition the participant was randomly assigned. The experimenters were blind to condition. After completing the questionnaire all participants were allowed to warm up by shooting five practice free throws. These shots were not recorded and were not factored in participants overall free throw completion percentage. After the five practice shots, participants then shot 15 free throws and the experimenter recorded the number of shots the participant made successfully. Participants were told to imagine themselves at a game while taking their shots. After the participant had finished all 15 free throw attempts, participants completed demographic questions (i.e., race, age, and gender). Upon completion of the demographic questions, the experiment concluded and participants were thanked, debriefed, and compensated.

Results

A one-way between-subjects analysis of variance (ANOVA) was used to examine the effects of identity salience (race, gender, or age) on Black women's athletic performance. The analysis revealed a significant main effect of identity salience on Black women's free throw accuracy, $F(2, 88) = 13.24$, $p < .001$ partial $\eta^2 = .23$. Post hoc comparisons using Tukey's HSD test indicated that Black women whose racial identity was made salient prior to shooting free throws (M= 72.41%, SD = 13.06%) performed significantly better than Black women whose gender identity (M= 53.78%, SD= 13.55%, $p < .001$, 95% CI [0.09, 0.27]) or age identity (M= 62.58%, SD = 14.95%, $p = .020$,

95% CI [0.01, 0.18]) was made salient prior to shooting free throws. Post-hoc comparisons also revealed that Black women whose gender identity was made salient prior to shooting free throws also performed more poorly than Black women whose age identity was made salient, $p = .04$, 95% CI [0.003, 0.17]; see Figure 1).

< Figure 1 about here >

Attempting to address potential confounds in these findings, we examined bivariate correlations between participants' ages and experience playing basketball (in years) with their free-throw accuracy percentages. Our analysis indicated that, neither age ($r = .13$, $p = .22$) nor years of experience ($r = .11$, $p = .30$) were significantly correlated with free-throw accuracy. Additionally, we ran an ANCOVA to control for the potential influence that differences in participants' basketball abilities (i.e., self-reported athleticism and ability to play basketball) may have had on participants' free-throw performance. This analysis indicated that the difference found for Black women's athletic performance remained significant: Black women primed with their racial identity (adjusted M= 72.28%, SE = 3.80%) had a higher free point completion rate than Black women primed with their gender identity (adjusted M = 51.19%, SE = 3.81%) or age identity (adjusted M = 56.93%, SE = 3.61%), and Black women primed with their gender identity performed worse than their counterparts primed with their age identity, $F(2, 88) = 13.16$, $p < .001$, partial $\eta^2 = .23$, even controlling for participant self-reported athleticism and ability to play basketball.

Discussion

The notion of stereotype threat affecting women's athletic performance has been established in previous literature (e.g., Chalabaev et al., 2013; Hermann & Vollmeyer,

2016). To our knowledge, this was the first experimental investigation on the influence of identity salience on sensorimotor performance using women with competing stereotyped identities in a particular athletic domain. Specifically, it was predicted that Black female athletes' athletic performance would be impaired when their gender identity was made salient (i.e., participants would experience stereotype threat); however, when their racial identity was made salient, their athletic performance would be facilitated (i.e., participants would experience stereotype boost). The findings of the present experiment support the predictions and provide initial support that Black female athletes can experience either stereotype threat effects or stereotype boost effects depending on which one of their social identities (i.e., race or gender) is made salient before an athletic performance task.

Specifically, we found Black women completed fewer free throws when their gender identity was made salient relative to individuals whose racial or age identity was made salient, replicating previous studies on gender stereotype threat and women's athletic performance that have primarily used White samples and/or did not report race (e.g., Chalabaev, et al., 2013; Stone & McWhinnie, 2008). Additionally, we found that Black women whose racial identity was made salient made more free throws than individuals in the control condition (i.e., those who had their age identity made salient). Although we demonstrated a stereotype boost effect on sensorimotor performance after making an individual's social identity that is positively stereotyped in that domain salient, it is important to note the present results conceptually replicate stereotype boost effects in cognitive performance (Mendoza-Denton, Kahn, & Chan, 2008; Shih & Ambady, 1999; Shih et al., 2002). In other words, we observed enhanced performance on a task under

conditions in which individuals' positive stereotyped identity was made salient (i.e., race and athleticism).

The current study's results has implications for athletes who find themselves in performance situations in which they have identities that are associated with divergent stereotypes related to their sports ability and performance. A strategy that these athletes may want to adopt if they want to protect or enhance their performance is to find ways to activate positively stereotyped identities before performance situations. For example, many Black athletes have performed the 'Wakanda Forever' salute popularized by the Marvel Cinematic Universe film *Black Panther* (Feige, Grant & Coogler, 2018) during sports play. Performing this salute may activate racial identity for Black athletes and be a way to protect their performance, particularly Black female athletes.

It is important to note, however, although we found evidence that making a positively stereotyped social identity (i.e., race) salient can lead to a stereotype boost effect for Black female basketball players, making a positively stereotyped social identity salient in a stereotyped domain can also *impair* performance. For example, Cheryan and Bodenhausen (2000) found that Asian-American women's quantitative performance was impaired, rather than facilitated, when their racial identity was made salient in a manner that made the women conscious of other individual's high performance expectations. Because they are stereotyped to have superior mathematical abilities relative to other races, Asian Americans are often expected to perform well on quantitative performance tasks. When these expectations are made known in performance situations, race salience was shown to diminish Asian women's ability to concentrate, which significantly impaired their math performance. In other words, making positive cultural stereotypes

salient (e.g., Asians' superior quantitative abilities or Blacks' superior athletic ability) prior to a performance situation may lead those stereotyped individuals' to "choke" under the pressure of high expectations.

The present research is not without limitations. For one, we used age as a neutral social identity when stereotypes about the decrease in physical abilities as one gets older are widespread (Stone et al., 2012). However, whereas empirical evidence supporting age based stereotype threat effects on cognitive ability have been well documented, the effects of negative age stereotypes on physical ability is more mixed (for a review see, Lamont, Swift, & Abrams, 2011). Furthermore, our sample was relatively young and in terms of age relatively homogeneous (M = 22.91, SD = 3.33). As such, our sample may have been less susceptible to negative age based stereotypes. Nevertheless, this is not to suggest that negative aged-based stereotypes cannot impair athletic performance of older athletes and future research may want to investigate the influence of age-based stereotypes on older athletes (vs younger athletes) when age is made salient.

Another potential limitation of the current study is we asked participants to self-report their basketball experience and athletic ability before the identity salience manipulation and performance task versus having them report it after our performance measure. By having participants complete these measures in this order we may have inadvertently activated multiple social identities (i.e., basketball player identity and age identity, gender identity, or race identity) versus a single aspect of an individual's identity as intended. However, the results of our study suggest it is unlikely that we activated multiple social identities. If multiple social identities had been activated, we would expect participants who had their gender identity activated to perform just as well as

participants in our control condition, given that the activation of a "basketball player" identity would act as a positive buffer to gender-based stereotype threat (Martiny et al., 2015). We instead found that participants whose gender identity was made salient performed worse than those in the control condition. Considering this effect and given the design of the study, we cannot for certain determine whether multiple identities were activated. In future studies, researchers should collect individual difference variables in advance (i.e., days or weeks before the experiment, Stone et al., 1999).

Future inquiry may also want to explore stereotype boost and stereotype threat effects with other individuals who possess both positively and negatively stereotyped social identities' in a particular sports domain, such as Asian male basketball players. Asians are stereotyped to be inferior athletically (Beilock & McConnell, 2004) and men are stereotyped to be superior at sports. The competing stereotypes associated with their gender and racial identities may influence Asian men's athletic performance either positively or negatively depending on what social identity is made salient.

In summary, the present study confirms previous findings that demonstrate that making a negatively stereotyped identity salient before an athletic performance situation can impair an individuals' performance. However, if these same individuals have a social identity that is positively stereotyped in the same domain, the activation of that social identity may lead to enhanced athletic performance. These findings therefore present interesting implications for the potential role that identity salience can play in improving or harming athletic performance within the same individual.

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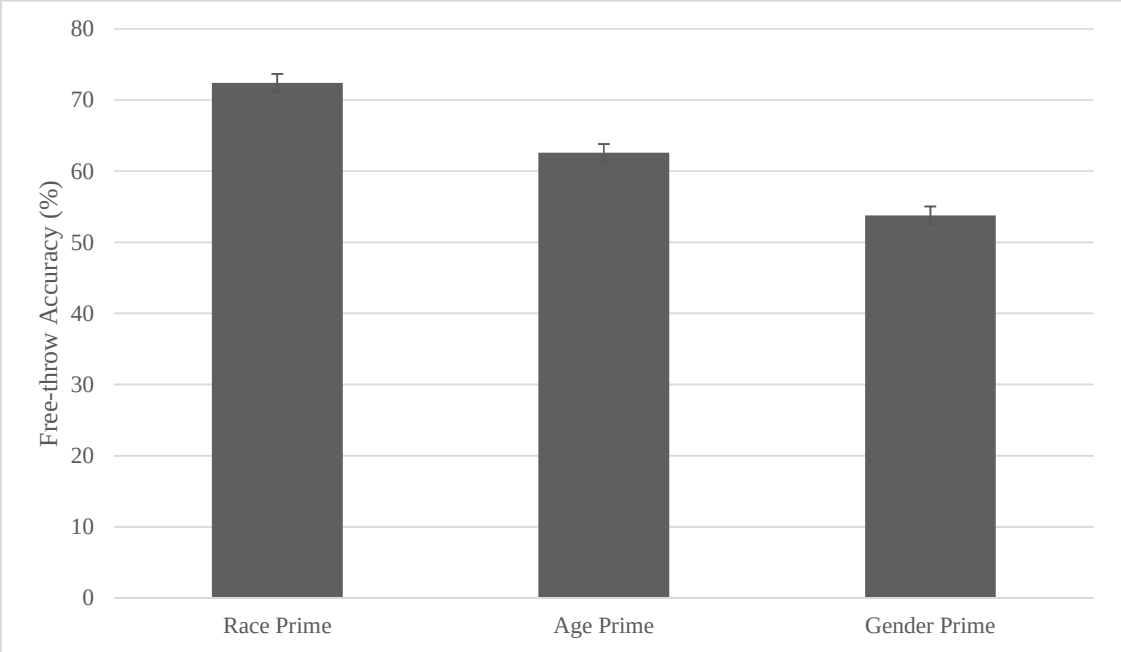

Figure 1. *Between-subjects ANOVA conducted on prime type and free-throw accuracy.*

Highlights

- Identity salience can play a role in either improving or harming athletic performance within the same individual.
- Black women primed with their race had better athletic performance than those primed with their age or gender
- Black women primed with their gender had worse performance than those primed with age