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# Examining the Impact of Attentional Control and Ethnic Identity on Racial Shooting Bias

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## ABSTRACT

**The current study examined how cognitive factors (attentional control) and social factors (ethnic identity) played a role in shooting decisions in the first person shooter task (FPST). This examination was performed with an understudied population within the FPST literature, Black American college students. Replicating the typical findings of the FPST that used mostly White Americans, the current study also found racial shooting bias against Black targets when compared to their White counterparts. Attentional control, as measured through the Antisaccade task, showed no influence on shooting decisions. Ethnic Identity, measured with the Multigroup Ethnic Identity Measure (MEIM), had an impact on shooting decisions. Black American participants with low ethnic identity scores showed racially biased shooting decisions against Black targets. This biased shooting behavior was not found for Black American participants with high ethnic identity.**

**Keywords:** Ethnic Identity, Racial Shooting Bias, Attentional Control, In-group Bias.

## INTRODUCTION

Making a decision to use deadly force with a firearm is an important decision that has many societal consequences. These consequences apply to law enforcement, military, and the everyday citizen. Decisions to use deadly force have been measured in a laboratory setting using the First Person Shooter Task [1]. The First Person Shooter Task (FPST) presents targets of various races, with Black and White targets typically being the most popular race manipulation, holding either a gun or a non-threatening item. Participants are instructed to "shoot" all armed targets and "don't shoot" all unarmed targets. Results typically show a racial shooting bias against Black targets. For example, participants shoot armed Black targets faster than armed White targets, set a lower signal detection criterion for Black targets (i.e., sacrifice correct rejections for more hits), and mistakenly shoot unarmed Black targets more than their unarmed White counterparts [2].

It is important to understand what factors may lead to racially biased shooting decisions. Identifying specific factors could allow for possible treatments and/or interventions to be developed that can lead to a reduction in this bias, and ultimately a safer place for all citizens within society.

The current study explores how ethnic identity and cognitive control factors play a role in racial shooting bias. Although social and cognitive factors have been examined in the past, it is important to mention that the vast majority of these examinations have had an predominantly

White participant sample [3-5]. In their meta-analysis of 42 experiments across 10 years, Mekawi and Bresin [6] showed that only 9.7% of participants performing the FPST have been Black. Moreover, although there has been research into the FPST using exclusively Black American participants [1], there has been no study that specifically tests the relationship between shooting decisions and social/cognitive factors within that participant sample. The current study aims to fill this gap.

**The Influence of Social Factors**

The racial shooting bias effect is often explained through the context of implicit bias based on social factors such as threat-related stereotype [4-5]. There are multiple social factors that have been shown to effect racial shooting bias in the FPST.

For example, the gun culture of the state in which the shooter task is administered has an effect on shooting decisions. States with stricter gun laws showed less racially biased shooting behavior on the FPST when compared to states with more permissive gun laws [6]. More permissive states showed more false alarms (i.e., wrongly deciding to shoot an unarmed target) and a lower shooting threshold (criterion) for Black targets when compared to White targets. These findings suggest that simply being exposed to more guns (living in a state with more permissive gun laws) has an influence on peoples' willingness to use lethal force against Black targets.

Also, the endorsement of stereotypes that associate Black people with threat has been shown to modulate racial shooting bias [4]. Using a process disassociation paradigm, the researchers were allowed to quantify the amount of variance in shooting behavior that could be explained by automatic, stereotype-driven processes. Results showed that participants relied more on stereotype-driven automatic processes for Black trials when compared to White trials. This behavioral trend resulted in more shooting errors against unarmed Black targets when compared to unarmed White targets. Thus, the stronger the association between race and threat, the more likely there will be racially biased shooting behavior.

Intuitively, if racial shooting bias is at least in part due to stereotypic associations, one would expect reliable differences in racial shooting bias among different races. For example, one would expect that Black participants would have less stereotypic associations against Black targets and therefore less shooting bias than White participants. To date, there appears to only be one study that explicitly tested the bias between Black and White participants [1]. Contrary to intuition, the researchers found that both Black and White participants showed racial shooting bias towards Black targets. If racial shooting bias is due to stereotypic associations, then Black participants may have had similar stereotypical associations as White participants. Research on ingroup bias could explain why Black Americans also show shooting bias against Black targets. In general, people have an implicit positive bias when evaluating people that belong to their own social group [7]. However, this positive implicit bias is not present within marginalized social groups, including Black Americans [8-9]. On average, Black Americans do not show implicit pro-Black bias. However, this average is bifurcated: half the Black population shows implicit Black-over-White bias while the other half shows implicit White-over-Black bias. Thus, Black people, on average, should not be expected to show favorable shooting decisions towards Black targets on the shooter task because they do not possess any positive bias towards Black targets. However, this averaged non-effect could be due to the bifurcation


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of having half the Black participants showing shooting bias against Black targets and the other half showing shooting bias in favor of Black targets.

Importantly, factors such as age, school-type (predominantly Black schools versus racially mixed schools), and parental racial socialization can lead to Black people adapting a pro-Black bias [10]. The researchers showed that exposure to messages containing positive Black exemplars, cultural history, and racial pride all led to Black people adapting positive attitudes towards their blackness (i.e., pro-Black ingroup bias). So, in terms of shooting bias, the extent to which a Black person identifies with their racial group (ethnic identity) should affect the associations between blackness and danger, and thus effect shooting bias.

A well-established measure of ethnic identity is the Multigroup Ethnic Identity Measure [11]. The measure is a reliable scale (Chronbach's alpha = .83 - .89) that describes a person's level of ethnic identity stemming from two important factors: commitment and exploration [12-13]. Commitment refers to how attached and invested an individual is to their ethnic group. Exploration refers to the extent to which a person seeks information and experiences that align with one's ethnic identity. Importantly, ethnic identity has been shown to be of higher importance to ethnic minorities when compared to members of the majority [14].

**The Influence of Cognitive Ability**

Cognitive ability has also been linked to racially biased shooting in the FPST. This link has likely been found because, at its core, the FPST is an object identification task that requires participants to focus their attention on relevant information (i.e., the identity of the object being held) and attenuate irrelevant information (i.e., the race of the target or the environmental setting). The ability to control attention in this way has been shown to be an individual difference that is related to cognitive ability, specifically working memory [15].

Working memory is a limited-capacity memory system that allows people to maintain, rehearse, and manipulate task-relevant information [16-17]. A critical process that is part of the working memory system is attentional control [15]. Attentional control is the part of working memory that allows people to focus on task-relevant information while simultaneously attenuate task-irrelevant information. When considering that the only task-relevant information in the FPST is the identity of the object, people with high attentional control should be able to make their shooting decisions based on the object and not be affected by irrelevant information such as the race of the target, resulting in less racially biased shooting decisions.

With that said, working memory has been shown to be associated with shooting decisions. Brewer et al. [18] found that people with lower working memory capacity had more aggressive shooting behavior (independent of target race) than people with higher working memory capacity. In line with the expected association between attentional control and racial shooting bias, Ito et al. [4] found a negative relationship between attentional control and shooting bias. People performing the FPST who had high attentional control showed less racial shooting bias when compared to people with low attentional control. It is important to note that these working memory findings were observed within a predominately White sample. It is still an open question as to whether or not a similar relationship would be found within Black participants. It could be the case, for example, that Black Americans require less attentional

control to overcome the typical anti-Black racially biased shooting behavior found in the FPST – resulting in negligible working memory effects.

A well-established measure of attentional control is the Antisaccade task [19-20]. This task requires participants to control their eye movements and look away from an attention-grabbing blinking stimulus. Antisaccade task performance has been shown to be highly corelated with other classic cognitive control tasks such as the Stroop task and the Psychomotor vigilance task, making the task a reliable measure of the attentional control component of working memory [15].

### The Current Study

The current study aims to explore shooting behavior in the FPST using an understudied participant sample, Black Americans. More specifically, the study explores how attentional control and ethnic identity might affect FPST performance. To accomplish this exploration, participants completed a modified version of the FPST [1]. Participants also completed the Antisaccade task [20] to produce a measure of attentional control and the Multigroup Ethnic Identity Measure (MEIM) to produce a measure of ethnic identity [21].

The current study has three hypotheses. First, it is hypothesized that the typical racial shooting bias behavior will be replicated in the Black participant sample (e.g., unarmed Black targets are expected to be shot at a higher rate than their White counterparts). Second, it is hypothesized that attentional control will be negatively related with racial shooting bias. People with high antisaccade scores are expected to show lower racial shooting bias than people with low antisaccade scores. Third, ethnic identity is hypothesized to be negatively related to racial shooting bias. Participants with high ethnic identity are expected to exhibit lower racial shooting bias.

## METHOD

### Participants

There were 63 undergraduate participants. One participant was excluded from the analysis due to outlier performance on the shooter task. A person was an outlier if they chose to "shoot" on 80% or more of the trials or "don't shoot" on 80% or more of the trials. All participants self-identified as Black and/or Black American. The average age of the sample was 22.8 (*SD* = 5.4). Of the 62 participants included in the analysis, 52 identified as female.

### Materials

Participants completed three tasks that were designed to measure their attentional control (Antisaccade task), ethnic identify (the Multi-Group Ethnic Identity Measure), and racial shooting bias (the First-Person Shooter Task). All tasks, including instructions, were presented electronically using PsychoPy stimulus presentation software [22].

### Antisaccade Task:

The Antisaccade task required participants to make eye movements away from a blinking, attention-grabbing stimulus. The task began with participants identifying a "B", "P", or "R" on the screen by pressing the 1, 2, and 3 key on the keyboard, respectively. A demonstration of this task, with feedback, was shown. Participants then performed 18 practice letter identification trials. These trials started with a solid black screen with "Ready?" in the center and were


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instructed to press the spacebar to begin the trial. The trial began with a 400 ms black screen. A fixation cross then appeared in the middle of the screen for a duration time randomly selected from the following set of times: 200, 600, 1000, 1400, 1800, or 2200 ms. The fixation cross was followed by a 100 ms black screen and then the target letter appeared for 100 ms. After 100 ms, the target letter was replaced by either an "H" or an "8." These target masks remained on the screen until a response was made.

After the practice trials, participants then completed the full trials. The full trials presented the fixation cross in the center of the screen, an empty box on the left side of the screen, and an empty box on the right side of the screen. The space between the fixation cross and the closest edge of each box had a visual angle of $11.5^{o}$. At the start of a trial, an "equals" ("=") sign appeared in one of the boxes. The equal sign blinked on and off: the blinking was such that the sign was visible for 100 ms, disappeared for 16 ms, and then reappeared for another 100 ms. The target letter was always presented in the opposite-side box at the same time of the blinking cue. The target letter was only presented for 100 ms. This short presentation meant that people who initially made an eye movement to the blinking cue on one side of the screen would not have enough time to also view the target letter on the other side of the screen. Participants were informed that the target letter would always appear in the box that was on the opposite side of the screen from the blinking cue. Participants were instructed to guess if they missed the opportunity to see the target. Participants performed 54 full trials of the Antisaccade task, however the first 18 trials were not analyzed. The final 36 trials were scored on target accuracy. People with higher attentional control can more easily look in the opposite direction of the attention-grabbing flashing stimulus and identify the briefly presented target letter, resulting in higher Antisaccade scores.

**Multigroup Ethnic Identity Task:**

An electronic version of the Multigroup Ethnic Identity Measure (MEIM) was used to measure ethnic identity. Participants responded by typing on the computer keyboard. This self-report scale contained 15 items. The first 12 items had participants use a 4-point Likert scale (1 = "Strongly Disagree, 2 = "Disagree", 3 = "Agree", 4 = "Strongly Agree") to answer questions that measured participants' sense of belongingness to their ethnic group. The final three questions were given to participants but not analyzed because they are used solely for the purpose of identifying and categorizing participants by ethnicity.

An MEIM ethnic identity score was calculated for each participant by summing the responses of the first 12 items. Each response score corresponded with the number on the Likert scale (e.g., a "Strongly Disagree" response was scored as "1"; a "Strongly Agree" response was scored as "4"). Although there are subscales within the MEIM, the current study did not separate the responses into subscales because there remains disagreement as to whether the MEIM has separate factors or is one large factor [11]. MEIM reliability has been shown to be high ($\alpha$ =.81 - .92) across all ethnicities [23-24].

**First-Person Shooter Task:**

The FPST was adapted from Correll et al. [2]. The task showed a single male target holding either a gun or a neutral object (e.g., cell phone, wallet, etc.). The targets appeared in different background environments of public places (e.g., a train station, park, office lobby, etc.). There were 40 different backgrounds. There were 48 different target people presented. All targets

were either Black or White males and were presented as both armed and unarmed throughout the task. There were four conditions: Black Unarmed, Black Armed, White Unarmed, and White Armed. Participants were instructed to "shoot" armed targets and "not shoot" unarmed targets. Participants pressed the letter "q" on the keyboard to make a "shoot" response and the letter "p" to make a "don't shoot" response. There was a 700 ms response window for all decisions. The response window began at the presentation of the target. Every trial presented only one target. Participants scored points based on their decisions within the task: + 10 points for correct "shoot" responses, + 5 points for correct "don't shoot" responses, - 20 points for incorrect "shoot" responses, - 40 points for incorrect "don't shoot" responses, and - 10 points for every timeout (failing to make a response within the 700 ms response window).

All trials began with a 1000-ms fixation cross in the center of the screen followed by filler pictures of random background environments. Each environment was presented for a random duration length between 483 – 984 ms, in intervals of 16.7 ms. There were one, two, or three filler pictures per trial (randomly varied from trial to trial). The filler picture sequence was followed by the target scene. The target scene was first presented without the target person for the same 483 – 984 ms duration time as the other filler images. The target person then appeared within the target scene. The target person remained on the screen until the participant made a response or the 700 ms response deadline was reached. Participants were given the following feedback after every trial: "correct," "incorrect," or "too slow". The feedback screen also displayed the participant's cumulative score.

The task began with instructions on the response mappings of "shoot" and "don't shoot." After the instructions, participants performed 16 practice trials (4 per condition) presented in random order. Upon completion of the practice trials, participants completed two blocks of experimental trials. Each block contained 60 trials, resulting in 120 total trials (30 trials per condition). Response time and accuracy were collected for all trials. A trial was counted as incorrect for both wrong responses (e.g., pressing "shoot" for an unarmed target) and response timeouts.

## Procedure

### Experimental Procedure:

Participants began the experiment by completing the Antisaccade task. The Antisaccade task was followed by the First Person Shooter task. Finally, participants completed the Multi-Group Ethnic Identity Measure. The total battery of tasks lasted approximately 45 minutes.

### Analysis Procedure:

Performance on the First Person Shooter Task was analyzed using Linear Mixed Effect (LME) modeling. All LME models used the "lme4" (v1.1-17 ) statistic package in R [25]. Fixed effect terms were Gun (Armed or Unarmed), Target Race (Black or White), Antisaccade, and Ethnic Identity (MEIM score). The Gun and Race variables were within-subjects; the Antisaccade and MEIM variables were between-subjects. All fixed effects were allowed to interact. Possible random effect terms were as followed: Subject, Target Person, Target Scene, Gun, and Race. Following previously established LME analysis procedures, a maximum random effect model with no correlations was used to explain the variance within the dependent [26-27]. If the random effect model did not converge or had a singular fit, random effect terms were reduced, one at a time, until there was no evidence of model overfitting. Each step of reduction removed


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the random effect term that explained the least amount of variance. This elimination process always started with the most complex random effect term. This process was repeated until the model converged and did not overfit. Correlations were then introduced for all terms and the reduction process for eliminating terms was repeated, if necessary. The "Gun" and "Race" factor variables were coded using sum contrast coding, allowing the regression coefficient to be interpreted as the deviation from the grand mean. For example, the "Race" factor was coded as followed: Black = 1, White = -1. The continuous Antisaccade and MEIM scores were *z* scored. All significant interactions were deconstructed into simple effects using the "emmeans" (v1.4.1) package. Continuous variables were discretized into "low" (-1.5 SD) and "high" (1.5 SD) values within the simple effects analysis.

## RESULTS

The dependent variable for the LME analysis was accuracy on the first-person shooter task. See Table 1 for descriptive statistics of the four first person shooter task conditions. The mean raw score of the Antisaccade task was 22.58 (*SE* = .82) out of a possible score of 36.

**Table 1: Mean accuracy and standard error for First Person Shooter Task conditions.**

| Condition | *M* | *SE* |
|---|---|---|
| Black Armed | 70.4 | .010 |
| Black Unarmed | 60.0 | .011 |
| White Armed | 69.0 | .010 |
| White Unarmed | 63.0 | .010 |

Mean accuracy scores include response time-outs (failure to respond within the 700 ms response time window).

There was a significant main effect of Gun such that participants were more accurate on armed trials (.70) when compared to unarmed trials (.62), $\beta = .23$, $SE = .08$, $p = .003$. There was no main effect of Race, $\beta = -.04$, $SE = .09$, $p = .672$. Supporting the study's first hypothesis, previous racial shooting bias results were replicated by way of a significant Gun X Race interaction, $\beta = .09$, $SE = .04$, $p = .026$.

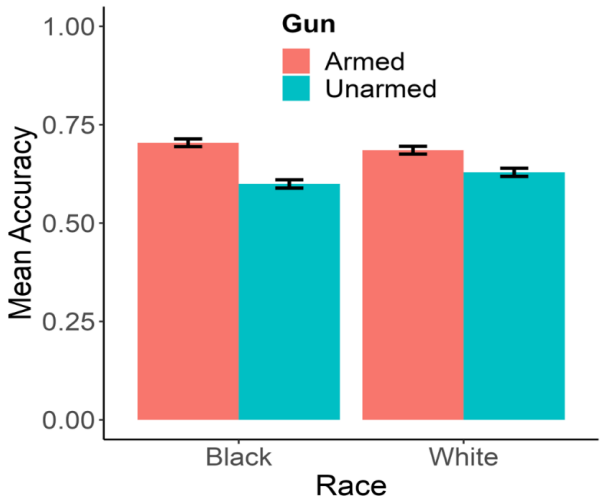


**Figure 1: Mean shooting accuracy for Black and White targets.**
Error bars depict standard error of the mean (SEM).

A simple effects analysis showed that there was no difference in accuracy between armed and unarmed White targets, $\beta = -.29$, $SE = .18$, $p = .102$; however, participants were more accurate for Black armed trials when compared to Black unarmed trials, $\beta = -.64$, $SE = .17$, $p < .001$. See Figure 1 for a graph of the observed racial shooting bias replication. The LME model's Gun X Race X Antisaccade term was used to test the hypothesis that attentional control would have a negative relationship with racial shooting bias. This three-way interaction was not significant, failing to provide supporting evidence for this hypothesis, $\beta = .02$, $SE = .03$, $p = .418$. Attentional control, however, was not totally disassociated from shooting behavior. Overall, higher attentional control was associated with higher overall shooting accuracy on the task, $\beta = .20$, $SE = .07$, $p = .002$. Also, low attentional control was associated with higher accuracy for armed trials when compared to unarmed trials, $\beta = .63$, $SE = .17$, $p < .001$. High attentional control, however, was associated with equal accuracy between armed and unarmed trials, $\beta = .31$, $SE = .17$, $p = .076$. See Table 2 for all LME results.

**Table 2: LME fixed effects of Shooting Accuracy in relation to Attentional Control and Ethnic Identity.**

| | *β* | *SE* | *z* | *p* |
|---|---|---|---|---|
| Intercept | .72 | .11 | 6.56 | < .001 |
| Gun | .23 | .08 | 3.00 | .003* |
| Race | - .04 | .09 | -0.42 | .672 |
| Antisaccade | .20 | .07 | 3.07 | .002* |
| MEIM | -.14 | .06 | -2.19 | .028 |
| Gun x Race | .09 | .04 | 2.22 | .026 |
| Gun x Antisaccade | -.05 | .03 | -2.06 | .040* |
| Gun x MEIM | .03 | .02 | 1.38 | .169 |
| Race x MEIM | -.01 | .02 | -0.40 | .693 |
| Gun x Race x MEIM | -.06 | .02 | -2.32 | .020* |

The * denotes significance at the level of α = 0.05. "MEIM" represents ethnic identity. "Antisaccade" represents attentional control.

The Gun X Race X MEIM term was used to test the hypothesis that ethnic identity would be negatively associated with racial shooting bias. A significant three-way interaction provided supporting evidence for this hypothesis, $\beta = -.06$, $SE = .07$, $p = .020$. Simple effects showed that there was only racial shooting bias when ethnic identity was low. There was no difference in shooting accuracy between armed and unarmed trials for White targets, $\beta = -.29$, $SE = .18$, $p = .102$. In contrast, armed Black trials were significantly more accurate than unarmed trials, $\beta = -.64$, $SE = .18$, $p < .001$. For high ethnic identity, shooting behavior was similar between Black and White targets. Armed White trials were significantly more accurate than unarmed White trials for participants with high ethnic identity, $\beta = -.56$, $SE = .20$, $p = .006$. Similarly, armed Black trials were significantly more accurate than unarmed Black trials for participants with high ethnic identity, $\beta = -.57$, $SE = .20$, $p = .004$. See Figure 2 for a graph of this interaction.

The ethnic identity scores were submitted to the LME analysis as a continuous variable. For visual simplicity, and as an approximation to the simple effect analysis that compared the effect at +1.5 SD and -1.5 SD, "High" and "Low" groups were created for visualization of the significant interaction. These groups were made using a median split. Error bars depict standard error of the mean (SEM).


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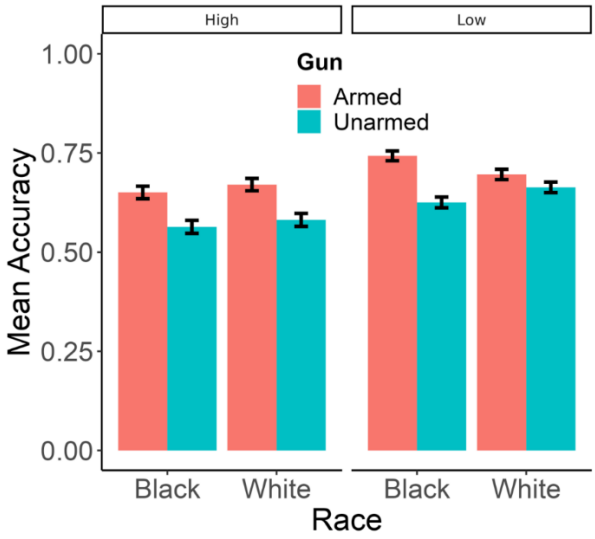


**Figure 2: Shooting Accuracy for Black and White Targets for High and Low Ethnic Identity Participants**

## DISCUSSION

Utilizing an understudied population (Black Americans), the current study examined the replicability of previously found racial shooting bias within primarily White populations. Additionally, the current study provided a novel exploration into how attentional control and ethnic identity might play a role in this shooting bias.

Results showed that, similar to the primarily White sample used in previous literature, Black participants also demonstrate biased shooting decisions against Black targets when compared to White targets. Black participants were equally accurate at responding "shoot" to armed White targets as they were at responding "don't shoot" to unarmed White targets. However, Black participants were more accurate at responding "shoot" to armed Black targets than they were at responding "don't shoot" to unarmed Black targets. In other words, Black participants demonstrated a bias to use deadly force against Black targets that was not present for White targets. Previous studies have suggested that this commonly found bias against Black targets is due to an association between Blacks and threat [2, 28]. With that said, it was expected that the Black participants with a higher sense of connection and pride to their race should have a weaker association between Blacks and threat, resulting in a reduction of biased shooting behavior against Black targets. The current study found evidence for this outcome.

As hypothesized, racial shooting bias against Black targets was modulated by ethnic identity. For participants with high ethnic identity, shooting behavior was the same towards Black and White targets. However, for participants with low ethnic identity, the typical anti-Black shooting bias was found against Black targets. Thus, the group with presumably weaker associations between Black people and threat (i.e., high ethnic identity participants) did not increase their decisions to use lethal force towards Black targets when compared to White targets. These results provide supporting evidence to the idea that Black Americans, on average, do not show positive in-group bias; critically, that lack of in-group bias is due to a bifurcated response trend such that half the sample displayed a Black-over-White bias and the other half displayed a White-over-Black bias [8-9].

It was also hypothesized that attentional control ability would be negatively related to racial shooting bias. This relationship was hypothesized due to the attentional resources required to successfully perform the first-person shooter task (FPST). The FPST requires participants to make decisions based on task-relevant object information (e.g., "press the shoot button if there is a gun") and ignore any other task-irrelevant information (e.g., target race or environment). Because encountering a stereotype concept can automatically activate other concepts related to that stereotype [29], processing the race of a Black target could activate threat-related ideas and influence shooting decisions. Participants with high attentional control should be processing target race to a lesser degree and, ultimately, less influenced by racial stereotype. The current study did not find supporting evidence for this hypothesis.

The lack of supporting evidence for the attentional control hypothesis could be due to the proportion of trials that were consistent/inconsistent with stereotype-related responses. Because all four conditions (black armed, black unarmed, white armed, white unarmed) were presented in equal number, participants saw an equal number of trials that were consistent with stereotypes and inconsistent with stereotypes. Crucially, trials that require participants to make a response that is inconsistent with these automatically activated stereotypes should require more attentional control than trials that are consistent with the stereotype. For example, if seeing a Black target activates threat-related concepts, making a "don't shoot" decision should require more attentional control than making a "shoot" decision. Previous studies have shown that increasing the proportion of trials that require participants to go against their automatic processing requires more attentional control ability [30-32]. Thus, increasing the proportion of stereotype incongruent trials (i.e., Black Unarmed and White Armed) could have made the FPST more sensitive to attentional control ability. Future research should explore this possibility.

## CONCLUSION

The current study's results provide new insight into the social factors that contribute to racially biased shooting decisions and highlights the importance of group-belonging to the decision to use lethal force. Although these results should only be interpreted within the specific context of the FPST, larger implications may be applicable to understanding intra-group interactions within the African-American community.

## References

Correll, J., et al., The police officer's dilemma: using ethnicity to disambiguate potentially threatening individuals. Journal of Personality and Social Psychology, 2002. 83(6): p. 1314.

Correll, J., et al., The influence of stereotypes on decisions to shoot. European Journal of Social Psychology, 2007. 37(6): p. 1102-1117.

Correll, J., et al., Across the thin blue line: police officers and racial bias in the decision to shoot. Journal of Personality and Social Psychology, 2007. 92(6): p. 1006.

Ito, T.A., et al., Toward a comprehensive understanding of executive cognitive function in implicit racial bias. Journal of Personality and Social Psychology, 2015. 108(2): p. 187-218.

Mekawi, Y., K. Bresin, and C.D. Hunter, Dehumanization of African-Americans influences racial shooter biases. Race and Social Problems, 2019. 11: p. 299-307.

Mekawi, Y. and K. Bresin, Is the evidence from racial bias shooting task studies a smoking gun? Results from a meta-analysis. Journal of Experimental Social Psychology, 2015. 61: p. 120-130.

Brewer, M.B., The social psychology of intergroup relations: Social categorization, ingroup bias, and outgroup prejudice. In: Kruglanski AW, Higgins ET, editors. Social psychology: Handbook of basic principles. The Guilford Press, 2007. p. 695-715.

Livingston, R.W., The role of perceived negativity in the moderation of Black Americans' implicit and explicit racial attitudes. Journal of Experimental Social Psychology, 2002. 38(4): p. 405-413.

Newheiser, A.K. and K.R. Olson, White and Black American children's implicit intergroup bias. Journal of Experimental Social Psychology, 2012. 48(1): p. 264-270.

Gibson B.L., et al., Sources of implicit and explicit intergroup race bias among African-American children and young adults. PloS one, 2017. 12(9): p. e0183015.

Phinney, J.S. and A.D. Ong, Conceptualization and measurement of ethnic identity: Current status and future directions. Journal of Counseling Psychology, 2007. p. 54(3):271.

Ashmore, R.D., K. Deaux, and T. McLaughlin-Volpe., An organizing framework for collective identity: Articulation and significance of multidimensionality. Psychological Bulletin, 2004. 130(1): p. 80.

Phinney, J.S., Ethnic identity exploration in emerging adulthood, In: Arnett JJ, Tanner JL, editors. Emerging Adults in America: Coming of Age in the 21st Century. American Psychological Association, 2006. p. 117-134.

Phinney, J.S. and L.L. Alipuria, Ethnic identity in college students from four ethnic groups. Journal of Adolescence, 1990. 13(2): p. 171-183.

Unsworth, N., The many facets of individual differences in working memory capacity. Psychology of Learning and Motivation, 2016. 65: p. 1-46.

Atkinson, R.C. and R.M. Shiffrin, The control of short-term memory. Scientific American, 1971. 225(2): p. 82-91.

Baddeley, A.D. and G. Hitch, Working memory. In: Bower GH, editor. The Psychology of Learning and Motivation. Vol. 8. Academic Press, 1974. p. 47-89.

Brewer, G.A., B.H. Ball, and J.M. Ware, Individual differences in working memory capacity and shooting behavior. Journal of Applied Research in Memory and Cognition, 2016. 5(2): p. 185-191.

Hallett, P.E., Primary and secondary saccades to goals defined by instructions. Vision Research, 1978. 18(10): p. 1279-1296.

Unsworth, N., J.C. Schrock, and R.W. Engle, Working memory capacity and the antisaccade task: Individual differences in voluntary saccade control. Journal of Experimental Psychology: Learning, Memory, and Cognition, 2004. 30(6): p. 1302.

Roberts, R., et al., The structure of ethnic identity in young adolescents from diverse ethnocultural groups. Journal of Early Adolescence, 1999. 19: p. 301-322.

Peirce, J., et al., PsychoPy2: Experiments in behavior made easy. Behavior Research Methods, 2019. 51: p. 195-203.

Fisher, S., et al., Multigroup ethnic identity measurement invariance across adolescence and diverse ethnic groups. Journal of Adolescence, 2020. 83: p. 42-51.

Ponterotto, J. G., et al., The multigroup ethnic identity measure (MEIM): Psychometric review and further validity testing. Educational and Psychological Measurement, 2003. 63(3): p. 502-515.

R Core Team., R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria, 2023.

Bates, D., et al., Parsimonious mixed models. arXiv preprint arXiv:1506.04967, 2015.

Matuschek, H., et al., Balancing Type I error and power in linear mixed models. Journal of Memory and Language, 2017. 94: p. 305-315.

Correll, J., et al., Stereotypic vision: How stereotypes disambiguate visual stimuli. Journal of Personality and Social Psychology, 2015. 108(2): p. 219-233.

Dovidio, J.F., et al., On the nature of prejudice: Automatic and controlled processes. Journal of Experimental Social Psychology, 1997. 33(5): p. 510-540.

Bugg, J.M., Context, conflict, and control. In: Egner T, editor. The Wiley Handbook of Cognitive Control. John Wiley & Sons, 2017. p. 79-96.

Jacoby, L.L., D.S. Lindsay, and S. Hessels, Item-specific control of automatic processes: Stroop process dissociations. Psychonomic Bulletin & Review, 2003. 10(3): p. 638-644.

Lesh, T.A., et al., Proactive and reactive cognitive control and dorsolateral prefrontal cortex dysfunction in first episode schizophrenia. NeuroImage: Clinical, 2013. 2: p. 590-599.