Video Game Play, Racism, Trait Aggression, and Gender are Associated with Responding During the Police Officer's Dilemma Task

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Background

- The Police Officer's Dilemma Task (POD; Correll et al., 2002), a laboratory-based assessment, presents images of young men holding either a gun or non-gun (e.g., cell phone, soda can, wallet) set against a variety of backgrounds. Participants are required to shoot armed, but not unarmed, targets (50% are White; 50% are Black).
- Correll and colleagues (2014) find a racial bias in the decision to shoot; participants are more willing to fire at Black targets, relative to White targets. However, their research also indicates that the ability to distinguish non-guns from guns does not typically vary by the race of the target.
- POD performance is affected by a number of factors including: primed associations between target race and criminality; decreased cognitive control due to high arousal, stress, and/or fatigue; training on the task, law enforcement expertise, and stereotypical beliefs.
- Two variables that are not frequently discussed in the literature, but are focused on in the presents study are: (1) gender differences on the POD; and (2) associations between trait aggression and performance on the POD.
- Given that the POD is a first-person-shooter task (FPST), the current study assessed POD performance as a function of: (1) playing a first-person-shooter-game (FPSG) in the laboratory; and (2) previous experience with, and preference for, playing violent video games outside of the lab.

Method

Participants

- The sample consisted of 129 White undergraduates (58% female)

Pre-Video Game Play Measures

- Aggression Questionnaire (Buss & Perry, 1992)
- Modern Racism Scale (McConahay, 1986)
- Video Game History: 3 most frequently played games, with time estimates; 3 favorites

Video Game Play

- *Reload* (Rated T): 12-15 minutes of gameplay

  Condition 1: Participants shoot hostiles with innocents present (see Fig. 1)

  Condition 2: Participants shoot hostiles (no innocents; see Fig. 2)

  Condition 3: Participants shoot bullseyes and/or other inanimate objects (see Fig. 3)

Fig. 1


Fig. 2


Fig. 3

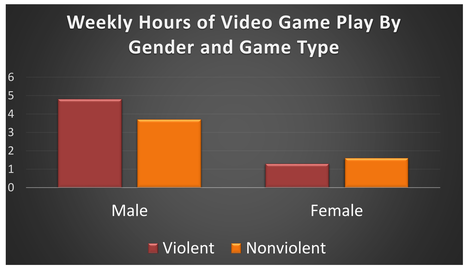
Post-Video Game Play Assessment

- Video Game Play Ratings: How….violent, enjoyable, disturbing, challenging
- Police Officer's Dilemma Task (Correll, Park, Judd, & Wittenbrink, 2002)
  - Sequence of 2-4 scene images (park, street, etc.), each shown for 500-1000 ms
  - Target inserted into the final scene in sequence (armed or unarmed)
  - Participant makes speeded response using keyboard: Q to "shoot"; P to "not shoot"
  - Response deadline: 850 ms
  - Participants receive feedback after each trial and are rewarded with points for correct responses or penalized for errors or responses that are too slow

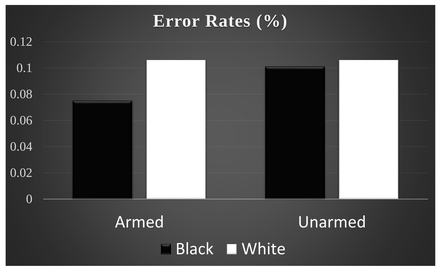


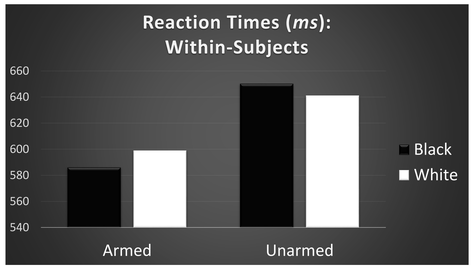

Results

Gender Differences in Game Play

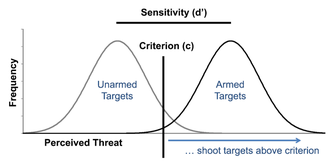


POD Error Rates and Reaction Time

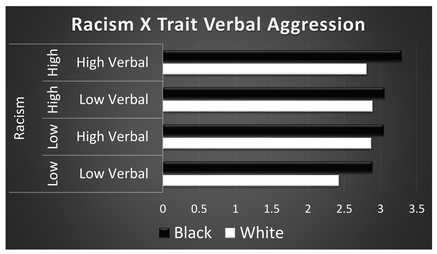


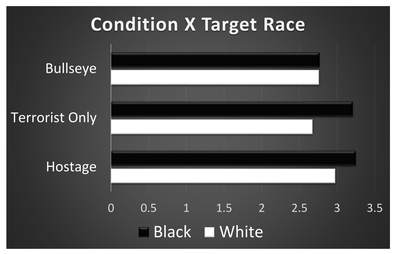


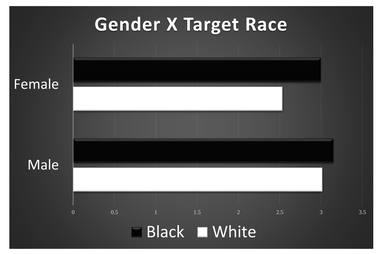
Signal Detection Analyses



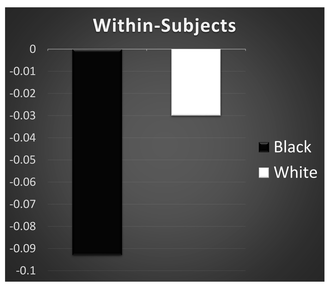
POD Differences in Sensitivity

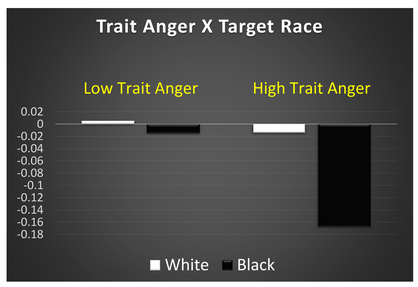


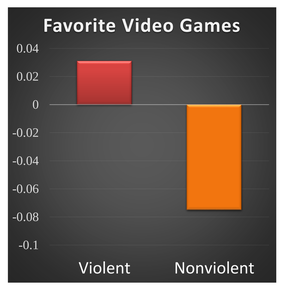


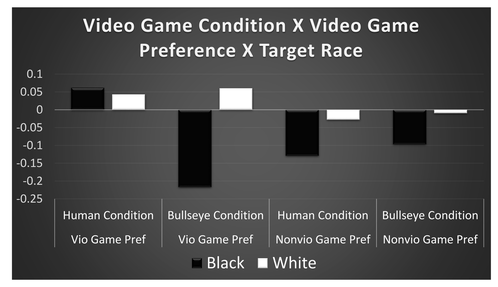


POD Differences in Criterion









Discussion

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- Consistent with previous research, participants shot an armed target more quickly if he was Black, rather than White; but decided to not shoot an unarmed target more quickly if he was White, rather than Black.
- Consistent with previous research, participants erroneously chose to not shoot White targets more than Black ones. However, in contrast to previous research, there were no error rate differences for unarmed targets.
- In contrast to previous research, participants were better able to differentiate non-guns from guns when held by Black targets, relative to White targets.
- In addition, participants high in racism and high in trait verbal aggression were better able to distinguish between non-guns and guns for Black targets, relative to White targets. Similarly, participants demonstrated greater sensitivity for Black targets (in comparison to White ones) immediately after playing a condition in the FPSG involving human targets. Finally, females were better able to distinguish non-guns from guns when held by Black targets, relative to White targets.
- Consistent with previous research, participants showed a greater willingness to open fire on Black targets, relative to White targets.
- Participants with a preference for nonviolent video game play were more willing to shoot at any target (regardless of race) compared to participants that preferred violent video games. This is not surprising given that many violent video games require participants to selectively acquire targets before shooting. However, the selectivity effect seems to disappear, and racially biased responding returns, when the participants with a history of violent video game play engage in object-based shooting prior to the POD.
- The finding that participants high in trait anger were far more willing to shoot Black targets than White ones, when no such differences were seen for individual's low in trait anger, suggests that racial bias in the decision to shoot may be accentuated by certain personality variables.