

Can Interracial Parasocial Interactions in Video Games Reduce Prejudice and Promote  
Support for Anti-Racism? A Study Proposal

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### Abstract

Video games can be a powerful art form where players safely learn about racial out-groups—their stories, beliefs, values, and social norms without concerns of appearing as a racist. In video games, players can interact with out-group characters and form parasocial connections, which then theoretically could reduce out-group bias and increase support for antiracist social movements. However, other research suggested that White people may experience negative emotions in interracial interactions, which could then leads to disengagement and less support for anti-racism. In the proposed study, I will examine whether White people who interact with Black characters report lower prejudice towards Black people and higher support for anti-racism movements (e.g., Black Lives Matter and Kick Out Zwarte Piet) compared with those who play a video game with White characters only. I will also measure participants' heart rate variability as a correlate for emotion regulation while playing the video game. I expect that participants with higher heart rate variability will report lower prejudice and higher support for anti-racism than those with lower heart rate variability.

*Keywords:* video game, interracial contacts, parasocial relationships, prejudice

Word count: 1009

## Can Interracial Parasocial Interactions in Video Games Reduce Prejudice and Promote Support for Anti-Racism? A Study Proposal

Video games are vastly popular—an estimated 40% of the worldwide population (70% of the Dutch population) played video games in 2020 (IGN, 2020; Statista, 2021). Video games can be a powerful art medium where players can interact with characters from racial outgroups, which could reduce prejudice and increase support for anti-racist social movements (Breves, 2020). If so, video games can provide a scalable intervention strategy to facilitate diversity, inclusion, and social justice. In the current study, I examine whether White players who play a video game with Black characters would report lower prejudice and higher support for anti-racism, compared with those who play a video game with only White characters.

### **Interracial Parasocial Interactions in Video Games and Implications on Prejudice and Anti-Racism**

Many video games present compelling characters to whom players can form one-sided, emotional relationships—called *parasocial interactions* (Burgess & Jones, 2020; Horton & Wohl, 1956; Tyack & Wyeth, 2017). These parasocial interactions can be interracial. For example, a White player playing *Mafia III* can parasocially interact with Black characters and learn about Black people’s lives in the 1960s in the American south. These interracial contacts in video games are valuable since people often lack cross-race friends in real life (McDonald et al., 2013).

Do interracial parasocial interactions can reduce prejudice and promote support for anti-racism? Studies on the parasocial contact hypothesis suggested that parasocial interactions with outgroups can reduce prejudice (Banas, Bessarabova, & Massey, 2020; Schiappa, Gregg, & Hewes, 2005, 2006). In one study, participants played a quest from *Skryrim* and interacted with a Black character in a virtual reality environment. After playing the game, participants reported lower prejudice against Black people compared

with those who did not interact with a Black character (Banas, Bessarabova, & Massey, 2020). Lowered prejudice can facilitate more support for anti-racism: people with lower prejudice towards Black people endorsed the Black Lives Matter movement than those with higher prejudice (Ilchi & Frank, 2021).

### **A Potential Downside of Interracial Interactions: Aversive Racism**

According to the aversive racism theory, interactions with racial out-groups may not necessarily reduce prejudice or improve support for anti-racism. The aversive racism theory suggests that White people tend to experience negative affect in interracial interactions, which then leads to disengagement and less helping behavior for outgroups (Gaertner, 1973; Gaertner & Dovidio, 2005; Goff, Steele, & Davies, 2008). In the context of video games, I can expect that some White players might disengage from interracial parasocial interactions to avoid experiencing negative emotions, resulting in no changes in prejudice or support for anti-racism.

Some players may successfully regulate negative emotions and engage with interracial parasocial interactions. Indeed, Americans who effectively regulated their emotions reported lower prejudice towards Muslims following the Boston Marathon bombings than those who did not (Steele, Rovenpor, Lickel, & Denson, 2019). Thus, White players who successfully regulate their emotions in interracial interactions may report lower prejudice and higher support for anti-racism than those who do not. To measure the degree of emotion regulation, I will use the heart rate variability—variation in heart rate over time. People with higher heart rate variability regulated their emotions more effectively than those with lower heart rate variability (Appelhans & Luecken, 2006).

### **Current Study**

I designed the current study to examine whether White people would report lower prejudice and higher support for anti-racism after interacting with a Black character. I suggest the following hypotheses. First, I hypothesize that White players who interact with

a Black character will report lower prejudice (Hypothesis 1a) and higher support for anti-racism (Hypothesis 2a) than those who interact only with a White character.

Following the aversive racism hypothesis, I suggest an alternative hypothesis for the null results—the levels of interracial parasocial interaction do not affect prejudice (Hypothesis 1b) or the support for anti-racism (Hypothesis 2b). Finally, I hypothesize that among White players interacting with a Black character, those with higher heart rate variability would report less prejudice (Hypothesis 3) and more support for anti-racism (Hypothesis 4) compared with those with lower heart rate variability.

## Method

### Sample Size Rationale and Participants

Since no reliable effect size is available for the current study, I draw from the median effect size ( $d = 0.36$ ) derived from more than 18,000 effect sizes in social psychology (Lovakov & Agadullina, 2021). To achieve the 90% power, and 5% alpha, I will recruit 492 participants (164 for the 3-group design) to detect  $d = 0.36$  between groups.

### Materials, Procedure, and Measures

Participants will come to the lab, and then wear a heart rate monitor for the heart rate variability recording. Participants will complete the demographics questions and a breathing task for the baseline heart rate variability (Time 1). Then, the participants will play a quest from *Skyrim* adopted from a previous study (Banas, Bessarabova, & Massey, 2020). I will randomly assign participants to one of the three conditions. In the High Interracial Interaction Condition, participants will interact with Black characters to complete the quest. In the Low Interracial Interaction Condition, participants will interact with White characters. In the Control Condition, participants will play *Portal* for the same amount of time. I choose *Portal* for the control condition since the game shares the first-person perspective as *Skyrim* while not presenting parasocial interaction targets. During the gameplay, I will record participants' heart rate variability (Time 2).

After playing the video game, participants will complete a prejudice measure (Pettigrew & Meertens, 1995, e.g. “Black people have jobs that the Dutch people should have”), and an ad-hoc scale measuring support for antiracism (asking participants how much they support or oppose “Black Lives Matter,” “Kick Out Zwarte Piet,” and “Anti-Racism”). Finally, participants will again complete a paced breathing task for the heart rate variability recording (Time 3).

### **Analytic Strategy**

I will perform a One-Way ANOVA to examine if participants report different levels of prejudice (Hypotheses 1a and 1b) and support for anti-racism (Hypotheses 2a and 2b). To examine the moderating effect of heart rate variability across time, I will construct random-slope models predicting prejudice (Hypothesis 3) and anti-racism scores (Hypothesis 4) with the following predictors: Condition (categorical), Time, and Condition x Time interaction.

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