

The interplay of individual differences, norms, and group identification in predicting prejudiced behavior in online video game interactions

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Abstract

Despite the increasing popularity of video games and the diversity of people who play, prejudice remains common in online gaming. In the current study, we use structural equation modeling to test the role of social norms, individual differences, and gamer identification as predictors of how likely someone is to report engaging in prejudiced behavior while playing online video games. We also test the relative importance of these predictors to assess how likely people are to confront prejudice when it occurs in online video games. Participants ($N = 384$) completed a series of questionnaires to assess their attitudes and perceptions of online gaming norms, as well as to report their own prejudiced and confrontation behavior in video games. We found that both social norms and individual differences are significant predictors of behavior in online gaming. The more normative people report prejudice to be, the more they report making prejudiced comments. Similarly, the more normative confrontation of prejudice is reported to be, the more likely people are to report confronting prejudice. The more people endorsed generally prejudiced attitudes, the more likely they were to report making prejudiced remarks in online gaming and the less likely they were to report confronting prejudiced remarks. These results provide a foundation to inform interventions to reduce prejudice in gaming and indicate that both individual differences and norms are important to consider when designing interventions.

1 | INTRODUCTION

Videogames are an increasingly popular form of entertainment. More than two billion people worldwide (Wijman, 2018) and sixty-five percent of Americans play video games (Entertainment Software Association [ESA], 2019). The size of the video game streaming industry is growing rapidly as well (e.g., 140 million unique viewers watch video games streamed on *Twitch TV*, an online streaming service, each month; Smith, 2019). Video games can have positive consequences, both social (Trepte, Reinecke, & Juechems, 2012) and cognitive (Granic, Lobel, & Engels, 2014; Green & Bavelier, 2012; Spence & Feng, 2010). As well, video games have the potential to improve

intergroup relations by providing opportunities for intergroup contact (Adachi, Hodson, Willoughby, Blank, & Ha, 2016; Adachi, Hodson, Willoughby, & Zanette, 2015). However, video games are also known for negative effects, such as the impact of sexualized female characters on attitudes toward women (Burgess, Stermer, & Burgess, 2007; Dill, Gentile, Richter, & Dill, 2005; Downs & Smith, 2010) and the toxic environment and frequency of prejudice in online video games (Ballard & Welch, 2015; Fox & Tang, 2017; Gray, 2012; Kuznekoff & Rose, 2012; McLean & Griffiths, 2019; Ortiz, 2019; Sliwinski, 2007).

Online games are a popular subset of video games—in 2019, adult American gamers spent an average of 4.8 hours per week playing with others online (ESA, 2019). In the United States alone,

55.2 million people play online console games (<https://www.wepc.com/news/video-game-statistics/>). Moreover, 100 million people worldwide play a single online multiplayer computer game: *League of Legends (LoL)*; Tassi, 2016), which equals the populations of Great Britain and Canada, combined. Research about interactions in online gaming is a growing area of interest as both the popularity of video games and the regular occurrence of racism, sexism, and homophobia in online gaming are recognized. The present work focuses on online gaming and expressions of prejudice and aims to provide a preliminary understanding of why prejudice is so common in online gaming. This research may then enable future work that can effectively reduce this prejudiced behavior.

1.1 | Prejudice in online video games

Initial evidence of the regularity with which prejudiced comments are made in online gaming was first documented through anecdotal sources, including Websites that report female gamers' experiences of sexism and harassment in online gaming (e.g., fatuglyorslutty.com). The results of several surveys provide additional evidence that sexism is common in online gaming. In a 2012 survey, 79.3% of all respondents reported that sexism is prominent in the gaming community, while 63.3% of female respondents reported having been the subject of sex-based harassment while playing online video games, and 35.8% of female respondents reported they had quit playing temporarily because of sexism experiences while playing video games (Matthew, 2012). A study by the Pew Research Centre (2014) found that of all online platforms, video games are perceived as the least welcoming to women, and work exploring women's responses to harassment in online games shows that they often withdraw from the social environment and play alone to avoid toxic behavior (Fox & Tang, 2017; McLean & Griffiths, 2019). Experimental studies show a similar pattern of toxic behavior toward female gamers. For example, Kuznekoff and Rose (2012) found that during an online match of a popular shooting game, *Halo 3*, statements made by women received three times as many negative comments as the same statements made by men.

Most of the research conducted about interactions in online gaming has focused on sexism and sexual harassment. However, the studies that have been conducted about homophobia and racism reveal a similarly bleak outcome for minority gamers. A study about homophobia in online gaming found that a large majority of gamers have seen homophobic phrases used: 87.7% reported that gamers use the phrase "that's so gay" and 83.4% reported that players use the terms "gay" and "queer" in a derogatory way (Sliwinski, 2007). In one of the only studies of racism in online gaming, Gray conducted an ethnographic survey of Black gamers on Xbox Live (2012). Gray spoke with four Black male gamers about their experiences in online gaming who reported regularly (almost daily) experiencing racist taunts and slurs, suggesting that racism remains common and normal in online gaming. A second qualitative study of twelve men of color's experience in online gaming revealed similar patterns of

behavior—racism is a regular experience when playing video games and racist trash-talk is seen as an unavoidable component of playing video games on Xbox Live (Ortiz, 2019).

Social psychological research consistently finds that exposure to prejudice has negative consequences for well-being (Denton, Rostosky, & Danner, 2014; Major & O'Brien, 2005; Schmitt, Branscombe, Postmes, & Garcia, 2014). However, although there is a foundation of research that documents the occurrence of prejudice in online gaming, there is less work that attempts to explain why it occurs. Before we can design effective interventions to reduce such behavior, it is critical to understand what factors are responsible for the high levels of prejudice in online gaming. To that end, the present work explores the contributing role of two potential causes of prejudice: Norms and individual differences.

1.2 | Social norms and prejudice

Social norms—the unspoken rules of acceptable behavior—are strongly related to intergroup attitudes toward a variety of groups (Crandall, Eshleman, & O'Brien, 2002; Falomir-Pichastor, Chatard, Selimbegovic, Nonan, & Mugny, 2013; Monteith, Deneen, & Toonan, 1996) and intergroup behaviors (Gabarrot, Falomir, & Mugny, 2009; Jetten, Spears, & Manstead, 1996), even among children (Nesdale & Dalton, 2011). In addition to predicting attitudes, social norms predict negative behaviors like insulting and derogating outgroup members (e.g., Amiot, Sansfaçon, & Louis, 2013; Amiot, Sansfaçon, & Louis, 2014). Given the importance of norms in predicting both behavior and attitudes toward outgroup members, we propose that perceptions of norms as accepting of prejudice in online gaming will in turn predict how people behave in this environment.

Prior psychological research on norm-based behavior suggests that norms might be a particularly strong predictor of behavior in online gaming given the anonymity and deindividuation that occurs in online environments (Postmes, Spears, & Lea, 1999; Suler, 2004). The Social Identity model of Deindividuation Effects (SIDE; Postmes et al., 1999) proposes that deindividuation or depersonalization of group members emphasizes the entitativity of the group and encourages behavior consistent with group norms. That is, the less identifiable (the more anonymous) a person is, the more deindividuated they are, the more they are likely to adhere to group norms. In computer-mediated communication or online communication, people are likely to be more deindividuated than in face-to-face interactions and are more likely to be influenced by group norms (Postmes et al., 1999). Thus, the Social Identity model of Deindividuation Effects suggests norms might be particularly relevant to predicting behavior during online gaming.

In addition to increasing reliance on norms, the deindividuation and anonymity of online gaming might also lead to greater stereotyping or prejudice by increasing reliance on available cues to group membership. When individuating information is missing, such as when people are relatively anonymous, group membership becomes more salient (Postmes, Spears, & Lea, 2002). Thus, deindividuation

may simultaneously increase reliance on relevant group norms, such as those associated with the gamer identity, while also increasing the relevance of group membership cues. In games where voice-chat is available, this could include clues to race, gender, and sexual orientation. Identification of group membership from voice cues can lead to prejudice and discrimination (Baugh, 2003), and in online video games, the combination of reliance on norms and salient group memberships may lead to increased prejudice compared with when people are individuated or no clues to group membership are available.

However, group norms do not influence everyone equally. People whose sense of self is closely tied to the group are more likely to adopt and adhere to group norms (Livingstone, Haslam, Postmes, & Jetten, 2011; Terry & Hogg, 1996). Because of this, we expect that people who strongly identify as a gamer will show more adherence to prejudice norms in online video game interactions. The importance of group identification in the adoption of and adherence to group norms emphasizes the importance of including a measure of gamer identification in any work exploring the influence of norms on behavior in online gaming.

Although norms are certainly an important predictor of prejudiced attitudes, they are not the only factor that may shape people's attitudes and behaviors in online gaming. Akrami and colleagues (Akrami, Ekehammer, Bergh, Dahlstrand, & Malmsten, 2009) tested the extent to which people's prejudice varies across different normative contexts. They found that although participants' expressed level of prejudice is influenced by relevant social norms (increases or decreases in normative prejudice), their rank order of prejudice expression remains consistent. That is, although people express more prejudice when prejudice is normatively acceptable, those who express the most prejudice in one situation consistently express more prejudice than others across situations. This work suggests that although norms in online gaming might increase the extent to which people are willing to express prejudice, individual differences might also combine with norms to predict who is most prejudiced in online gaming. If this is the case, then a combined intervention that targets both individual attitudes and social norms in online gaming may be the most effective at changing prejudice in online gaming. However, if norms or individual differences have a stronger influence on behavior in the online gaming environment, the most efficient interventions might be those that target a single factor.

1.3 | Individual differences and prejudice

Several individual difference traits are known to be associated with expressing prejudice, including Right-Wing Authoritarianism (RWA; Altemeyer, 1981) and Social Dominance Orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994). RWA reflects the extent to which people endorse traditional values and defer to established authority (Altemeyer, 1981) and has been shown to predict attitudes toward various groups, including Black people, homosexuals, (Whitely, Jr., 1999), women (Altemeyer, 1998), and Jewish people

(McFarland, Ageyev, & Abalakina, 1993). SDO reflects the extent to which people endorse social hierarchy within society and believe some groups should be higher status than others (Sidanius, Pratto, & Bobo, 1994). Like RWA, SDO has reliably been shown as a predictor of prejudiced attitudes—people high in SDO tend to be higher in prejudice toward ethnic outgroups (Pratto et al., 1994; Stern & Axt, 2019), women (Ekehammer, Akrami, & Araya, 2000), and homosexuals (Whitely, Jr., 1999).

Although both RWA and SDO are well established in the literature as predictors of prejudice, they are not highly correlated ($r = .14$, Pratto et al., 1994). They function through different mechanisms and are predictive of attitudes toward different groups (Asbrock, Sibley, & Duckitt, 2010). RWA predicts prejudice toward groups that are seen as a threat to social order, stability, and security. This includes groups that are perceived to pose real threats to the welfare of a group or its members (e.g., threats of violence, threats to economic resources; Stephan & Stephan, 2000) and/or groups that are perceived to pose symbolic threats to the worldview of a group (e.g., threats to values or culture; Stephan & Stephan, 2000). SDO, moreover, is predictive of prejudice toward groups that are socially subordinate, or low in status and power. In addition, SDO is predictive of prejudice toward groups that are perceived as competing with the dominant group and groups that are perceived as challenging the existing group hierarchy. As some groups may be perceived both as a threat to social order and as in competition with the ingroup, attitudes toward these groups are typically predicted by both RWA and SDO (Asbrock et al., 2010).

In online video games, it is likely that some groups are perceived as posing a threat to the social order. Realistic threats may be posed by losing a match to an opposing team; symbolic threats may be posed by the presence of gay, racially diverse, or female gamers who are not seen as fitting the traditional expectations of who a gamer is (Gray, 2012). The likeliness of experiencing a threat to the social order in online gaming points to the importance of RWA as a predictor of behavior in this environment. As well, the regular occurrence of competition in online gaming supports the need to also include SDO as a predictor of prejudice in online gaming. Thus, both RWA and SDO are expected to be important predictors of prejudiced behavior in online gaming.

In addition to RWA and SDO, we include measures of empathy and internal motivation to respond without prejudice (Plant & Devine, 1998) as potential predictors of prejudiced behavior. Empathy has been shown to predict prejudice, even when controlling for RWA and SDO (Bäckström, & Björklund, 2007; McFarland, 2010): People high in empathy tend to be low in prejudice.

Internal motivation to respond without prejudice has not been included in previous models testing the independent effects of RWA, SDO, and empathy in predicting prejudice. However, internal motivation has been explored in combination with RWA and SDO in research that explores the relationship between political beliefs and intergroup attitudes. Internal motivation was shown to have an important role in mediating attitudes toward derogated groups, even with RWA and SDO included in the model (Webster, Burns,

Pickering, & Saucier, 2014). Given this evidence of its independent relationship with prejudice and its emphasis on internal drives not to be prejudiced, we believe it is important to assess internal motivation to respond without prejudice in the current study. We expect that people high in this trait will be less likely to report making bigoted comments in online gaming.

1.4 | Predicting prejudice in online gaming

One area of study that can inform our understanding of prejudiced behavior in online gaming is research that has explored general aggressive behavior, or trolling behavior, online (Buckels, Trapnell, & Paulhus, 2014; Hilvert-Bruce & Neill, 2020). This research shows the important role of individual differences and social norms. Research exploring online trolling behavior found that some individual differences, including sadism, psychopathy, and Machiavellianism, are predictive of trolling behavior, such that being higher on these traits is associated with a higher propensity to post comments that are deceptive, disruptive, or destructive (Buckels et al., 2014). Recent research has also demonstrated that norms about cyber-aggression in online video games predict the likelihood that someone will report engaging in generally aggressive or prejudiced behavior in an online game (Hilvert-Bruce & Neill, 2020).

Additional lines of work have explored how both individual differences and norms function to predict sexist behavior in the online gaming environment. Fox and Tang (2014) explored the role of empathy, SDO and adherence to masculine norms (beliefs about how men should behave, think, and feel) in predicting sexist behavior in online gaming and found that masculine norms and Social Dominance Orientation, but not empathy, predicted how much participants reported making and engaging in various sexist behaviors in the online gaming environment. A subsequent study examining individual difference predictors of sexist behavior found that hostile sexism and SDO, but not engagement with a video game or benevolent sexism, are significant predictors of self-reported sexist behavior in the online gaming environment (Tang & Fox, 2016).

Recent research further extends our understanding of individual difference predictors of prejudiced behavior in online gaming by assessing a more comprehensive model of the predictors of sexism in online gaming (Tang, Reer, & Quandt, 2020). Hostile sexism, Social Dominance Orientation, sadism, narcissism, Machiavellianism, and gamer identification were tested as predictors of self-reported sexual harassment in online video games. All of these, except narcissism, were shown to predict sexist behavior.

This past research provides a strong foundation for the current work. There is some evidence that individual differences and norms may be important to understanding the causes of prejudice in online gaming. In the current study, we build upon this foundation and address several limitations of past work by testing the role of the trait-like personality constructs of Right-Wing Authoritarianism, Social Dominance Orientation, internal motivation to respond without prejudice, and empathy to predict prejudiced behavior toward three

different groups. Using structural equation modeling we are able to explore the direct and indirect effects these individual difference traits, engagement with the gamer identity, and perceived norms on prejudiced behavior and can account for the relationship between these predictors.

1.5 | Online and offline contexts

The existing literature provides a starting point for understanding prejudice in online gaming. However, our understanding of the causes of prejudice in online gaming to date is incomplete and we cannot effectively progress to designing interventions to reduce prejudice in online gaming until we have developed a more nuanced understanding of its causes. Gray's (2012) research about racism on Xbox Live provides some evidence to support the notion that online and offline environments are not equivalent. In Gray (2012), participants indicated that although people regularly make racist comments to them in online gaming, almost no one in face-to-face interactions makes these comments. This suggests that people differentiate between contexts and apply different standards and norms depending on the context. In her study, Gray also interacted with those who made racist comments and questioned their motivations for their behavior. Despite making race-based comments, gamers denied that they were personally racist. We test this claim of dissociation between an "online self" and an "offline self" in the current study by testing the relationship between general prejudice attitudes and behaviour in online gaming.

1.6 | The current study

The first goal of this study is to provide a preliminary explanation as to why people engage in bigotry in online gaming. This is an essential first step to guide future work that may develop and test methods to reduce prejudice in this environment. Norms, individual differences, or both may be important in predicting prejudiced behavior. Past work has often considered one of these factors when attempting to explain attitudes but only considering one in isolation does not allow us to draw conclusions about which is relatively more important, or indeed, if both are necessary to understand prejudiced behavior.

People often point to anonymity in online interactions when attempting to explain toxic behavior (Suler, 2004). Because of this, we include a measure of how anonymous participants feel in online gaming environments. In addition, because there are gender differences in gaming habits (Phan, Jardina, & Hoyle, 2012) and prejudice (McFarland, 2010) we include gender in our model. The final variable we consider in predicting prejudiced behavior is gamer identification. As shown in past work (Terry & Hogg, 1996), group identification influences adherence to group norms. In this study, we expect that gamer identification will influence reported behavior either directly or through its influence on perceptions of prejudice norms.

The second goal of this study is to understand how people respond to prejudice in online gaming. Confronting prejudice is an effective, if uncomfortable, way to influence attitudes and reduce future expressions of prejudice (Czopp, Montheith, & Mark, 2006), but it is an uncommon response (Dickter, 2012). People may avoid confronting prejudice for a number of reasons—for instance, confronting prejudice is uncomfortable and may create backlash (Dickter, 2012). Some may also worry that when confronting prejudice, particularly homophobia, they will be more likely to be labeled as part of the stigmatized group (Kroeper, Sanchez, & Himmelstein, 2014). In online gaming, where prejudice is common, confronting prejudiced comments might be particularly infrequent because prejudice is normative. There may also be heightened concern that violating norms of prejudice acceptance can lead to toxic behavior targeted toward the confronter. To our knowledge, there is no research yet that assesses the likelihood of prejudice confrontation in online gaming. Given its success elsewhere in changing attitudes and behavior, we think it is important to understand how common confrontation is in the online gaming environment and to understand the factors that predict if someone will confront prejudice. We provide a preliminary assessment of these questions by measuring the frequency of confrontation in response to prejudice, assessing what responses to prejudice are most common, and by applying our norms and individual difference model to predict confrontation behavior.

We test two models in this study. Using Structural Equation Modeling, we first examine the relative importance of several individual differences (empathy, internal motivation to respond without prejudice, RWA, and SDO) to predict perceptions of norms (the frequency of racism, sexism, and homophobia), and reported prejudiced behavior in online gaming contexts (see Figure 1 for an overview of the model). We include gender as a predictor of individual differences and gamer identification, and gamer identification as a predictor of norms and prejudiced behavior. The second model tests these same input variables as predictors of confrontation of prejudice.

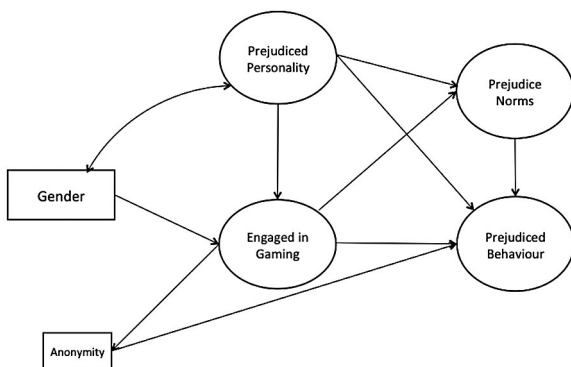


FIGURE 1 Overview of the model for prejudiced personality, norms, and engagement in gaming predicting prejudiced behavior in online gaming

2 | METHOD

2.1 | Participants

Five hundred fifty-five participants from the University of Toronto and the University of Virginia completed an online survey (687 started the survey, 131 did not complete, 58 failed the attention checks). The study was described to participants as exploring several facets of people's attitudes toward media, including what video games people play, what television shows they watch, and how much they use the internet. Participants were informed the study would ask about their media habits as well as their attitudes and demographics.

Our sample had more female participants who did not play videogames than females who did, and more females who did not play videogames than males total (i.e., males who did or did not play videogames). To correct this imbalance, we randomly selected half of the female non-gamers to retain in our final sample. Our final sample was composed of 384 participants, 150 male participants, and 230 female participants. This sample size aligns with common expectations for sample size requirements for structural equation modeling (e.g., more than 200 cases, at least five cases for each free parameter; Kline, 2011; Wolf, Harrington, Clark, & Miller, 2013). One hundred thirteen of our male participants and 116 of our female participants played video games. Our final sample included data from 217 students from the University of Virginia and 167 students from the University of Toronto. Participants were an average of 19.06 ($SD = 2.60$) years old and of diverse racial backgrounds (White $n = 183$, East/Southeast Asian $n = 121$, South Asian $n = 24$, multiracial $n = 19$, Black $n = 16$, Middle Eastern $n = 12$, Latino/a $n = 7$, Aboriginal $n = 1$, one participant did not identify with any of these racial categories).

2.2 | Measures

2.2.1 | Individual differences (prejudiced personality)

We explored several individual difference measures related to prejudice including SDO, RWA, empathy, and internal motivation to respond without prejudice.

The RWA scale measures the extent to which participants are willing to submit to authority and endorse traditional norms and values. Participants completed a shortened version of the RWA scale ($\alpha = .92$; Rattazzi, Bobbio, & Canova, 2007) consisting of 21-items that measure conservatism (e.g., "We should treat protestors and radicals with open arms and open minds, since new ideas are the lifeblood of progressive change" reverse-scored) and authoritarian aggression and submission (e.g., "What our country really needs instead of more 'civil rights' is a good stiff dose of law and order"). They responded to each item on a 9-point scale from $-4 =$ "Strongly disagree" to $4 =$ "Strongly agree."

The SDO scale consists of 13 items that assess the extent to which participants endorse social hierarchy with items like "Some groups are simply inferior to other groups" ($\alpha = .94$; Pratto et al., 1994). Participants responded to each item on a 7-point scale from 1 = "Strongly disagree" to 7 = "Strongly agree."

To measure empathy, we used the Toronto Empathy Questionnaire (Spreng, McKinnon, Mar, & Levin, 2009). The scale consisted of 16 items such as "When someone else is feeling excited, I tend to get excited too" ($\alpha = .85$). Each item was measured on a scale of 1–5 (1 = "strongly disagree," 5 = "strongly agree.").

We assessed how important being non-prejudiced is to participants with the internal subscale from The internal and external motivation to respond without prejudice scale (IMS; Plant & Devine, 1998). This subscale captures the extent to which participants behave in egalitarian ways because it aligns with their personal values and includes five items to measure internal ($\alpha = .85$) motivations to respond without prejudice. All items are answered on a 7-point scale (1 = "Strongly disagree," 7 = "Strongly agree"). The original scale was developed to measure attitudes toward racial prejudice; we modified the items to apply to prejudice in general (e.g., "Being non-prejudiced toward people is important to my self-concept").

2.2.2 | Engagement in gaming

Gaming demographics

Participants' experiences with video games were expected to predict how they feel about prejudice in online gaming. A series of questions assessed participants' gaming history including the age at which they started playing video games, their favorite gaming platforms, and the number of hours they play video games each week. Participants also answered questions about how frequently and in what way they use in-game chat features ("How often do you use voice or text chat while playing?"; "When you use a chat option during a game, what percent of the time do you use it to talk only with people you know?"). Participants responded to the in-game chat questions using a 10-point scale. The scale increased in 10% increments from 1 = "<10% of the time" to 10 = "91%–100% of the time."

Gamer identification

Participants completed nine items to assess how important being a gamer is to their identity or sense of self ("Being a gamer is central to who I am as a person"). They indicated agreement with each statement on a 7-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree" ($\alpha = .97$).

2.2.3 | Participants' prejudiced behavior in online gaming

We asked participants how frequently they make comments based on other players' gender, race, and sexual orientation (1 = "never," 7

= "very often"). We did not label this behavior as sexist, racist, and homophobic to encourage honest responses from participants.

2.2.4 | Normative perceptions of prejudiced behavior in online gaming

We measured norms by assessing how common prejudiced behavior is in online gaming. Participants reported how frequently the average gamer makes comments based on people's race, gender, and sexual orientation using a 7-point scale (1 = "never," 7 = "very often").

2.2.5 | Responses to prejudice

Participants reported how often they confront prejudiced comments in online gaming (1 = "never," 7 = "very often") and how often they see prejudiced comments confronted in online gaming (1 = "never," 7 = "very often"). We used the frequency with which participants see prejudice confronted as an indication of the norms related to confrontation in online gaming. Participants also indicated how other people typically respond to prejudice in online gaming by selecting which of four options most accurately represented the typical response (ignoring the comment, being amused by the comment, confronting the comment, or making similarly prejudiced comments).

2.2.6 | Anonymity

The extent to which participants feel they are anonymous while playing online video games was assessed with two items: "I am anonymous while playing online video games" and "My real-life identity is not associated with my online identity." Both items were answered on a 7-point scale (1 = "Not at all," 7 = "very much"; $r = .59$).

2.2.7 | Demographics

Participants provided information about their demographic background including their gender, racial background, and age.

2.3 | Procedure

Participants completed the survey using an online survey program, Qualtrics. They were compensated with one research credit for their introductory psychology course. Participants completed a series of questionnaires including items to assess their attitudes toward traditional targets of prejudice, individual difference measures, measures of their behavior in online gaming and their perceptions of other gamers' behavior, and video game demographics (e.g., what and how much they play). Upon being debriefed, participants completed a post-consent process and were given the opportunity to withdraw their data.

3 | RESULTS

See Figures 2 and 3 for full illustrations of both structural equation models. Descriptives are presented in Tables 1–3, and inter-correlations of measured variables are presented in Table 4.

3.1 | Video game descriptors

Two hundred twenty-nine participants reported that they play video games (113 males, 116 females). On average, participants played 4.74 hours each week ($SD = 5.64$). Male participants reported spending more time playing video games each week than did female participants, $t(226) = 2.80, p = .006, d = .37$ ($M_{\text{male}} = 5.65, SD = 5.83$; $M_{\text{female}} = 3.67, SD = 4.81$). On average, participants had been playing video games for 11.15 years ($SD = 3.75$). Male and female participants did not vary in the number of years playing video games, $t(227) = 0.04, p = .966$.

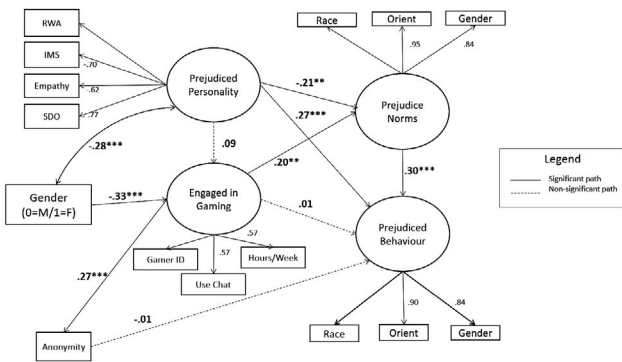


FIGURE 2 Prejudiced personality, norms, and engagement in gaming predicting prejudiced behavior in online gaming. * $p < .05$, ** $p < .01$, *** $p < .001$

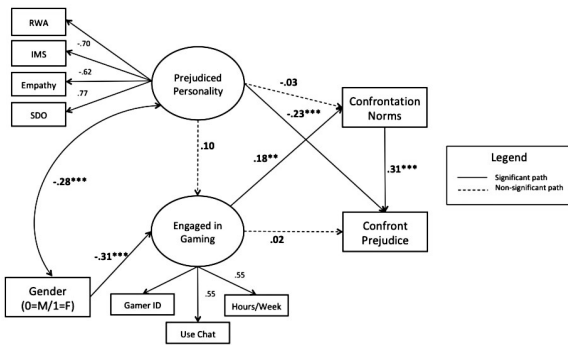


FIGURE 3 Prejudiced personality, norms, and engagement in gaming predicting confrontation of prejudice in online gaming. * $p < .05$, ** $p < .01$, *** $p < .001$

3.2 | Behavior in online gaming

3.2.1 | Online chat

Participants reported occasionally using chat options while playing video games ($M = 2.54, SD = 2.70$), values that indicate using chat options between 20% and 30% of the time when gaming. However, there was a gender difference in the use of chat, $t(221) = 2.77, p < .001, d = .37$. Men ($M = 3.04, SD = 2.91$) were more likely to report using chat than were women ($M = 2.05, SD = 2.40$). In addition, the more people identified as a gamer, the more likely they were to report using chat options, $r(224) = .47, p < .001$, a finding that held for both men, $r(110) = .49, p < .001$, and women, $r(109) = .42, p < .001$.

Approximately half of the time that participants used online chat options they did so to chat with people they already knew ($M = 5.28, SD = 4.06$), a pattern that did not reliably differ between men ($M = 4.01, SD = 0.38$) and women ($M = 4.11, SD = 0.40$), $t(213) = 1.45, p = .148$.

3.2.2 | Frequency of prejudiced behavior

Participants indicated how frequently they make comments based on race, gender, and orientation (see Table 1 for descriptives). Approximately 20% of participants reported that they make prejudiced comments while playing online video games; specifically, 19.8% reported making comments about race, 21.9% reported making comments about gender, and 19.8% reporting making comments about sexual orientation.

In contrast to reports about their own behavior, approximately 80% of participants reported that the average gamer makes prejudiced comments while playing online video games: 78.6% of participants reported the average gamer makes comments about race; 79.9% reported the average gamer makes comments about gender; and 79.1% reported that the average gamer makes comments about sexual orientation.

3.2.3 | Reactions to prejudice in online gaming

We wanted to explore what people view as the usual or common reaction when prejudiced comments are made in online gaming. To assess this, we asked participants how others respond to prejudiced comments. Participants were given four response options (confront, ignore, amusement, respond in-kind) to choose from and were asked to select the response that they see occur most frequently when a prejudiced comment is made. Seventy-six percent of participants believed that racist, sexist, and homophobic comments should be confronted. However, of the four response options (confront, ignore, amusement, respond in-kind), confrontation was the least commonly selected response; only 18.5% of participants reported that

	Race	Gender	Orientation
Frequency of participant's comments	1.51 (1.18)	1.53 (1.17)	1.56 (1.32)
Frequency of the average gamer's comments	3.39 (1.75)	3.69 (1.84)	3.73 (1.89)

Note: Standard deviations are in parentheses. Participants reported how frequently they make comments based on other players' gender, race, and sexual orientation (1 = "never," 7 = "very often") and how frequently the average gamer makes comments based on people's race, gender, and sexual orientation using a 7-point scale (1 = "never," 7 = "very often").

	All participants	Male	Female
Right-wing authoritarianism	3.54 (1.40)	3.70 (1.34)	3.44 (1.43)
Social dominance orientation	2.33 (1.06)	2.58 (1.03)	2.19 (1.05)
Empathy	4.02 (0.54)	3.86 (0.51)	4.13 (0.53)
Internal motivation to respond without prejudice	6.95 (1.61)	6.42 (1.64)	7.28 (1.51)
Anonymity	4.22 (1.78)	4.45 (1.70)	4.08 (1.81)
Gamer identification	2.27 (1.52)	2.77 (1.60)	1.95 (1.38)
Use of chat	2.54 (2.70)	3.04 (2.91)	2.05 (2.34)

Note: Standard deviations are in parentheses.

TABLE 3 How frequently male and female participants confront prejudice and see prejudice confronted (Model 2)

	All participants	Male	Female
Participants confront prejudice	2.91 (1.85)	2.95 (1.71)	2.88 (1.94)
See prejudice confronted	2.87 (1.67)	2.95 (1.64)	2.81 (1.67)

Note: Standard deviations are in parentheses. Participants reported how frequently they confront prejudice (1 = "never," 7 = "very often") and how frequently they see prejudice confronted (1 = "never," 7 = "very often").

people respond with confrontation. Participants reported that the most frequent response to prejudice in online gaming is to ignore it (35.4% reported ignoring prejudice as the most common response among gamers). The second most common response to prejudice was reported as making similar comments (i.e., being prejudiced in response; 23.2% of participants reported this as the most common response to prejudice), followed by general amusement (people find the prejudiced comment amusing; 19.3%). These patterns of responses were not moderated by gender, $\chi^2(3, 367) = 3.52, p = .32$.

3.3 | Predicting prejudiced behavior

To test what predicts prejudiced behavior in online gaming, we conducted a Structural Equation Model including anonymity, prejudiced traits, perceptions of prejudice norms, and gamer engagement (see Figure 1 for an overview of the model predicting prejudiced

TABLE 1 Frequency of how often participants report making prejudiced comments and how often the average gamer makes prejudiced comments

TABLE 2 Participant scores on the individual difference measures, anonymity measure, and gaming engagement measures

behavior). We tested to what extent self-reported prejudiced behavior (how often the participant makes comments based on race, gender, and orientation of other players) was predicted by prejudice norms in online gaming (how often participants see other gamers making comments based on the race, gender, and orientation of other players), prejudiced personality (Right-Wing Authoritarianism, Social Dominance Orientation, empathy, and internal motivation to respond without prejudice), engagement in gaming (how strongly participants identify as a gamer, how many hours they play video games each week, and the frequency with which they use a chat system while gaming), and anonymity.

Anonymity is often posited as one explanation for the negative behaviors in which people engage online. We theorized that, relative to anonymity, factors like perceived norms and endorsement of prejudiced beliefs may be more important for understanding prejudiced behavior. To that end, we tested the extent to which people's perceptions of their environment as anonymous predicts their self-reported behaviour by including anonymity as a predictor in our model. Gender was included as a predictor of how engaged participants are in online gaming (men tend to be more avid gamers) and of prejudiced personality traits. Including gender allows us to make conclusions with confidence that our results are not confounded with gender effects.

We conducted structural equation modeling using AMOS 22.00 (IBM SPSS). The full model is presented in Figure 2. We used three fit indicators to assess model fit, the chi-square goodness of fit index, the Root Mean Square Error of Approximation (RMSEA), and the Comparative Fit Index (CFI). The chi-square goodness of fit index tests whether the difference between the estimated and observed models is different from zero; lower values (non-significant results)

TABLE 4 Inter-correlations between measured variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Gender	-															
2 Anonymity	-.07	-														
3 RWA	-.09	-.05	-													
4 SDO	.18***	-.03	.51***	-												
5 Empathy	.24***	-.02	-.32***	-.44***	-											
6 IMS	.26***	.002	-.36***	-.54***	.48***	-										
7 Gamer ID	-.26***	.18**	.10	.11*	-.16**	-.08	-									
8 Use chat	-.18**	-.01	-.01	-.07	.15*	.02	.47***	-								
9 Hours/week	-.18**	-.06	.20*	.09	-.14*	-.18**	.46***	.29***	-							
10 Race norm	-.13*	.08	-.11*	-.11*	.03	.03	.12*	.08	.14*	-						
11 Gender norm	-.02	.09	-.20***	-.20***	.10*	.12***	.09	-.01	-.02	.75***	-					
12 Orientation norm	-.13*	.07	-.18***	-.13*	.05	.06	.09	.04	.08	.81***	.84***	-				
13 Make race	-.13*	.01	.08	.14**	-.17**	-.14**	.10	.06	.08	.31***	.16**	.22***	-			
14 Make gender	-.08	-.04	.12*	.14**	-.20***	-.13*	.07	.03	.03	.22***	.22***	.19***	.79***	-		
15 Make orient	-.07	-.02	.12*	.16**	-.15**	-.13**	.03	-.03	.06	.25***	.15**	.22***	.85***	.75***	-	
16. See confront	-.04	.04	-.02	.04	.04	.03	.16**	.04	.12	.17**	.19***	.18***	.20***	.17**	.15**	-
17. Self confront	-.02	-.07	-.16**	-.16**	.19***	.16**	.02	.06	.002	.19***	.28***	.20***	.09	.11*	.03	.31***

Note: Gender (0 = male, 1 = female); RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation; IMS = internal motivation to respond without prejudice; use chat = how regularly participants use voice or text chat while playing video games; hours/week = the number of hours participants spend playing video games; race norm = how frequently other gamers make comments based on race (gender and orientation norms reflect similarly worded measures); make race = how frequently the participant makes comments based on the race of other gamers (gender and orient reflect how often they make comments based on the gender and orientation of other gamers); See confront = how often participants see racist, sexist, and homophobic comments confronted; Self confront = how often participants confront racist, sexist, and homophobic comments.

*p < .05; **p < .01; ***p < .001.

indicate better fit. However, chi-square is influenced by sample size such that larger samples can produce significant values despite adequate model fit (Byrne, 1994). The RMSEA assesses how accurately the model is likely to fit population data if that data were available (the error of approximation in the model), values less than .08 are considered acceptable (Browne & Cudeck, 1993). The CFI indicates how much better the model fits the data than a null model with no relationship between the variables (higher values indicate better model fit, values of .95 are considered acceptable; Hu & Bentler, 1995).

Applying these criteria, we found that the hypothesized model had adequate fit, $\chi^2(82) = 200.26$, $p < .001$, RMSEA = .06, 90%CI [.05, .07], CFI = .95. As expected, the extent to which participants endorsed prejudiced beliefs was positively related to the frequency with which they reported making prejudiced comments in online gaming ($\beta = .27$, $p < .001$). However, the more participants endorsed prejudiced beliefs, the less frequently they reported other gamers made comments based on race, gender, and orientation ($\beta = -.21$, $p = .001$). Participants who were more engaged in gaming reported other gamers made comments based on race, gender, and orientation more frequently ($\beta = .20$, $p = .003$).

Seeing prejudice as more normative (i.e., reporting that other gamers made prejudiced comments more frequently) predicted the participant's own behavior. The more participants reported that others made comments based on race, gender, and orientation, the more often participants reported making these comments themselves ($\beta = .30$, $p < .001$). Gender predicted engagement in gaming ($\beta = -.33$, $p < .001$) and covaried with prejudiced personality traits ($\beta = -.28$, $p < .001$) such that men were more engaged in gaming and reported higher levels of prejudiced traits than women. The more engaged in gaming participants were, the more anonymous they felt in online gaming ($\beta = .27$, $p < .001$). However, anonymity was not significantly predictive of prejudiced behavior in online gaming ($\beta = -.008$, $p = .882$) and prejudiced personality traits were not significantly predictive of engagement in gaming ($\beta = .09$, $p = .192$). These results show that both norms and individual differences are important in predicting prejudiced behavior in online gaming. Gamer engagement was also an informative factor to include in the model, because although it did not directly predict prejudiced behavior, it did positively correlate with perceiving prejudice as more common in online gaming.

3.4 | Predicting confrontation behavior

To explore the factors that predict confrontation of prejudice we included the same latent constructs of gamer engagement and prejudiced personality traits as in Model 1. We included gender as a control variable. Our normative measure of confrontation was the question of how frequently participants see other gamers confronting racist, sexist, and homophobic comments when they are made (see Table 3 for descriptives). Our outcome measure was the frequency with which participants reported confronting racist, sexist, and homophobic behavior when it occurred in online gaming.

The hypothesized model predicting confrontation behavior had adequate fit, $\chi^2(30) = 68.64$, $p < .001$, RMSEA = .058, 90%CI [.004, .076], CFI = .94. See Figure 3 for the full model. Gender predicted engagement in gaming ($\beta = -.31$, $p < .001$; men were more engaged) and general prejudice traits ($\beta = -.28$, $p < .001$; men were higher on prejudiced traits). Personality traits were not associated with engagement in gaming ($\beta = .10$, $p = .170$) or with how frequently other gamers reportedly confronted prejudice (i.e., norms; $\beta = -.03$, $p = .568$). However, engagement in gaming predicted seeing gamers confront prejudice more frequently, $\beta = .18$, $p = .006$. Seeing prejudice confronted predicted participants' confrontation behavior, $\beta = .31$, $p < .001$. Prejudiced personality traits were associated with less frequent prejudice confrontation, $\beta = -.23$, $p < .001$. We found similar patterns for predicting confrontation behavior as prejudiced behavior. Both norms and individual differences were significant predictors of confrontation.

Unlike the model predicting prejudiced behavior, there was no relationship between prejudiced personality and how frequently participants reported seeing behavior confronted.

4 | GENERAL DISCUSSION

4.1 | Summary and findings

This work builds on past research that has explored predictors of prejudice in online gaming (Fox & Tang, 2014; Hilvert-Bruce & Neill, 2020; Tang & Fox, 2016; Tang et al., 2020) in several important ways. We present a more comprehensive model of predictors, including norms, individual differences, and gamer engagement, and are able to test the direct and indirect effects of personality and engagement. We found that both generalized prejudice and norms predict how frequently participants report making and confronting prejudiced comments in online video games. Generalized prejudiced also predicted perceptions of prejudice norms but not of confrontation norms. Participants who were higher in RWA and SDO, and lower in empathy and IMS, reported seeing fewer racist, sexist, and homophobic comments in online gaming. This was not an effect we expected to see but might be explained as a signal detection effect: Those who are high in general prejudice might be less likely to notice when comments based on race, gender, and orientation are made because they do not see them as problematic (i.e., they have a higher criterion for labeling a comment as prejudiced). Thus, prejudiced comments do not catch their attention, are not remembered, or are not encoded as prejudiced to begin with. Confrontation of prejudice, however, may be equally noticeable to those low and high in generalized prejudice because it violates norms in online gaming that are accepting of prejudice.

Further extending past work, our model enables us to test the relationship between these predictors, and in doing so, we demonstrate that while gamer engagement does not directly predict prejudice, it is a significant predictor of perceived prejudice norms. Gamer identification predicted perceptions of prejudice norms such that

people higher in gamer ID reported that other gamers make more comments based on gender, race, and orientation than did those weakly identified as gamers. Interestingly, being more engaged as a gamer also predicted seeing more people confront prejudiced comments. This pattern of results may have emerged because highly engaged gamers pay more attention to what is happening in online gaming because of gaming's importance to their self-concept, and thus notice more instances of prejudiced behavior and confrontation. Although engagement predicted perceptions of others' behavior, it was not directly related to reported prejudiced behavior, nor was perceived anonymity.

Importantly, we extend the discussion around prejudice in gaming to understand what predicts the confrontation of prejudice in this environment. Confrontation can be an effective way to reduce prejudice (Carter & Murphy, 2017; Chaney & Sanchez, 2018; Czopp & Montheith, 2003; Czopp et al., 2006; Parker, Monteith, Moss-Racusin, & Van Camp, 2018; Rasinski & Czopp, 2010) and knowing how commonly it is employed in response to prejudice as well as what factors predict confrontation, can inform future work to reduce prejudice. We found that confrontation of prejudice is uncommon in online gaming. People are more likely to ignore prejudice or respond in kind than to confront it. That responding to prejudice with prejudice is common supports the importance of norms in understanding behavior in online gaming—once a prejudiced comment has been made, it encourages others to act similarly. Additional research is necessary to understand how effective confrontation is in online gaming. Given the acceptability of prejudice demonstrated by these results, confrontation may be perceived as violating group norms and therefore may be ineffective at reducing prejudice in this context.

4.2 | Implications

The results of this study provide a strong argument for the importance of studying individual differences and norms when trying to understand prejudiced behavior in online gaming contexts and have clear applied implications for the design of future interventions to reduce prejudice in online gaming. The way in which people behave in online gaming is not due simply to more accepting norms of prejudice, although these are an important factor. Nor is being prejudiced the sole explanation for why people engage in bigotry in online gaming. Rather, both norms and individual differences predict prejudiced behavior, and both factors should be considered in future research that tests interventions to reduce prejudiced and harmful behavior in online gaming.

Even though some identifiers are available in some online gaming contexts (voice cues, avatars, etc.), people are able to conceal much of their identity and can remain anonymous. This anonymity is often posited as an important cause of negative online behavior. We did not find evidence for direct effects of perceived anonymity on prejudiced behavior, but we believe that anonymity has an important role to play by increasing the influence of norms on behavior

(e.g., Postmes et al., 1999). Although anonymity was not a direct predictor of prejudiced behavior in online gaming in our model, it was significantly related to the extent to which participants identified as gamers (greater anonymity was positively correlated with gamer identification). This suggests that there may be an indirect effect of anonymity, such that anonymity in online gaming may emphasize gamer identity. If gamer identity is associated with prejudiced norms and behavior, then higher anonymity might increase prejudiced behavior. With correlational data, as we have presented here, we cannot draw conclusions about the causes and effects of anonymity, gamer identification, and prejudice. However, the patterns found in this study are consistent with the idea that anonymity has an indirect influence on behavior, as is proposed by the Social Identity model of Deindividuation Effects (Postmes et al., 1999). The effects of anonymity both on identification as a gamer and on prejudiced behavior would benefit from experimental testing. If, as we propose, anonymity has an indirect influence on behavior, it suggests that increased individuation (or awareness of one's personal identity, and minimization of group identity) may be an effective way to reduce adherence to group norms and through this, reduce prejudice in online gaming. Perhaps using actual names rather than gamer tags could reduce deindividuation and through this, reduce prejudiced behavior.

Reducing prejudice in gaming environments could also be attempted through efforts to shift gamers' perceptions of the norms about prejudice in these environments. One possible method of achieving this may be through shifting the behavior of prominent members of the gaming community, including gamers who are on professional esports teams who complete publicly and professionally or popular and widely followed gamers who stream their gameplay on *Twitch TV*. Professional and popular gamers may serve as social referents and thus have a substantial impact on others' perceptions of the norms (Tankark & Paluck, 2016). Changes in their behavior may impact wider perceptions of the normative acceptance of prejudice in online gaming.

It may also be possible to shift perceptions of prejudice norms in online gaming by changing the institutional signals about what is normative and acceptable (Tankark & Paluck, 2016). This could be accomplished if gaming companies are willing to take a stronger stance against prejudice by being more vocal about it being an unacceptable behavior and by punishing it more strictly when it occurs in online gaming.

In addition to suggesting that shifting norms may be effective at reducing prejudice, the results from this study also support the idea that reducing general prejudice might be effective in changing how people behave in online gaming. In Gray's study of racism in online gaming, she found that gamers make racist comments then claim not to be racist, saying the racist comment does not reflect their actual attitudes (Gray, 2012). This notion that one can act racist without being racist can be seen in anecdotal reports of behavior in online gaming as well. Matt Vaughn, a professional gamer, recently streamed a video of a match of *Overwatch* on *Twitch TV*. Matt was upset to be losing the match and expressed his frustration by yelling racial slurs at his opponent for thirty seconds. This rant cost Matt his

position with Toronto Esports (a professional esports group). Matt responded with an apology, but also with a number of remarks that suggest he is not actually racist. He said he was tired, he was angry, his Internet was lagging, his opponent was cheating. He claimed he was just trying to say the most offensive thing that came to mind because he was angry, but he is not racist (Van Allen, 2017). However, our own results refute the claim that racist comments are not driven, at least in part, by racist attitudes. Instead, we found that prejudiced traits were positively correlated with self-reported prejudiced behavior in online gaming. This finding suggests that traditional interventions to improve outgroup attitudes might be effective in changing how people behave in online gaming by targeting their general prejudice.

Individual interventions could be targeted to address and reduce prejudiced behavior in the most common offenders. Interventions of this nature would be most effective with the cooperation and support of gaming companies; with this support, it would be possible to target gamers who are reported by other gamers for toxic or prejudiced behavior. Already, gaming companies often enact temporary bans on gamers who are reported for this behavior (and in some cases, permanent bans). Building a requirement to participate in a prejudice intervention (e.g., perspective-taking) before the ban is lifted would create a way to ensure those who are most frequently acting in a prejudiced manner are the focus of efforts to reduce prejudice in online gaming.

In designing interventions to reduce prejudiced behavior, it will be important to consider the role that competition may play. Interventions will need to be effective in competitive contexts, as many (if not most) online games are competitive. Competition has been shown to predict aggressive and prejudiced behavior (Adachi & Willoughby, 2011; Sassenberg, Moskowitz, Jacoby, & Hansen, 2007; Stephan & Stephan, 2000), but is an inherent element of gaming. It is essential that any intervention be designed and tested to function in this competitive environment.

Interestingly, many competitive games also contain a cooperative element involving team-based competition in which a group of players competes against a second group. Intergroup contact is an effective method of improving intergroup attitudes generally (Pettigrew & Tropp, 2006, 2008; Pettigrew, Tropp, Wagner, & Christ, 2011; Tropp & Prenovost, 2008). The cooperative component of gaming may provide an opportunity for positive intergroup contact between teammates, which may have a positive effect on intergroup attitudes. Lab studies have shown the positive potential of intergroup contact in online gaming (Adachi et al., 2015, 2016), suggesting that this could be an effective mechanism for reducing prejudice.

However, there are a number of complexities associated with online gaming that should be explored to better understand the potential of intergroup contact through online gaming. For example, it is important to understand how salient group identity is in online interactions. In experimental studies, participants are informed of their partner's group membership, but this information

may not always be available in online gaming. If a player has not included an identifier in their gamer tag or avatar or is not using voice chat, there may be little information available that would create an awareness of their identity. It will also be important to understand the influence of performance or competency on the quality of intergroup contact. In a team competition, the performance of one's teammates will influence how successful a player is. An underperforming teammate who is perceived as threatening their team's chances of winning may negate the positive potential of cooperation.

4.3 | Limitations

There are several limitations of the current work that should be addressed in future research. One limitation is our reliance on a student sample. Although we sampled from two universities in different countries, we cannot generalize our results without further validation using a representative sample. There are also a number of limitations related to the self-report nature of our design. The impact of anonymity in online gaming would be better understood by experimentally manipulating anonymity and measuring behavioral outcomes. This design poses a challenge for research of prejudice in online gaming, however, because participants' behavior when they are aware they are being observed is unlikely to represent their behavior while anonymously playing video games at home. In addition, measurement of participants' actual behavior in video games instead of their self-reported behavior would allow us to draw stronger conclusions about the relationships between individual differences, norms, and prejudiced behavior.

There also exists some ambiguity in how participants may have interpreted questions about anonymity. It is possible that participants had different interpretations of anonymity, with some possibly interpreting the term to mean no identifiable information is available (i.e., no cues to their group memberships) and others interpreting it to mean that their offline identity or other online identities cannot be linked to their gaming identity. Similarly, we cannot be certain what participants meant when they indicated that they most often see other gamers respond to prejudice with amusement. This may be an external response of showing amusement through voice or text chat or could be a less visible form of private amusement. Less ambiguity in these questions would produce greater clarity in interpreting participant responses.

Future work to inform interventions to reduce prejudice in online gaming should also consider the interactive effects of individual differences and social norms. In the current study, we do not look at how these predictors interact to predict behavior. It is possible that individual differences and norms have relatively simple additive effects such that the people most likely to make bigoted comments are those who are high in generalized traits and perceive norms as accepting of prejudice. However, it is also possible that those who are high in prejudice are less influenced by prejudice norms because

they already, by the nature of their personality, feel prejudice is acceptable. Understanding the relationship between these predictors would allow for more targeted and effective interventions to reduce prejudice in online gaming.

Understanding how to design effective interventions to reduce prejudice in online gaming is a strong motivator for the research we report here. In North America, more people than not play video games daily (ESA, 2018), and 91% percent of children play video games (Van Camp, 2011). Not only do people play video games regularly, they also participate in video game culture by watching others play. *Twitch TV*, a streaming service for gamers to share content and gameplay, has 140 million unique viewers each month (Smith, 2019) and is not immune from the prejudice that is so common in gamers' online experiences (e.g., Campbell, 2016). The exposure to prejudice in online gaming and through streaming services like *Twitch TV* likely has a similarly negative impact on people's wellbeing as prejudice in other contexts (Denton et al., 2014; Major & O'Brien, 2005; Schmitt et al., 2014). The idea that prejudice experienced in video games has a similarly powerful negative impact as prejudice experienced elsewhere is supported by work showing that online racial discrimination is associated with increases in depressive symptoms, anxiety, and increased problem behavior among youth (Tynes, Giang, Williams, & Thompson, 2008; Tynes et al., 2014).

4.4 | Conclusion

In this study, we explore the role of two predictors of prejudice, norms, and individual differences, in explaining why and predicting when people engage in prejudiced behavior in online gaming. We also explored how these factors predict when people confront prejudice in an online gaming context. In addition, we document the relationship between gender, gaming engagement, and perceived anonymity with norms, individual differences, and behavior in online gaming. We found that both norms and individual differences are important predictors of how people behave in online gaming. We also provide some data about how people typically respond to prejudice when it occurs in online gaming. Confrontation is the least common response—people are more likely to respond in kind than to confront prejudice in gaming. The potential for harm from prejudice in online gaming and the popularity of video games emphasize the need for future work to expand on our understanding of why prejudice occurs more frequently in video games and to work within this understanding to design interventions that can reduce prejudice to create a more positive online environment for gamers.

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