Personality and Individual Differences 86 (2015) 204–211

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

Why do people play violent video games? Demographic, status-related, and mating-related correlates in men and women

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ARTICLE INFO

Article history:
Received 21 March 2015
Received in revised form 5 June 2015
Accepted 6 June 2015
Available online 25 June 2015

Keywords:
Video games
Sexual openness
Evolutionary psychology
Mate value

ABSTRACT

The numerous negative and positive consequences of playing violent video games are well-documented. Specifically, violent games improve many aspects of cognition and attention but can also increase aggression. Compared to these established effects of exposure to violent video games, very little is known about who plays violent video games and why they play them. Taking an evolutionary psychological approach to address this gap, in two studies we surveyed 1000 men and women who reported playing video games in the past 30 days. We assessed three classes of predictors of violent video game exposure: demographic, status-related, and mating-related. In both studies, women who played the most violent video games reported feeling a greater sense of mate value than women who played fewer violent video games. Women also reported being motivated to play violent video games because doing so enhanced their sense of attractiveness to romantic partners. In both studies, men reported playing more violent video games than women as did both men and women who reported higher sexual interest. These findings highlight the counterintuitive and complex motivations underlying violent video game exposure. We discuss the need for more research on who plays violent video games and why they play them.

1. Introduction

Video games are in the majority of homes and smartphones in the industrialized world (Entertainment Software Association [ESA], 2014). Parents, teachers, scholars, and public health experts are concerned about the graphic violence inherent in most popular video games (Thompson & Haninger, 2001). Although effect sizes tend to be small, hundreds of studies now show that playing violent video games can increase aggression, aggressive thoughts, and hostile feelings in children and adults (for a recent meta-analysis, see Anderson et al., 2010). In light of these potentially harmful consequences of playing violent games, we investigated who is most likely to play these games and why they are attracted to them. In two independent studies, we surveyed 1000 video game players to identify individual differences that correlate with violent video game play. Specifically, using an evolutionary psychological framework, we examined three classes of predictors: demographics, status-related variables, and mating-related variables.

1.1. Who plays violent video games? The importance of competition

Whereas the bulk of gaming research has investigated the consequences of playing violent video games, very little is known about the individual differences of the players. Studies largely demonstrate that boys and men spend more time playing video games than girls and women (Funk & Buchman, 1996; Lucas & Sherry, 2004; Möller & Krahé, 2009; Ogletree & Drake, 2007; Olson et al., 2007). Gender alone, however, doesn't explain variation in game play and choices as the percentage of women playing video games is increasing (ESA, 2014). Thus, there must be other factors that can better explain variation in video game play and choices.

A small body of research has identified challenge and competition as the leading motivations for playing video games (Yee, 2006). As violent games tend to have more intense competition, it may explain why individuals that are more motivated to compete may consider them more enjoyable and may spend more time playing them (Vorderer, Hartmann, & Klimmt, 2003). Similarly, video games are thought to satisfy the basic human needs of competence (feeling efficacious), autonomy (feeling in control), and social connectedness (Przybylski, Rigby, & Ryan, 2010). Competence and autonomy are most likely to be satisfied by playing competitive games, which tend to be primarily violent.

Violent competition has long been a part of human history. Moreover, the competitive aspect of video games makes them a close

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http://dx.doi.org/10.1016/j.paid.2015.06.018
0191-8869/

analogue to face-to-face competitions (just as sports are often considered ritualized combat; Lorenz, 1963). As in other primate species, intra-sexual competition has likely shaped the evolution of men's secondary sexual traits (Dixson, Dixson, & Anderson, 2005; Grueter, Isler, & Dixson, 2015) and psychological propensities to compete for status and mating opportunities (Archer, 2009; Puts, 2010). Video games, especially violent ones, may provide an outlet for psychological status seeking, and people may play more violent video games to improve their self-perceived social standing, dominance, or value as a romantic partner (known as *mate value*). For example, as players typically improve with practice, playing video games should heighten feelings of competency (Oei & Patterson, 2013; Powers, Brooks, Aldrich, Palladino, & Alfieri, 2013). Further, because of the general tendency for people to attribute wins to themselves and losses to external circumstances (i.e., the self-serving bias; Campbell & Sedikides, 1999), positive performance in competitive games has the potential to heighten self-esteem (Campbell & Sedikides, 1999). This increase in global self-esteem and competence could in turn result in a greater motivation to improve, and therefore, the self-perception that an individual is of a greater mate value.

This general idea of a relationship between preferences for violent video games and status and mate value is largely untested in the literature. However, in one notable exception, Welling, Persola, Wheatley, Cárdenas, and Puts (2013) randomly assigned heterosexual men to win or lose a violent video game competition. Relative to men that lost a competition, men that won demonstrated an increased preference for a short-term feminine romantic partner. This effect was thought to occur because winning the competition temporarily elevated participants' sense of mate value (although the authors did not measure mate value directly).

1.2. The current research

We asked survey respondents to list up to five games that they are currently playing and the amount of violence in each game, which served as our criterion variable. We then asked respondents to complete a questionnaire that assessed demographics (e.g., gender, age), mating-related predictors (e.g., self-perceived mate value, sexual interest, relationship status) and status-related predictors (e.g., dominance, intelligence). We hypothesized that people play violent video games as a means to improve their sense of social standing and mate value relative to rivals, and a desire to secure a greater number of mates. We therefore predicted that people who play violent video games should score higher on self-ratings of their own mate value and report greater sexual interest. We also predicted that violent video game players should perceive themselves to be more dominant as repeated play of violent competitive games should increase feelings of dominance (or dominant individuals are attracted to violent games). Due to gender differences in violent video game play, status/dominance, and mating strategies, we modeled all potential interactions with gender in our regression models.

2. Study 1

All research was approved by the ethics committee at UNSW Australia and was conducted in accordance with the Declaration of Helsinki. All data and the complete surveys for both studies are provided in the supplementary materialsand on github (https://github.com/latrodektus/VVGameplay/). Only respondents who reported playing video games in the past 30 days were allowed to participate.

2.1. Method

2.1.1. Participants

Five hundred people responded to the survey, which was posted on Amazon's Mechanical Turk between August 16–17, 2014 and were paid USD$1.00. Of these respondents, we removed data from those who failed at least one of two attention checks ($n = 17$),[1] had missing data for the mate value, sexual interest, or dominance questionnaires ($n = 5$), reported playing games without Entertainment Software Rating Board (ESRB) ratings ($n = 9$) and classified themselves as 'other' in relationship status ($n = 2$). The final sample consisted of 467 respondents, 158 of whom were women ($M_{age} = 30.92$, $SD = 8.51$, 18–67 years).

3. Materials

3.1. Violent video game play

Following prior research, to estimate violent video game exposure, participants were asked to list the titles of up to five games that they currently play, rate how often they play each game, and the extent of the violent content within each game (rated on 7-point scales to estimate). This allowed us to calculate a total violent video game exposure value by adding the exposure levels of each game, which was calculated by the level of violence in each game (1–7) multiplied by how often they played the game (1–7), then averaged over 5 games (e.g., Anderson & Dill, 2000; Bartholow, Bushman, & Sestir, 2006; Uhlmann & Swanson, 2004).[2] This resulted in individuals falling within a scale of 1–49, with a greater value signifying the choice to spend a greater proportion of their weekly game playing time playing violent games.

3.2. Demographics

We next asked details about the individual which included gender, age, country of residence, and four questions about relative height, weight, strength (men only), and body shape (women only). We also included a 7-point Likert scale of their sexuality (1 = attracted to men only; 7 = attracted to women only).

3.3. Status-related variables

We next asked questions about the level of education, current occupation, current earnings and expected future earnings (we averaged current and expected future earnings as both were highly correlated, $r(465) = .72$, $p < 0.0001$). We also asked 10 vocabulary questions to measure intelligence based on the General Social Survey Wordsum Vocabulary Test (see Cor, Haertel, Krosnick, & Malhotra, 2012). These questions required respondents to choose the correct meaning of a word from five options. We added intelligence as a status-related variable as intelligence can be tied to education and level of employment and earning potential (Strenze, 2007). Finally, we asked 15 questions to assess trait levels of dominance (Fabiansson, 2013).

3.4. Mating-related variables

We also asked questions about their current relationship status, how long they have been in this relationship, and the relative age of their partner. If they had a partner, we asked whether they had children, and if they did, the gender and age of their children. We asked these questions to explore whether the presence of a greater number of male or female offspring altered the preferences in the types of games being played.

We next included the 4-item Mate Value Scale to measure participants' perceived desirability as a mate (Edlund & Sagarin, 2014). The revised Sociosexuality Inventory (SOI) assessed attitudes

[1] In both studies, we added questions in the first and last third of the survey to ensure that participants were paying attention.

[2] We also independently collected the ESRB ratings of each of the games listed to provide an objective measure of violence in each game. However, we used the subjective ratings in the analyses because ESRB ratings and subjective ratings were highly correlated, $r = .79$ in Study 1 and $r = .72$ in Study 2.