

Psychology of Popular Media Culture

He Does Not Look Like Video Games Made Him Do It: Racial Stereotypes and School Shootings

Patrick M. Markey, James D. Ivory, Erica B. Slotter, Mary Beth Oliver, and Omar Maglalang

Online First Publication, September 16, 2019. <http://dx.doi.org/10.1037/ppm0000255>

CITATION

Markey, P. M., Ivory, J. D., Slotter, E. B., Oliver, M. B., & Maglalang, O. (2019, September 16). He Does Not Look Like Video Games Made Him Do It: Racial Stereotypes and School Shootings. *Psychology of Popular Media Culture*. Advance online publication. <http://dx.doi.org/10.1037/ppm0000255>

He Does Not Look Like Video Games Made Him Do It: Racial Stereotypes and School Shootings

Patrick M. Markey
Villanova University

James D. Ivory
Virginia Tech

Erica B. Slotter
Villanova University

Mary Beth Oliver
Pennsylvania State University

Omar Maglalang
Virginia Tech

Despite a lack of research linking school shootings to video games, video games are frequently associated with school shootings carried out by White perpetrators. Because there is a stereotypical association between racial minorities and violent crime, it is possible that people often look toward video games as a cause for school shootings committed by White perpetrators who do not fit this stereotype. Consistent with this notion, Study 1 ($n = 169$) found that participants who read a mock news story about a school shooting were more likely to blame video games when the shooter was White than when the shooter was Black. Study 2 examined 204,796 news stories of 204 mass shootings committed in the United States and found that, when a shooting occurred at a school, video games were 8.35 times more likely to be discussed when the shooter was White than when the shooter was Black.


Public Policy Relevance Statement

Two studies confirmed the notion that racial stereotyping leads people to accept school shootings committed by Black perpetrators without seeking external explanations, but when school shootings are committed by White perpetrators, people often blame video games for the violent act. Given the growing body of research failing to find links between video games and real-world acts of horrific violence, it appears that racial stereotyping might be one reason some continue to blame video games for school shootings.

Keywords: video games, race, school shooting, stereotype, aggression

There is little scientific evidence linking the playing of violent video games to the perpetration of real-world acts of violence such as

homicides or school shootings (American Psychological Association, 2015; Australian Government Attorney-General's Department, 2010; *Brown v. Entertainment Merchants Association, 2011*; DeVos, Nielsen, & Azar, 2018). Research done by numerous scholars from psychology, communication, criminology, sociology, and economics examining such violence has found that when people are consuming violent video games, societal violence tends to decrease (Beerthuizen, Weijters, & van der Lann, 2017; Cunningham, Engelstätter, & Ward, 2016; Markey, Markey, & French, 2015; Ward, 2011). Consistent with these findings, various surveys of scholars and clinicians have indicated that most of these experts do not believe video games are a serious danger to society (cf., Ferguson, 2015; Ivory et al., 2015; Quandt et al., 2015). Due to lack of evidence, the American Psychological Association's Society for Media and Technology division, which focuses on the impact of media on human behavior, released a statement specifically requesting that the news, media, and politicians avoid linking violent media to school (News Media, Public Education and Public Policy Committee, 2017). Despite this, the media, politicians, and even some scholars often link school shootings to video games.

Patrick M. Markey, Department of Psychological and Brain Sciences, Villanova University; James D. Ivory, Department of Communication, Virginia Tech; Erica B. Slotter, Department of Psychological and Brain Sciences, Villanova University;  Mary Beth Oliver, Department of Media Studies, Pennsylvania State University; Omar Maglalang, Department of Communication, Virginia Tech.

Patrick M. Markey and Erica B. Slotter conducted and analyzed data from Study 2, and James D. Ivory, Mary Beth Oliver, and Omar Maglalang conducted and analyzed data from Study 1. Patrick M. Markey wrote the primary manuscript, and all other authors contributed to editing the manuscript. The materials and data for these studies can be found at <https://osf.io/x72y4/>.

Correspondence concerning this article should be addressed to Patrick M. Markey, Department of Psychological and Brain Sciences, Villanova University, 800 Lancaster Avenue, Villanova, PA 19085. E-mail: patrick.markey@villanova.edu

Within the United States, violent crime rates are, historically, disproportionately high among racial minorities from low-income urban areas (LaFree, Baumer, & O'Brien, 2010). Despite the relative frequency of violent crimes among this population, it is uncommon to hear speculation that video games are to blame for violence committed by racial minorities. However, video games are frequently mentioned as a potential cause of school shootings when the perpetrator is not a racial minority. For example, the tragic 1999 high-school shooting at Columbine High School in Littleton, Colorado, carried out by White perpetrators has been linked to video games by the media (Radford, 2000), politicians (Kain, 2013), and even scholars (Anderson & Dill, 2000).

The Columbine High School shooting was not an isolated instance wherein some scholars have attempted to link video games to school shootings. Researchers examining mundane, laboratory-based forms of aggression (e.g., giving too much hot sauce to another person, exposing someone to an unpleasant noise, or self-reporting negative feelings) frequently discuss horrific acts of violence in the introductions of their scientific articles. Moreover, these works seem to disproportionately mention White perpetrators. For example, every article cited in a recent meta-analysis on the effects of violent video games (Anderson et al., 2010) that mentioned school shootings also discussed shootings carried out by White perpetrators.¹ Although members of racial minority groups have committed 42.4% of nongang- and nondrug-related school shootings in the United States (Stanford University, 2016), violent video games receive little speculative attention as a causal factor in these instances. This racial discrepancy in the attention video games receive following school shootings persists even though White youth use video games and other media proportionally less than racial minorities (Rideout, Lauricella, & Wartella, 2011).

These tendencies for some researchers and others to look toward violent video games as a potential cause for school shootings committed by White youth, despite the proportionally greater prevalence of video game use among non-White youth, may be a result of stereotypical associations between various minority groups (e.g., Black, Latino) and violent crime. It is well known that various racial minorities are often stereotypically associated with violent crime (Devine, 1989) and that this effect seems particularly strong with the stereotyping of Black Americans (Correll, Park, Judd, & Wittenbrink, 2002; Eberhardt, Goff, Purdie, & Davies, 2004; Greenwald, Oakes, & Hoffman, 2003). For example, research has consistently found that people often stereotype Blacks as having a tendency toward violence, criminality, and hostility (cf., Devine, 1989; Devine & Elliot, 1995; Krueger, 1996; Madon et al., 2001). Such stereotyping may lead people to accept school shootings committed by Black perpetrators without explanation but seek explanations (such as violent video games) for the potential causes of school shootings when conflicted with the stereotypical perceptions of what a violent person looks like—such as when a perpetrator is White.

Overview of Present Research

The current research presents two studies designed to examine the association between the race of a violent perpetrator and the amount of blame attributed to video games for school shootings. Study 1 used an experimental manipulation to examine the causal effect of a perpetrator's race (Black or White) on the degree to

which people blame video games for school shootings. In Study 2, over 200,000 news articles concerning 204 shootings were analyzed to confirm whether video games were discussed more often when the perpetrator of a school shooting was White than when the perpetrator was Black.

Study 1

Study 1 investigated the importance of perpetrator race in a laboratory experiment by exposing participants to a mock news story featuring a school shooting committed by either a Black or White perpetrator who happened to be a video game enthusiast. After reading the news story, participants reported the culpability of video games for the depicted crime.

Method

Participants. One hundred sixty-nine undergraduate students enrolled in communication courses were recruited to participate in the study for course credit. A priori sample size calculations using G*Power 3.0 for our predicted effects suggested a target sample size of 128 to 198 to achieve a power of .80, approximating an effect size (*f*) between .20 and .25. This estimated effect size is consistent with the racial effects previously found in research in which fictionalized matched candidates from different racial groups apply for jobs (cf., Jacquemet & Yannelis, 2012; Pager, 2003; Pager, Western, & Bonikowski, 2009; Pedulla, 2014). Of the participants in the current study, 65.1% were female and 34.9% were male. The majority of the participants were White (88.13%) and the remaining were Asian or Pacific Islander (6.25%), Black (3.75%), Middle Eastern (1.25%), and Hispanic (0.06%). Mean age of the participants was 19.56 years (*SD* = 1.72) and median age was 19. Participation in the study, including the informed consent procedure, was conducted according to institutional review board stipulations and with the institutional review board's approval.

Design. This study used a single-factor between-participants design, with the perpetrator race manipulated across two conditions (Black and White). The race of the perpetrator was varied in a mock newspaper story that candidates were given to read during the study. All dependent measures and covariates were collected using a paper-and-pencil questionnaire instrument administered in the packet with the mock stories.

Stimulus materials. Participants read a mock newspaper item that was created for use in the study. The fictional story described a fictional fatal mass shooting event carried out by an invented 18-year-old youth named David Wilson at the fictional "Adams High School." The story described the shooting event, mentioning a number of injuries and fatalities and reporting that Adams had been taken into custody. The story also mentioned that "Wilson" was an avid fan of violent video games but did not offer overt speculation as to whether his video game play might have been a contributing factor in the shooting. Any identifying information that suggests a location of the event was withheld for ambiguity purposes. A small (approximately 2" × 2") black-and-white mug shot of "Wilson" was included in the second column of the story. The only element of the story that varied across conditions was the

¹ Patrick M. Markey is also the author of one of these studies that discussed violent video games in the context of school shootings.

picture included in the mug shot, which featured either a Black or White subject with an otherwise identical story across conditions.

The story was formatted in a vertical two-column newspaper format, accompanied by a brief headline and subheading, emulating a newspaper story. The original copies of the stimulus materials were reproduced multiple times on a photocopier, torn along the story's edges, and then frayed slightly at the corners before participants' individual copies were prepared. This preparation helped to ensure that the story copies exhibited the minimal blurring, rough edges, and discoloration typical of clipped and photocopied news items. The story was placed in a packet with another mock story that detailed endangered whales and threats from recreational boats.

Independent variable. The perpetrator race variable was manipulated by randomly varying the mug shot picture of "Wilson" that was shown in the newspaper article. Black-and-white pictures accompanying the stories were selected during a pretest with 17 participants who were not involved with the main study. In the pretest, participants evaluated 26 mug shots (13 Black, 13 White), which were selected from a geographically distant state's public sex offender database. Pretest participants rated each of the mug shots along four dimensions using seven-point scales: "attractive/unattractive," "dangerous/not dangerous," "kind/unkind," and "violent/not violent." From this group, six mug shots (three Black, three White) were selected that did not significantly differ from one another along any of these four dimensions ($p \geq .05$), ensuring that race was manipulated in the mug shots without accompanying variation in these other dimensions.

All six of these pictures were used in the study, with the three Black mug shots randomly distributed in stories in the Black mug shot condition and the three White mug shots randomly distributed in stories in the White mug shot condition. Multiple images were utilized to aid in the generalizability of results, ensuring that any observed effect would be attributed to race and not idiosyncratic details of a single mug shot.

Dependent variable. A pair of 7-point Likert-type questionnaire items assessed the extent to which participants considered "Wilson's" violent video game play at least partly culpable for the depicted crime. The items asked participants to rate their agreement with two statements: "The fact that Wilson played a lot of violent video games was probably a factor in his committing this crime," and "Wilson might not have committed this crime if he were not involved with violent video games" (1 = *strongly disagree*, 7 = *strongly agree*). These items were combined to form an index of perceptions of perceived violent video game culpability, which was reliable (Cronbach's $\alpha = .84$).

A number of items in the instrument were also included to mask the study's intent. These decoy items asked items were unrelated to a given study's focus (e.g., gun ownership, school security, endangered species protection efforts, restrictions on boats). Responses for these measures were not analyzed for the study.

Covariates. To control for participants' video game experience, they were asked how many hours a week they spent playing video games (including computer, console, online, or arcade games). In addition, to assess whether participants' perceptions of "Wilson's" social environment might serve as a confounding variable in their assessments of culpability, participants were asked to rate their agreement with the statement: "The social environment Wilson lived in was probably a factor in his committing this crime" (1 = *strongly disagree*, 7 = *strongly agree*).

Procedure. Participants took part in the study in groups of 10 to 20 in a large room. After signing an informed consent form, they were seated at tables and given instructions. Participants were told they would receive two sample news stories and a questionnaire about them but were not told that the stories were mock news items. Packets containing the two news items and the questionnaire instrument were then passed out to the participants, with the mug shots randomly varied in each packet's copy of the crime story. Participants were then given time to finish reading both news items and complete the questionnaire. After finishing the items and questionnaire, participants received a debriefing statement with information about the study (including the study's manipulation) and were credited and dismissed.

Results and Discussion

We hypothesized that perpetrator's race would affect participants' perceptions of violent video games' culpability for the shooting, with participants tending to assign more culpability to violent video games in the White perpetrator condition than in the Black perpetrator condition. A one-way analysis of variance test with perpetrator race as the independent factor and the perceived violent video game culpability index as the dependent variable found a significant effect, $F(1, 167) = 8.63, p = .004, \eta_p^2 = .049$, such that participants perceived significantly more violent video game culpability in the White perpetrator condition ($M = 3.79, SD = 1.38$) than in the Black perpetrator condition ($M = 3.13, SD = 1.55; M$ difference = $.66, 95\%$ confidence interval [CI] $[0.21, 1.10]$). When the test was repeated as an analysis of covariance with the control variables (participants' video game play and perceptions of social environment culpability), the effect of perpetrator race remained significant, $F(1, 165) = 6.66, p = .011, \eta_p^2 = .039$. The video game play covariate was also significant, $F(1, 165) = 16.069, p < .001, \eta_p^2 = .089$, such that people who did not play video games were more likely to blame video games for school shootings, but the perceptions of social environment culpability covariate was nonsignificant, $F(1, 165) = 3.27, p = .072, \eta_p^2 = .019$.

Study 2

Study 2 examined news reports of mass shootings committed by Black and White perpetrators at both school locations and non-school locations. Consistent with the findings from the previous study, it was hypothesized that when a White perpetrator committed a mass shooting at a school, news articles would be more likely to discuss video games than when the perpetrator was Black. In addition, it was explored whether this effect also occurred when shootings happened at nonschool locations. This auxiliary analysis of nonschool shootings was carried out because video games are often associated with youth² (Yee, 2006). Therefore, it is possible that the race of the perpetrator of a mass shooting will only be relevant if the shooting occurred at a school-related location.

Method

Information about the location, date, name, and race of perpetrator was obtained using the Stanford Mass Shootings in America

² The belief that video games are played primarily by young people is an incorrect stereotype, as the average gamer is 35 years old (Entertainment Software Association, 2017).

(Stanford University, 2016) data project. The Stanford Mass Shootings in America project contains information about mass shootings that occurred in the United States from 1966 until 2016, and the Mother Jones mass shooting database was used to subliminate these data between 2016 and 2018 (Follman, Aronsen, & Pan, 2018). The definition for mass shootings used in this research was three or more shooting victims, not including the shooter. In addition, the shooting must not have been identifiably gang-, drug-, or organized crime-related.

Although the video game industry began in 1971, with the first commercially sold coin-operated video game Computer Space, it did not gain widespread attention until the release of the Atari 2600 game console in 1977 (Goldberg & Vendel, 2012). Therefore, for the current analysis, only mass shootings that occurred after 1977 were included in the analysis. Based on this data set, 204 mass shootings were identified that were committed by either Black ($n = 73$) or White ($n = 131$) perpetrators between 1978 and 2018.

Identification of relevant news stories involved a search of the LexisNexis database using the search term (“Name of Perpetrator”) AND (“shooting” or “shot”) AND (“kill” or “victim”). The terms “shooting,” “shot,” “kill,” and “victim” were added to the search to avoid returning newspaper articles discussing individuals with similar names as the perpetrator. This method returned 204,796 newspaper articles discussing these 204 mass shootings. To determine when these articles discussed video games, the term AND (“video games”) was added to this previous search and returned 6,814 articles that mentioned video games when discussing these mass shootings.

Results and Discussion

As seen in Figure 1, descriptive statistics indicated that when the shooting occurred at a school, news articles discussed video games

6.8% of the time when the perpetrator was White but mentioned video games only 0.5% of the time when the perpetrator was Black. In a similar manner, video games were rarely mentioned when the shooting occurred a nonschool location when the perpetrator was either White (1.8%) or Black (1.7%).

Because data were nested (news articles were nested within shooting perpetrator), multilevel logistic regression was used to test the effects of race (Black or White), location (nonschool-related location or school-related location), and the interaction of these effects on whether a newspaper article discussed video games. See Table 1 for results from the full model. Importantly, the predicted significant interaction between perpetrator race and shooting location emerged. Probing the significant interaction indicated that among shootings that occurred at nonschool-related locations, the race of the perpetrator was not related to whether the articles discussed video games, $B = 0.37$, $t(151) = 1.29$, $p = .20$, 95% CI $[-0.20, 0.94]$, odds ratio = 1.45. However, if the shooting occurred at a school-related location, video games were discussed significantly more often when the perpetrator was White than when the perpetrator was Black, $B = 2.12$, $t(49) = 3.48$, $p = .001$, 95% CI $[0.89, 3.34]$, odds ratio = 8.35.

General Discussion

Research has consistently found that violent video games are not related to real-world acts of violence, such as homicides or school shootings, and various professional societies have explicitly noted that research does not support such claims (cf., APA, 2015; Beerthuizen et al., 2017; Cunningham et al., 2016; Markey et al., 2015; News Media, Public Education and Public Policy Committee, 2017; Ward, 2011). Even with such evidence, scholars, lawmakers, and the media frequently link video

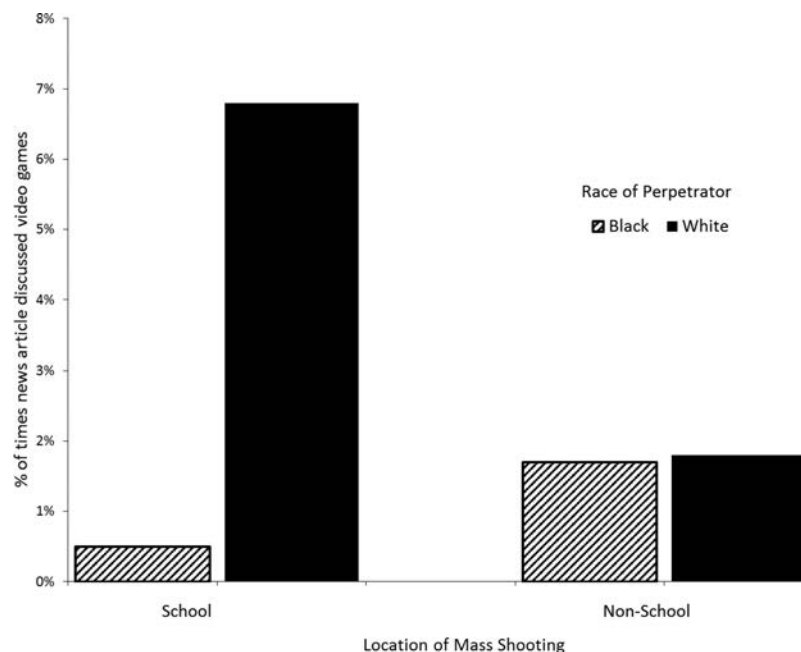


Figure 1. Percentage of time news articles discussed video games following a mass shooting committed by White and Black perpetrators occurring at school and nonschool locations.

Table 1
Results From the Study 2 Full Model

Parameter	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI	Odds ratio
Intercept	−5.28	.25	−21.25	<.001	[−5.77, −4.79]	.01
Perpetrator race	.37	.28	1.29	.20	[−.19, .93]	1.45
Shooting location	−.54	.62	−.86	.39	[−1.76, .69]	.59
Race × Location	1.76	.68	2.60	.01	[.42, 3.09]	5.78

Note. *n* news stories = 204,796; *n* mass shootings = 204. CI = confidence interval.

games to school shootings, especially when the perpetrator is White. One possible reason for such a linkage is that there is a stereotypical association between racial minorities and violent crime (cf., Devine, 1989; Devine & Elliot, 1995; Krueger, 1996; Madon et al., 2001). This may cause individuals to seek an external explanation (like violent video games) when attempting to understand why an act of violence was carried out by a White perpetrator. However, when such an act of violence is carried out by a racial minority, individuals may not feel compelled to seek an external explanation because the race of the perpetrator fits their stereotype of what a violent criminal looks like. Consistent with this notion, the experimental nature of Study 1 provided evidence that a perpetrator's race causes individuals to blame video games for the violent act more often when the shooter is White than when the shooter is Black. In a similar manner, Study 2 found that video games were discussed 8.35 times more frequently when the perpetrator was White than when he was Black.

Critically, the speculation about video games in the wake of mass shooting tragedies is not only misplaced, as evidenced by this study and previous research, but also the discussion about video games may serve as an indirect marker of a broader racial problem. If video games are disproportionately mentioned as a possible culprit for mass shootings with White perpetrators, and if audiences are more likely to interpret White perpetrators' video game use as a contributor to shootings, then the video game "blaming" can also be viewed as flagging a racial issue. Such "blaming" serves as a symptom of a broader racial problem. This problem is one in which media sources and audiences are more receptive to alternate causes for mass shootings perpetrated by Whites than by members of minority groups. This disparity may have dire consequences, not only affecting perceptions of video games' effects but also reflecting disparities in the culpability we assign to criminals depending on their race.

Media pundits and other public figures appear to be quick to suggest that video games may be to blame for horrific acts of violence when the perpetrators of these crimes do not fit their image of a person who might commit a violent crime. Given the growing body of research failing to find links between video games and real-world acts of violence (Beerthuizen et al., 2017; Cunningham et al., 2016; Markey et al., 2015; Ward, 2011), hopefully, media, politicians, and scholars will be more cautious when discussing media effects in the context of school shootings. Such a concern is particularly relevant given the findings from the current research indicating that such links appear to be embedded within a broader concern of racial stereotyping.

References

- American Psychological Association. (2015). *Resolution on violent video games*. Retrieved from <https://www.apa.org/about/policy/violent-video-games.aspx>
- Anderson, C. A., & Dill, K. E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology*, *78*, 772–790. <http://dx.doi.org/10.1037/0022-3514.78.4.772>
- Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., Sakamoto, A., . . . Saleem, M. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review. *Psychological Bulletin*, *136*, 151–173. <http://dx.doi.org/10.1037/a0018251>
- Australian Government Attorney-General's Department. (2010). *Literature review on the impact of playing violent video games on aggression*. Canberra, Australia: Author. Retrieved from <https://www.apadivisions.gov/division-46/resources/articles/video-games.pdf>
- Beerthuizen, M. G., Weijters, G., & van der Laan, A. M. (2017). The release of Grand Theft Auto V and registered juvenile crime in the Netherlands. *European Journal of Criminology*, *14*, 751–765. <http://dx.doi.org/10.1177/1477370817717070>
- Brown v. Entertainment Merchants Association, 131 S. Ct. 2729 (2011). Retrieved from <https://www.supremecourt.gov/opinions/10pdf/08-1448.pdf>
- Correll, J., Park, B., Judd, C. M., & Wittenbrink, B. (2002). The police officer's dilemma: Using ethnicity to disambiguate potentially threatening individuals. *Journal of Personality and Social Psychology*, *83*, 1314–1329. <http://dx.doi.org/10.1037/0022-3514.83.6.1314>
- Cunningham, S., Engelstätter, B., & Ward, M. R. (2016). Violent video games and violent crime. *Southern Economic Journal*, *82*, 1247–1265. <http://dx.doi.org/10.1002/soej.12139>
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, *56*, 5–18. <http://dx.doi.org/10.1037/0022-3514.56.1.5>
- Devine, P. G., & Elliot, A. J. (1995). Are racial stereotypes really fading? The Princeton trilogy revisited. *Personality and Social Psychology Bulletin*, *21*, 1139–1150. <http://dx.doi.org/10.1177/01461672952111002>
- DeVos, B., Nielsen, K. M., & Azar, A. M. (2018). *Final report of the Federal Commission on School Safety: Presented to the President of the United States*. Washington, DC: U.S. Department of Education. Retrieved from <https://www2.ed.gov/documents/school-safety/school-safety-report.pdf>
- Eberhardt, J. L., Goff, P. A., Purdie, V. J., & Davies, P. G. (2004). Seeing black: Race, crime, and visual processing. *Journal of Personality and Social Psychology*, *87*, 876–893. <http://dx.doi.org/10.1037/0022-3514.87.6.876>
- Entertainment Software Association. (2017). *Essential facts about the computer and video game industry*. Retrieved from http://www.theesa.com/wp-content/uploads/2017/04/EF2017_FinalDigital.pdf
- Ferguson, C. J. (2015). Clinicians' attitudes toward video games vary as a function of age, gender and negative beliefs about youth: A sociology of

- media research approach. *Computers in Human Behavior*, 52, 379–386. <http://dx.doi.org/10.1016/j.chb.2015.06.016>
- Follman, M., Aronsen, G., & Pan, D. (2018). A guide to mass shootings in America. *Mother Jones*, 15, 119. Retrieved from <https://www.motherjones.com/politics/2012/07/mass-shootings-map/>
- Goldberg, M., & Vendel, C. (2012). *Atari Inc.: Business is fun*. Carmel, NY: Syzygy Press.
- Greenwald, A. G., Oakes, M. A., & Hoffman, H. G. (2003). Targets of discrimination: Effects of race on responses to weapons holders. *Journal of Experimental Social Psychology*, 39, 399–405. [http://dx.doi.org/10.1016/S0022-1031\(03\)00020-9](http://dx.doi.org/10.1016/S0022-1031(03)00020-9)
- Ivory, J. D., Markey, P. M., Elson, M., Colwell, J., Ferguson, C. J., Griffiths, M. D., . . . Williams, K. D. (2015). Manufacturing consensus in a diverse field of scholarly opinions: A comment on Bushman, Gollwitzer, and Cruz (2015). *Psychology of Popular Media Culture*, 4, 222–229. <http://dx.doi.org/10.1037/ppm0000056>
- Jacquemet, N., & Yannelis, C. (2012). Indiscriminate discrimination: A correspondence test for ethnic homophily in the Chicago labor market. *Labour Economics*, 19, 824–832. <http://dx.doi.org/10.1016/j.labeco.2012.08.004>
- Kain, E. (2013). Ralph Nader calls violent video games 'electronic child molesters'. *Forbes*. Retrieved from <https://www.forbes.com/sites/erikkain/2013/01/21/ralph-nader-calls-violent-video-games-electronic-child-molesters/#11bb6fcc7a61>
- Krueger, J. (1996). Personal beliefs and cultural stereotypes about racial characteristics. *Journal of Personality and Social Psychology*, 71, 536–548. <http://dx.doi.org/10.1037/0022-3514.71.3.536>
- LaFree, G., Baumer, E. P., & O'Brien, R. (2010). Still separate and unequal? A city-level analysis of the Black-White gap in homicide arrests since 1960. *American Sociological Review*, 75, 75–100. <http://dx.doi.org/10.1177/0003122409357045>
- Madon, S., Gyuill, M., Aboufadel, K., Montiel, E., Smith, A., Palumbo, P., & Jussim, L. (2001). Ethnic and national stereotypes: The Princeton trilogy revisited and revised. *Personality and Social Psychology Bulletin*, 27, 996–1010. <http://dx.doi.org/10.1177/0146167201278007>
- Markey, P. M., Markey, C. N., & French, J. E. (2015). Violent video games and real-world violence: Rhetoric versus data. *Psychology of Popular Media Culture*, 4, 277–295. <http://dx.doi.org/10.1037/ppm0000030>
- News Media, Public Education and Public Policy Committee. (2017). *Societal violence and video games: Public statements of a link are problematic*. Retrieved from <https://div46amplifier.com/2016/12/14/societal-violence-and-video-games-public-statements-of-a-link-are-problematic/>
- Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108, 937–975. <http://dx.doi.org/10.1086/374403>
- Pager, D., Western, B., & Bonikowski, B. (2009). Discrimination in a low-wage labor market: A field experiment. *American Sociological Review*, 74, 777–799. <http://dx.doi.org/10.1177/000312240907400505>
- Pedulla, D. S. (2014). The positive consequences of negative stereotypes: Race, sexual orientation, and the job application process. *Social Psychology Quarterly*, 77, 75–94. <http://dx.doi.org/10.1177/0190272513506229>
- Quandt, T., Van Looy, J., Vogelgesang, J., Elson, M., Ivory, J. D., Con-salvo, M., & Mäyrä, F. (2015). Digital games research: A survey study on an emerging field and its prevalent debates. *Journal of Communication*, 65, 975–996. <http://dx.doi.org/10.1111/jcom.12182>
- Radford, T. (2000). Computer games linked to violence. *The guardian*. Retrieved from <https://www.theguardian.com/uk/2000/apr/24/timradford>
- Rideout, V., Lauricella, A., & Wartella, E. (2011). *Children, media, and race: Media use among White, Black, Hispanic, and Asian American children*. Retrieved from <http://cmhd.northwestern.edu/wp-content/uploads/2011/06/SOCconfReportSingleFinal-1.pdf>
- Stanford University. (2016). *Stanford Mass Shootings in America, courtesy of the Stanford Geospatial Center and Stanford Libraries*. Retrieved from <https://library.stanford.edu/projects/mass-shootings-america>
- Ward, M. R. (2011). Video games and crime. *Contemporary economic policy*, 29, 261–273. <http://dx.doi.org/10.1111/j.1465-7287.2010.00216.x>
- Yee, N. (2006). The demographics, motivations, and derived experiences of users of massively multi-user online graphical environments. *PRES-ENCE: Teleoperators and Virtual Environments*, 15, 309–329. <http://dx.doi.org/10.1162/pres.15.3.309>

Received April 27, 2019

Revision received July 26, 2019

Accepted July 26, 2019 ■