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Aggressive Political Opinions and Exposure to Violent Media

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This study examines the relationship between young people's exposure to media violence and their aggressive political opinions (APO), which were defined as support for positions that involve forceful resolution to social or political issues. Students from 2 U.S. universities completed surveys assessing their APO, exposure to violent media, authoritarianism, trait aggressiveness, political leaning, personal experience with crime, and demographics. Results revealed that violent television exposure significantly predicted several forms of APO above and beyond the control variables. Playing violent video games, however, predicted only a few aggressive political opinions. The results of this study support the reliability and validity of the APO measure, shed light on the relationship between exposure to violent media content and political opinions, and suggest some important differences between television and video game content in the effects process.

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How should the United States react when confronted with war? What is the best way to fight a "war on drugs" or a "war on terrorism"? Is capital punishment too harsh a penalty for even our worst criminals? When the government fails to act, should citizens take the law into their own hands? Should Americans be allowed to keep guns in their homes to protect themselves? When is the rule, "an eye for an eye," the proper course of action? Although there are several possible answers to these questions, a common thread is that support for various levels of aggression is a potential solution to these (and other kinds of) sociopolitical problems. Although people may argue about the legitimacy or wisdom of various solutions to problems like terrorism, criminal sentencing, or gun violence, any debate on these issues will likely involve aggression as one possible solution. Support for a more or less aggressive stance on issues may be rooted in family, religion, and other cultural values. The purpose of this article is to explore how exposure to violent entertainment media content may affect individuals' aggressive political opinions (APO).

Although, at first, the idea that exposure to media violence could be connected to political attitudes may seem untenable, researchers know from decades of research that violence in the mass media can clearly stimulate aggressiveness in social attitudes and behavior (e.g., Anderson et al., 2003), and they also know that exposure to media, including entertainment media, can influence political attitudes (e.g., Gerbner, Gross, Morgan, & Signorielli, 1982, 1984; Jackson, 2002). Thus, it seems reasonable to explore the possibility that violent entertainment media may contribute to the aggressiveness of the political opinions that people express.

Our argument that exposure to violence in entertainment media may influence APO rests on cultivation theory and theories of social learning, which are detailed in the following. We test our proposal with data from a sample of young adult media audiences, exploring the connection between exposure to violent entertainment media and APO with both traditional and newer media forms. Before proceeding, the concept of APO will be explicated.

EXPLICATING AGGRESSIVE POLITICAL OPINION

APO is conceptualized here as an attitudinal variable that varies between individuals and within the same individual across situations. But what constitutes APO? APO is defined as support for a position that directly or indirectly involves a forceful resolution to a social or political issue. It is easy to think of a few examples, such as advocating militant forms of political protest, supporting aggressive military policies against other countries, or holding extreme punitive attitudes toward criminals. It is important that this concept should not be confused with left–right political opinions; physical aggressiveness is as likely to emerge on the militant left as it is on the right, which is a point to which we return later in the article.

Perhaps the best way to illustrate the APO concept is by example. Although this concept could manifest itself in a number of political situations, there are a few

contexts in which APO may be particularly salient. First, there is the question of support for military retaliation when faced with an external threat to one's way of life. The September 11, 2001 terrorist attacks triggered a national debate on what would be the appropriate course of action for the U. S. government to adopt to fight terrorism. An example of an aggressive political opinion related to this issue would be to retaliate with military action, whereas a less aggressive position would favor less violent solutions, such as diplomacy or economic sanctions. Second, APO may be manifested in attitudes toward harsh criminal punishment, including support for the death penalty, "three strikes" laws, or support for the use of force by the police when dealing with suspects. Third, although it is debatable as to whether or not relaxed gun control policies would increase violence, supporting gun possession and the use of guns is arguably an indication of greater support for aggression in solving sociopolitical problems. Finally, support for vigilantism when government policy is seen as ineffective may also be indicative of more general support for aggression.

Although past research has not developed an overarching concept to capture the notion of the aggressiveness of political opinions, it is related to such well-developed concepts as authoritarianism (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950) and social dominance orientation (SDO; Sidanius, 1993). Of these two, it is most closely aligned with authoritarianism. According to Altemeyer (1988, 1996), authoritarianism is defined in terms of submission to authority, including authoritarian aggression (i.e., general aggression that is perceived to be sanctioned by authorities and the inclination to control the behavior of others through punishment), and conventionalism (i.e., obedience to social constraints). APO, as it is defined here, shares some common elements with the concept of authoritarianism, particularly with regard to support for authoritarian aggression, but also differs from it in several important ways.

First, whereas authoritarianism is mainly grounded in a person's relationship with authorities in society (Wilson, 2003), APO does not consider this a necessary component of the concept's meaning. That is, APO can involve support for aggression by authorities or by others in society, for example, vigilantes or political protestors. Second, although Altemeyer (1996) claimed that authoritarianism is isolated from political ideology, the concept has been linked with right-wing preferences (Wilson, 2003). For example, research utilizing Altemeyer's (1988) authoritarianism scale has found this concept to be associated with traditional political right-wing preferences, such as support of Republican candidates, but not with traditional political left-wing preferences (Kemmelmeiner, 2004). By contrast, APO is conceptualized as a tendency that can be found on both extremes of the ideological spectrum, or at any point between the two extremes. That is, APO is the inclination to favor an aggressive or forceful solution to a political dilemma, regardless of the political affiliation of the individual.

A third difference between authoritarianism and APO is that the former tends to focus on attitudes toward specific target groups, whereas the latter is a more general tendency to prefer aggressive responses to sociopolitical problems.

Authoritarianism has mostly been studied in connection with prejudice or intolerance toward outgroup members, especially people who are nonconventional or are traditional victims of aggression (Feldman, 2003). SDO, defined as a preference for hierarchically structured social systems, also focuses on intergroup prejudice and so is distinct from APO in the same way (Sidanius, 1993). Fourth, Feldman wrote that authoritarianism reflects a conflict between personal autonomy and social conformity. According to this conceptualization, authoritarianism is further removed from the political realm and into the social realm. APO, in contrast, is clearly linked to the political realm and to issues that are traditionally considered part of the political agenda. Whereas authoritarianism and APO both examine attitudes toward police use of force and capital punishment, APO does not encompass more traditional social attitudes, such as attitudes toward use of power in families and schools and attitudes about personal social decisions. Finally, authoritarianism incorporates aggression as only one component in its definition. In fact, Feldman argued that Altemeyer merely assumed that authoritarian people are aggressive, but provides no empirical support for this assertion. For APO, on the other hand, aggression is the most important and central element.

It could be argued that APO has increased in the United States in recent decades. Examples include rising public support for capital punishment and the resumption of the death penalty in the 1970s and 1980s, as well as passage of "three strikes" laws in the 1990s, despite declining violent crime rates during this period (see Polling Report, 2004; Rankin, 1979). Other examples include the rise in the prevalence and membership of U.S. militia groups in the 1980s and 1990s (Anti-Defamation League, 2004). Additionally, public support for military spending has increased since 1982 and, not surprisingly, has been particularly high for funding antiterrorism operations since 9/11 (Program on International Policy Attitudes, 2002; Smith, 2001). Concurrent with these trends, violence has been increasing on cable television, in popular film fare, and in video games (National Television Violence Study [NTVS], 1998). The research question posed here is whether these historical coincidences can be traced to the individual level, that is, whether people who experience violence via the media become more supportive of APO. But what is the evidence that there may be such a connection between violent entertainment media and political opinion formation at the individual level?

THEORETICAL MECHANISMS AND EVIDENCE FOR A MEDIA–APO CONNECTION

A great body of research shows that exposure to news media can influence political attitudes through such theoretical mechanisms as issue framing, agenda-setting, and priming (e.g., Iyengar & Kinder, 1997). There is also now substantial evidence that exposure to entertainment media can also influence political attitudes, although most of this work examines entertainment content that deals explicitly with

political issues (Adams et al., 1985; Delli Carpini & Williams, 1996; Holbrook, 2003; Pfau, Moy, & Szabo, 2001). Jackson (2002), however, found that general exposure to popular media such as film, television, and music interacts with parental and peer influence to affect a range of young adults' sociopolitical attitudes and values, for example, attitudes toward alternative lifestyles, women's rights, and acceptance of homosexuality (see also Holbert, Shah, & Kwak, 2003).

Studies also show that exposure to media violence influences attitudes toward aggression, including its acceptance as a solution to social problems (Anderson et al., 2003; Berkowitz, 1993; Bushman & Huesmann, 2001; Geen, 2001; Senate Judiciary Committee, 1999). The notion here is that aggressive attitudes are affected through such processes as observational learning, automatization of aggressive schematic processing, and emotional desensitization from exposure to media violence (Anderson et al., 2003). For example, Bushman (1998) found that exposure to violent movies led to the priming of aggressive cognitive schemata as evidenced by faster reaction times to aggressive words. It was further found that emotional variables mediate the relationship between exposure to violent media content and aggressive cognitions (Bushman & Geen, 1990). In sum, the foregoing research suggests that exposure to entertainment media influences political attitudes and exposure to violent media impacts aggressive attitudes. Taken together, this work provides the basis for our hypothesis that exposure to violent entertainment media may affect APO.

Beyond these linkages, however, at least two other pieces of evidence more directly support the idea that exposure to violent entertainment media may influence APO. First, cultivation theory predicts that heavy exposure to entertainment media, which generally contains a lot of violence, affects audience members' attitudes about the world (e.g., Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). In particular, the theory says that witnessing media violence leads people to hold the view that the world is a mean and dangerous place, and that other people cannot be trusted. Although cultivation theory has its detractors (e.g., Hirsch, 1980), the theory has gone through several refinements and a number of studies support its general hypothesis (e.g., Shrum & Bischak, 2001; Signorielli, 1990). Assuming that heavy media users hold mean world beliefs as the theory predicts, it is reasonable to think that those beliefs might color their political attitudes. In fact, research shows that people's basic beliefs about human nature help shape their political opinions (Brewer & Steenbergen, 2002) and that cultivation processes are at work in shaping political attitudes (Conway, Wyckoff, Feldbaum, & Ahern, 1981; Gerbner et al., 1982, 1984; Shanahan, 1995, 1998).

A logical extension of cultivation theory is that those who perceive the world as a more violent and threatening place may be more likely to endorse aggressive political solutions to problems (i.e., APO). This could be true, first, because people may feel that aggressive solutions to problems are required in a world that is violent and dangerous. Studies showing that perceived threat positively influences dogmatic and authoritarian views provide support for this idea (e.g., Feldman & Stenner, 1997). Indeed, cultivation researchers have found that, in addition to overestimating overall

crime rates and personal chances of being victimized, heavy viewers are more likely to believe violence should be used to solve problems and to take self-protective action (Morgan & Gonzales, 1979, as reported in Shanahan, 1998; Nabi & Sullivan, 2001). Similarly, Holbert, Shah, and Kwak (2004) found a positive relationship between crime drama viewing and support for the death penalty. A second reason is that a great deal of media content "teaches the lesson that violence can solve problems" through its overemphasis on the use of force by criminals and law enforcement agents (Shanahan, 1995, p. 274).

Studies of the connection between television exposure and authoritarianism provide further support for our basic hypothesis. Huesmann (1998) reported a longitudinal study by Landau and Bachrach in Israel showing that exposure to violent television in childhood and early adulthood was associated with later political attitudes and behaviors, beliefs about aggression, and authoritarianism. Shanahan (1995, 1998) similarly found that adolescents' adherence to authoritarian views, a common stage in adolescent political development, was influenced by television exposure. Lighter viewers of television seemed to be able to develop past this stage as they grew older, but heavy television viewers maintained a high degree of authoritarianism even as they aged. His measure of authoritarianism included political attitudes about free speech, homosexual rights, support for government and the democratic process, conformity to group norms, and submission to authority. Finally, Reith (1999) found a positive relationship between gender, crime drama viewing, and authoritarian attitudes. Specifically, men who were frequent viewers of crime dramas on television were more willing to endorse the use of force to maintain law and order than were less frequent viewers.

APO and Youth

Like Shanahan (1995, 1998), we chose to focus on the way that entertainment fare may influence young people's political attitudes. Our reasons for studying young people are threefold. First, adolescence and early adulthood comprise a particularly important period of development in political attitudes. Although scholars once thought that adolescence was quiescent in terms of political development, research now concludes that much of the political socialization process takes place before and during adolescence. For example, Siune and Kline (1975) found that between Grades 7 and 11, adolescents develop significantly in their level of political knowledge, such as knowledge about government and the political process (see also Gunter & McAleer, 1997). Shanahan (1998) similarly found that "adolescence is a crucial period in the formation of political rationality" (p. 485), and others have found that the political values and attitudes acquired during adolescence can persist throughout life (Buckingham, 1997).

Second, media exposure has been shown to influence the socialization of various social attitudes in young people, including sexual attitudes (e.g., Calfin,

Carroll, & Shmidt, 1993; Kalof, 1999) and attitudes about violence (e.g., Johnson, Jackson, & Gatto, 1995). Media exposure also has been identified as an important influence with regard to young people's political socialization specifically (Chaffee & Yang, 1990). Moreover, numerous studies have concluded that the media, and television in particular, play a significant role in the creation and reinforcement of attitudes about political parties, the electoral process, issues of military conflict, and minorities among young people (e.g., Conway et al., 1981; German, 1994; Liebes, 1992; Roberts, Pingree, & Hawkins, 1977).

Third, and perhaps most important, adolescents and young adults are particularly heavy users of violent media. It is estimated that by age 18, an American child will have seen 200,000 acts of violence on television, including 16,000 simulated murders (Senate Judiciary Committee, 1999). Data on consumption of violent media confirm that young people are attracted to television programs containing violence. Analyzing ratings data, Hamilton (1998) found that, among adult television views, younger audiences (ages 18–34) are the heaviest consumers of violent programming. Furthermore, he found that television programs aimed at children contain a lot of violence, and that substantial numbers of children watch violent programs aimed at adults. Indeed, the NTVS study (1998) found that 67% of children's programming contains violence. This should not be surprising, given a Federal Trade Commission (2000) study showing that U.S. media corporations actively market violent entertainment to children and teens.

In sum, younger audiences spend a great deal of their leisure time consuming media fare, a lot of which depicts a great deal of violence, during a time of life when social and political attitudes are beginning to crystallize. For these reasons, it is particularly interesting and important to examine the relationship between media content and the formation of APO among adolescents and young adults.

TELEVISION VERSUS VIDEOGAMES: DIFFERENT MEDIA, SAME EFFECTS?

Thus far, the discussion has focused on television violence. But media violence is not limited to television. Video games are another medium that is both extremely popular among young people and depicts very high levels of violence (Jones, 2003; Kaiser Family Foundation, 2002). Recent content analyses have discovered that 68% of popular home console video games feature one or more instance of violence (Smith, Lachlan, & Tamborini, 2003) and 50% of popular home console video games involve "violence or aggression directed specifically at other characters" (Dietz, 1998, p. 437). Furthermore, 59% of fourth-grade girls and 73% of fourth-grade boys say that the majority of their favorite video games are violent (Anderson & Bushman, 2001).

Like television, exposure to violent content in video games has also been linked with negative effects. A recent meta-analysis (Anderson et al., 2004) found significant and positive relationships between video game violence and several negative effects. This meta-analysis supported earlier research (Anderson & Bushman, 2001) findings that video game violence is significantly related to increases in aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and a decrease in helping behavior. For example, even playing a violent video game for a short time (i.e., 20 minutes) has been found to lead to greater expectations for aggressive resolutions of ambiguous social conflicts (Bushman & Anderson, 2002). Considering the wide range of negative video game violence effects, it is reasonable to consider whether or not violent video game play may also be linked to increases in APO.

Are Video Games More Violent Than Television?

It has been argued that video game play can create an environment that is inherently more violent than television (Malamuth, Linz, & Yao, in press). In television, violence is seen intermittently, dispersed throughout a larger narrative structure. Conversely, many video games force the player to engage in almost constant violence. If the player should "die," he or she simply starts the violent interactions all over again from the start. For this reason, some have argued that video games may encourage emotional desensitization to aggression far more effectively than does television (Malamuth et al., in press). In addition, the television experience is passive, but the video game experience is interactive and experiential. It is this interactive experience with violence that may lead to even greater negative effects.

Tests of social cognitive theory (Bandura, 2002) have found that exposure to violent portrayals that are positively reinforced or rewarded tend to lead to an increase in imitative aggressive behavior due to the development of a more positive disposition toward the aggressive behavior. This pattern of effects is especially likely when identification with the rewarded characters is high. Unlike viewers of violent television programs who simply watch other characters behave aggressively, players of violent video games actually step into the role of the aggressive characters by virtually pulling the trigger or throwing the punches themselves. Indeed, some video games even require players to take on the identity of a violent game character. This form of identification with aggressive characters is much more overt than the kind of vicarious role-taking involved in television viewing, which may lead to greater involvement and, in turn, a greater disposition toward the aggressive behavior (Malamuth et al., in press). Furthermore, in addition to encouraging greater identification with violent characters, video games offer more direct rewards for aggression than does television (e.g., players are awarded points for killing others). According to social cognitive theory, identification and

reinforcement are key factors in producing media effects, including both the learning of attitudes that are supportive of aggression and aggressive behavior per se (Bandura, 1965).

Television Violence Versus Video Game Violence: A Fair Comparison?

In addition to the interactive elements of video games that may make them more violent than television, there are a number of other differences between these media that may make direct comparison between the two somewhat difficult. For example, even the most modern video game cannot depict humans and their movements as well as television. Decreased realism of televised portrayals has been shown to cause diminished fear reactions (Cantor, 2002). This could also be the case with video games. On the other hand, the overall video game playing experience may be perceived as more realistic despite the fact that it is graphically inferior to television. An example of this is the typical first-person shooter video game experience.

Unlike other video games that capture violence at a distance with small characters, these games depict an environment that changes as the player "walks" through it to fit their perspective. The player can only see what is in front of him or her and must turn to see what is behind them. In this environment, humans and anthropomorphized beings jump out and shoot directly at the player until either they kill the player or the player kills the characters in the frame. Some game makers have begun to digitally recreate human faces so well that it is becoming difficult to distinguish them from actual people. It seems likely that killing these digital humans would have a greater effect than the less realistic violence depicted in older games like *Pac Man* and *Space Invaders*.

Although differences in realism may make a direct comparison between television and video games difficult, it is nonetheless important to consider the effects of both media when exploring the outcomes of exposure to violence. As we contemplate a world of progressively novel media in which violence sells, it is worth some extra effort to explore the changes in society that innovation is bringing via the indirect mechanism of aggressive political opinions.

HYPOTHESIS AND RESEARCH QUESTION

The foregoing discussion leads to the following hypothesis and research question:

H1: Heavy exposure to violent entertainment television positively predicts aggressive political opinions, after controlling for other nonmedia factors.

RQ1: Will violent video game playing predict aggressive political opinions in the same manner as television?

METHOD

Sample and Procedure

Participants in this study were 446 undergraduate students at two large universities located in the western and southwestern United States. Students completed a survey, and they received credit for communication courses as compensation for their participation. Of the participants, 302 (67.7%) were women and 141 (31.6%) were men. The average age of participants was 21 years ($SD = 2.59$) with a range of 18–42 years.

Some significant differences emerged between students from the two universities. Specifically, students from the southwestern university were slightly older ($M = 21.98$, $SD = 2.80$) than students from the western university ($M = 19.77$, $SD = 1.59$), $t(442) = -9.89$, $p < .001$, and slightly more religious (southwestern: $M = 3.16$, $SD = 1.39$; western: $M = 2.89$, $SD = 1.40$; $t[421] = -1.99$, $p < .05$). The subsample of southwestern students had a higher proportion (77.3%) of White students than the western one (68.3%; $\chi^2 = 4.55$, $df = 1$, $p < .05$) and was less liberal politically ($\chi^2 = 8.45$, $df = 1$, $p < .05$). These variables are used as controls in the data analysis. Also, it is important to note that, as will be detailed in the following, students from the two universities did not significantly differ on the measure of APO, which serves as the criterion variable in this study.

Measurement

The survey included questions about participants' APO and their media use in terms of television exposure and video game playing. Additional measures included authoritarianism, trait aggression, political leaning, personal experience with crime and violence, and level of religiosity. Demographic variables assessed participants' gender and age, as well as their racial background.

APO. Construction of a scale to measure APO was conducted in two phases. During the initial exploratory phase, 16 items were created to assess young people's support of capital punishment, opposition to gun control, and use of military and police force. These items were pilot tested on a sample of 189 students from a western U.S. high school (Eyal, Lingsweiler, Mahood, Yao, & Chaffee, 2002). Students were asked to indicate their agreement with a series of statements, ranging from *strongly disagree* to *strongly agree*. Results showed good variance on the measure, and that the respondents had no trouble understanding the scale items. Factor analysis showed that the scale was multidimensional, as expected. Cronbach's alpha for the scale was .67, which is slightly below the recommended level of .70, although acceptable for exploratory research (Nunnally, 1967).

The second phase involved refining the scale developed in Phase 1. Specifically, additional items were created with the aim of improving scale reliability and capturing a wider array of APO. These items were based on an extensive literature review of previous research on political opinions and violence, such as support for the "three strikes" law. In addition to the original APO dimensions of support for harsh punishment of criminals, gun control, and use of force, questions designed to tap into opinions about vigilantism, which was defined as the use of force by individuals to affect political change, were added to the APO scale. Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Overall, 24 items were developed and were subjected to confirmatory factor analysis (CFA) via structural equation modeling. Results of the CFA showed a four factor APO model with a good comparable fit index and relatively low error ($\chi^2 = 186.491$, $p = .000$, Comparative Fit Index = .943, Root Mean Squared Error of Approximation = .045). The analysis indicated that APO consists of four subscales, each with four items.

A measure of total APO was then created by averaging responses to all 16 items. The reliability of the scale was Cronbach's $\alpha = .70$. Participants averaged slightly below the midpoint of the APO scale ($M = 2.79$, $SD = 0.42$), with significant differences between the sexes, $t(439) = -5.13$, $p < .001$. Men scored significantly higher on the APO scale ($M = 2.94$, $SD = 0.42$) than did women ($M = 2.73$, $SD = 0.40$). There were no differences in APO between the two campuses.

To assess the validity of the scale, we examined the correlations between APO, authoritarianism, and trait aggression. As expected, APO was correlated significantly and positively with both variables (trait aggression: $r = .27$, $p < .001$; authoritarianism: $r = .38$, $p < .001$). The moderate correlation between APO and authoritarianism is supportive of the expectation stated in the introduction that, although the two constructs are related, they are also distinct theoretically, with APO focusing more on the political realm, whereas authoritarianism is a broader term that refers to several social categories. These correlations support the construct validity of the APO measure.

Subscales measuring each of the four dimensions of APO, including harsh punishment, gun control, use of force, and vigilantism, were also formed by averaging the items loading on each factor, as indicated by the CFA. The harsh punishment subscale consisted of respondents' average agreement with these statements: "Even murder does not justify the state's taking a citizen's life," "I approve of the death penalty," "No penalty can be too harsh for the worst criminals," and "As a punishment for serious crimes, life imprisonment is preferable to the death penalty." Gun control was measured similarly, using the following items: "I would feel better if fewer people carried guns," "I would feel safer if there was a gun in every home," "People need to keep guns in their homes to defend themselves," and "I believe in the 2nd amendment, the right to bear arms, because people have the right to defend themselves against anyone that attacks them." Use of military and

police force was captured by agreement with the statements: "The U.S. had the right to bomb hostile countries," "In war, the U.S. should use whatever means are necessary to win," "It is hard for me to think of situations in which I would approve of a police officer striking a citizen," and "When provoked by another country, the U.S. should respond first with diplomacy rather than military action." Finally, vigilantism was measured with the following four items: "Individuals should never take the law into their own hands, no matter how wronged they feel," "I can see how a person could get so frustrated with the government that they would do something violent," "People should be allowed to make speeches or write books urging the overthrow of the government," and "Militia groups that are known to commit violence, like the Oklahoma City bombing, have a right to exist." Items in all scales were reverse coded as appropriate.

Reliability analysis was performed on each of the scales (see Table 1), which found that only two of the four had interitem reliability scores above .60. Consequently, scores on the individual items comprising the use of force and vigilantism scales were used instead of composite scores when testing the hypothesis and research question. This was considered a more cautious approach to data analysis, given the reliability issue.

Violent television exposure. Participants' exposure to violent television programs was assessed by asking them to indicate on a scale of 1 (*never*) to 4 (*often*) how often they watched each of 23 programs. This list of programs was compiled by examining the *TV Guide* and other top-rated television shows' lists to identify those shows likely to include the greatest levels of violence. Titles included *Cops*, *The Sopranos,* and *The Shield*. In case we did not mention a violent television program that our participants were exposed to, we asked them to list any other programs they watched that they thought were violent. The responses to all of these items were summed and then averaged. Overall, participants averaged 1.60 ($SD = 0.29$) on the 4-point scale, indicating that they watched the shows about once each. There were significant differences between the sexes, $t(441) = -6.83$, $p < .001$, with men reporting watching significantly more violent television shows ($M = 1.73$, $SD = 0.32$) than women ($M = 1.54$, $SD = 0.25$). There was also a significant difference in viewing violent television shows between students in the two universities, $t(444) = -2.19$, $p < .05$. Students from the southwestern university reported watching significantly more violent programming ($M = 1.57$, $SD = 0.28$) than those from the western university ($M = 1.28$, $SD = 1.57$).

Violent video game playing. Participants' playing of violent video games was assessed by asking them to indicate on a scale of 1 (*never*) to 4 (*often*) how often they played each of 42 games. This list of video games was compiled by examining listings for top-played video games to identify those games likely to include the greatest levels of violence. Titles included *Mortal Kombat*, *Resident Evil,* and *Grand Theft*

TABLE 1
Aggressive Political Opinions Subscale Items and Scale Reliabilities

Subscale and Items	α
Harsh punishment	.84
Even murder does not justify the state's taking a citizen's life.*	
I approve of the death penalty.	
No penalty can be too harsh for the worst criminals.	
As a punishment for serious crimes, life imprisonment is preferable to the death penalty.*	
Gun control	.74
I would feel better if fewer people carried guns.*	
I would feel safer if there was a gun in every home.	
People need to keep guns in their homes to defend themselves.	
I believe in the 2nd amendment, the right to bear arms, because people have the right to defend themselves against anyone that attacks them.	
Use of force	.57
The U.S. had the right to bomb hostile countries.	
In war, the U.S. should use whatever means are necessary to win.	
It is hard for me to think of situations in which I would approve of a police officer striking a citizen.*	
When provoked by another country, the U.S. should respond first with diplomacy rather than military action.*	
Vigilantism	.40
Individuals should never take the law into their own hands, no matter how wronged they feel.*	
People should be allowed to make speeches or write books urging the overthrow of the government.	
I can see how a person could get so frustrated with the government that they would do something violent.	
Militia groups that are known to commit violence, like the Oklahoma City bombing, have a right to exist.	

*Items were reverse coded.

Auto. In case we did not mention a violent video game that our participants played, we asked them to list any other games they played that they thought were violent. The responses to all of these items were summed and then averaged. Overall, participants averaged 1.28 (SD = 1.20) on the 4-point scale, indicating that they almost never played the games. There were significant differences between the sexes, $t(441) = -5.29$, $p < .001$, with men reporting playing significantly more violent video games ($M = 1.71$, $SD = 2.06$) than women ($M = 1.08$, $SD = 0.12$).

Authoritarianism. Sixteen items were used to assess the extent to which participants held authoritarian beliefs. These items were taken from previous

authoritarianism scales (Altemeyer, 1988, 1996; Shanahan, 1995, 1998) and included statements such as "It is always better to trust the judgment of the proper authorities in government" and "In the final analysis, the established authorities, like parents and our national leaders, generally turn out to be right about things." Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Responses to all 16 items were averaged and the reliability of the scale was Cronbach's $\alpha = .78$. Participants averaged slightly below the midpoint of the authoritarianism scale ($M = 2.59$, $SD = 0.49$).

Trait aggression. Sixteen items from the Buss and Perry (1992) Aggression Questionnaire were used to measure the trait aggressiveness of respondents. Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Items included, for example, "I am an even-tempered person" and "Given enough provocation, I may hit another person." Responses to the items were averaged and the reliability of the scale was Cronbach's $\alpha = .86$. Participants averaged below the midpoint of the scale ($M = 2.29$, $SD = 0.67$). Significant differences emerged between the sexes, $t(439) = -8.74$, $p < .001$, with men scoring significantly higher on trait aggressiveness ($M = 2.67$, $SD = 0.64$) than women ($M = 2.11$, $SD = 0.61$).

Political leaning. Participants were asked to indicate their political preferences by indicating whether or not they define themselves as each of the following: Democratic, Republican, liberal, conservative, middle of the road, or not political. A political leaning measure was then created by categorizing participants into one of three categories: Democrat/liberal, Republican/conservative, or middle of the road. All participants who indicated that they were liberal and/or a Democrat, were included in the "liberal-leaning" category ($n = 202$; 45.3%); all participants who indicated that they were conservative and/or a Republican were included in the "conservative-leaning" category ($n = 118$; 26.5%); participants who only indicated that they were middle of the road (without any party affiliation) were included in the third category ($n = 61$, 13.7%). Participants who indicated that they were not political ($n = 57$) and those who indicated that they were Democrat/conservative ($n = 6$) or Republican/liberal ($n = 2$) were coded as missing data (14.6% of the total sample fell into this category).

Personal experience with crime and violence. To assess participants' level of personal experience with crime and violence, they were asked to respond to a series of 14 questions about such experiences, including such questions as, "Have you ever been involved in a violent confrontation?" and "Have you ever been threatened with a gun?" Participants indicated either *Yes* or *No* for each one. Responses were added so that a higher score on the personal experience scale indicated greater experience with crime and violence in real life. Scores on this scale ranged from 0 to 12, with participants averaging 4.31 personal experiences

($SD = 2.44$). There were significant differences between the sexes, $t(434) = -5.70$, $p < .001$, with men reporting significantly more personal experience with crime and violence in their personal lives ($M = 5.21$, $SD = 2.59$) than women ($M = 3.84$, $SD = 2.21$).

Religiosity. Participants were asked to respond to one item about their general level of religiosity. They indicated their agreement with the statement "Religion is an important part of my life" with response options ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Participants averaged just above the midpoint of the scale ($M = 3.04$, $SD = 1.40$).

Demographic information. Participants were asked their age, gender, and to indicate how they describe themselves in terms of their racial background by checking any of the following categories that they felt apply to them: Caucasian, Latino, African American, Asian American, American Indian, and other. Of the sample, 73.3% described themselves as Caucasian ($n = 327$), 12.8% described themselves as Latinos, 9.2% as Asian American, 2.5% as African American, and 1.1% as American Indian. Following cultivation studies, we dichotomized this variable into Caucasian/minority for the data analysis.

Data Analysis

Hierarchical regression analyses were conducted to examine the influence of exposure to violent television shows and violent video game playing on participants' APO. The variables were entered in blocks. The first block included demographic variables (i.e., age, gender, and race), religiosity, and political leaning. The second block included experience with crime and violence, trait aggressiveness, and authoritarianism. The third block included the media use variables: violent television viewing and violent video game playing.

RESULTS

Data analysis proceeded in two steps. The first step examined the predictors of total APO, and the second step sought to discover the predictors of each of the APO subdimensions.

Regression Analysis on Total APO

The first phase of analyses involved hierarchical regression analyses on the measure of participants' total APO. The regressions were performed as previously

TABLE 2
Summary of Hierarchical Regression Analyses for Variables Predicting Total Aggressive Political Opinions

Variable	*B*	*SE B*	β	ΔR^2
Step 1				
Race	.01	.05	.01	
Gender	−.09	.07	−.09	
Religiosity	−.01	.02	−.02	
Political leaning	−.16	.03	−.29**	
Age	−.01	.01	−.04	.23**
Step 2				
Experience with crime and violence	.02	.01	.12*	
Trait aggression	.13	.04	.18**	
Authoritarianism	.27	.05	.26**	.09**
Step 3				
Violent television viewing	.33	.09	.17**	
Violent video game play	−.04	.11	−.03	.03**

Note. $F(10, 356) = 17.92$. $p < .001$. $R^2 = .34$.
*$p < .01$. **$p < .001$.

described, with violent television exposure and violent video game playing entered as predictor variables on the last step. The results showed a significant relationship between violent television exposure and total APO (β = .17, $p <$ .001), indicating that exposure to violent television is positively predictive of APO when controlling for race, gender, religiosity, political leaning, age, experience with crime and violence, trait aggression, and authoritarianism. There was no significant relationship, however, between violent video game playing and total APO (β = −.03, $p = .68$) over and above the control variables. Overall, the media variables together explained 3% of the variance in total APO. See Table 2 for a summary of results.

Regression Analysis on APO Subscales

Phase 2 of data analysis consisted of running hierarchical regression analyses on each of the APO subscales or items, where appropriate. Analyses revealed violent television viewing predicted aggressive opinions on the harsh punishment of criminals subscale (β = .14, $p < .01$), as well as some individual items on both the use of force and vigilantism subdimensions. Specifically, exposure to violent television positively predicted agreement with the statement, "In war, the U.S. should use whatever means are necessary to win" (β = .13, $p < .05$). Marginal results were found for exposure to violent television predicting the support for gun

TABLE 3
Summary of Hierarchical Regression Analyses for Variables Predicting APO Harsh Punishment of Criminals and Opposition to Gun Control Subscales

Variable	*B*	*SE B*	β	ΔR^2
Harsh punishment APO, $F(10, 356) = 12.32$, $p < .001$; $R^2 = .26$				
Step 1				
Race	.08	.12	.03	
Gender	.00	.15	.00	
Religiosity	−.06	.04	−.08	
Political leaning	−.20	.07	−.17**	
Age	−.00	.02	−.01	.13***
Step 2				
Experience with crime and violence	.02	.02	.05	
Trait aggression	.18	.08	.12*	
Authoritarianism	.83	.12	.39***	.12***
Step 3				
Violent television viewing	.56	.21	.14**	
Violent video game play	−.29	.24	−.08	.02*
Gun control APO, $F(10, 356) = 10.84$, $p < .001$; $R^2 = .24$				
Step 1				
Race	−.24	.10	−.12*	
Gender	.03	.13	.02	
Religiosity	.03	.03	.05	
Political leaning	−.29	.06	−.29***	
Age	.00	.02	.00	.18***
Step 2				
Experience with crime and violence	.07	.02	.19***	
Trait aggression	.08	.07	.06	
Authoritarianism	.25	.10	.14*	.05***
Step 3				
Violent television viewing	.28	.18	.09$^+$	
Violent video game play	.20	.20	.07	.01$^+$

Note. APO = aggressive political opinions.
*$p < .05$. **$p < .01$. ***$p < .001$. $^+p \leq .10$.

control subscale (β = .09, p = .10), and two items from the vigilantism scale, "People should be allowed to make speeches or write books urging the overthrow of the government" (β = .10, p = .05) and "Militia groups that are known to commit violence, like the Oklahoma City bombing, have a right to exist" (β = .11, p = .08). Complete statistics for all analyses are shown in Tables 3 and 4.

Results for violent video game play were quite different. Analyses showed that playing violent video games predicted APO only for the item "It is hard for me to

TABLE 4
Summary of Hierarchical Regression Analyses for Variables Predicting Aggressive Political Opinions Use of Force and Vigilantism Subscale Items

Variable	*B*	*SE B*	β	ΔR^2
"*In war, the U.S. should use whatever means are necessary to win.*" $F(10, 355) = 15.76, p < .001; R^2 = .31$				
Step 1				
Race	.16	.13	.06	
Gender	−.44	.17	−.17**	
Religiosity	.05	.04	.06	
Political leaning	−.23	.07	−.17**	
Age	.00	.02	.01	.21***
Step 2				
Experience with crime and violence	.01	.03	.02	
Trait aggression	.13	.09	.08	
Authoritarianism	.90	.13	.37***	.10***
Step 3				
Violent television viewing	.58	.23	.13*	
Violent video game play	−.32	.26	−.08	.01*
"*It is hard for me to think of situations in which I would approve of a police officer striking a citizen.*" $F(10, 354) = 4.23, p < .001; R^2 = .11$				
Step 1				
Race	.34	.15	.13*	
Gender	−.04	.18	−.01	
Religiosity	.08	.05	.10^{+}	
Political leaning	−.04	.08	−.03	
Age	−.01	.02	−.03	.07***
Step 2				
Experience with crime and violence	.01	.03	.03	
Trait aggression	.06	.10	.03	
Authoritarianism	.37	.15	.16*	.02
Step 3				
Violent television viewing	.13	.26	.03	
Violent video game play	.82	.29	.21**	.03**
"*People should be allowed to make speeches or write books urging the overthrow of the government.*" $F(10, 356) = 13.58, p < .001; R^2 = .28$				
Step 1				
Race	.09	.14	.03	
Gender	−.24	.18	−.09	
Religiosity	−.04	.05	−.05	
Political leaning	.15	.08	.11^{+}	
Age	−.02	.02	−.04	.14***

(continued)

TABLE 4 *(Continued)*

Variable	*B*	*SE B*	β	ΔR^2
Step 2				
Experience with crime and violence	−.02	.03	−.04	
Trait aggression	−.01	.10	−.01	
Authoritarianism	−1.08	.14	−.42***	.13***
Step 3				
Violent television viewing	.50	.25	.10^{+}	
Violent video game play	.03	.28	.01	.01^{+}
"*Militia groups that are known to commit violence, like the Oklahoma City bombing, have a right to exist.*"				
$F(10, 355) = 2.78, p < .01; R^2 = .08$				
Step 1				
Race	.04	.13	.02	
Gender	−.20	.17	−.09	
Religiosity	−.11	.04	−.15**	
Political leaning	.03	.07	.03	
Age	.02	.02	.06	.05**
Step 2				
Experience with crime and violence	.02	.03	.05	
Trait aggression	.01	.09	.01	
Authoritarianism	−.26	.13	−.12*	.02
Step 3				
Violent television viewing	.43	.23	.11^{+}	
Violent video game play	−.51	.27	−.15^{+}	.01^{+}

*$p < .05$. **$p < .01$. ***$p < .001$. $^{+}p < .10$.

think of situations in which I would approve of a police officer striking a citizen" ($\beta = .21$, $p < .01$), and marginally for "Militia groups that are known to commit violence, like the Oklahoma City bombing, have a right to exist" ($\beta = -.15$, $p = .06$). Although not quite reaching statistical significance, the negative beta weight indicates that as respondents play more violent video games, the less likely they are to support the right for violent militia groups to exist.

In summary, exposure to violent television predicted total aggressive political opinion, as well as several specific aspects of APO, including support for harsh criminal punishment, opposition to gun control (marginally), and three items measuring attitudes toward the use of force and vigilantism. By contrast, playing violent video games predicted few aspects of APO. In both cases, although media exposure did not account for a lot of variance, it is noteworthy that it did explain a significant amount above and beyond demographic variables and other plausible explanations such as authoritarianism, trait aggression, and political ideology. Thus, the data offer some support for H1, which predicted that exposure to violent television would positively impact APO, but they indicate that the answer to RQ2 is "no." Playing violent video games does not predict the aggressiveness of young

people's political opinions in the same way as viewing violent television. Finally, it is interesting to note that APO was also predicted rather consistently by some of the nonmedia variables, particularly authoritarianism, trait aggression, experience with crime and violence, gender, and political leaning.

DISCUSSION

The purpose of this study was to explore the relationship between young people's exposure to violent entertainment media content and their APO. The data shed light on this relationship and indicate that exposure to violent television shows indeed contributes to APO, explaining significant variance above and beyond that explained by youth's demographics, political ideology, experience with crime, trait aggression, and authoritarianism. Beyond contributing to the overall construct of APO, this study found that exposure to violent television programming specifically contributed to youth's support for the harsh punishment of criminals, as well as some opinions that tap support for the use of police and military force. Although only statistically marginal, violent television exposure also contributed to the variance explained in young people's opposition to gun control laws and to two items measuring vigilantism.

These findings are mostly consistent with previous research such as Reith's (1999) study in which men's exposure to televised crime drama significantly and positively predicted increased levels of aggression against criminals who threaten the existing order. These findings are also consistent with researchers' suggestions about the importance of examining entertainment programming as it relates to people's political and social opinions. As noted, public opinion studies have looked at the socializing influence of news media, but have paid much less attention to investigating the influence of other types of media content on political attitudes. Indeed, as Liebes (1992) pointed out, the line between entertainment and news programming is becoming increasingly blurred (see also Fretts, 2004, for a discussion of the melding of political talk shows and comedy). Also, because youth spend more time engaging with entertainment media than they do either watching the news on television or reading newspapers (Comstock & Scharrer, 1999), it makes sense to wonder about the influence that other types of media content might have on young people's political attitudes and opinions (Kraus, 1973). Related to this is the recent interest in the contribution of entertainment media exposure to opinions about social issues, such as women's rights (Holbert, et al., 2003).

The findings from this research are also consistent with cultivation theory, which formed the theoretical backbone for this study. Our results support the notion that heavy exposure to violent television content contributes to the cultivation of APO. It should be noted that media exposure variables explain only minimal overall

variance in APO and its various subdimensions. In this context, however, is it important to remember the exploratory nature of this study and the fact that it relied on a newly constructed measure of APO. Furthermore, despite accounting for only a minimal amount of variance, the significant contribution of media exposure variables was found above and beyond individual differences, including people's real life experience with crime.

However, in contrast to the results for television, our findings indicate only minimal connection between playing violent video games and APO. Violent video game playing did not significantly predict the overall APO construct, nor did it predict support for harsh criminal punishment or opposition to gun control laws. It did, however, significantly predict one item tapping into respondents' support for use of force and was marginally, although negatively, correlated with one of the vigilantism items. The significant positive link to the item supporting use of force by police officers is surprising, especially in light of the argument advanced in the following, regarding the differences between television and video game content. Perhaps the reversed nature of the item or the vague language it employs (i.e., the referral to "situations" which are left up to the participant to conjure up) have led to this finding. Future research should reexamine the item's wording. Overall, however, although the data analysis found several links between exposure to violent television and APO as a composite scale and across all of its subdimensions, this was not the case with playing violent video games.

The finding that watching violent entertainment television predicts total APO but playing violent video games does not is surprising, given the arguments set forth in the introduction to this article. One possible explanation lies in the differences between the content of each medium. Television entertainment fare often focuses on crime and violence, with an abundance of law and order programs that nearly always end with good triumphing over evil. Even within the reality genre, Oliver (1994) found that reality-based police shows tend to overrepresent violent crime, as well as the proportion of crimes that are resolved successfully. Although guns are quite prevalent in television entertainment programs (NTVS, 1998), they are, again, almost always ultimately used for the purpose of serving justice. By contrast, many of the most popular video games feature violence of a fantasy nature, involving human or nonhuman characters in situations that are easily distinguishable from real life, and many games depict characters engaging in violence during sports competitions (Entertainment Software Rating Board, 2005). Differences in content across these two media, then, may account for the differences in our results on APO. Further support for this explanation comes from the fact that although watching violent television was predictive of attitudes toward the harsh punishment of criminals and, marginally, opposition to gun control, playing violent video games was not. Again, the content of entertainment television as a whole is much more focused on law, order, and the pursuit of criminals than is the content of video games. Thematic differences within each genre—such

as across different video games—may further help explain why some game playing may be related to certain dimensions of APO and not others.

Nonmedia Predictors of APO

Beyond the media use variables, there were several other factors that predicted total APO and its various subdimensions fairly consistently in our data. These factors include gender, trait aggression, authoritarianism, political conservatism, and experience with crime and violence.

The findings that higher trait aggression, having real-life experience with crime and violence, and being a man positively predict APO make sense and are consistent with findings in the psychological literature on violence and aggression. For example, trait aggression has been linked to aggressive tendencies (Tremblay & Belchevski, 2004) and to aggressive outlooks, including social expectations and social perceptions (Dill, Anderson, Anderson, & Dueser, 1997). Bushman (1995) found that individuals higher in trait aggression expressed a greater preference to watching an aggressive film, as compared to nonaggressive individuals. Watching a violent film, in turn, led to greater anger and aggression in high trait aggressive individuals, as compared to people with lower trait aggressiveness. In addition to trait aggression, other psychopathological disorders have been found to mediate the effects of exposure to violent media content (Grimes, Bergen, Nichols, Vernberg, & Fonagy, 2004). For example, Grimes et al. showed that children with disruptive behavior disorder (DBD) have been found to experience different reactions to exposure to violent movie clips (i.e., in the form of less arousal and greater anger) than children who are not classified as suffering from this disorder. These reactions in children with DBD are expected to impact their cognitive processing of violent media content and, as a result, lead to a greater susceptibility to engage in violent behaviors. Overall, it seems that people with certain personality characteristics, specifically more aggressive ones, are likely to be more strongly impacted by exposure to violent media content.

The social learning approach to the development of aggression (Bandura, 1977; Tremblay, Hartup, & Archer, 2005) takes the view that aggression is learned during childhood from exposure to adult models. This supports the idea that experience with crime and violence early in life may impact future aggressive attitudes and behaviors. Finally, several researchers have found a significant relationship between gender and aggression. The fact that, overall, men tend to be more aggressive has been explained by both developmental (socialization) and evolutionary theories (Anderson & Bushman, 2002).

Other research has found connections between authoritarianism and aggressive attitudes and behavior and between political conservatism to aggressive tendencies and motivation (Jost, Glaser, Kruglanski, & Sulloway, 2003). Together, this indicates that the results of our study fit with other research on aggression and

offers further evidence of construct validity for the APO concept advanced in this study.

It is also interesting to note that several of the nonmedia variables that we found to predict APO, including trait aggression, gender, and authoritarianism, have themselves been linked to greater preference for, and exposure to, violent entertainment media. In terms of trait aggression, research has revealed a bidirectional relationship between trait aggressiveness and exposure to violence on television. Not only are aggressive individuals affected more by exposure to violence on television (e.g., Dorr & Kovaric, 1980) but they exhibit a greater tendency to expose themselves to such content and enjoy such content more than people who are not predisposed to aggression (e.g., Bushman, 1995; Gunter 1983, 1985). Similar findings were reported for children (Cantor & Nathanson, 1997), adolescents (Friedman & Johnson, 1972), and adults (Diener & Defour, 1978). With regard to gender differences in violent media exposure, research has consistently found that men have a greater preference for violent media content than do women (Hoffner & Levine, 2005), and that men play more violent video games than women (Anderson & Dill, 2000; Kaiser Family Foundation, 2002; Lucas & Sherry, 2004). Finally, living in high-crime neighborhoods has also been linked to greater frequency of viewing violent television content (Doob & MacDonald, 1979).

Overall, our research points toward the emergence of a personality profile of someone who is likely to hold APO. Specifically, our findings that APO is predicted by authoritarianism, trait aggression, political conservatism, being male, and having real-life experience with crime and violence, may indicate a certain personality type that has a proclivity toward holding APO. Adding violent media exposure to these variables (many of which predict violent media use, as shown) might then heighten the potential for APO to develop. This idea is similar to cultivation theory's notion of resonance. Resonance is the idea that cultivation effects may be stronger for those who experience crime and violence in real life because the violence portrayed on TV resonates with real-life experience with crime and violence, and thus produces a type of "double dose" effect on audience members. Of course, it is impossible to say yet whether personality type (especially authoritarianism and political conservatism) mediates or moderates the relationship between violent media exposure and APO.

Limitations and Future Research

Our data are limited by their cross-sectional nature. Like much other research on the effects of media violence, we cannot conclude from our study that exposure to violent media causes APO to form because, for one reason, it may be the case that holding APO leads a person to prefer violent media content. To some extent, it can be assumed that for teenagers and adolescents, media exposure comes before

opinions on many political issues crystallize, but this assumption requires empirical validation.

Experimental research on APO would help to sort out the causal order. One could imagine a series of studies in which subjects are exposed to differing degrees of violent entertainment programming and their APO is measured. It would be interesting to examine the priming hypothesis (e.g., Bushman, 1998; Bushman & Geen, 1990) in terms of whether exposure to violent media content triggers aggressive emotions and cognitions that lead to the articulation of APO immediately after exposure, and whether exposure to violence on television shows and video games leads to similar or different APO expressed immediately after exposure. Alternatively, longitudinal data could be used to track young people's violent media use and their APO from the early high school years through college, which would also help to establish causality.

It would also be interesting to examine how APO is impacted by violent media exposure in the context of overall television viewing and video game playing. Considering that people's media environments tend to be more complex than just exposure to violent content, identifying people's ratio of violent to nonviolent media exposure, rather than just their exposure to violent content, would contribute to the ecological validity of this study.

Perhaps the most important direction for future research on this topic is to continue to refine the APO measure. Although the overall APO measure did obtain acceptable reliability, some subdimensions of the scale have low reliability and would benefit from further development. Moreover, further subdimensions within the construct of APO should be considered beyond those studied here. For example, most of the items assessing vigilantism in this version of the scale address action on the individual level (e.g., individuals taking the law into their own hands or individuals engaging in violent actions). By contrast, the other three subdimensions of the scale address APO at a societal level, such as the use of force by the police, the government, and the military. In this study, we found that societal level measures of APO were better predicted by exposure to violent media content than items assessing opinions about individuals' aggressive actions. For this reason, it may be necessary to reword the items assessing vigilantism or to consider the possibility of differentiating the various levels of action on this aspect of APO. Also, as noted earlier in this article, the initial test of the APO measure was conducted with high school students. Further research replicating this study with other populations than college students would be valuable. In any case, although this research does show that some youth possess APO, and that some of these are predicted by violent media exposure, this exploratory study only scratches the surface of the full range of APO and its potential manifestations.

The results of this study suggest that video games and television shows differ on some attributes crucial for the development and expression of political opinions.

The data, however, do not allow us to conclude what the sources of these differences are. Several explanations are possible, including the content differences discussed, as well as differences in the level of interactivity and reality across these two media. Although we did not find a relationship in our study, increased video game realism and interactivity might work to affect APO under certain circumstances. It would be interesting to see if a relationship between violent video game play and APO appeared for those who play games with very realistic graphics or virtual reality features that focus on crime or military actions and feature human characters.

Beyond the influence of video games' formal features, another possible explanation is that there are differences in the environmental factors of the use of each of these media. For example, several researchers have indicated that co-using can be an important variable in examining media effects (e.g., Desmond, Singer, Singer, Calam, & Calimore, 1985). In the case of television, coviewing has been seen to both enhance and diminish the effects of violent television on children (Nathanson, 2002). Although knowledge on the effects of coplaying violent video games is sparse, there is evidence that a lot of video game play among children and adolescents takes place in a social context (Kaiser Family Foundation, 2002). Future research should examine in more detail the differences in both the content and environmental context of use of video games and television and their subsequent effects on youth's political opinions.

CONCLUSION

In sum, findings from this study suggest that exposure to violent media content contributes to people's APO. They support the notion that entertainment media content, and especially televised content, can play a role in people's opinions about important social and political issues above and beyond traits, demographic factors, and other personality and experiential variables. This exploratory study serves as a first step in examining this connection. When considering the societal implications of youth's political opinions, and with further work, APO could emerge as an important contributing concept in media effects research.

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