Social Aggression on Television and Its Relationship to Children’s Aggression in the Classroom

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A survey was conducted with over 500 children in grades K-5 to examine whether exposure to socially aggressive content was related to children’s use of social aggression. The results of the survey revealed a significant relationship between exposure to televised social aggression and increased social aggression at school, but only for girls and not for boys. Although this relationship was dependent on the sex of the child, the study is the first to provide evidence that viewing social aggression on television is related to an increased tendency for elementary school children to perpetrate such behaviors in the classroom. The findings are discussed in terms of social cognitive theory and information processing theory.


On January 14, 2010, Phoebe Prince’s body was found hanging in the stairway leading to her family’s second-floor apartment. The Massachusetts teenager committed suicide after a torturous day of verbal and physical abuse at school. Police reports reveal that a brief dating relationship with a popular high school senior sparked daily harassment that included being called an “Irish slut” and threatening text messages sent to her cell phone. Nine Massachusetts teenagers have been charged with involvement in a nonstop campaign of bullying that prosecutors say eventually lead to her death (Kennedy, 2010).

Although Phoebe Prince’s story is extreme, her experience with bullying at school is not at all uncommon. Indeed, a recent national survey of 7,000 adolescents 11–15 years of age revealed that 35% of the adolescents engaged in malicious gossip about others on a monthly basis (Wang, Iannotti, & Nansel, 2009). Additionally, 32% of the adolescents reported that they were the target of cruel gossip or teasing and 10% reported that they were the victim of a malevolent rumor via a social networking Website. As a result of some of this evidence, researchers have called for further investigation on the causes of nonphysical aggression such as cruel gossiping and teasing among America’s youth (see Walker, 2010).

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The purpose of this study is to address this call by examining whether exposure to nonphysically aggressive portrayals on television (e.g., rumor spreading, back-stabbing) predicts similar types of aggressive behaviors in the classroom. In other words, can children learn nonphysical aggression from watching particular types of television content?

Social aggression

Although the harmful effects of overt physical aggression on child development have been widely studied, little attention has been paid to aggressive behavior that is more subtle and relational in nature. Social aggression is a type of aggression that damages a target’s self-esteem or social standing (Galen & Underwood, 1997). Social aggression includes both indirect (e.g., spreading a rumor) and direct (e.g., ignoring another) acts of aggression. However, social aggression may be delivered via verbal and nonverbal means, which distinguishes it from other conceptually related overlapping constructs such as indirect or relational aggression (for further review, see Archer & Coyne, 2005).

Research indicates that social aggression is more prevalent among girls. In one study, Crick, Bigbee, and Howes (1996) surveyed 9- to 12-year-old children and asked them “What do most girls/boys do when they are mad at someone?” Social aggression was the most frequently cited angry behavior for girls’ interactions, whereas physical aggression was the most frequently cited angry behavior for boys’ interactions. Scholars have argued that socially aggressive strategies are more often used in girls’ peer interactions because such tactics are effective in harming social goals (e.g., maintaining relationships) that are most important to girls (Crick & Grotpeter, 1995).

Because social aggression does not result in physical injury, it may be tempting to conclude that is less problematic than overt behavioral aggression. Yet, Phoebe Prince’s tragic story highlights the fact that the consequences of social aggression can be quite serious. Victims of social aggression are typically rejected by their peers and consequently experience feelings of loneliness and depression (Crick & Grotpeter, 1995). Victims also report a decrease in self-esteem and global self-concept (Paquette & Underwood, 1999).

What causes this nonphysical form of aggression? Scholars have speculated that the same factors that instigate physical aggression in youth also promote social aggression (Twenge, Baumeister, Tice, & Stucke, 2001). For example, family issues, such as exposure to marital conflict, have been linked to both physical (Cummings & Davies, 1994) and social aggression (Crick, 2003). Another environmental factor that may contribute to both social and physical aggression is media violence. In the short term, laboratory studies show that viewing televised aggressive models leads children to imitate aggressive behavior immediately after exposure (for review, see Huesmann, 2007). In the long run, longitudinal studies have found that exposure to television violence in childhood is associated with subsequent increases in adult aggression (Huesmann, 1986; Huesmann, Moise-Titus, Podolski, & Eron, 2003).
Given that children can learn physical aggression from the media, an obvious question is whether they can learn social aggression from the media as well. One of the first issues to address here is whether there are sufficient examples of social aggression in the media. A small body of research indicates that there is. One content analysis found that 92% of programs popular among adolescents aged 11–14 contained acts of social or indirect aggression (Coyne & Archer, 2004). In a more recent study, Martins and Wilson (in press) examined the amount and context of social and physical aggression in programs popular with young children 2–11 years of age. Examples of the programs sampled included American Idol, Survivor, and The Suite Life of Zack and Cody. The results revealed that 92% of the programs contained some social aggression. Moreover, when compared to portrayals of physical aggression, social aggression was more likely to be enacted by an attractive perpetrator, to be featured in a humorous context, and neither rewarded or punished. Thus, at least two published studies reveal that socially aggressive behaviors are prevalent on television, particularly in programs that children watch. However, the types of effects that exposure to such portrayals may have on young viewers have received little empirical attention.

**Prior research on media and children’s social aggression**

Only a handful of studies could be found that have examined the relationship between television exposure and children’s use of nonphysical forms of aggression. One is a 15-year longitudinal study conducted by Huesmann and colleagues (2003) that assessed the relationship between exposure to television violence in childhood and subsequent adult physical aggression and indirect aggression (e.g., taking victim’s things, trying to get others to dislike victim). The researchers found that childhood exposure to television violence predicted indirect aggression in adulthood for females, but not for males. These findings remained stable even when other variables known to contribute to aggressive behavior (e.g., IQ, socioeconomic status [SES]) were controlled. In another study conducted with preschoolers ($M = 47$ months), Ostrov and colleagues (2006) found that media exposure was positively associated with physical aggression for boys and social aggression for girls. Finally, a longitudinal study with over 32,000 adolescents (11–15 years old) from eight different countries found that media exposure was positively associated with nonphysical bullying behaviors (Kuntsche et al., 2006).

Taken together, this small body of work is consistent with the notion that children can learn nonphysical forms of aggression from television. There is an important limitation, however, to all of these studies: They did not specifically look at exposure to aggressive content that is social in nature. Huesmann et al. (2003) examined exposure to physical violence, whereas Ostrov et al. (2006) and Kuntsche and colleagues (2006) examined overall television viewing. Thus, none of the studies provide evidence that exposure to *socially aggressive content* is related to children’s social aggression.

Only one study to date has examined the content that participants viewed. Coyne and Archer (2005) examined the relationship between exposure to indirect aggression on television and adolescents’ use of indirect aggression in the classroom.
in a sample of 347 sixth-, seventh-, and eighth-grade British students. Coyne and
Archer found that adolescents who frequently watched programs containing indirect
aggression were significantly more likely to be nominated by their peers as indirectly
aggressive. This relationship remained significant even when participant’s sex and
peer-nominated physical aggression were controlled. The authors also found that
females viewed more indirect aggression on television than did males, and that a
higher proportion of females than males were nominated as indirectly aggressive.

Although Coyne and Archer’s (2005) study makes an important contribution to
the literature, their study, like the others mentioned above, is hampered in a few ways.
One major limitation to these studies is that they did not examine any meaningful
moderating variables. Although there is a great deal of evidence linking exposure
to media violence to aggressive behavior in children, not all children are affected
in the same way. Several factors put some children more at risk for subsequent
aggressive behavior than others do (see Anderson et al., 2003 for review). Although
Huesmann and colleagues (2003) examined moderators in their study, they were
interested in variables that intensified the relationship between TV exposure and
physical aggression. Thus, the potential impact of moderating variables in relation to
social aggression is unknown.

A second limitation is that the studies did not control for known predictors of
television viewing and of socially aggressive behavior. A variety of demographic,
family, and personal characteristics have been shown to be correlated both with TV
viewing and with social aggression, such as SES and child disposition (see Crick,
Ostrov, Appleyard, Jansen, & Casas, 2004). Employing controls ensures that any
relationship found between television exposure and socially aggressive behaviors is
not derived from their joint association with one or more of these other variables.

Theoretical approaches regarding media violence and youth aggression
How does exposure to violence encourage aggression in children? One theoretical
explanation is offered by social cognitive theory, which posits that children can learn
behavioral responses in the short term by observing models in their environment
(Bandura, 2009). As it happens, children can imitate people in their immediate
surroundings, or they can imitate models in the media. According to this theory,
imitation is more likely to occur when the observed behaviors are rewarded than
when they are punished (see Bandura, 2009).

A second theoretical approach that has been used to explain the relationship
between exposure to media violence and children’s aggression is information pro-
cessing theory. Information processing theory accounts for the effects of exposure
to media violence over time, by focusing on the acquisition and reinforcement of
aggressive scripts, or mental routines for familiar events that are stored in memory
(Huesmann, 1998). According to Huesmann, a child who is exposed to a great deal
of violence, either in real life or through the media, is likely to acquire scripts that
promote aggression as a way of solving problems. Once learned, these scripts can
be retrieved from memory at any time and tried out in social situations. Indeed,
recent neuroscientific research seems to support this view. Murray and colleagues (2006) found that exposure to television violence routinely engaged a network of brain regions involved in the regulation of emotion as well as episodic memory and retrieval. Thus, children who are repeatedly exposed to media violence may develop a stable set of scripts that are easy to retrieve and that emphasize aggression as an appropriate response in social situations.

Although these two theories have been used to explain how children learn physical aggression from television, they have clear implications for how youth might learn social aggression as well. For example, Martins and Wilson (in press) demonstrated in their content analysis that social aggression was prevalent in the vast majority of programs sampled. Both social cognitive theory and information processing theory would predict that exposure to these recurring portrayals can foster the learning of social aggression in children. In accord, our first hypothesis predicted that:

H1: There will be a positive relationship between children’s exposure to programs high in social aggression and their use of social aggression.

Moderating variables
As discussed earlier, exposure to media violence does not affect all children in the same way. The impact of violent television exposure depends upon a host of factors that put some viewers at greater risk for developing aggressive behaviors than other viewers are (Anderson et al., 2003). One such factor is the sex of the child. In their most recent longitudinal investigation, Huesmann and colleagues (2003) reported similar effect sizes for males and females over 15 years of age. However, the researchers noted some important gender differences in the kinds of aggression associated with early childhood exposure to media violence. In particular, early exposure to media violence predicted increased use of indirect aggression for adult females but not for males whereas early exposure to media violence predicted increased physical aggression among adult males but not females. This study supports other research that finds that social aggression is more typical among females. In a number of studies, girls are found to display more subtle forms of aggression at significantly higher levels than boys are (Crick & Grotpeeter, 1995; Galen & Underwood, 1997). Given this evidence, we predicted that:

H2: The relationship between exposure to televised social aggression and children’s social aggression will be stronger for girls than for boys.

A second factor that may place some viewers at more risk for developing social aggression is age. Paik and Comstock’s (1994) meta-analysis on the impact of television violence on antisocial behavior revealed a negative relationship between the age of the viewer and the effect of TV violence on physical aggression. The authors concluded that the effect of TV violence was greatest for children under 5 years of age.

The role that age plays in the development of social aggression is less clear because of the contradictory findings in the developmental research. Cote, Vaillancourt, Barker, Nagin, and Tremblay (2007) have posited that physical and social aggression follow different developmental paths. Children, especially girls, use physical
agression more than social aggression during early childhood and then use social aggression more than physical aggression during adolescence. Yet this body of research has been directly contradicted in observations of preschool children. Researchers have observed that children as young as 3 years engage in rudimentary forms of social aggression, such as excluding another child during a school activity (Ostrov et al., 2006). Given the contradiction in this line of research, a research question was posed:

RQ1: Will age of the child moderate the relationship between exposure to programs high in socially aggression and children’s social aggression?

A third risk factor that may moderate the relationship between exposure to televised social aggression and use of social aggression is wishful identification with television characters. Hoffner and Buchanan (2005) defined wishful identification as the desire to be like or act like a television character. Evidence indicates that wishful identification enhances a variety of media effects. For example, Austin, Pinkleton, and Fujioka (2000) reported that wishful identification with characters in advertisements was related to children’s expectations about alcohol use, which in turn was associated with actual drinking behavior.

There is also evidence to support that wishful identification is linked to youth aggression. For instance, Konijn, Nije Bijvank, and Bushman (2007) found that the adolescent boys who wishfully identified with a violent video game character behaved more aggressively than did boys who identified with a nonviolent character. Given that children who wishfully identify with media characters may be influenced more by those characters’ behaviors, we predicted that:

H3: The relationship between exposure to socially aggressive programs and such behavior in children will be higher among those who report wishfully identifying with socially aggressive characters.

A fourth risk factor to consider is perceived reality of television. Perceived reality of television refers to the extent to which a viewer believes television content is similar to real life (Busselle & Greenberg, 2000). Research indicates that children are more likely to learn from television content that they perceive as similar to real life (Greenberg & Reeves, 1976). Most relevant to this study, perceptions of realism have been linked to the learning of aggression from TV. Huesmann and colleagues (2003) found that children who thought that the violent television shows they watched were about life “just like it really is” had higher average physical and verbal aggression scores 1 and 15 years later than did children who thought that television was less realistic. Although perceived reality of television has not been directly examined in relation to social aggression, it seems reasonable to expect that children who perceive television as realistic also will attend more to social aggression on the screen and will learn more from such models. In accord, the following hypothesis was advanced:

H4: The relationship between exposure to socially aggressive programs and children’s social aggression will be higher among those children who perceive television as more realistic.
Control variables
A wide variety of demographic, family, and personal characteristics are known to be correlated with television viewing and with aggression, such as social class and IQ (for review, see Anderson et al., 2003). Thus, a positive relationship between aggression and television exposure may be derived from their joint association with one or more of these variables. One way to handle extraneous variables is to statistically control for them in data analyses so that the influence of these variables is minimized, nullified, or isolated (Kerlinger, 1973). Several variables known to predict television exposure as well as children’s aggression were controlled for in this study.

Two variables selected as controls were SES and academic achievement. Research indicates that children from lower-SES backgrounds watch more television in general (Huesmann, 1986) and more violent television in particular (Comstock & Paik, 1991). Evidence also demonstrates that children from lower SES backgrounds are more aggressive than are children from higher SES backgrounds (Huesmann, 1986). Similarly, children who perform poorly in school are more physically aggressive (Huesmann, 1986) and watch more violent television (Comstock & Paik, 1991) than do children with higher intellectual ability. These two variables have not been specifically examined in studies of social aggression, but due to the presumption that physical and social aggression may be driven by similar causes, it seems reasonable to assume that these two variables also correlate with exposure to televised social aggression and with the use of social aggression.

Another variable that may predict both exposure to televised social aggression and socially aggressive behaviors is the alienation of the child (Comstock, 2008). Research in this area is relatively new, but preliminary evidence indicates that social aggressors may attempt to harm peer relationships with others in an effort to compensate (or retaliate) for their own lack of success in those relationships (Crick & Grotpeter, 1995). Furthermore, alienation seems to predict certain types of television viewing. For example, Slater (2003) found that children who reported feeling alienated from peers at school watched more violent television than nonalienated children did (Slater, 2003). Thus, children’s feelings of alienation were measured and controlled to remove this possible confound.

Empathy is a fourth variable that may confound the relationship between television viewing and aggression. Research indicates that less empathic youth are more likely to engage in aggressive behaviors than their more empathic counterparts are (Miller & Eisenberg, 1988), in part because they are not able to anticipate the negative outcomes produced by their conduct toward another person (Hoffman, 2000). Furthermore, empathy has been shown to relate to social aggression as well. For instance, Kaukiainen and colleagues (1999) found that low levels of empathy were associated with high levels of physical, verbal, and indirect aggression in preadolescents. The role of empathy in children’s media habits is unknown. Yet one study with college students suggests that empathic individuals avoid violent media content (Hoffner, 2004). Applied here, it could be empathic children will avoid exposing themselves to socially aggressive content in order to avoid the personal
distress that may come from watching such portrayals. Controlling for this factor, therefore, will remove the possibility that the hypothesized relationship between exposure to televised social aggression and use of social aggression was derived from these two variables' joint association with empathy.

Finally, the literature supports the idea that children who are physically aggressive are also more likely to be socially aggressive (Coyne & Archer, 2005). Research also demonstrates that children who are aggressive tend to be more attracted to viewing violent television than less aggressive children are (Huesmann et al., 2003). Therefore, perpetration of physical aggression was measured and controlled for to eliminate the possibility that physical aggression was responsible for the relationship between television exposure and socially aggressive behaviors.

Does type of content matter?
We have argued throughout this article that it is crucial to measure and assess the particular type or form of aggression, both on television and in children. So, for example, our hypotheses and research questions focus on exposure to social aggression on television, not to all types of aggression. The rationale here is that children imitate and learn from particular portrayals and store scripts that match what they see. Yet another possibility is that any form of violence on the screen may prompt or encourage aggression in children and that the particular form that it takes may be related more to the child’s natural tendencies and/or the situation than to the content itself. According to this line of reasoning, viewing socially aggressive portrayals in the media might increase subsequent physical aggression in some children. Indeed, Coyne, Archer, and Elsea (2004) showed videos to adolescents that portrayed physical aggression, social aggression, or no aggression at all. When given the opportunity to physically and/or socially aggress against a confederate in the experiment, participants who viewed either form of aggression were more aggressive, at similar levels, than was the nonaggression control group. Thus, there is limited evidence for a generalized media effect; that is, the viewing of one form of aggression may elicit or teach another form. To test this idea, we included measures of physical aggression, both on television and among children, in this study. Given the paucity of research on this crossover idea, the following research question was posed:

RQ2: Is there a relationship between exposure to one type of aggression on the screen (either physical or social) and increased aggression of the other type among children (i.e., physical or social)?

Method

Participants
A total of 527 children from two schools in Vermillion County, Illinois participated in this study. Because one of the goals of the study was to control for SES, schools were preselected on the basis of socioeconomic diversity. Of these, 88 were in
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kindergarten, 80 were in first grade, 97 were in second grade, 90 were in third grade, 81 were in fourth grade, and 91 were in fifth grade. They ranged in age from 5 to 12 years ($M = 7.81$, $SD = 1.84$). Approximately half were girls ($n = 283$) and half were boys ($n = 244$). A majority of the children were either Caucasian (47%) or African American (30%), and the remainder were biracial (10%), Latino (5%), Middle Eastern (3%), or Asian American (2%). Three percent of the sample did not report their race.

In addition to surveying the children, teachers were asked to fill out a questionnaire about each child. A total of 29 teachers (97% female) from the two schools filled out surveys. All of the teachers agreed to participate; thus there are no child participants with missing teacher data.

Procedure

All children were granted parental permission and signed their own assent forms before participating. The survey was administered in a quiet room at the elementary school during regular school hours. Trained research assistants guided same-sex pairs of children through their questionnaires by reading question stems and answer choices, and allowed children to fill in their answers themselves. Children were interviewed in pairs to keep the adult–child ratio small, while minimizing research time spent in the schools. However, younger children and children whose reading comprehension was not high were led through the questionnaire one-on-one. Two orderings of the questionnaire were created so that half of the children were asked about their television exposure first and then about their use of social aggression, whereas the other half were asked about social aggression perpetration before being asked about their television exposure. There were no effects of order. Upon completion, children received a novelty pencil in thanks for their participation and were escorted back to class.

Once all the children in each classroom completed the survey, corresponding teachers were given a questionnaire about each participating child. After signing a consent form, teachers were asked to complete each questionnaire and mail them back in a provided self-addressed stamped envelope. As an acknowledgment, each classroom was given $100 for their participation.

Assessment of aggressive perpetration

Child reports

The Revised Social Experience Questionnaire (Paquette & Underwood, 1999) is a 12-item self-report measure that assesses the frequency with which a child is the perpetrator of social and physical aggression. Participants were instructed to indicate how often they perpetrated social and physical aggression. Response items to these questions were (0) never, (1) some days, (2) most days, (3) everyday. The social aggression subscale assessed how often the child tried to harm a peer’s self-esteem (e.g., “How often do you make mean faces at another kid to hurt their feelings?”) or social standing (e.g., “How often do you get back at another kid by not letting
them be in your group anymore?’’). The physical aggression subscale assessed how often the child harmed or attempted to harm another peer’s physical well-being (e.g., “How often do you push or shove another kid at school?’’). Perpetration scores were summed and averaged to yield two scores: a social aggression perpetration score and a physical aggression perpetration score. Internal consistency of the scales was $\alpha = .84$ and $\alpha = .70$ for social and physical aggression respectively.

**Television exposure**

*Exposure to televised social aggression*

Participants were presented with a list of popular television programs and asked to indicate how often they watched each program (0) never, (1) sometimes, or (2) always. A content analysis was conducted previously (see Martins & Wilson, in press) to examine the amount of social and physical aggression in the programs that children watched most. Using these data, the 18 programs were selected based on the amount of social and/or physical aggression they contained. In particular, the programs included six that were high in social aggression (e.g., *American Idol*, *Suite Life of Zach and Cody*, *Drake & Josh*), six that were high in physical aggression (e.g., *Teen Titans*, *Codename: Kids Next Door*, *Danny Phantom*), and six programs that were used as fillers that contained little to none of either type of aggression (e.g., *Extreme Makeover Home Edition*). The frequency of viewing was then summed and a social aggression exposure score was calculated for each child.

*Overall television viewing*

Participants were asked to report how many hours of television they watched the preceding weekday (a) in the morning before school, (b) during school, (c) after school before dinner, and (d) after dinner before bed. Participants were then asked how many hours of television they watched on a typical Saturday and Sunday (a) in the morning before lunch, (b) in the afternoon before dinner, and (c) after dinner before bed. For each item, the response options ranged from 0 to 5 hours. A weekly television viewing index was created by multiplying the number of hours reported for the preceding weekday by 5 and adding it to the number of Saturday and Sunday hours.

**Moderating variables**

*Wishful identification*

Research on wishful identification (Hoffner, 1996; Hoffner & Buchanan, 2005) typically ascertains what each participant’s favorite character is and then asks a series of questions about that character (e.g., “How much do you want to be like him/her?”). In this study, however, we were interested in wishful identification with characters that were high in social aggression. Therefore, five socially aggressive characters in programs popular with children were identified using the data reported in a previous content analysis of social aggression in children’s favorite programs (see Martins & Wilson, in press). Using the scale developed by Hoffner (1996), children were asked if
they knew each character and if so, were asked about their desire to be like or act like each character. In particular, children were asked how much they agreed with each of three statements, which were presented for each of the characters: “He/she is the sort of person I would like to be like,” “I would like to do the sorts of things he/she does on the show,” and “Sometimes I wish I could be like him/her.” Response options to these questions ranged from (0) not at all to (2) very much. The internal consistency was $\alpha = .80$ and comparable to the coefficient reported in Hoffner’s (1996) study.

**Perceptions of realism**

As described by Huesmann and Eron (1986), children were asked to rate how realistic they judged various socially aggressive programs to be. Using the data reported in Martins and Wilson’s (in press) content analysis, five different television series were selected based on the amount of social aggression they contained. For each TV series, children were asked, “How true do you think this program is in telling what life is really like?” Response options ranged from (1) not at all to (3) just like real life. Children were also given the option of answering, “I have never seen this show.” In accord with Huesmann and Eron’s (1986) recommendation, the average “realism” score across the five programs was calculated and used in subsequent analyses.

**Control variables**

*Physical aggression*

The self-reported physical aggression perpetration score obtained using the Revised Social Experience Questionnaire (above) was used as a control in the analyses.

*Alienation*

Alienation of the child was measured using the Alienation and Anger scale developed by Slater (2003). The scale consisted of 14 items designed to assess how accepted a child feels at home and in school as well as how angry the child feels. Response options to these questions were (0) not at all, (1) sometimes, or (2) all of the time. The internal consistency of the scale items was slightly lower ($\alpha = .67$ for family alienation, $\alpha = .72$ for school alienation, and $\alpha = .65$ for anger) that what Slater (2003) reported ($\alpha s = .87, .81, .81$, respectively).

*Empathy*

Empathy of the child was measured using the Index of Empathy for Children and Adolescents developed by Bryant (1982). The scale consists of 22 items designed to assess children’s emotional expressivity, sympathy, and empathy. Response options to these questions were (0) no or (1) yes. The internal consistency for the entire scale was a bit low ($\alpha = .60$) but is comparable to the $\alpha s$ reported by Bryant in her sample of first, fourth, and seventh graders.

*Academic achievement*

Teachers were asked to report the child’s success in school by answering the following two questions: “How well is this child performing in reading?” and “How well is
this child performing in math?” Response options to these two questions were (−1) below average, (0) average, (1) above average. The answers to these two questions were summed and averaged to create an overall academic achievement score for each child. The internal consistency in this sample was high: α = .91.

Socioeconomic status
Previous studies that have controlled for SES have asked children to report their parents’ occupations. We were concerned that the youngest children in the sample would have difficulty reporting such information. Therefore, as a proxy for SES, teachers were asked to report whether their students participated in a free or reduced lunch program at school, (0) no, (1) yes. The majority of the participants in this study were enrolled in a such a program (61%). This variable was used as an indicator of low SES.

Results
Descriptive statistics
The descriptive statistics for each major control, predictor, and criterion variables are presented in Table 1. In particular, the data revealed that perpetration of social aggression was positively correlated with perpetration of physical aggression. Perpetration of social aggression was also positively correlated with overall television exposure and exposure to both physical and socially aggressive programming. Perpetration of physical aggression was positively correlated with overall television exposure and exposure to physically aggressive portrayals. Perpetration of physical aggression was not significantly correlated to exposure to socially aggressive programs.

More differences emerge when the sample is divided into groups based on gender. Boys reported using significantly more physically aggressive behaviors at school than girls did (Table 2). However, there was no significant sex difference in the perpetration of socially aggressive behaviors. Boys reported higher overall television exposure than did girls, but this finding fell short of significance. Girls reported higher overall exposure to socially aggressive programs than did boys, whereas boys reported higher overall exposure to physically aggressive programs than did girls.

Hypotheses and research questions
Hierarchical regression analyses were conducted to test for the presence of main effects of television exposure on children’s social aggression. Eight predictor variables were entered into each analysis in six steps. Children’s race and SES were entered first to control for demographics. The second block (academic performance), third block (alienation and empathy), and fourth block (physical aggression perpetration) contained variables that are related to children’s social aggression. The fifth block included children’s overall exposure to television and the sixth block contained children’s exposure to televised social aggression to provide a conservative test of the hypothesized relationship.
Table 1 Means, Standard Deviations, and Zero-Order Correlations for All Variables (N = 525)

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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Alienation</td>
<td>23.43</td>
<td>3.91</td>
<td>−.01</td>
<td>−.11**</td>
<td>.05</td>
<td>−.10*</td>
<td>.12**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Empathy</td>
<td>10.96</td>
<td>3.14</td>
<td>.27**</td>
<td>−.25**</td>
<td>.00</td>
<td>−.80</td>
<td>.16**</td>
<td>.15**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Physical aggression</td>
<td>0.75</td>
<td>1.55</td>
<td>−.03</td>
<td>.15**</td>
<td>.02</td>
<td>.12**</td>
<td>−.14**</td>
<td>−.21**</td>
<td>−.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Social aggression</td>
<td>2.52</td>
<td>3.59</td>
<td>−.07</td>
<td>.01</td>
<td>.00</td>
<td>.19**</td>
<td>−.19**</td>
<td>−.29**</td>
<td>−.09*</td>
<td>.63**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Television viewing</td>
<td>35.73</td>
<td>22.94</td>
<td>.03</td>
<td>.08</td>
<td>.09*</td>
<td>.18**</td>
<td>−.14**</td>
<td>−.07</td>
<td>−.07</td>
<td>.12**</td>
<td>.13**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Physically aggressive TV</td>
<td>4.75</td>
<td>3.15</td>
<td>.01</td>
<td>.356**</td>
<td>−.21**</td>
<td>.30**</td>
<td>−.27**</td>
<td>−.08</td>
<td>−.15**</td>
<td>.16**</td>
<td>.166**</td>
<td>.22**</td>
<td></td>
</tr>
<tr>
<td>12. Socially aggressive TV</td>
<td>7.03</td>
<td>2.91</td>
<td>.12**</td>
<td>−.19**</td>
<td>.071</td>
<td>.15**</td>
<td>−.02**</td>
<td>.05</td>
<td>.13</td>
<td>.02</td>
<td>.11*</td>
<td>.16**</td>
<td>.85**</td>
</tr>
</tbody>
</table>

**Note:** Academic achievement ranged from −2 to 2. Alienation ranged from 8 to 31 and empathy ranged from 2 to 18. Physical aggression scores ranged from 0 to 9 and social aggression scores ranged from 0 to 12. Hours of television viewed per week ranged from 0 to 85. Exposure to physically aggressive programs ranged from 0 to 12 and exposure to socially aggressive programs ranged from 0 to 12. Codes assigned to the sex variable were girls = 0 and boys = 1. Codes assigned to the race variable were White = 0 and Other = 1. Codes assigned to SES variable were reduced lunch = 1 and not in lunch program = 0. Means and standard deviations are not provided for categorical variables.

(*p < .05, **p < .01.*)
Table 2  Mean Differences Among Girls and Boys for Key Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Girls (n = 284)</th>
<th>Boys (n = 241)</th>
<th>t Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min.</td>
<td>Max.</td>
<td>M</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>0</td>
<td>9</td>
<td>0.53</td>
</tr>
<tr>
<td>Social aggression</td>
<td>0</td>
<td>12</td>
<td>2.47</td>
</tr>
<tr>
<td>Television viewing</td>
<td>0</td>
<td>85</td>
<td>34.21</td>
</tr>
<tr>
<td>Physically aggressive TV</td>
<td>0</td>
<td>12</td>
<td>3.88</td>
</tr>
<tr>
<td>Socially aggressive TV</td>
<td>0</td>
<td>12</td>
<td>7.56</td>
</tr>
</tbody>
</table>

Note: The minimum and maximum values for variables at represent the minimum and maximum range of the scales. (†p < .05, **p < .01, ***p < .001).

To test for the presence of moderating variables, a hierarchical regression was conducted for each moderator. The predictors in the analyses were identical to those reported above, only now they incorporated the moderating variable and the interaction between the moderator and exposure to socially aggressive content in the last step (Step 7). To reduce problems with multicollinearity, the moderating variables were mean centered prior to computing the polynomial term (Aiken & West, 1991). Finally, to facilitate comparisons across measurement scales, variables were z score transformed; thus, z scores were used to generate regression coefficients reported in Tables 3 and 4.

Table 3  Summary of Hierarchical Regression Analysis for Variables Predicting Children’s Social Aggression

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>R^2 Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>.12</td>
<td>.07</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>High SES</td>
<td>.17</td>
<td>.07</td>
<td>.08***</td>
<td>.04***</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic achievement</td>
<td>−.07</td>
<td>.04</td>
<td>−.07*</td>
<td>.02***</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child alienation</td>
<td>−.14</td>
<td>.03</td>
<td>−.14***</td>
<td></td>
</tr>
<tr>
<td>Child empathy</td>
<td>−.03</td>
<td>.03</td>
<td>−.03</td>
<td>.07***</td>
</tr>
<tr>
<td>Step 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical aggression</td>
<td>.63</td>
<td>.03</td>
<td>.61***</td>
<td>.35***</td>
</tr>
<tr>
<td>Step 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total TV viewing</td>
<td>.01</td>
<td>.03</td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>Step 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socially aggressive TV</td>
<td>.10</td>
<td>.03</td>
<td>.10**</td>
<td>.01**</td>
</tr>
</tbody>
</table>

Note: All coefficients are from the full model. Race and SES were coded on 0–1 scales. (*p < .05, **p < .01, ***p < .001).
Hypothesis 1 predicted that there would be a significant positive relationship between exposure to social aggression and children’s perpetration of social aggression. As seen in Table 3, the set of demographic variables (Step 1) contributed significantly to children’s use of social aggression, $F_{\text{change}}(2, 520) = 10.28, p = .000$. In particular, children from low-SES households were more likely to use social aggression than were children from high-SES households. Academic achievement (Step 2) significantly explained additional variance in children’s use of social aggression, $F_{\text{change}}(1, 519) = 9.44, p = .002$. Children who were performing poorly in school were significantly more likely to use social aggression than children who were performing well. Alienation of the child and empathy (Step 3), as a set, contributed significantly to children’s use of social aggression, $F_{\text{change}}(2, 517) = 21.99, p = .000$. Alienated children were significantly more likely to use social aggression than were nonalienated children. The fourth step revealed that the strongest single predictor of social aggression was children’s use of physical aggression, $F_{\text{change}}(1, 516) = 342.54, p = .000$. Children’s overall exposure to television was not a significant predictor of perpetration of social aggression. In support of Hypothesis 1, exposure to televised social aggression was a positive predictor of children’s social aggression, $F_{\text{change}}(1, 514) = 8.83, p = .003$.

Hypothesis 2 posited that the relationship between exposure to televised social aggression and children’s social aggression would be stronger for girls than for boys (Table 4). The patterns of strength and significance among the predictor variables are generally consistent with those reported above. In support of Hypothesis 2, the interaction between sex and exposure to social aggression (Step 7) was also statistically significant, $F_{\text{change}}(2, 513) = 3.78, p = .005$. To fully verify the form of the significant two-way interaction between Sex and Exposure to socially aggressive programming, we computed a simple slopes analysis (Aiken & West, 1991). The analysis revealed a disordinal interaction, such that exposure to socially aggressive programming was positively related to girls’ perpetration of socially aggressive behaviors ($\beta = -.20, p = .01$), but not significantly related to boys’ social aggression ($\beta = .00, p = ns$).
Given the significant interaction between Sex and Exposure to televised social aggression, subsequent analyses predicting social aggression perpetration were separated by the sex of the child.\textsuperscript{4} Research Question 1 asked whether the child’s age moderated the relationship between exposure to socially aggressive content and children’s social aggression. The contribution of age was not a significant predictor of girls’ social aggression. The interaction between Age and Exposure to socially aggressive content (Step 7) was also not statistically significant. The same pattern emerged for boys. Therefore, the age of the child did not moderate the relationship between exposure to socially aggressive content and social aggression for girls or boys.

Hypothesis 3 predicted that the relationship between exposure to socially aggressive programs and such behavior in school would be higher among those who reported wishfully identifying with socially aggressive characters. Because age of the child was not a significant moderator of the relationship between exposure and perpetration, it was added to the demographic controls in Step 1 in the remaining regression analyses. For girls, wishful identification with socially aggressive characters as well as the interaction term were not significant predictors of girls’ social aggression. The same results were found for boys. Thus, Hypothesis 3 was not supported for girls or for boys.

Hypothesis 4 predicted that the relationship between exposure to socially aggressive programs and children’s social aggression would be higher among those who perceived television as more realistic. However, the contribution of perceived realism of socially aggressive programs and the interaction were not significant predictors of girls’ or boys’ use of social aggression. Thus, Hypothesis 4 was not supported.

The final research question asked whether there would be a relationship between exposure to one type of aggression on the screen (either physical or social) and increased aggression of the other type among children (i.e., physical or social). To answer this research question, we conducted two more hierarchal regression analyses. The analyses were identical to those reported for Hypothesis 1, only now they included perpetration of physical aggression (Step 4), overall television exposure (Step 5), and exposure to socially aggressive programs (Step 6) with perpetration of physical aggression as the dependent measure. The second analysis included perpetration of social aggression (Step 4), overall television exposure (Step 5), and exposure to physically aggressive programs (Step 6) with perpetration of social aggression as the outcome measure. The analysis revealed that the contribution of exposure to socially aggressive programs was not a significant predictor of children’s physical aggression, $F_{\text{change}}(1, 513) = 1.44, p = ns$. Similarly, the contribution of exposure to physically aggressive programs was not a significant predictor of children’s social aggression, $F_{\text{change}}(1, 505) = 3.24, p = ns$. Thus, these data do not support the idea that viewing of one form of aggression may elicit or teach another form among children.

**Discussion**

The purpose of this study was to assess whether viewing social aggression on television predicts children’s use of such aggressive tactics in real life. We found a significant
relationship between exposure to televised social aggression and increased social aggression in school, but only for girls and not for boys. Although this relationship was dependent on the sex of the child, this study is the first to provide evidence that viewing social aggression on television is related to an increased tendency for elementary school children to perpetrate such behaviors in the classroom.

Why did socially aggressive television content predict girls’ but not boys’ behavior? There are at least three potential explanations for this pattern. First, girls may be more attracted to socially aggressive programs than boys are. This explanation receives some support from this study. An examination of the television exposure data revealed that girls reported viewing programs that were high in social aggression significantly more often than boys did (Table 2). In fact, all but one of the shows that were coded as having high levels of social aggression (i.e., American Idol, Suite Life of Zack and Cody, and Zoey 101) were watched more by girls than by boys. This pattern contrasts with what is commonly found for programs high in physical aggression—they are watched more often by boys than by girls (Levine, 1995). Therefore, just as sex seems to moderate the relationship between media violence and physical aggression because of sex differences in exposure to such content, sex moderates the relationship between exposure to televised social aggression and girl’s use of these behaviors because girls are watching more social aggression on television.

A second possible explanation concerns the nature of the characters who engage in social aggression on television. It may be that the perpetrators of such behaviors in children’s favorite programs are more often female than male. Several studies have shown that viewers attend more closely to the actions of same-sex characters and remember more content concerning those characters than they do with opposite-sex characters (Jose & Brewer, 1984; Signorielli, 1990). If social aggression is enacted mostly by female characters, then we would expect stronger social learning among girls than among boys. Recent evidence, however, does not support this explanation. Martins and Wilson’s (in press) content analysis of social and physical aggression in programs popular with children found that for both social and physical aggression, the perpetrators were significantly more likely to be male than female. This sex difference was most pronounced for physical aggression (male perpetrators: 71%; female perpetrators: 29%), but it occurred even for social aggression (male perpetrators: 62%, female perpetrators: 38%). Thus, when a child watches a favorite show, both physical and social forms of aggression are more likely to be enacted by male characters. However, it is also true that almost 40% of the perpetrators of social aggression are female so there are plenty of role models available for young girls. Nevertheless, a preponderance of male perpetrators means that there are also numerous role models for boys as well.

A third possible explanation for this sex difference is that social aggression may simply be more of a “girl thing” than a “boy thing.” Indeed, there is consistent evidence that girls engage in higher levels of social aggression throughout childhood than boys do (Crick & Grotpeter, 1995; Galen & Underwood, 1997). Ostrov and colleagues (2006) have argued that girls attend to and encode story lines about relationships
because these plots fit with their understanding of gender roles. Consistent with this idea, girls may actively seek out and remember scenes that depict social aggression because it is so gender-related, which, in turn, could heighten the impact of such content on their future social behavior with peers. In contrast, boys may dismiss socially aggressive behaviors on television as something “only girls do.” Instead, boys seek and attend to story lines that feature physical violence (see Collins-Standley, Gan, Yu, & Zillmann, 1996) because boys learn early on that physical violence is their domain.

Overall, our findings provide more support for Hypothesis 2, that sex is a moderator variable, than for Hypothesis 1, which predicted an overall relationship between television viewing and social aggression. Nevertheless, even with the sex differences, the results lend support to two major theoretical explanations for how children learn aggression from watching television violence. According to social cognitive theory (Bandura, 2009), children can learn from watching characters on television, particularly if those characters are similar to the self, are attractive role models, and are rewarded for their actions. Martins and Wilson (in press) found that perpetrators of social aggression were often physically attractive characters who were rarely punished for their behavior. Social cognitive theory would predict that young viewers would imitate social aggression because the lack of punishment associated with socially aggressive portrayals serves as a tacit reward or sanction for such behavior (Bandura, 1965). In this study, we found that watching programs that contained a high amount of social aggression, presumably often perpetrated by attractive characters, predicted a high amount of such aggression among girls, but not boys, in the classroom. The data from the girls in this sample then, suggest that girls in particular are learning from and imitating the socially aggressive models on their favorite programs.

Our findings also support information processing theory. Based on this perspective, Huesmann (1986, 1998) has argued that children who view programs that contain high levels of aggression have developed scripts that promote the use of this behavior in real-life situations. In support of this idea, we found that repeated exposure to programs that feature high levels of social aggression is positively related to such behavior, at least in girls. According to an information processing perspective, regular viewers of such shows should be acquiring, storing, and retrieving scripts that encouraged the use of behaviors such as gossiping, name calling, and relationship manipulation in the classroom. The fact that girls show this relationship more than boys do can be explained, in part, by girls’ heightened exposure to such content; hence, girls have more opportunity to develop and store scripts related to social aggression that can be subsequently retrieved in real-life situations. Therefore, information processing theory also helps to explain why girls were affected by exposure to socially aggressive content and boys were not.

Of course, an alternative explanation is that girls who are already socially aggressive are seeking out such television content. According to this idea, aggressive children may selectively choose to watch programs such as these in order to obtain new ideas.
Social Aggression on Television
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for how to behave or simply to watch what is comfortable or reinforcing for them. The directionality issue cannot be disentangled in a cross-sectional study and it certainly requires more empirical testing. Longitudinal studies and controlled experiments would help sort out the causal direction of this relationship.

The remainder of the hypotheses dealt with possible moderating variables. Despite the significant sex interaction, there was little evidence for other moderating variables. Research Question 1 concerned whether the age of the child would influence the relationship between exposure to televised social aggression and children’s use of these behaviors at school. The results revealed that the interaction between exposure to televised social aggression and age of the child did not significantly explain any additional variance in girls’ or boys’ perpetration of social aggression beyond exposure alone.

The popularity of such programming may be a reason for this. With the exception of *Ned’s Declassified School Survival Guide*, the other five programs that were coded as having high levels of social aggression (i.e., *American Idol, Suite Life of Zack and Cody, Zoey 101, Drake and Josh, and The Proud Family*) were watched equally by younger and older children in the sample. In other words, programs high in social aggression are attracting children through the elementary school years, from kindergarten to fifth grade, and presumably providing them with multiple examples of how to harm other people’s self-esteem and social standing.

Hypothesis 3 predicted that wishful identification would moderate the relationship between exposure to socially aggressive content and children’s social aggression. This hypothesis was not supported for girls or for boys. The null finding is somewhat surprising given that wishful identification has been found to moderate the relationship between exposure to media violence and physical aggression in children (Konijn et al., 2007). One possible reason for why this study did not replicate this pattern concerns the measure of wishful identification we used. We asked children how much they wanted to be like five different characters featured in socially aggressive programs. Yet two of these characters, both judges on *American Idol*, were unfamiliar to many of the children. In fact, over 50% of the sample reported that they did not know either one of these characters. This percentage is surprising given that *American Idol* was the most watched program among children aged 6–11 in the 2005–2006 season (Nielsen Media Research, 2005). Thus, over half of the sample answered these items for only three characters. Thus, we cannot rule out the possibility that wishful identification moderates this relationship given that this measurement was not very successful. Future research should explore ways to measure wishful identification that ensures variability in children’s responding as well as the validity of self-reports.

The fourth hypothesis posited that the perceived reality of television content would moderate the relationship between exposure to socially aggressive content and children’s social aggression. This hypothesis was also not supported. The null finding may be explained in part by the fact that there was ceiling effect on this measure. Children were asked how realistic they thought programs such as *American Idol* and
Lizzie McGuire were in telling life like it really is. Response options for this question were (0) not at all like real life to (2) just like real life. For all of the programs that were coded as having high levels of social aggression, means ranged from 1.8 to 2.0. In other words, most girls and boys thought that the programs were “just like real life.” Therefore, because most of the children perceived the socially aggressive programs to be realistic, the variable did not moderate or enhance the relationship between exposure to such programs and social aggression for girls or for boys.

The second research question asked whether there would be a relationship between exposure to one type of aggression on the screen (either physical or social) and increased aggression of the other type among children (i.e., physical or social). These data do not support a crossover effect. On the contrary, the results of this study support the idea that imitation and specific modeling occur more often than a generalized reduction of inhibitions against all forms of aggression among children. One explanation for this null finding is that a crossover effect exists among older television populations alone. Indeed, some of the most convincing evidence in support of a crossover effect has utilized either adolescent (Coyne et al., 2004) or adult samples (Coyne et al., 2008). Thus, the fact that we did not find support for a generalized media effect does negate the possibility that such an effect exists, it merely suggests that for children, specific modeling (e.g. social perpetration) is more likely to occur after exposure to a specific portrayal (e.g., social aggression).

As this study is correlational in design, there are some limitations that are inherent when using this type of methodology. Although this study has shown that a relatively small relationship between exposure to social aggression and social aggression in real life exists, longitudinal research is necessary to assess whether this relationship is found over time. Furthermore, the present design cannot assess whether aggressive behavior causes choice of television programs or whether choice of television program causes aggressive behavior. Researchers who have utilized the information processing theory have stated that this distinction is not important; rather aggression and viewing violence are inexorably linked throughout a person’s life (Huesmann, 1986). Thus, the current findings should be viewed in this context.

Despite these limitations, this study makes an important contribution because it links particular types of television content to girl’s socially aggressive behaviors. Previous research that examined the relationship between television viewing and nonphysical forms of aggression has either looked at television viewing overall (Kuntsche et al., 2006) or at exposure to physical violence on television (Huesmann et al., 2003; Ostrov et al., 2006). Only one study in the extant literature actually examined social aggression in the programs viewed by youth, but the sample of programs was very small and the study involved teens, not children (Coyne & Archer, 2005). Therefore, it has been difficult to conclude from past research that the content of what is viewed makes a difference. In other words, previous studies do not tell us whether television actually teaches social aggression by providing models of this type of behavior to child viewers. In this study, we examined exposure to socially aggressive content, to put this idea to a stringent test. We also controlled for overall
television viewing first, before assessing the additional predictive power of exposure to socially aggressive portrayals. In all analyses with the girls in this sample, exposure to programs high in social aggression significantly predicted such behaviors, even when various moderators were included.

Another strength of this study is that it focused on social rather than physical aggression. Research has shown that boys and girls differ in the frequency of physical and social aggression displayed, with boys more likely to act physically aggressive and girls more likely to act socially aggressive. The fact that boys and girls typically use different forms of aggression is significant in that the majority of studies assessing the impact of entertainment violence on youth aggression have focused exclusively on physical aggression as the dependent variable. In examining social aggression, we found an important sex difference. Thus, future research should assess the effects of exposure to both physical as well as in social aggression in entertainment media. Future studies also need to consider a broader range of children’s aggressive behaviors. Increasing the scope of such investigations will enhance our understanding of television’s role in encouraging behaviors that are violent not only in a physical sense, but a social and emotional sense.

Notes

1 Research supports that children from lower-SES backgrounds watch more television in general (Huesmann, 1986) and more violent television in particular (Comstock & Paik, 1991). Given this evidence, it was important to preselect schools based on their socioeconomic diversity so that this variable could be controlled for in subsequent analyses. Using school report cards issued by the Illinois Department of Education, Vermillion County was chosen because half of the students enrolled in this school system are from lower- to lower-middle-class families (as estimated by enrollment in the state lunch program).

2 Given the dichotomous nature this measure, the Kuder-Richardson coefficient is reported.

3 Our sample contained a slightly higher proportion of kids from lower SES households (60%); however, using this sample provides a more conservative test of the relationship between exposure to socially aggressive programming and children’s social aggression because we still found a statistically significant effect for exposure to socially aggressive programs even after controlling for SES.

4 One potential concern in splitting the subsequent analyses by sex is that the power to detect effects is reduced. Fortunately, due to the number of participants and the variability in the predictor variables, there was sufficient power in this study. As recommended by Cohen (1988) analyses were conducted ($\alpha = .05, k = 10, N = 211$) for three standard effect sizes: small ($f^2 = .02$), medium ($f^2 = .15$), and large ($f^2 = .35$). The results revealed that the regression analyses had excellent power to detect a large (1.00 for girls and boys) or medium effect (.99, .98 for girls and boys respectively), but low power to detect a small effect (.23, .21 for girls and boys respectively). Thus, the failure to find a significant effect for exposure to televised social aggression among boys was not due to low power, at least for moderate or large-sized effects.
References


Social Aggression on Television

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Konijn, E., Nije Bijvank, M., & Bushman, B. (2007). I wish I were a warrior: The role of wishful identification in the effects of violent video games on aggression in adolescent boys. Developmental Psychology, 43, 1038–1044.


텔레비전에 대한 사회적 공격성

요약

사회적으로 공격적인 내용에 대한 노출 정도가 아이들의 사회적 공격성 사용과 연계되어 있는지를 알기 위해 초등학교 5학년 학생 5백명을 대상으로 한 설문조사를 단행했다.

서베이 결과는 텔레비전에서 나온 사회적 공격성이 학교에서의 사회적 공격성을 증가시키는 것과 중요한 관계가 있다는 것을 보여주고 있다. 비록 이러한 관계가 아이들의 성별에 좌우되기는 하지만, 본 연구는 텔레비전에서 사회적 공격성을 시청하는 것이 초등학교 학생들로 하여금 교실내에서 그러한 행동들을 실행에 옮길 가능성을 증대시킨다는 것을 증명하고 있다. 사회인지이론과 정보과정이론이라는 점에서 발견들이 논의되었다.
La Agresión social en la Televisión y su Relación con la Agresión de los Niños en la Escuela

Resumen

Una encuesta conducida con más de 500 niños del 5to grado examinó si la exposición al contenido social agresivo fue relacionado con el uso de la agresión social por parte de los niños. Los resultados de la encuesta revelaron una relación significativa entre la agresión social de la televisión y un incremento de la agresión social en la escuela, pero sólo para las niñas y no para los niños. Aunque la relación dependía del sexo del niño, este estudio es el primero en proveer de evidencia que el mirar agresión social en la televisión está relacionado con una tendencia creciente por parte de los niños en la escuela primaria a perpetuar esos comportamientos en el aula. Estos hallazgos son discutidos en términos de la teoría social cognitiva y la teoría del procesamiento de la información.

Palabras claves: agresión social, televisión, diferencia de géneros, aprendizaje social
L’agression sociale à la télévision et son lien avec l’agression manifestée par les enfants dans la salle de classe

Une enquête fut menée auprès de plus de 500 enfants de l’école maternelle à la cinquième année élémentaire (entre 5 et 12 ans), pour vérifier si l’exposition à des contenus montrant de l’agression sociale était associée à des manifestations d’agression sociale chez ces enfants. Les résultats de l’enquête révèlent une association significative entre l’exposition à des agressions sociales à la télévision et plus d’agressions sociales à l’école, mais seulement chez les filles. Bien que cette association dépendait du sexe de l’enfant, cette étude est la première qui démontre que le fait de regarder des agressions sociales à la télévision est lié à une plus grande tendance, pour les enfants de l’école élémentaire, à faire preuve de tels comportements en classe. Les résultats sont commentés en lien avec la théorie sociocognitive et la théorie du traitement de l’information.

Mots clés : agression sociale, télévision, différences liées au sexe, apprentissage social
电视社会暴力与儿童在学校的攻击性关系

摘要

以儿童对社会攻击信息的接触和使用为主题，本研究在500名儿童中展开了一项调查。调查结果显示对社会攻击信息的接触能显著提高女孩对此类信息的使用强度。尽管对社会攻击信息的接触和使用具有性别差异，但本研究首度证明了观看具有攻击性色彩的电视节目能导致小学生在学校里效仿此类行为。最后，本文运用了社会认知理论和信息加工理论解释这一现象。