Violence in Children's Television Programming: Assessing the Risks

By Barbara J. Wilson, Stacy L. Smith, W. James Potter, Dale Kunkel, Daniel Linz, Carolyn M. Colvin, and Edward Donnerstein

This study investigates the nature and extent of violence contained in television programming that targets children aged 12 and younger. The measures employed in this content analysis are grounded in previous experimental research that has identified contextual features that either diminish or enhance the risk of harmful effects associated with viewing violent portrayals. This report uses the database from the National Television Violence Study (Wilson et al., 1998), which involved an unusually large and representative sample of programming. Results indicate that programs targeted to children contain more violence than do other types of programming. The violence itself is just as likely to be glamorized in children's as in nonchildren's shows, but it is even more sanitized and more likely to be trivialized. These patterns heighten the risk of viewers learning aggression and becoming desensitized from such portrayals. Finally, this study documents 5 subgenres of children's programming that differ dramatically in violent content.

Concern about the impact of TV violence on children has become one of the nation's most prominent issues during recent years. Public opinion polls report that 75% of American adults now believe televised violence contributes to real-world crime and aggression (Lacayo, 1995), and a comparable proportion feel that Hollywood should do more to reduce violence in entertainment programming. This concern has led to several important developments, including the advent of the V-chip technology as well as a rating system for television programming.

Public opinion about the impact of television violence is bolstered by a great deal of academic research. Early studies by Bandura (e.g., Bandura, 1965; Bandura,

Barbara J. Wilson (PhD, University of Wisconsin-Madison) is a professor in the Department of Speech Communication at the University of Illinois at Urbana-Champaign. Stacy L. Smith (PhD, University of California, Santa Barbara) is an assistant professor in the Department of Communication at Michigan State University. W. James Potter (PhD, Indiana University), Dale Kunkel (PhD, University of Southern California), Daniel Linz (PhD, University of Wisconsin-Madison), and Edward Donnerstein (PhD, Florida State University) are all professors in the Department of Communication at the University of California, Santa Barbara. Carolyn M. Colvin (MA, University of California, Santa Barbara) now resides in Kent, Washington. This research was supported by a 3-year grant from the National Cable Television Association. The authors wish to thank their colleagues at the four research sites involved in the National Television Violence Study: the University of California, Santa Barbara; the University of North Carolina, Chapel Hill; the University of Texas at Austin; and the University of Wisconsin-Madison.

Ross, & Ross, 1961; Bandura, Ross, & Ross, 1963b) demonstrated that children's learning of modeled behaviors could occur just as readily from watching media portrayals as from observing real life. Literally hundreds of studies on the topic were conducted during the 1970s (see Pearl, Bouthilet, & Lazar, 1982). By the 1990s, meta-analyses of this research demonstrated a causal link between viewing televised violence and real-life aggression (Carlson, Marcus-Newhall, & Miller, 1990; Hearold, 1986; Wood, Wong, & Chachere, 1991), with some of the strongest effects observed among younger children (Paik & Comstock, 1994). In recent years, several professional organizations (e.g., American Medical Association, 1996; Centers for Disease Control and Prevention, 1991) have comprehensively reviewed the evidence and concluded that TV violence is harmful to children .

Throughout these developments, one fact has remained clear—American television offers viewers a steady diet of violent content. Conducting annual assessments of television, Gerbner and his colleagues found that roughly 70% of prime-time programs on the broadcast networks contained violence, and this figure was relatively stable from 1967 to 1985 (see Signorielli, 1990, pp. 93–94). Similarly high percentages have been documented in more recent research (Greenberg et al., 1980; Potter & Ware, 1987; Potter et al., 1995). Yet most of these content analyses have concentrated primarily on programming for general audiences. Given the unique concern about the impact of televised violence on children, it seems important to investigate in greater detail the programs targeted specifically for the child audience.

Recent viewing preferences among American children support this idea. Some children's programs like *Pokemon* are just as popular among 2- to 11-year-olds as many top-rated prime-time shows (Nielsen Media Research, 1999). Moreover, series like *Rugrats* and *Doug,* which are targeted to younger viewers, regularly show up among the 15 top-rated programs on basic cable (Associated Press, 1998). Despite their growing popularity, only a few studies to date have looked specifically at children's shows in terms of violence, and we review those now.

Previous Studies of Violence in Children's Programming

Many of the statistics for children's programming were first established by Gerbner and his colleagues in their annual assessments of prime-time and weekend morning television (Gerbner, Gross, Morgan, & Signorielli, 1980; Gerbner, Gross, Signorielli, Morgan, & Jackson-Beeck, 1979). Looking at an intact week of television each year across the three major broadcast networks, Gerbner consistently found that children's programs were more violent than prime-time programming. On average, over 90% of children's programs contained violence, compared to 70% of prime-time shows. In addition, children's programming featured a higher rate of violent actions, with over 20 acts per hour versus about 5 per hour during prime time. Gerbner also found that a vast majority of children's programs (79%) contained humorous violence, whereas relatively few did in the prime-time hours (20%).

Greenberg and his colleagues (1980) conducted a similar study of prime-time and Saturday morning broadcast television, this time across a 3-year period (1975–1978). Rather than examining an intact week, these researchers sampled one episode from every fictional series. Again, programs targeted to children contained more

violence. In particular, Saturday morning television featured nearly twice the number of violent acts per hour (20) than that of prime time (12). Recognizing that there may be some differences within the genre of children's programming, the researchers compared cartoons with nonanimated shows and found that cartoons contained many more acts of physical aggression per hour (25 vs. 13).

Williams, Zabrack, and Joy (1982) also separated programs targeted to children into animated and nonanimated. Although their study focused on popular programming in Canada, over three fourths of the 109 shows in their sample originated in the U.S. The researchers found that cartoons were more likely to contain violence than most other program types, though the Canadian percentages are smaller than those found for strictly American programming. Looking at duration rather than frequency of violent actions, the researchers found that cartoons also contained the highest proportion of time devoted to physical aggression compared to nine other program types. In contrast, nonanimated children's programs seldom devoted time to violence.

Even more recently, Lichter and Amundson (1994) looked at a single day of television in 1992 and again in 1994 across 10 different channels (four broadcast networks, PBS, one independent channel, and four cable channels). In both years, cartoons contained the highest number of violent scenes when compared to 16 other program types.

In contrast to these larger studies involving all types of programming, two studies have looked at children's shows only. Poulos, Harvey, and Liebert (1976) analyzed two Saturday mornings during the 1974–1975 season across six channels: the three major broadcast networks, PBS, and two independent channels. The researchers found that 75% of the programs targeted to children contained violence. This figure is smaller than that documented by Gerbner, though the inclusion of PBS, which contains substantially less violence, is certainly responsible for some of this difference. Poulos et al. (1976) also found a higher concentration of violent acts on the commercial networks (roughly 12 acts/hour) than on PBS (3 acts/hour) or the independents (10 acts/hour). Again, there is a discrepancy between the figure for the networks and that found by Gerbner. Finally, Poulos et al. assessed the characters on Saturday morning television and found that half of the physical aggression was committed by animal characters in cartoons; when human characters were involved, most were White males.

Liss and Reinhardt (1980) looked at Saturday morning children's television, focusing on 24 cartoon series aired on the three major broadcast networks. The cartoons were divided into two groups: "prosocial," which featured heroes teaching the bad guys a lesson, and "regular," which did not feature such heroes. Contrary to what might be expected, the prosocial cartoons contained just as many acts of violence as did the regular cartoons. Moreover, the protagonists were equally violent in the two types of cartoons. In other words, heroes in "prosocial" cartoons were giving lip service to moral behaviors but still engaging in quite a bit of violence.

Several conclusions can be drawn from these studies. Children's programming traditionally has been more likely to feature violence than almost any other program genre. Children's shows also have contained a higher frequency of violent actions,

more programming time devoted to violence, and more humorous violence. Yet the statistics vary quite a bit from study to study, in part because of the differences in samples, channels, and time periods examined. Furthermore, when children's shows are divided into animated versus nonanimated categories, all of these patterns of violence are most characteristic of cartoons.

The research to date suffers from several weaknesses, however. First, the samples employed have not been very representative. Using an intact day or even an intact week is problematic because of the potential for anomalous events like a breaking news story to contaminate the findings. Indeed, Lichter and Amundson (1994) found a dramatic increase in the amount of violence on a single day of television from 1992 to 1994, whereas others like Greenberg et al. (1980), who have used larger sampling frames, have found much more stable patterns over time. In addition to limited sampling periods, most of the studies have assessed rather narrow time periods like prime time or Saturday morning. Today we know that children are watching television all times of the day, especially during the after-school hours between 3:00 and 6:00 p.m. on weekdays (Annenberg, 1997; Nielsen, 1995).

Second, most of the research has examined the commercial broadcast networks only. Although this may have reflected American viewing patterns in the past, today roughly 70% of American homes have cable television (National Cable Television Association, 2000). It is worth noting that the Lichter and Amundson (1994) study does include four cable channels, but even this is not fully representative of the array of options now available via cable. More important for our purposes, during the last several years we have witnessed the birth of several cable networks targeted primarily to children—the Cartoon Network, the Disney Channel, and Nickelodeon. Any analysis of children's programming in the 1990s needs to consider these outlets, especially given the steadily increasing viewership of Nickelodeon over the past few years among younger audiences (Lowry, 1997).

Third, previous studies have treated children's programming in a rather simplistic fashion either by focusing solely on cartoons or by dividing the genre into animated versus nonanimated categories. Given the advent of live-action programs like *Mighty Morphin Power Rangers,* it is clear that any full analysis of children's programming must move beyond cartoons. Furthermore, a comparison of *Spiderman* with *The Muppet Babies* or even *Power Rangers* with *Sesame Street* suggests that there may be important differences within the broad categories of animated and nonanimated programming. Liss and Reinhardt (1980) seemed to recognize this when they divided cartoons into two groups, prosocial versus regular. How many different categories are possible when the entire universe of children's programming is taken into account, and when factors like tone, plot, and types of characters are considered?

Fourth, the studies to date have looked primarily at the amount of violence on television rather than the way in which violence is portrayed. Research reveals that the context or way in which violence is presented influences how viewers interpret and ultimately respond to televised acts of aggression (see Comstock & Paik, 1991; Gunter, 1994). Certain aspects of violent depictions increase the risk of a negative effect, whereas others decrease that risk. In all fairness, some of the previous studies recognized context, even assessing a few key variables such as

the types of characters who commit violence (Gerbner et al., 1979, 1980), and the physical and emotional outcomes of violence (Lichter & Amundson, 1994). Unfortunately, such analyses were conducted across all types of programs, without examining children's programs separately. In other words, no study that we are aware of has ever systematically examined *how* violence is portrayed in children's programming as compared to other genres.

The purpose of the present study is to assess fully violence in television programs targeted to child audiences. Though previous research gives us some idea of the extent of violence in these shows, the figures are incomplete, given the samples employed. This study seeks to establish new, more comprehensive benchmarks for the amount of violence in children's shows as well as assessing for the first time the nature or context of these portrayals. In addition, this study examines whether there are critical differences in the portrayal of violence within the broad category of children's programming. To accomplish these goals, we utilized the 1995–1996 database from the National Television Violence Study (NTVS).

The National Television Violence Study (NTVS)

NTVS represents a multiyear commitment (1994–1998) on the part of the cable television industry to have a team of scientific experts independently monitor violence on TV.[1] This large-scale study issued three annual reports that tracked the nature and extent of violence on American television (Wilson et al., 1997, 1998; Smith et al., 1998). Two features of NTVS make it an ideal database for examining violence in children's programming: the sample and the focus on contextual factors.

Sample. One of the hallmarks of the NTVS project is its sample, which is substantially larger than that of any other single content analysis of television violence. Compared to a typical sample size of 80–120 hours, NTVS sampled approximately 2,700 hours of material each year, reflecting all periods of the day and across a total of 23 broadcast and cable channels. When compared to any other content analysis, then, the NTVS sample more fully represents the universe of American television and therefore the breadth of children's programming in the U.S.

Another strength of the sample is that, instead of relying on intact days or weeks, we selected each individual program randomly from a population of all programs appearing across a 20-week time frame. Therefore, our sample technically involves literally thousands of sampling units (programs) rather than the more traditional blocks of units (days). This approach ensures that an anomalous event occurring in one of several thousand units will have much less impact on the

[1] The National Television Violence Study involved a consortium of scholars from four research institutions. The University of California, Santa Barbara, researchers conducted a content analysis of the nature and amount of violence on television in all types of entertainment programming. The University of Texas, Austin, provided an in-depth content analysis of violence in one particular type of programming—reality-based programs, such as tabloid news shows, documentaries, and police programs. The University of Wisconsin-Madison examined the role of ratings and advisories used on television, including their effect on the viewing decisions of parents and children. The University of North Carolina, Chapel Hill, conducted studies on the effectiveness of antiviolence public service announcements and educational initiatives produced by the television industry.

overall representativeness of the sample than when a smaller number of units is involved.

Contextual features. Initially, we performed an exhaustive review of all studies that examined the impact of contextual features associated with media violence. To make sense of the large array of findings, we isolated three types of harmful effects of viewing violence that are well documented in the literature: (a) the learning of aggressive attitudes and behaviors, (b) desensitization, and (c) exaggerated fear. We then identified all contextual features for which a solid body of evidence exists to help us predict any systematic relationship with at least one of these three harmful effects (for complete review, see Wilson et al., 1997). Table 1 displays the framework we devised on the basis of our review.

Specifically, we identified eight contextual factors that are pivotal in determining the likely impact of violence on both child and adult viewers. First, we must consider the nature of the perpetrator. According to social cognitive theory, as well as empirical research, an engaging or attractive perpetrator can be a potent role model, especially for children, and thus increases the likelihood that viewers will learn aggression from a portrayal (see Bandura, 1986, 1994). Second, the motive or reason for violence is important. Acts that appear to be justified or morally defensible are likely to facilitate viewer aggression, whereas unjustified violence can actually diminish the risk of learning aggression (e.g., Berkowitz & Powers, 1979; Geen, 1981; Geen & Stonner, 1973). However, violence that seems unjustified or undeserved, especially if targeted at innocent victims, may increase viewers' fear (Bryant, Carveth, & Brown, 1981).

Third, the presence of weapons, especially conventional ones like guns and knives, can enhance aggressive responding among viewers through what has been called a "priming" effect (see Berkowitz, 1990; Carlson, Marcus-Newhall, & Miller, 1990). Fourth, violence that is extensive or graphic can enhance the risk of all three harmful outcomes. Huesmann and his colleagues have demonstrated that the more TV violence children watch in a given year, the more likely they are to behave aggressively in subsequent years (Huesmann, 1986; Huesmann, Eron, Lefkowitz, & Walder, 1984). Exposure to extensive graphic violence, either within a single program or across several programs, also produces desensitization or decreased sensitivity to violence (see Drabman & Thomas, 1974; Mullin & Linz, 1995). Though less well documented, extensive or graphic violence also can increase fear among viewers (Ogles & Hoffner, 1987).

Fifth, violence that seems realistic can foster the learning of aggressive attitudes and behaviors among viewers (Atkin, 1983; Feshbach, 1972) and also can elevate fear responses (Cantor & Hoffner, 1990; Lazarus, Opton, Nomikos, & Rankin, 1965). Based on this contextual factor, one might expect that cartoon or fantasy violence on television is relatively harmless. However, research with very young children, to be discussed below, cautions against such a conclusion. Sixth, violence that is explicitly rewarded or that simply goes unpunished increases the risk of learning aggression, whereas violence that is condemned decreases that risk (Bandura et al., 1961; Bandura, 1965; Lando & Donnerstein, 1978). In addition, violence that goes unpunished can elevate fear, particularly when it appears to be unjust or random (Bryant et al., 1981). Seventh, the consequences of violence for

Table 1. Predicted Impact of Contextual Factors on Three Outcomes of Exposure to Media Violence

	Outcomes of media violence		
Contextual Factors	Learning	Fear	Desensitization
Attractive perpetrator	Δ		
Attractive target		Δ	
Justified violence	Δ		
Unjustified violence	▼	Δ	
Presence of weapons	Δ		
Extensive/graphic violence	Δ	Δ	Δ
Realistic violence	Δ	Δ	
Rewards	Δ	Δ	
Punishments	▼	▼	
Pain/harm cues	▼		
Humor	Δ		Δ

Note. Predicted effects are based on review of social science research on contextual features of violence. Blank spaces indicate that there is inadequate research to make a prediction.
Δ = likely to *increase* the outcome
▼ = likely to *decrease* the outcome

Source: Taken from Wilson et al. (1998). Violence in television programming overall: University of California, Santa Barbara study. *National Television Violence Study, Vol. 2,* p. 14. Copyright 1998 by Sage Publications. Reprinted with permission of the authors.

the victim are important contextual cues; the explicit depiction of a victim's physical harm and pain can decrease or inhibit the learning of aggression among viewers (Baron 1971a, 1971b; Wotring & Greenberg, 1973). Finally, violence that is portrayed as humorous may contribute to aggression (Baron, 1978; Berkowitz, 1970), and also may desensitize viewers to the seriousness of such behaviors (Jablonski & Zillmann, 1995), though this particular contextual factor has received the least empirical investigation.

Using Table 1 as a framework, we created a number of measures to assess these contextual features in the sample of television content we monitored each year. As noted earlier, we certainly are not the first to have looked at contextual features of violence (e.g., Gerbner et al., 1979; Potter & Ware, 1987). Yet, this study represents the most extensive assessment of context across three types of harmful effects and across different levels of analysis (see below).

To summarize, the NTVS project involves a sample that is larger and more representative than any other content analysis and focuses on an array of contextual variables that are grounded in the effects literature. Next, we turn to a special consideration when analyzing programming targeted to younger viewers.

Children as a Special Audience: Responding to TV Violence

Though both child and adult viewers are influenced by the eight contextual factors outlined above, special concerns emerge when considering the impact of violence on the very young.[2] As children develop, they bring different cognitive skills and social knowledge to the television-viewing experience. For the purposes of this study, one developmental skill that is particularly important is children's ability to differentiate fantasy from reality.

Children's perceptions about the realism of television change dramatically with development (e.g., Morison & Gardner, 1978; Taylor & Howell, 1973). For instance, preschoolers often believe in magical and supernatural creatures (Rosengren, Kalish, Hickling, & Gelman, 1994) and can be swayed by how things appear rather than how things really are (Flavell, 1986). Generally, younger children judge characters or actions as "real" simply because of observing their physical presence through television's "magic window" (Hawkins, 1977). As children develop, they consider a wider range of cues, including whether it is possible for the events and characters to occur in real life (Dorr, 1983; Wright et al., 1994).

What implications does this hold for TV violence? Clearly, a fantastic portrayal of violence might be discounted as unrealistic by older children and adults, but perceived as very real by younger children. In fact, numerous studies show that young children readily imitate violent cartoon characters such as Batman (Friedrich & Stein, 1973; Steuer, Applefield, & Smith, 1971) and superheroes with magical powers like the Power Rangers (Boyatzis, Matillo, & Nesbitt, 1995). These findings underscore that we cannot dismiss cartoon or fantasy violence as unrealistic when considering younger audiences. In our analysis of children's programming, we will consider both the younger and older child audience, adjusting our interpretations of the findings according to this age-related difference in perceived reality.

What Is Children's Programming?

We defined the genre of children's programming as those shows that were originally produced and primarily intended for audiences of children aged 12 and below. Thus, a program such as *Home Improvement,* which is watched by large numbers of young viewers, is not considered a children's program because it is targeted at a general family audience and scheduled during prime time. Shows were judged according to their content, scheduling, marketing, and any other relevant information

[2] Although it is well established that younger children typically interpret or make sense of television in a somewhat different way than do their older counterparts, there are no precise age differences associated with these changes because children exhibit substantial variation in how and when they develop various skills. For our purposes, we will differentiate two groups of children: those between 2 to 6 years, which we will identify as younger children, and those 7 to 12 years of age, which we will call older children.

that helped to evaluate a "fit" with this criterion. Our conceptualization of children's programming mirrors the Federal Communications Commission's definition that has been used since 1974 for implementing policies that restrict advertising to children (FCC, 1974).

By categorizing each program in the 1995–1996 NTVS sample as either children's or not, we examined through content analysis two distinct research questions:

> RQ1: How do children's programs compare with other types of programming in the amount of violence presented?
>
> RQ2: How do children's programs compare with other types of programming in the contextual features associated with violent portrayals?

As the television industry has evolved over recent years, with an increasing emphasis on niche efforts and accelerated fragmentation of the mass audience (Turow, 1996), the availability of children's programming has increased and so too has the range of formats or program types within the genre of children's shows (Kaplan, 1995). The result is that children's programming today is not simply of one ilk. We believe it is informative to divide children's programming into a modest number of smaller subgroups for more careful analysis, an approach that is beginning to be recognized by others as well. For example, Cantor and Nathanson (1997) recently asked parents about their children's exposure to TV violence, and the researchers distinguished "classic cartoons" from "action cartoons" in the survey. Outside the research arena, channels such as Fox have begun to employ such terms as "futuristic cartoon" and "mystery" to refer to particular types of children's programming (Fox Kids, 1999).

Just as it is common to examine shifting content patterns within genres such as dramas or movies meant for adults, we now suggest the need to do the same with programs directed to children. To accomplish this, we devised a framework that consists of five subgenres for children's programming: slapstick, superhero, mystery/adventure, social relationships, and magazine. These categories are defined by conceptual distinctions in program content, independent of the visual format (i.e., live action vs. animation).

Slapstick programs are shows in which anthropomorphized characters engage in farcical physical acts that defy the laws of physics (e.g., a character runs off the edge of a cliff and then remains suspended in midair until looking down and grasping the "gravity" of the situation). Plots are simple, silly, and repetitive in nature, with humor grounded in physical action such as chases and clever confrontations. Superhero programs feature characters who possess science fiction-like physical powers such as an invulnerability to weapons or the ability to fly or to change shape and form. The superhero characters seek to protect others and to enforce justice. Mystery/adventure programs feature characters who seek to unravel a puzzling situation that involves potentially threatening or scary situations and often includes surprises or plot twists. Some characters may possess supernatural powers (e.g., ghosts who pose a threat to adventurers), but they are not used as a primary means of protecting others and enforcing justice. Social relationship programs feature stories that emphasize how characters get along with one another

Table 2. Examples of Programs From Each Subgenre of Children's Programming

Slapstick	Superhero	Adventure/ mystery	Social relationship	Magazine
Animaniacs	*Exosquad*	*Beetlejuice*	*Allegra's Window*	*Barney*
Bugs Bunny	*Captain Planet*	*Garfield*	*Care Bears*	*Bill Nye*
Popeye	*Mask*	*Goosebumps*	*Flintstones*	*Blue's Clues*
Road Runner	*Power Rangers*	*Scooby Doo*	*My Little Pony*	*Lamb Chop*
Tom & Jerry	*Spiderman*	*Timon & Pumba*	*Rugrats*	*Sesame Street*

or with their group in resolving the problems that they face. Action may be involved but it is not the focus of the plot as much as the resolution of group interaction or affiliation issues. Finally, magazine programs involve short segments that contain a variety of themes, skits, stories, or demonstrations, ranging from the performance of a song to the presentation of a scientific experiment. Table 2 contains examples of programs for each of these subgenres.

Using these five subgenres, we can more closely examine both the amount and the patterns of violence within children's programming. We posit the following research questions:

> RQ3: Does the amount of violence differ across the subgenres of children's programming?
>
> RQ4: Do the contextual features associated with violent portrayals differ across the subgenres of children's programming?

Method

A fuller description of the methodology employed in this study can be found in the second-year report of the National Television Violence Study (Wilson et al., 1998).

Sample

A total of 3,235 programs were randomly sampled from 6 a.m. to 11 p.m. across 23 channels from October 1995 to June of 1996 to build a composite week of television programming for each source. The 23 channels consisted of the broadcast networks (ABC, NBC, CBS, Fox), broadcast independents (KCAL, KCOP, KTTV), public broadcasting (PBS), basic cable (A&E, AMC, Cartoon Network, Disney, Family Channel, Lifetime, Nickelodeon, TNT, USA, VH-1, and MTV), and premium cable (Cinemax, HBO, Showtime). All programs in the sample were aired and taped in the Los Angeles market. A total of 15% (n = 478) of the programs were religious

programs, game shows, infomercials, instructional shows, or breaking news. Per the NTVS contract with the National Cable Television Association, these five types of shows were sampled as part of the representative week of programming but were not coded or assessed for violence. Thus, a total of 2,757 programs were assessed for violence in this study.

Definition of Violence

The NTVS definition of violence emphasizes several key elements, including intention to harm, the physical nature of harm, and the involvement of animate beings. More precisely, violence is defined as

> any overt depiction of a credible threat of physical force or the actual use of such force intended to physically harm an animate being or group of beings. Violence also includes certain depictions of physically harmful consequences against an animate being or group that occurs as a result of unseen violent means. (Wilson et al., 1998, p. 21)

Thus, there are three primary types of violence: credible threats, behavioral acts, and harmful consequences.

Units of Analysis

Previous content analyses that examine violent acts individually miss how they may be related to each other and to the larger theme of the program. For example, an act of violence may be perceived quite differently if it is situated in a scene with a great deal of blood and gore rather than one devoid of such injury. Similarly, an act of violence is likely to be interpreted differently if it is featured within a fictional program than one based on real-life events. Very often, the richest meaning of any portrayal is found in larger units or chunks, rather than in individual acts.

We sought to tap these larger units of meaning by coding violence at three different levels. The most microlevel of analysis is the violent PAT, or incident. A PAT is defined as an interaction that occurs between a perpetrator (P) and a target (T) involving a particular type of violent act (A). Any time the perpetrator, target, or type of violent act changes, a new PAT is created. The second level of analysis is the violent scene. A violent scene is comprised of one or more related violent incidents or PATs that occur without a significant break in the ongoing flow of imminent or actual violence.

The third and most macrolevel of analysis is the entire violent program. There are two types of "programs" in the sample. The most typical program contains a single thematic story whose plot or unfolding narrative is presented across an entire time block sampled. For these types of shows, program-level contextual variables were assessed at the end of the story. The second type of program contains two or more independent stories that are separated by production credits but are presented back to back within the same time block sampled. Certain cartoon programs such as *Tom and Jerry Kids* and *Looney Tunes* feature such segmented content. Because each segment may depict violence in a very different way, we assessed program-level contextual variables at the end of each independent segment or storyline.

Contextual Variables

A total of 41 variables were coded in the NTVS project, but only those most relevant to children's programming are included in this study. Different contextual variables were coded at each of the three levels of analysis.

PAT-level variables. At the incident, or PAT level, we assessed the nature of the perpetrator. Each perpetrator (or group of perpetrators) was coded for both demographic and attributive qualities.[3] In terms of demographics, the violent perpetrator was classified by character type as human, animal, supernatural creature, anthropomorphized animal, or anthropomorphized supernatural creature. In addition, the sex of each perpetrator was ascertained.

In terms of attributes, perpetrators were coded as "good" when they acted benevolently and were motivated to help others, "bad" when they acted primarily out of self-interest with little regard for others, and "blended" when they displayed a balance of both good and bad characteristics. Characters whose orientation could not be ascertained from the context of the plot were coded as "neutral." "Attractive" perpetrators were defined subsequently as all those characters who possessed some good qualities (i.e., good and blended). Perpetrators also were assessed for their hero status. A perpetrator was coded as a hero if all of the following criteria were met: The character had a primary role in the plot, that role was to protect the lives of others, and the character consistently went above and beyond the call of duty in helping others.

We ascertained several other measures at the PAT level. First, the perpetrator's particular reason for the violent incident was assessed. Each interaction was coded as being motivated by protection of life, anger, retaliation, personal gain, mental instability, an accident, or some other reason. Second, each incident was assessed for whether or not it was justified. Justification was defined as violence portrayed as morally "correct" or "right" given the circumstances in the plot. Third, coders assessed the means or weapons used in each incident, using six possible categories: natural (i.e., using own physical capabilities such as a fist), unconventional weapon (e.g., a candlestick or baseball bat), conventional weapon nonfirearm (e.g., knives), firearm (i.e., handheld guns or rifles), bomb, heavy weaponry (e.g., tank, missile), or other. Fourth, we assessed the extent of each means employed in the incident, classified as one (single act), some (2–9 repetitions of the act), many (10–19 repetitions), or extreme (20+ repetitions). Repeated violence subsequently was defined as any behavioral aggression against the same target involving more than a single act.

Fifth, we measured the immediate consequences of violence to the victim at the PAT level. Depicted pain referred to the amount of suffering the target displayed as a result of the violence, coded as no pain, mild, moderate, or extreme pain. Similarly, we measured depicted harm or the amount of physical injury portrayed as a result of violence (no harm, mild, moderate, or extreme harm). Coders also assessed "likely harm," or the amount of injury and damage that would result from the same violent act had it occurred in real life (i.e., none, mild, moderate, extreme).

[3] Groups consisting of characters who were not homogeneous on a particular quality (e.g., the group featured both men and women) were coded as "mixed" on that variable.

"Unrealistically low level of harm," a variable subsequently derived from these measures, was defined as any interaction for which the amount of depicted harm was less than the amount of likely harm in real life. Finally, a variable called "lethal violence" was derived from the likely harm measure and referred to any aggression that would be incapacitating or lethal in real life (i.e., "moderate" or "extreme" likely harm).

Scene-level variables. Several variables were coded after viewing the entire violent scene.[4] Immediate punishments included any verbal or nonverbal behaviors that signaled disappointment or disapproval of violence within the scene. Coders judged whether each of the following types of punishment occurred: remorse from the perpetrator, condemnation from other characters, nonviolent action to stop the violence, and violent intervention by anyone other than the target. Coders also assessed scenes for the presence of immediate rewards or positive reinforcements for violence and judged whether each of the following occurred in the scene: gratification by the perpetrator, praise from other characters, and material rewards (e.g., money). Each violent scene also was assessed for the amount of graphicness or blood and gore shown: none, mild, moderate, or extreme (later collapsed into none vs. any). Lastly, each violent scene was judged for whether humor was present. Humor was defined as the use of speech, actions, or behaviors that are intended to amuse the self, another character, or the viewer.

Program-level variables. Several global judgments were made once the entire program had been viewed. First, coders judged the overall level of harm/pain, defined broadly to include not only physical harm but also emotional, psychological, and financial suffering as a result of violence. Programs were coded as depicting either no harm/pain at all, short-term harm/pain only, or long-term harm/pain extended across the plot. Second, the overall pattern of punishments delivered across the program was assessed. Separate judgments were made for good characters and for bad characters as to whether they were punished throughout the entire program, punished at the end only, or never/rarely punished. Third, programs were judged for whether they strongly featured an antiviolence theme, or overall message that violence was morally and/or socially wrong. To be coded as having an antiviolence theme, a program could do any of the following: emphasize alternatives to violence, show continual punishments for violence, or emphasize the serious consequences to violence throughout the plot. Fourth, each program was assessed for its level of realism. Shows were coded as actual reality (i.e., real-life footage of violence), recreation of reality (i.e., reenacted events presented similarly to how they actually occurred), fiction (i.e., creative constructions not based on actual events but that are possible in real life), or fantasy (i.e., characters and events that are impossible in the real world). Finally, style of presentation for each program was coded as animated or live action.

[4] Coders were instructed to make these judgments after watching the entire violent scene and the immediate scene that followed. Coders watched the immediately adjacent scene because certain contextual features (e.g., punishments) often are not delivered to a perpetrator until after the violence has subsided. In the case where there was no immediately adjacent scene (e.g., commercial follows violent scene, last scene of program), coding judgments were made at the end of the scene.

Training and Reliability

A total of 58 undergraduates at the University of California, Santa Barbara, coded the programming in the 1995–1996 NTVS sample. The coders received approximately 40 hours of classroom instruction and 20 hours of laboratory practice to help them learn the complex coding scheme. Once trained, coders worked individually in quiet labs as they assessed programs for violence. It took approximately 20 weeks for the coding to be completed. Every week during this time, half of the coders independently evaluated the same program to assess consistency across individuals. Programs used for reliability tests were randomly sampled from each of the six genres in the sample (i.e., movies, drama, comedy, reality based, music videos, children's).

Two levels of reliability were assessed (see Potter & Levine-Donnerstein, 1999). First, coders' agreement on defining or unitizing violent PATs and scenes was examined. As a measure of unitizing, we assessed the modal number of PATs and scenes coders agreed upon in each reliability test. The number of coders that came within 20% of the mode on PATs and scenes also was computed. Across all programs assessed for reliability (N = 18), most coders agreed on the number of PATs (83% median agreement) and scenes (100% median agreement) within a 20% interval around the mode, suggesting quite a bit of consistency in unitizing.

Once coders agreed on the same unit of analysis, their agreement on choosing a value for each of the variables in the coding scheme had to be checked. To assess coders' judgments, we computed a level of confidence for each of our 738 reliability coefficients (41 variables on each of the 18 programs in the reliability tests). The median reliability coefficients across 18 tests for the variables reported in this study are as follows: means used (.94), extent (.87), depicted harm (.83), likely harm (.77), depicted pain (.81), justification (.87), perpetrator type (.96), sex (.97), good/bad (.79), hero status (.96), reason for violence (.79), self-remorse (1.0), condemnation from others (.90), nonviolent action (.93), violent action (.95), self-gratification (.83), praise from others (.95), material rewards (.94), graphicness (.90), humor (.83), program harm/pain (.65), punishment of bad characters (.82), punishment of good characters (.56), antiviolence theme (1.0), realism (.96), and style of presentation (1.0). Nearly all of these coefficients are above .80.

Results

Most of the analyses involved frequency comparisons on the amount and nature of violence between different groups of programming. Two types of significance were considered in these comparisons. To assess statistical significance, we computed a series of chi-square tests ($p < .05$) on variables related to the amount and nature of violence, first comparing children's versus nonchildren's programming, and then comparing the different subgenres of children's programming. Because of the large sample sizes involved, the vast majority of these tests were statistically significant even though some of the differences are quite small in magnitude. Therefore, we also relied on practical or substantive significance for interpreting the findings. For all percentage comparisons, we stipulated a difference of at least

Table 3. Amount of Violence in Children's and Nonchildren's Programming

	Children's	Nonchildren's
% of programs with violence	69_b	57_a
Number of violent PATs per hour	14.1	5.6
Number of violent scenes per hour	6.5	2.7
% of time devoted to violence	11.7	12.3

Note. Within rows, percentages having no subscripts in common are significantly different both statistically ($p < .05$) and practically (10%).

10% between subgroups of programming before we were willing to assert that the difference is meaningful. Throughout the results, then, percentages having no subscripts in common are significant both statistically ($p < .05$) and practically (10% difference).

Violence in Children's Programming

To answer the first two research questions, we divided the television landscape into two categories: programs targeted to children under the age of 13 and programs not targeted specifically to this age group. The nonchildren's category included the following types of general-audience programming: comedy, drama, movies, music videos, and reality-based shows. Of the 2,748 programs in our sample, 859 (31%) were programs specifically targeted to children. The breakdown by time was as follows: 483 hours of children's programming in a composite week of television and 2,060 hours of nonchildren's programming.

Research question 1. The first research question concerned how children's programs compared with all other types in terms of the amount of violence. Though most programs on television contained some violence, children's programming was significantly more likely to feature aggression than was nonchildren's programming, $\chi^2(1, N = 2,748) = 33.78, p < .001$, $V^* = .11$.[5] A full 69% of shows targeted to viewers under 13 years of age contained some form of violence compared to 57% of all other programming (see Table 3). Not only was the prevalence of violence higher in children's programs, but so was its concentration. Children's programming featured almost three times the number of PATs or violent exchanges per hour, and more than twice the number of violent scenes per hour as compared to nonchildren's programs (see Table 3).[6] We also looked at the duration of violence within programming and, on this one measure,

[5] Estimates of variance accounted for in all chi-square analyses are based on Cramér's (V^*) measure of association.

[6] These ratios are expressed as per hour rather than per program figures to control for the fact that many children's shows are divided into independent segments that are briefer than the standard half-hour or hour programming.

Table 4. Context of Violence in Children's vs. Nonchildren's Programming

	Children's	Nonchildren's
Nature of the perpetrator		
Attractive (PAT)	36%	42%
Hero (PAT)	7	9
Human (PAT)	33_a	92_b
Anthropomorphized (PAT)	52_b	4_a
Male (PAT)	89	88
Justified violence	27	35
Type of means		
Natural means (PAT)	46	40
Gun use (PAT)	9_a	31_b
Extensive/graphic violence		
Lethal violence (PAT)	53	52
Repeated acts (PAT)	56	62
Blood & gore (scene)	1_a	21_b
Rewards/punishments		
Immediate rewards (scene)	32_b	21_a
No immediate punishments (scene)	81	72
Bad perps never punished (program)	36	34
Good perps never punished (program)	68	67
Consequences of violence		
Victim shows no pain (PAT)	63_b	51_a
Victim shows no harm (PAT)	67_b	43_a
Unrealistically low levels of harm (PAT)	66_b	26_a
Depicts long-term suffering (program)	3_a	25_b
Humor	76_b	24_a
Realism		
Fantasy context (program)	87_b	9_a
Animated format (program)	93_b	3_a

Note. Within each row, percentages having no subscripts in common are significantly different both statistically ($p < .05$) and practically (10%).

children's programs were not distinctly higher. Violence did not monopolize the plot in any type of programming, children's or nonchildren's.

Research question 2. The second research question concerned whether children's programs differed from all other types in terms of *how* violence is portrayed. Table 4 displays comparisons of children's and nonchildren's programming as a function of the eight contextual features of violence. In terms of perpetrators of violence, more than one third of the aggressors in children's programs possessed qualities that made them attractive role models. This pattern was no different from that

found in nonchildren's shows. Less than 10% of the perpetrators in either category of programming qualified as heroes. This may surprise readers who might expect to see more heroes in children's programs. However, our definition of heroes was rather restrictive, mandating that a perpetrator not only saved lives but also went above and beyond the call of duty in these efforts. Taking children's programming as a whole, there were few of these heroic characters, but, as we shall see, most were concentrated within a particular subgenre.

The form or type of character engaging in violence is important, especially in light of developmental differences in children's perceived reality of television. As seen in Table 4, only one third of the perpetrators in children's programming were human ($33\%_a$), whereas nearly all were human in nonchildren's programs [$92\%_b$, $\chi^2(2, N = 17{,}646) = 6926.10, p < .001, V^* = .63$]. In contrast, a full 52% of perpetrators were anthropomorphized in children's shows, whereas only 4% were anthropomorphized in nonchildren's shows. In spite of these substantial differences in form, the vast majority of perpetrators in both children's and nonchildren's programs were male.

The reasons or motives for violence in children's programs were very similar to those involved in other types of programming. Most violence was enacted for one of three reasons: personal gain (children's: 36% of PATs; nonchildren's: 34%); anger (children's: 28% of PATs; nonchildren's: 28%), and protection of life (children's: 21% of PATs; nonchildren's: 29%). When these reasons were classified in terms of justification, nearly 30% of the violent incidents in children's programming depicted violence that appeared to be justified or morally correct (see Table 4). This pattern was essentially no different than that found for nonchildren's programs (35%).

By what means was violence enacted in children's programs? Almost half the PATs (46%) involved violence that was committed by natural means (i.e., the perpetrator's body). The flip side is that over half of the PATs involved some type of weapon. The overall breakdown of natural means versus weapons was no different from that found in nonchildren's shows (see Table 4). However, the use of one particular type of weapon, guns, did differ dramatically by program type. Less than 10% (9%) of the PATs featured in children's programs involved the use of guns compared to almost one third of the PATs in nonchildren's programs [$31\%_b$; $\chi^2(2, N = 18{,}332) = 1169.81, p < .001, V^* = .25$].

Another contextual feature concerned how extensive and graphic the violence was. In terms of extent, over half of the violent incidents (53%) in children's programming featured lethal violence and over half (56%) also featured repeated behavioral acts of violence against the same target (see Table 4). Neither of these patterns differed significantly from those found in nonchildren's shows.

Though violence was often extensive, it was rarely graphic in shows targeted to children. Only 1% of the violent scenes in children's programs depicted any amount of blood and gore, which was substantially less that the $21\%_b$ of such scenes in nonchildren's programs, $\chi^2(1, N = 6{,}862) = 557.98, p < .001, V^* = .29$.

In terms of reinforcements, children's programs actually contained a higher proportion of scenes in which violence was immediately rewarded ($32\%_b$) than did nonchildren's shows [$21\%_a$; $\chi^2(1, N = 8{,}689) = 132.21, p < .001, V^* = .12$]. Yet there was no significant difference between the two types of programs in terms of

immediate punishments for violence (see Table 4). A full 81% of the violent scenes in children's shows contained no form of punishment as compared to 72% of scenes in all other types of programming. In other words, perpetrators rarely showed remorse at the time they engaged in violence and seldom were condemned by others or immediately apprehended. We will return to this lack of immediate punishments because it is of particular concern for very young viewers.

Even when the entire program was taken into account, violence often went unpunished in children's programming. More than one third of such shows (36%) featured "bad" characters who were never punished anywhere in the plot, and in roughly two thirds of children's programs (68%), good characters suffered no remorse or criticism for violence anywhere in the storyline. These two overall patterns of punishment in children's programs were very similar to those found in nonchildren's shows (see Table 4).

Children's programming was substantially different, however, in terms of the consequences of violence. Nearly two thirds of the violent incidents ($63\%_b$) in children's programs showed no physical harm to the victim, compared to roughly half ($51\%_a$) of the incidents in other types of programs, $\chi^2(1, N = 11{,}276) = 151.90$, $p < .001$, $V^* = .12$. Similarly, two thirds of the PATs in children's programs depicted no physical injury to the victim, compared to less than half of the PATs in nonchildren's programming, $\chi^2(1, N = 11{,}408) = 606.66$, $p < .001$, $V^* = .23$. Children's programming also was more likely to feature unrealistically low levels of harm when compared to what would happen in real life. In fact, 66% of the PATs in programs targeted to children portrayed unrealistic harm to the victim, whereas only 26% of PATs did so in all other types of programs, $\chi^2(1, N = 10{,}507) = 1614.06$, $p < .001$, $V^* = .39$. Lastly, children's programs almost never depicted the long-term negative consequences of aggression such as emotional and psychological suffering. Less than 5% of the programs falling into the children's category portrayed any lasting negative ramifications of violence. Though not typical of television in general, one fourth of all other types of programming featured some attention to long-term consequences of aggression, $\chi^2(1, N = 1{,}405) = 114.17$, $p < .001$, $V^* = .29$.

How often is violence shown in a humorous context? Here, too, children's programming stands out (see Table 4). More than three fourths of violent scenes in programs targeted to child viewers contained some form of humor. In contrast, less than one fourth of violent scenes in other types of programs contextualized aggression with humor, $\chi^2(1, N = 8{,}686) = 2193.48$, $p < .001$, $V^* = .50$.

The last context factor dealt with how realistic the violence seemed to be. Again, we saw some dramatic differences between children's programming and other genres (see Table 4). The vast majority of children's shows that were violent involved settings, events, and characters that could never happen in real life ($87\%_b$). In other words, most of the content could be described as fantasy. In sharp contrast, less than 10% ($9\%_a$) of the violent shows in the nonchildren's category involved fantasy content, $\chi^2(1, N = 1{,}407) = 840.17$, $p < .001$, $V^* = .77$. Realism also can be conveyed through visual formats such as animation. As might be expected, nearly all ($93\%_b$) of violent children's programs were animated compared to very few ($3\%_a$) of those in the nonchildren's category, $\chi^2(1, N = 1{,}407) = 1145.68$, $p < .001$, $V^* = .90$.

Table 5. Amount of Violence Across Subgenres of Children's Programming

	Slapstick	Superhero	Adventure/ mystery	Social relationship	Magazine
% of programs w/violence	100_{d}	97_{cd}	89_{c}	48_{b}	17_{a}
# of violent PATs per hour	29.1	28.1	14.3	4.2	1.6
# of violent scenes per hour	14.9	11.9	7.9	3.0	.9
% time devoted to violence	28.7_{c}	24.4_{c}	12.9_{b}	3.1_{a}	1.2_{a}

Note. Within rows, percentages having no subscripts in common are significantly different both statistically ($p < .05$) and practically (10%).

One final comparison we made was in the portrayal of an antiviolence theme. This type of focus was extremely rare in children's (2%) and in nonchildren's programming (5%), with no significant difference between the two.

Violence in Subgenres of Children's Programming

To address the second pair of research questions, we divided children's programs into the five subgenres: slapstick (n = 111; 75 hours of programming), superhero (n = 114; 60.5 hours), adventure/mystery (n = 202; 112 hours), social relationships (n = 226; 120 hours), and magazine (n = 129; 89 hours). For analyses involving frequencies, overall chi-square tests were performed, followed by post hoc comparisons using the chi-square analog to the Scheffé procedure whenever there was at least a 10% difference between any two subgenres. Any subgenre percentages having no subscripts in common were significantly different both statistically and practically.

Research question 3. The third research question concerned whether the subgenres differed in the amount of violence shown. As seen in Table 5, there were dramatic differences in the prevalence of violence among these five types of children's programming, $\chi^2(4, N = 782) = 335.25$, $p < .001$, $V^* = .65$. Every program that fell into the slapstick category contained some violence ($100\%_{d}$), and nearly all of the superhero programs contained violence ($97\%_{cd}$). Though slightly less than the slapstick category, a substantial portion ($89\%_{c}$) of the adventure/mystery programs also contained violence. In stark contrast, social relationship and magazine programming were much less likely to feature violence. Less than half of the social relationships programming ($48\%_{b}$) and less than 20% ($17\%_{a}$) of magazine programming contained violence.

The subgenres also differed in the concentration of violence. Both slapstick and superhero programming featured almost 30 PATs per hour, or 30 different violent incidents between a perpetrator and a target. Adventure/mystery shows contained roughly 14 violent PATs per hour. Once again, the social relationship

Table 6. Context of Violence in Children's vs. Nonchildren's Programming

	Slapstick	Superhero	Adventure/ mystery	Social relationship
Nature of perpetrator				
Attractive (PAT)	$31\%_{a}$	$39\%_{ab}$	$37\%_{ab}$	$43\%_{b}$
Hero (PAT)	4_{a}	15_{b}	5_{a}	4_{a}
Human (PAT)	28_{a}	32_{a}	37_{ab}	42_{b}
Anthropomorphized (PAT)	62_{b}	49_{a}	35_{a}	41_{a}
Male (PAT)	93	89	87	85
Justified violence	23_{a}	34_{b}	27_{ab}	31_{ab}
Type of means				
Natural means (PAT)	42_{a}	45_{a}	45_{a}	58_{b}
Gun use (PAT)	8_{ab}	15_{b}	7_{ab}	2_{a}
Extensive/graphic violence				
Lethal violence (PAT)	57_{b}	55_{b}	49_{b}	37_{a}
Repeated acts (PAT)	51_{a}	66_{b}	52_{a}	49_{a}
Blood & gore (scene)	1	1	1	1
Rewards/punishments				
Immediate rewards (scene)	27	41_{b}	29_{a}	32_{ab}
No immediate punishments (scene)	84^{a}	75	81	79
Bad perps never punished (prog)	67	56	68	73
Good perps never punished (prog)	71	59	69	78
Consequences of violence				
Victim shows no pain (PAT)	68_{b}	60_{ab}	63_{b}	52_{a}
Victim shows no harm (PAT)	71_{ab}	60_{a}	68_{ab}	73_{b}
Unrealistically low levels of harm (PAT)	79_{c}	56_{ab}	64_{b}	52_{a}
Depicts long-term suffering (prog)	1	5	2	0
Humor	92_{c}	53_{a}	76_{b}	73_{b}
Realism				
Fantasy context (program)	92_{ab}	96_{b}	85_{a}	79_{a}
Animated format (program)	99	92	92	92

Note. Within each row, percentages having no subscripts in common are significantly different both statistically ($p < .05$) and practically (10%).

and magazine subgenres were substantially lower, at only 4 and 2 violent incidents per hour, respectively. As another way of comparing these data, slapstick and superhero programs featured twice as many violent incidents as the adventure/ mystery programs did, 6 times more than the social relationship programs did, and 10 times more than magazine shows. The concentration of violent scenes followed a similar pattern (see Table 5).

Lastly, we examined the duration or time devoted to violence and again found substantial differences across the subgenres, $\chi^2(4, N = 456) = 46.90, p < .001$. Nearly 30% of program time was devoted to violence in the slapstick subgenre. The superhero subgenre was also relatively high, with nearly 25% of screen time featuring violence. Adventure/mystery programs again fell in the middle, with 13% of time devoted to violence. In sharp contrast, very little of the program time in the social relationship or magazine subgenres was devoted to violence.

Overall, then, there were substantial differences across the subgenres in the amount of violence shown, and the pattern was consistent across each of the four different measures used to ascertain quantity.

Research question 4. The fourth research question concerned whether the subgenres differed in how violence was portrayed. Table 6 displays comparisons of four of the subgenres as a function of the eight contextual features of violence. The magazine subgenre was not included in these analyses because of the relatively low amount of violence in this category of programming.

The subgenres differed on several of the measures referring to the nature of the perpetrator. For example, attractive perpetrators were more likely to be found in the social relationship subgenre than in the slapstick subgenre, with the other two subgenres falling in between, $\chi^2(3, N = 5{,}996) = 37.85, p < .001, V^* = .08$. As might be expected, the superhero subgenre had significantly more perpetrators who were heroes than did the other three subgenres, $\chi^2(3, N = 5{,}952) = 199.92, p < .001, V^* = .18$.

The subgenres also differed with regard to the type or form of the perpetrator, $\chi^2(3, N = 5{,}989) = 171.22, p < .001, V^* = .12$. Significantly more of the perpetrators in the social relationship subgenre were humans, especially when compared to the slapstick and superhero categories (see Table 6). In contrast, perpetrators in slapstick were more often anthropomorphized characters than in any other subgenre. Nevertheless, the subgenres did not differ in terms of the gender of the perpetrator; the vast majority of violent incidents were perpetrated by male characters regardless of which type of children's programming was considered.

The reasons or motives for violence also differed significantly across the subgenres. As seen in Table 6, violence that appeared to be justified or morally correct was more common in superhero programming than in slapstick, with the other two subgenres falling in between, $\chi^2(3, N = 5{,}750) = 60.51, p < .001, V^* = .10$. A closer examination of specific motives revealed that superhero programs were more likely than the other subgenres to feature violent incidents that were undertaken for protection of life (superhero: $33\%_b$ of PATs; slapstick: $12\%_a$; adventure/mystery: $18\%_a$; social relationship: $19\%_a$) and less likely to involve violence motivated by anger [superhero: $17\%_a$ of PATs; slapstick: $32\%_b$; adventure/mystery: $26\%_b$; social relationship: $32\%_b$; $\chi^2(3, N = 6{,}020) = 424.30, p < .001, V^* = .15$].

The type of means used to enact violence also differed significantly across types of children's programming, $\chi^2(3, N = 6{,}462) = 151.29, p < .001, V^* = .11$. Nearly 60% of the violent incidents in social relationship programming were accomplished through natural means, whereas the majority of violent incidents in the other three subgenres involved some type of weapon. A closer look at gun

use in particular reveals that it was more common in superhero programming (15% of violent incidents) than in the other three subgenres, though only the difference between superhero and social relationship programming was significant (see Table 6).

Does the extent and graphicness of violence differ across the subgenres? The answer is yes for extent and no for graphicness. In terms of extent, social relationship programming was less likely than all other genres to feature violence that would be lethal or incapacitating if it were to occur in real life, $\chi^2(3, N = 3{,}881) = 48.08$, $p < .001$, $V^* = .11$. In other words, the violence was less dangerous or potentially harmful in this subgenre. The other measure of extent, how often behavioral aggression was repeated against the same target, also differed among the subgenres, $\chi^2(3, N = 4{,}681) = 88.45$, $p < .001$, $V^* = .14$. As seen in Table 6, repetitious violence was most likely to be found in superhero programs compared to all other genres. In spite of these differences in the extent of violence, there were no significant differences in graphicness. Across each of the subgenres, only 1% of the violent scenes depicted any blood and gore.

In contrast to all other context variables, there were very few differences among the subgenres in terms of whether violence was rewarded or punished (see Table 6). The same overwhelming majority of scenes in all subgenres depicted no immediate punishments for violence. Also, roughly one third of the programs portrayed bad characters as never getting punished anywhere in the plot, and a majority of programs portrayed good characters as never getting punished. Though some of the subgenres showed a 10% difference on these two variables (see Table 6), the overall chi-squares were not statistically significant. The only variable dealing with reinforcements that did differ across subgenres was the presence of immediate rewards in a scene, $\chi^2(3, N = 2{,}972) = 37.84$, $p < .001$, $V^* = .11$. Specifically, superhero programs were significantly more likely than the other subgenres to show violence as immediately rewarded by praise or material goods within a scene, though the contrast with the social relationship subgenre fell just short of practical significance.

There were several important differences between the subgenres in terms of the portrayal of the consequences of violence (see Table 6). Of all the subgenres, social relationship programming was the least likely to depict victims as experiencing no pain, $\chi^2(3, N = 3{,}899) = 37.64$, $p < .001$, $V^* = .10$. On the other hand, social relationship programs were more likely to depict no physical harm to the victim than were superhero programs, with the other two subgenres falling in between, $\chi^2(3, N = 4{,}965) = 95.68$, $p < .001$, $V^* = .14$. At first glance, this pattern seems contradictory. However, the relative absence of depicted injury in social relationship programs actually coincides with the fact that these shows also featured less lethal or dangerous violence, especially when compared to superhero programs (see above).

The subgenres also differed dramatically in the portrayal of unrealistically low levels of harm when compared to what would happen in real life, $\chi^2(3, N = 3{,}606) = 171.35$, $p < .001$, $V^* = .22$. As might be expected, slapstick programs were substantially more likely than all other types of children's programming to depict harm unrealistically. In fact, nearly 80% of the violent incidents in this subgenre featured an unrealistically low amount of harm to the victim. In contrast, social

relationship programs were the least likely to portray harm unrealistically (52% of PATs). Lastly, there were no significant differences across the subgenres in the portrayal of the long-term consequences of violence; simply put, very few children's programs depicted any prolonged suffering or hardship due to violence.

As might be expected, nearly every violent scene in slapstick programming contained humor (92%$_c$), and this proportion was substantially higher than that for any other subgenre, $\chi^2(3, N = 2{,}973) = 354.24, p < .001, V^* = .35$. As seen in Table 6, superhero programs were the least likely of all children's shows to contextualize violence with humor (53%$_a$ of violent scenes).

The final context factor involved realism. Though the vast majority of violent children's programs featured fantasy content, superhero shows were significantly more likely to do so than were adventure/mystery or social relationship shows, $\chi^2(3, N = 470) = 17.49, p < .001, V^* = .19$. In other words, the adventure/mystery and social relationship subgenres were slightly more likely to depict content that could possibly happen in the real world. However, there were no differences in realism as a function of format; nearly all violent shows in these four subgenres were animated.

In conclusion, there were prominent distinctions in the portrayal of violence across the four most violent subgenres of children's programming. As seen in Table 6, differential patterns emerged for nearly all of the eight context factors, with the exception of rewards and punishments.

Discussion

The results of the present study indicate that programs targeted specifically to children differ in both the amount and the nature of violence that is portrayed when compared to nonchildren's programming. The findings further suggest that there are different types or subgenres of children's programming and that violence varies greatly across these categories.

Our first research question concerned whether children's programs differ in the amount of violence shown, and the answer is clearly yes. Nearly 7 out of 10 children's shows contain some physical aggression, whereas roughly 6 out of 10 nonchildren's shows do. In addition, violence is more concentrated within children's shows. A child viewer watching a typical hour of children's programming will witness 14 different violent incidents between a perpetrator and a victim, or roughly 1 incident every 4 minutes. In contrast, nonchildren's programming features only a third of these incidents, or 1 every 12 minutes. Simply put, violence is more prevalent and concentrated in programs specifically targeted to viewers under age 13.

How do our findings compare with previous research? The content analyses conducted in the past have found, like this study, that violence is more prevalent in children's programming than in other types of shows. Yet the precise figures have varied quite a bit. For example, Williams et al. (1982) found that roughly 20% of children's shows contain violence, compared to 75% in the Poulos et al. (1976) study and 90% in Gerbner's analyses (see Signorielli, 1990). Rates of violence in

children's shows also have varied, anywhere from 9 per hour (Poulos et al., 1976) to 20 (Signorielli, 1990). Our prevalence figure of 69% and rate of 14 incidents per hour fall somewhere in the middle, but arguably are the most accurate estimates to date. Rather than relying solely on the major broadcast networks, we analyzed a total of 23 channels, including several cable channels devoted to children's programming; rather than restricting our sample to cartoons, we included all types of programming targeted to children; and rather than limiting our analysis to prime-time hours or weekend mornings, we assessed complete days from 6 a.m. to 11 p.m. Because of the size and representativeness of the sample, this study sets new benchmarks from which future content analyses of violence in children's programming can be compared.

Quantities of violence do not tell the whole story, however. The way in which violence is portrayed is perhaps more important than sheer amount in predicting the likely harm to the audience. One important dimension of context relates to the perpetrators and whether the violence they commit is glamorized. On this front, children's programs do not differ much from other types of shows. Roughly 40% of perpetrators are attractive characters who can serve as role models for viewers, and roughly one third of the violent incidents they commit are justified. The vast majority of these perpetrators are male, and they very rarely experience remorse or criticism at the time they commit the violence. In other words, most violence on television is condoned. These patterns hold true for children's as well as nonchildren's programming.

However, children's shows do differ in two ways relative to the characters who commit violence. First, perpetrators in children's programming are less likely to be human and more likely to be anthropomorphized. At first glance, this may seem to imply that such programs are less harmful because of their fantasy nature. However, as pointed out earlier, younger children have difficulty distinguishing fantasy from reality on TV and have been shown to imitate human-like characters just as readily as human ones (Bandura, Ross, & Ross, 1963a; Friedrich & Stein, 1973). The second difference is that perpetrators in children's shows are significantly more likely to be rewarded with material goods or praise when they commit violence (32% of scenes) than are perpetrators in other types of shows (21% of scenes). On this one feature, violence is glamorized more often in children's programming, heightening its risk to young viewers. As mentioned earlier, rewarded violence increases the likelihood that viewers will learn aggressive attitudes and behaviors from such portrayals (Bandura et al., 1961; Lando & Donnerstein, 1978).

The context of violence in children's programming is even more problematic when we turn our attention to how victims are portrayed. As noted earlier, research has shown that the depiction of a victim's harm and pain can inhibit the learning of aggression among viewers (Baron, 1971a; 1971b; Wotring & Greenberg, 1973). Yet, across several measures, children's shows are less likely than other types of programming to portray the serious consequences of violence. For example, a higher proportion of violent incidents in children's programs involve victims who experience no signs of physical harm or pain. In addition, two out of three violent incidents in children's shows depict an unrealistically low level of harm compared to what would happen in real life if such violence were to occur. Only one fourth

of the incidents in other types of programs depict unrealistically low levels of harm. Lastly, only 3% of children's program depict the long-term negative repercussions of violence, compared to roughly 25% of nonchildren's shows. We should note that "long-term" in our coding scheme simply meant that pain or suffering was depicted beyond the next scene in which the violence occurred. Thus, even 5-minute cartoons could qualify so long as victims or their families experienced some aftermath of violence. We can conclude, then, that children's programming is far more likely than other types of programs to feature sanitized violence.

One reason for this could be that the forms of behavioral aggression in children's programming are simply less serious or dangerous. However, the data do not support this idea. Indeed, a full 50% of violent incidents in both children's and nonchildren's shows feature violence that would be lethal or cause serious harm in the real world. Additionally, more than half of the violent incidents in both types of programming involve repeated acts of behavioral aggression against the same victim, not just a single punch or gun shot. In other words, the sanitization of violence in children's programming is not due to a difference in the quality or seriousness of the aggression. In spite of this, violence is children's shows is far more likely to be couched in humor than is violence is other programming. In fact, three out of four violent scenes in programs targeted to young viewers contain humor, whereas only one in four contain humor in nonchildren's fare. Thus, this serious and often sanitized violence is also very often trivialized. Though humor is the least well understood of all the contextual features, there is some evidence to suggest that humorous violence can increase viewer aggression (Baron, 1978; Berkowitz, 1970) as well as desensitization (Jablonski & Zillmann, 1995).

All of the patterns documented so far suggest that children's programming poses an equal or even higher level of risk compared to other types of programs. Two findings stand in contrast to this. First, there is substantially less gun use in children's shows. Fewer than 10% of the violent incidents in programs targeted to children involve guns, whereas a full 30% of incidents in other types of programming do. This avoidance of guns is consistent with self-imposed standards used by many networks. According to Donna Mitroff (personal communication, December 7, 1999), vice president of educational policies and program practices for Fox Kids Network, "Fox Family Worldwide maintains a strict set of standards regarding the presence of guns in programs targeted at children. Realistic weapons of any kind, especially guns, are only accepted when employed by law enforcement or military characters." Second, there is far less blood and gore depicted in children's programming. Only 1% of violent scenes in children's programs contain blood and gore, compared to roughly 20% of scenes in nonchildren's shows.

To summarize, programs targeted to children are in many cases more problematic than nonchildren's shows. They contain more violence overall and, although the violence is just as likely to be glamorized or attractive as in other programming, it is far more likely to be sanitized and trivialized. These patterns heighten the risk of viewers learning aggression and becoming desensitized from such portrayals. Furthermore, this risky violence is targeted to the very age group that is most vulnerable to the effects of TV violence, children aged 12 and below (Paik & Comstock, 1994). Instead of protecting these younger viewers or shielding them

from the most problematic portrayals, programs that are geared to this age group contain some of the most egregious depictions of physical aggression on television.

Nonetheless, our study also reveals quite clearly that children's programs are not all the same. In fact, we found marked differences among the five subgenres with regard to violence. On one end of the continuum are slapstick and superhero programs, which together account for the highest prevalence, concentration, and duration of violent portrayals. For example, all of the slapstick programs in our composite week of television (e.g., *Animaniacs, Popeye, Road Runner)* contain some violence, with an average of 29 violent incidents per hour and almost 30% of the time devoted to physical aggression. Right behind this category is the superhero subgenre, including such programs as *Exosquad, Captain Planet,* and *Power Rangers*. Nearly 97% of these programs contain violence, with an average of 28 incidents per hour and nearly 25% of the time devoted to physical aggression. In other words, a child watching either a slapstick or a superhero program will be immersed in a violent world, with a different incident occurring every 2 minutes.

The nature of the violence looks a bit different in these two subgenres,however. Slapstick is dominated by anthropomorphized perpetrators, far more so than any other type of children's programming. It is also slightly less likely to show violence that is justified, in part because much of it is motivated by anger. Slapstick programs are substantially more likely than other subgenres to feature unrealistically low levels of harm to the victim. In fact, nearly 80% of the incidents underestimate the harm that would occur in the real world if such violence were enacted. As might be expected by the name, slapstick programs are far more likely than any other subgenre to depict violence in a humorous context. All in all, this subgenre poses the most risk for younger viewers, especially those under age 7, who have difficulty distinguishing reality from fantasy on TV (Hawkins, 1977; Rosengren et al., 1994). The violence is perpetrated by unrealistic characters and the aggression itself is highly unrealistic in its impact on the victim. In addition, in spite of the fact that nearly 60% of the incidents involve lethal violence, the aggression is made to look funny. An older child, like an adult, would be able to recognize the fantastic nature of the violence in these shows, but a younger child who is still attributing life to human-like characters and has not yet developed the ability to think critically about what would happen in real life is much more susceptible to the impact of such portrayals.

Though just as violent as slapstick, superhero programs feature a different type of perpetrator, one who is more likely to be heroic, to be engaged in justified violence, and to be rewarded for aggression. All of these qualities enhance the potential for these characters to serve as role models for learning aggression (Bandura, 1986; Liss, Reinhardt, & Fredriksen, 1983). Superhero programs also stand out because they are more likely than other subgenres to feature gun use and to feature repeated or extensive behavioral aggression against the same victim. Notably, the superhero subgenre is the least likely of all types of children's programming to depict violence in a humorous context. In general, then, this particular type of program spotlights good characters who are forced to engage in aggression to save lives. The potent combination of attractiveness, justification,

and reward serves to glamorize violence more so than in other subgenres. Such content can pose risks for both younger and older children, depending on the nature of the plot. A program like *Mortal Kombat* that depicts realistic superheroes who resemble humans and who engage in realistic violence would pose the greatest threat to older children. A show like *Swat Kats,* which features anthropomorphized cats as heroes, would be most problematic for younger children.

With slightly less violence overall, the adventure/mystery subgenre falls in the middle on the continuum of children's programming. A full 90% of shows in this category feature some violence, but the concentration of incidents per hour is roughly half that found in the slapstick and superhero subgenres. Also, less time is devoted to aggression as compared to the slapstick and superhero categories. In other words, the plots in these programs do contain violence but they are not dominated by it. *Beetlejuice* and *Scooby Doo* are prototypical examples of this subgenre—the storyline typically revolves around some enigma rather than physical conflict. Adventure/mystery programs also fall squarely in the middle of the subgenres in terms of the way in which violence is portrayed. As seen in Table 6, there are no unusually high or low frequencies amid all the contextual features for this category. This is not meant to suggest that this subgenre is harmless or low in risk. Instead, it reflects the patterns of most children's programming, without standing out in any way.

In contrast, the social relationship subgenre does seem to pose less risk. First, there is far less violence overall in such programming. Slightly less than half of the shows contain some violence, with only four violent incidents per hour or one every 15 minutes. Furthermore, only 3% of the time is devoted to violence. Second, the context of violence is less risky. Perpetrators in this type of programming are more likely to use their bodies to aggress rather than a weapon, and they almost never use guns. As a result, there is far less lethal aggression than in the other subgenres described so far. Also, this subgenre does a better job of portraying the consequences of violence. There are more incidents that depict no physical harm to the victim than in other subgenres, but this is surely a function of the violence being less serious or lethal. On the other hand, this subgenre is the least likely to feature painless violence and also the least likely to depict unrealistically low levels of harm compared to what would happen in real life. Thus, programs like *Care Bears* and *The Flintstones* are dramatically different from the typical slapstick or superhero show. They are far less likely to feature violence, but when they do, the aggression is less dangerous and also less likely to be sanitized in terms of consequences.

Of course, if a parent wants to shield a child from violence altogether, the best way to do this is to choose programs from the magazine subgenre. Less than 20% of the shows in this category contain any violence, or less than one in five. Moreover, there are fewer than 2 violent incidents per hour on average, as compared to almost 30 in the slapstick and superhero categories. Indeed, the magazine subgenre can be thought of as the "risk-free zone" in children's programming. Examples include such programs as *Barney* and *Sesame Street* for younger children, and *Bill Nye the Science Guy* for older children.

To summarize, this study demonstrates that in a representative week of American television across 23 channels, children's programming contains even more violence

than do programs not targeted to children. Moreover, the violence in children's programs is portrayed in a way that often poses more risk to viewers, especially in terms of learning aggression. Not all children's shows are responsible for these patterns, however. The slapstick and superhero subgenres are the worst offenders, both being saturated with violence. Slapstick programs sanitize and trivialize violence to a great extent, whereas superhero programs glamorize it. In contrast, magazine shows targeted to children are almost completely void of violence.

Future research should continue to assess violence in children's programming, looking specifically at newer channels such as the WB and UPN networks. Our findings suggest that content analyses should be careful not to treat all children's shows as a single entity. We hope that the subgenres defined here will spark interest and debate over how to divide this large group that represents roughly 30% of the programs and almost 20% of the hours in a composite week of television. Future work also can explore how the violence in these programs compares to audience ratings. Do children watch certain subgenres more than others, and does violence predict viewership? Studies also should examine whether the new television rating system consistently and accurately differentiates among the various subgenres of children's television.

Practically, the findings should help educators and parents make better sense of what is meant when we talk about programs targeted to children. Our findings indicate that generally, we can expect more violence in such shows but that it differs quite a bit across the subgenres. The data clearly reveal that parents should not assume that a cartoon or any other type of program is okay for their child simply because it is "made for kids." In fact, this study suggests quite the opposite. The most vulnerable viewers are targeted for some of the most harmful portrayals of violence on television.

References

American Medical Association. (1996). *Physician guide to media violence.* Chicago: American Medical Association.

Annenberg Public Policy Center. (1997). *Television in the home: The 1997 survey of parents and children (No. 2).* Philadelphia: Annenberg Public Policy Center, University of Pennsylvania.

Associated Press. (1998, May 13). *Nickelodeon wins Saturday ratings.* [Online]. Available: http://www.ap.org

Atkin, C. (1983). Effects of realistic TV violence vs. fictional violence on aggression. *Journalism Quarterly, 60,* 615–621.

Bandura, A. (1965). Influence of models' reinforcement contingencies on the acquisition of imitative responses. *Journal of Personality and Social Psychology, 1,* 589–595.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1994). Social cognitive theory of mass communication. In J. Bryant & D. Zillmann (Eds.), *Media effects* (pp. 61–90). Hillsdale, NJ: Erlbaum.

Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through imitation of aggressive models. *Journal of Abnormal and Social Psychology, 63,* 575–582.

Bandura, A., Ross, D., & Ross, S. A. (1963a). Imitation of film-mediated aggressive models. *Journal of Abnormal and Social Psychology, 66,* 3–11.

Bandura, A., Ross, D., & Ross, S. A. (1963b). Vicarious reinforcement and imitative learning. *Journal of Abnormal and Social Psychology, 67,* 601–607.

Baron, R. A. (1971a). Aggression as a function of magnitude of victim's pain cues, level of prior anger arousal, and aggressor-victim similarity. *Journal of Personality and Social Psychology, 18,* 48–54.

Baron, R. A. (1971b). Magnitude of victim's pain cues and level of prior anger arousal as determinants of adult aggressive behavior. *Journal of Personality and Social Psychology, 17,* 236–243.

Baron, R. A. (1978). The influence of hostile and nonhostile humor upon physical aggression. *Personality and Social Psychology Bulletin, 4,* 77–80.

Berkowitz, L. (1970). Aggressive humor as a stimulus to aggressive responses. *Journal of Personality and Social Psychology, 16,* 710–717.

Berkowitz, L. (1990). On the formation and regulation of anger and aggression: A cognitive neoassociationistic analysis. *American Psychologist, 45,* 494–503.

Berkowitz, L., & Powers, P. C. (1979). Effects of timing and justification of witnessed aggression on the observers' punitiveness. *Journal of Research in Personality, 13,* 71–80.

Boyatzis, C. J., Matillo, G. M., & Nesbitt, K. M. (1995). Effects of "The Mighty Morphin Power Rangers" on children's aggression with peers. *Child Study Journal, 25,* 45–55.

Bryant, J., Carveth, R. A., & Brown, D. (1981). Television viewing and anxiety: An experimental examination. *Journal of Communication, 31*(1), 106–119.

Cantor, J., & Hoffner, C. (1990). Forewarning of a threat and prior knowledge of outcome. *Human Communication Research, 16,* 323–354.

Cantor, J., & Nathanson, A. (1997). Predictors of children's interest in violent television programs. *Journal of Broadcasting & Electronic Media, 41,* 155–167.

Carlson, M., Marcus-Newhall, A., & Miller, N. (1990). Effects of situational aggression cues: A quantitative review. *Journal of Personality and Social Psychology, 58,* 622–633.

Centers for Disease Control and Prevention. (1991). *Setting the National Agenda for Injury Control in the 1990s.* Position papers from the Third National Injury Conference. Washington, DC: U.S. Dept. of Health & Human Services.

Comstock, G., & Paik, H. (1991). *Television and the American child.* New York: Academic Press.

Dorr, A. (1983). No shortcuts to judging reality. In J. Bryant & D. R. Anderson (Eds.), *Children's understanding of television* (pp. 199–220). New York: Academic Press.

Drabman, R. S., & Thomas, M. H. (1974). Does media violence increase children's toleration of real-life aggression? *Developmental Psychology, 10,* 418–421.

Federal Communications Commission. (1974). Children's television programs: Report and policy statement. *Federal Register, 39,* 39396–39409.

Feshbach, S. (1972). Reality and fantasy in filmed violence. In J. P. Murray, E. A. Rubinstein, & G. Comstock (Eds.), *Television and social behavior: Television and social learning* (Vol. 2, pp. 318–345). Washington, DC: U.S. Government Publication.

Flavell, J. H. (1986). The development of children's knowledge about the appearance-reality distinction. *American Psychologist, 41,* 418–425.

Fox Kids Club. (1999, October). *The all new Fox kids.* [Online]. Available: http://www.foxkids.com/fk2000/shows/index.html.

Friedrich, L. K., & Stein, A. H. (1973). Aggressive and prosocial television programs and the natural behavior of preschool children. *Monographs of the Society for Research in Child Development, 38*(4, Serial No. 151), 1–63.

Geen, R. G. (1981). Behavioral and physiological reactions to observed violence: Effects of prior exposure to aggressive stimuli. *Journal of Personality and Social Psychology, 40,* 868–875.

Geen, R. G., & Stonner, D. (1973). Context effects in observed violence. *Journal of Personality and Social Psychology, 25,* 145–150.

Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1980). The "mainstreaming" of America: Violence profile no. 11. *Journal of Communication, 30*(3), 10–29.

Gerbner, G., Gross, L., Signorielli, N., Morgan, M., & Jackson-Beeck, M. (1979). The demonstration of power: Violence profile no. 10. *Journal of Communication, 29*(3), 177–196.

Greenberg, B. S., Edison, N., Korzenny, F., Fernandez-Collado, C., & Atkin, C. K. (1980). Antisocial and prosocial behaviors on television. In B. S. Greenberg (Ed.), *Life on television: Content analyses of U.S. TV drama* (pp. 99–128). Norwood, NJ: Ablex.

Gunter, B. (1994). The question of media violence. In J. Bryant & D. Zillmann (Eds.), *Media effects* (pp. 163–211). Hillsdale, NJ: Erlbaum.

Hawkins, R. P. (1977). The dimensional structure of children's perceptions of television reality. *Communication Research, 7,* 193–226.

Hearold, S. (1986). A synthesis of 1043 effects of television on social behavior. *Public Communication and Behavior, 1,* 65–133.

Huesmann, L. R. (1986). Psychological processes promoting the relation between exposure to media violence and aggressive behavior by the viewer. *Journal of Social Issues, 42,* 125–140.

Huesmann, L. R., Eron, L. D., Lefkowitz, M. M., & Walder, L. O. (1984). The stability of aggression over time and generations. *Developmental Psychology, 20,* 1120–1134.

Jablonski, C., & Zillmann, D. (1995). Humor's role in the trivialization of violence. *Medienpsychologie: Zeitschrift fur Individual- & Massenkommunikation, 7,* 122–133.

Kaplan, J. (1995, October 28). Good news about TV for kids. *TV Guide,* 14–16.

Lacayo, R. (1995, June 12). Violent reaction. *Time,* 25–30.

Lando, H. A., & Donnerstein, E. I. (1978). The effects of a model's success or failure on subsequent aggressive behavior. *Journal of Research In Personality, 12,* 225–234.

Lazarus, R. S., Opton, E. M., Jr., Nomikos, M. S., & Rankin, N. O. (1965). The principal of short-circuiting of threat: Further evidence. *Journal of Personality, 33,* 622–635.

Lichter, S. R., & Amundson, D. (1994, August). *A day of TV violence 1992 vs. 1994.* Washington, DC: Center for Media and Public Affairs.

Liss, M. B., & Reinhardt, L. C. (1980). Aggression on prosocial television programs. *Psychological Reports, 46,* 1065–1066.

Liss, M. B., Reinhardt, L. C., & Fredriksen, S. (1983). TV heroes: The impact of rhetoric and deeds. *Journal of Applied Developmental Psychology, 4,* 175–187.

Lowry, B. (1997, October 18). Nickelodeon still leads the big battle for little viewers. *Los Angeles Times,* pp. F2, F21.

Morison, P., & Gardner, H. (1978). Dragons and dinosaurs: The child's capacity to differentiate fantasy from reality. *Child Development, 49,* 642–648.

Mullin, C. R., & Linz, D. (1995). Desensitization and resensitization to violence against women: Effects of exposure to sexually violent films on judgments of domestic violence victims. *Journal of Personality and Social Psychology, 69,* 449–459.

National Cable Television Association. (2000). *The cable industry at a glance.* [Online]. Available: http://www.ncta.com/glance.html

Nielsen Media Research. (1995, November). *TV usage by kids and teens. National audience demographics (Vol. 1).* Nielsen Media Research.

Nielsen Media Research. (1999, August 20–October 24). [Top 20 programs among 2- to 11-year-olds]. Unpublished raw data.

Ogles, R. M., & Hoffner, C. (1987). Film violence and perceptions of crime: The cultivation effect. In M. L. McLaughlin (Ed.), *Communication yearbook 10* (pp. 384–394). Newbury Park, CA: Sage.

Paik, H., & Comstock, G. (1994). The effects of television violence on antisocial behavior: A meta-analysis. *Communication Research, 21,* 516–546.

Pearl, D., Bouthilet, L., Lazar, J. (Eds). (1982). *Television and behavior: Ten years of scientific progress and implications for the eighties.* Washington DC: U.S. Government Printing Office.

Potter, W. J., & Levine-Donnerstein, D. (1999). Rethinking validity and reliability in content analysis. *Journal of Applied Communication Research, 27,* 258–284.

Potter, W. J., Vaughan, M., Warren, R., Howley, K., Land, A., & Hagemeyer, J. (1995). How real is the portrayal of aggression in television entertainment programming? *Journal of Broadcasting & Electronic Media, 41,* 496–516.

Potter, W. J., & Ware, W. (1987). An analysis of the contexts of antisocial acts on prime-time television. *Communication Research, 14,* 664–686.

Poulos, R. W., Harvey, S. E., & Liebert, R. M. (1976). Saturday morning television: A profile of the 1974–75 children's season. *Psychological Reports, 1976,* 1047–1057.

Rosengren, K. S., Kalish, C. W., Hickling, A. K., & Gelman, S. A. (1994). Exploring the relation between preschool children's magical beliefs and causal thinking. *British Journal of Developmental Psychology, 12,* 69–82.

Signorielli, N. (1990). Television's mean and dangerous world: A continuation of the cultural indicators perspective. In N. Signorielli & M. Morgan (Eds.), *Cultivation analysis: New directions in media effects research* (pp. 85–106). Newbury Park: Sage.

Smith, S. L., Wilson, B. J., Kunkel, D., Linz, D., Potter, W. J., Colvin, C. M., & Donnerstein, E. (1998). Violence in television programming overall: University of California, Santa Barbara study. *National Television Violence Study Vol. 3* (pp. 5–220). Thousand Oaks, CA: Sage.

Steuer, F. B., Applefield, J. M., & Smith R. (1971). Televised aggression and the interpersonal aggression of preschool children. *Journal of Experimental Child Psychology, 11,* 442–447.

Taylor, B. J., & Howell, R. J. (1973). The ability of three-, four-, and five-year-old children to distinguish fantasy from reality. *Journal of Genetic Psychology, 122,* 315–318.

Turow, J. (1996). *Breaking up America: Advertisers and the new media world.* Chicago: University of Chicago Press.

Williams, T. M., Zabrack, M. L., & Joy, L. A. (1982). The portrayal of aggression on North American television. *Journal of Applied Social Psychology, 12,* 360–380.

Wilson, B., Kunkel, D., Linz, D., Potter, J., Donnerstein, E., Smith, S., Blumenthal, E., & Berry, M. (1998). Violence in television programming overall: University of California, Santa Barbara study. *National television violence study, Vol. 2* (pp. 5–204). Thousand Oaks, CA: Sage.

Wilson, B., Kunkel, D., Linz, D., Potter, J., Donnerstein, E., Smith, S., Blumenthal, E., & Gray, T. (1997). Television violence and its context: University of California, Santa Barbara study. *National television violence study, Vol. 1* (pp. 5–268). Thousand Oaks, CA: Sage.

Wood, W., Wong, F. Y., & Chachere, J. G. (1991). Effects of media violence on viewers' aggression in unconstrained social interaction. *Psychological Bulletin, 109,* 371–383.

Wotring, C. E., & Greenberg, B. S. (1973). Experiments in televised violence and verbal aggression: Two exploratory studies. *Journal of Communication, 23*(4), 446-460.

Wright, J. C., Huston, A. C., Reitz, A. L., & Piemyat, S. (1994). Young children's perceptions of television reality: Determinants and developmental differences. *Developmental Psychology, 30,* 229–239.