TELEVISION VIOLENCE:

A REVIEW

OF THE

EFFECTS

ON

CHILDREN

OF

DIFFERENT AGES

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EXECUTIVE SUMMARY

THE VIEWING PATTERNS CHILDREN ESTABLISH AS TODDLERS WILL INFLUENCE THEIR VIEWING HABITS THROUGHOUT THEIR LIVES.

At different ages, children watch and understand television in different ways, depending on the length of their attention span, the way in which they process information, the amount of mental effort they invest, and their own life experiences. These variables must all be examined to gain an understanding of how television violence affects children at different ages.

Infants (children up to 18 months old) can pay attention to an operating television set for short periods of time, but such attention demands a great effort, and infants are usually more interested in their own daily activities. Even when they do direct their attention to the television, infants are likely missing most of what adults consider to be program content, experiencing it primarily as fragmented displays of light and sound, which they are intermittently able to group into meaningful combinations such as recognizable human or animal characters.

No research has focused specifically on how violent content affects infants, but there is some evidence that infants can imitate behaviour from television when that behaviour is presented in a simple, uncluttered and instructional manner.

Children do not become full-fledged "viewers" until around the age of two-and-a-half. As toddlers, they begin to pay more attention to the television set when it is on, and they develop a limited ability to extract meaning from television content. They are likely to imitate what they see and hear on television.

The viewing patterns children establish as toddlers will influence their viewing habits throughout their lives. Since toddlers have a strong preference for cartoons and other programs that have characters who move fast, there is considerable likelihood that they will be exposed to large amounts of violence.

At the preschool age (three to five years old), children begin watching television with an "exploration" approach. They actively search for meaning in the content, but are still especially attracted to vivid production features, such as rapid character movement, rapid changes of scene, and intense or unexpected sights and sounds.

Because television violence is accompanied by vivid production features, preschoolers are predisposed to seek out and pay attention to violence - particularly cartoon violence. It is not the violence itself that makes the cartoons attractive to preschoolers, but the accompanying vivid production features. With this preference for cartoons, preschoolers are being exposed to a large number of violent acts in their viewing day. Moreover, they are unlikely to be able to put the violence in context, since they are likely to miss any subtlety conveyed mitigating information concerning motivation and consequences. Preschoolers behave more aggressively than usual in their play after watching any high-action exciting television content, but especially after watching violent television.

Elementary school age (ages six to eleven) is considered a critical period for understanding the effects of television on aggression. At this stage, children develop the attention span and cognitive ability to follow continuous plots, to make inferences about implicit content, and to recognize motivations and consequences to characters' actions. However, they are also investing increasingly less mental effort overall in their viewing, and it is mental effort that determines whether children will process television information deeply or merely react to it in an unfocused, superficial way.

By age eight, children are more likely to be sensitive to important moderating influences of television content, and will not become more aggressive themselves if the violence they see is portrayed as evil, as causing human suffering, or as resulting in punishment or disapproval. However, they are especially likely to show increased aggression from watching violent television if they believe the violence reflects real life, if they identify with a violent hero (as boys often do), or if they engage in aggressive fantasies.

At ages 6 to 11, elementary school children still watch cartoons but also begin watching more adult- or family-oriented programming than they did when they were younger. They also develop a surprising taste for horror movies, perhaps deliberately scaring themselves in an attempt to overcome their own fears. However, to the extent that they are desensitizing themselves to fear and violence, they are also very likely becoming more tolerant of violence in the real world.

During adolescence (age 12 to 17), the middle school to high school years, children become capable of high levels of abstract thought and reasoning, although they rarely use these abilities when watching television, continuing to invest little mental effort. They watch less television than they did when they were younger, and watch less with their families. Their interests at this age tend to revolve around independence, sex and romance, and they develop a preference for music videos, horror movies, and (boys particularly) pornographic videos, which deal with these topics, although usually in negative ways.

Adolescents in middle school and high school are much more likely than younger children to doubt the reality of television content and much less likely to identify with television characters. The small percentage of those who continue to believe in the reality of television and to identify with its violent heroes are the ones likely to be more aggressive, especially if they continue to fantasize about aggressive-heroic themes.

Their superior abstract reasoning abilities and their tendency at this age to challenge conventional authority make adolescents particularly susceptible to imitating some kinds of television violence, crime and portrayals of suicide. However, these imitative acts affect only a small percentage of adolescents.

In a world in which violent television is pervasive and children are susceptible to its effects, parents are the best mediators of their children's viewing.

There are a number of ways parents can limit their children's exposure to violence. Restricting the amount and types of programs children watch is probably the most effective and common means of mediation for children of all ages. However, there are also strategies that are specifically appropriate for children at different ages.

Under normal conditions, parents probably do not need to worry too much about their infants being negatively influenced by television, although they might want to limit their exposure to violence or other portrayals it might be dangerous for an infant to imitate.

Limiting exposure to this kind of TV content is especially wise with toddlers, who are even more prone to imitating what they see on television. Another highly influential action parents can take for toddlers is to examine and regulate their own viewing behaviour, since toddlers are highly influenced by their parents' viewing habits.

Parental mediation to reduce a preschooler's aggression (as well as fears from what they see on television) can include viewing with the child, commenting on content, providing distraction or comfort if the child is frightened, and encouraging or discouraging behaviour they see preschoolers imitating from television.

While restricting viewing is an effective form of parental mediation for younger elementary school aged children, for older children it is more useful for parents to discuss, explain, and challenge television. By doing so, parents can help their children to interpret television material and overcome the effect televised violence has on their attitudes and behaviour. Another positive effect of these strategies is that children invest more mental effort in their watching, becoming more critical and analytical viewers.

Encouraging adolescents to express their opinions and to analyze and question television content is a parental strategy that has been found to reduce adolescents' fears and aggressiveness, as well as to improve their critical approach to the medium.

There is an unfortunate lack of non-violent educational and entertaining programming specifically geared to children. It would not be a difficult challenge to come up with non-violent programming, since it is not the violence itself that attracts viewers. The television industry would do well to create programming specifically aimed at child audiences, taking into account the various approaches to watching television and the interests of each age group.

Although toddlers do not understand a great deal of program content, creating educational programming using such features as animation, children's or women's voices on the sound track, and simplified movements and camera work will likely win them as loyal viewers. A habit of watching educational programs (as opposed to cartoons) will reduce their exposure to violent content and make it more likely that they will watch and benefit from educational television later on, as preschoolers.

For preschoolers, effective programming would include the use of vivid production features and "child-directed speech" (simple sentences spoken slowly, referring to objects that are actually being shown on the screen, and with repetition). These features will improve their attention and understanding and can be used to highlight important features of program content, such as critical plot events.

The elementary school-aged audience has been called the "almost forgotten group" when it comes to targeted programming. Such programming could easily avoid violence, since children at this age are still more attracted to variability and tempo than to violence. Although boys, particularly, seek out male heroes who tend to be violent, it is actually the hero's power (not the violence) that is the attraction. Strong, yet positive, counterstereotypical television characters could be created to fit the bill, since these have proven to equally attract their interest, as effectively as violent heroes.

Programming for adolescents should avoid promoting rape myths and portraying violent behaviour that promises fun, "kicks," or instant notoriety. It might lessen the number of horror and pornographic videos that adolescents watch if television programming were provided that addresses their particular needs and interests.

It is certainly true that television violence does not account for all the causes of children's aggression, and it is also true that some children are a great deal more likely to be affected by television violence than others, and that it is these children who are likely to be potentially more aggressive anyway. But the effect of television violence leads these "at-risk" children to be even more aggressive than they would otherwise be. And although the group especially at risk might be a minority of viewers, they are likely to be the majority of aggressors. This fact makes them, and the violent content of television, worthy of our attention.

INTRODUCTION

CHILDREN WHO ARE EXPOSED TO TELEVISION VIOLENCE MAY BECOME DESENSITIZED TO REAL-LIFE VIOLENCE, MAY COME TO SEE THE WORLD AS A MEAN AND SCARY PLACE, OR MAY COME TO EXPECT OTHERS TO RESORT TO PHYSICAL VIOLENCE TO RESOLVE CONFLICTS.

Psychological research has found that televised violence has numerous effects on the behaviour of children of different ages. These include the imitation of violence and crime seen on television (copycat violence),[1] reduced inhibitions against behaving aggressively,[2] the "triggering" of impulsive acts of aggression (priming),[3] and the displacing of activities, such as socializing with other children and interacting with adults, that would teach children non-violent ways to solve conflicts.[4] Television violence has also been found to have emotional effects on children. Children may become desensitized to real-life violence[5] they may come to see the world as a mean and scary place,[6] or they may come to expect others to resort to physical violence to resolve conflicts.[7] Although some early research[8] suggested that televised violence might allow viewers to vent destructive impulses through fantasy instead of acting them out against real-life targets, later findings have not supported this so-called "catharsis" hypothesis.

Most social concern, and therefore most research, has focused on children, although virtually all of the effects mentioned above have also been found in older adolescents and adults. None of the effects is believed to be specific to a certain age. That said, an analysis of almost 300 studies in 1986[9] found that preschoolers tend to demonstrate more physical aggression and other anti-social behaviour as a result of watching violence on TV than do older children up to about 9 or 10 years old. During adolescence, the effect of violent television (especially on physical aggression) increases for boys and decreases quite dramatically for girls.

An examination of how television violence affects children who are of different ages must also look at other differences among these children. Children differ in the content they watch, the context in which they watch it, the way in which they watch it, and the meaning they find in it. They also differ in their experiences of the world and of television as a medium. It is in looking at all these differences that we can gain a true understanding of the effects of television violence upon young viewers.

Endnotes

[1] for example, Bandura, 1965.

[2] for example, Bandura, 1973.

[3] for example, Josephson, 1987.

[4] for example, Joy, Kimball and Zabrack, 1986.

[5] for example, Thomas, Horton and Lippincott, 1977.

[6] for example, Singer, Singer and Rapaczynski, 1984

[7] for example, Leifer and Roberts, 1972.

[8] Feshback and Singer, 1971.

[9] Hearold, 1986.

INFANTS
(children up to 18 months)

INFANTS OFTEN DO HAVE SOMETHING MORE INTERESTING TO DO THAN WATCH TELEVISION. MORE COMPELLING ACTIVITIES INCLUDE FEEDING, CLIMBING FURNITURE, AND HAVING THEIR DIAPERS CHANGED.

Extent of Attention Span for Watching Television

By the time infants are three months old, they can pay attention to an operating television set for short periods of time, if an adult physically directs them toward the television set. But paying attention seems to demand a great effort. Almost all of the infants in one study who looked at a television for at least half of a six-minute cartoon presentation later showed signs of tiredness, such as crying, fussiness, and yawning.[1]

By six-months old, infants can direct their own attention to the TV and maintain that attention for as long as 16 minutes, if they are placed in a play pen near the set with nothing interesting to do.[2] But infants often do have something more interesting to do than watch TV. More compelling activities include feeding, climbing furniture, and having their diapers changed.[3] American studies have shown that although infants are exposed to television for about two hours a day,[4] they pay attention to the set [6] for less than 10 percent of that time[5] and orient their bodies toward the screen very infrequently.[6]

Infants in Japan appear to be more attentive TV viewers than infants in the United States. (Comparable studies have not been done in Canada.) Exposure of American infants seems to be largely "incidental," occurring only because the infant is in the same room as other family members who are watching the TV. In contrast, according to a survey in Japan, mothers there make an effort to ensure that their infants watch educational television during its scheduled broadcast times. It has been found that Japanese infants, like American infants, are exposed to television programming for about two hours a day.[7] But these infants are reported by their mothers to be regular viewers of With Mother, a popular broadcasting program for preschoolers. Almost 80 percent of the mothers surveyed reported evidence of involved viewing, such as imitating hand clapping. Such loyal and involved TV viewing is in sharp contrast to the low levels of attention reported by some U.S. researchers,[8] but quite consistent with observations of parents who deliberately watch *Sesame Street* and other children's programming with their infants.[9] Unlike infants merely exposed to other family members' choices, these children showed signs of program knowledge and involvement, such as pointing at familiar characters on the screen, as early as 10 months of age.

What benefit are infants getting from television? A study in Japan that tracked children's eye movements found that one-year-olds pay visual attention to parts of a program segment that feature music and frequent changes of scene or character, but not to the parts of the segment that portray plot events.[10] Three- year-olds, in contrast, actively search the screen for information during program segments that contain plot information. This comparison suggests that when one-year-olds "watch" television they likely miss most of what adults consider to be the program content, experiencing it primarily as fragmented

displays of light and sound. With effort, they may occasionally group simple combinations of these displays into a meaningful image, such as a speaking or moving character.

When Japanese mothers report that their infants copy such actions as hand clapping and calisthenics from television programs, it suggests that children will imitate television characters almost as soon as they are able to distinguish these characters from the surrounding background. Of course, it is also possible that many of these infants were responding to or imitating their parents' or siblings' actions, since the reports are based on observations of infants watching television in naturalistic settings with other family members.

Another study provides further reason to take seriously parents' reports of infant learning from television.[11] Slightly older infants of 14 months were found to pay attention to and imitate a televised demonstration of an adult using a toy in a novel way that was a relatively complex sequence of actions. (No parental direction was possible in the study.) It is worth mentioning that the demonstration was done with black and white film, with no background music and with a live actor - a format not usually attractive to children. It did have the advantage of being extremely simple in its presentation, with no other movement on the screen, and it was shown to children in a laboratory setting where there was little else the infants could do. Remarkably, these 14-month-olds imitated the behaviour they had seen on the screen even if they had to delay their imitation (because the toy was not available) until a day later. It appears that infants can imitate behaviour from television when the behaviour is presented in a simple, uncluttered, and instructional manner.

Potential Effects of Television Violence

No research has focused on the specific effects of television violence on infants. Since infants show so little interest in what adults consider to be content, it might be argued that violence is largely irrelevant to them. It has been shown that infants can imitate televised behaviour, but only with material that is simple, uncluttered, and presented in an instructional manner. Violence on television does not have these characteristics. On the other hand, infants have been found to copy highly visual activities such as hand-clapping and calisthenics, and television violence does include features like these that seem to attract the attention and interest of the otherwise undiscriminating one-year-old viewer (i.e., high levels of activity, changes of position, scene or character, and noise). [12]

SINCE INFANTS CAN IMITATE SIMPLE BEHAVIOURS FROM TELEVISION, PARENTS MIGHT WANT TO LIMIT THEIR EXPOSURE TO TELEVISION VIOLENCE OR OTHER PORTRAYALS OF ACTIONS THAT WOULD BE DANGEROUS FOR AN INFANT TO IMITATE.

Suggestions for Parents

Since there is some possibility that infants will imitate what they see on television, parents might want to limit their infants' exposure to television violence or other portrayals of actions that would be dangerous for an infant to imitate. However, under normal conditions of exposing infants to television, parents probably do not need to worry much about their infants being negatively influenced. In fact, older infants may enjoy educational programming that is designed for preschoolers, and watching children's television may he a way for parents and children to have fun together and to share language, much like reading a picture book together.13 it has been found that parents who actively watched children's educational television with their infants and toddlers were frequently directing their child's attention to characters, actions, objects, and other features on the screen.[14] They may well have been teaching these young

viewers their very earliest lessons in how to watch television.[15]

Endnotes

[1]Mizukami and Ishibashi, 1990.
[2]Hollenbech and Slaby, 1979.
[3]Lemish, 1984.
[4]Anderson, Lorch, Field, Collins and Nathan, 1986; Hollenbech, 1978.
[5]Anderson et al., 1986.
[6]Anderson and Levin, 1976.
[7]Kodaira, 1990, 1992.
[8]Anderson et al., 1986; Anderson and Lorch, 1983.
[9]Lemish, 1984.
[10]Takahashi, 1991. The program segment was specifically developed for children aged two and under, i.e., shorter and simpler than programs developed for preschoolers.
[11]Meltzoff, 1988.
[12]Takahashi, 1991.
[13]Lemish and Rice, 1986.
[14]Lemish and Rice, 1986.
[15]Wartella, 1986.

TODDLERS
(children 18 months to 3 years old)

TODDLERS WILL IMITATE WHAT THEY BOTH SEE AND HEAR ON TELEVISION, AS EVIDENCED BY THE CHILDREN UNDERAGE TWO WHO COULD RECITE COMPLETE PHRASES FROM SOFT DRINK ADVERTISEMENTS.

Approach to Watching Television

At about the age of two and a half, children dramatically change their approach to television. Although they spend about the same amount of time near an operating set as younger children,[1] they pay attention three or four times as much, to the point where they are paying attention for almost half the time the set is on. At this age children also begin physically orienting themselves toward the set when it is on, even when they are playing or doing other activities. The change appears to be part of a more general development in children's ability to represent objects and actions internally as thoughts, words and memories. It is this developing ability that allows children to extract meaning from television content at this age.[2]

With this development, children rather abruptly become established television viewers. By the time they are three years old, most children have a favourite program.[3] They watch an average of two hours of television a day and show significant loyalty to particular types of programs, such as children's educational programs, action-adventure shows, situation comedies and game shows.[4] Like older viewers, their program choices are based on program scheduling,[5] but they also have strong preferences for cartoons and other programs that have characters who move fast.[6] They are particularly likely to watch children's educational programs.[7]

Potential Effects of Television Violence

Despite the lack of research on the specific effects of television violence on toddlers, we do know that they are capable of learning verbal and non-verbal behaviours from television. Toddlers will imitate both what they see on television and what they hear, as evidenced by the children under age two who could recite complete phrases from soft drink advertisements.[9]

At this age, children may establish television viewing patterns that will expose them to high levels of violent content throughout the rest of their childhood. It has been found that viewing patterns (both amount of watching and program type) established at the toddler stage persist into the preschooler age,[10] as viewing patterns established at the preschooler stage persist into and through elementary school age years.[11]

Suggestions for Parents

Children are highly influenced by their parents' viewing habits as they establish their own viewing patterns.[12] One highly influential action parents can take, then, is to examine and regulate their own viewing behaviour. Because toddlers imitate what they see and hear on TV, it might also be wise for parents to prevent their children from being exposed to content that portrays actions (violent or otherwise) that might lead toddlers to harm themselves or others.

Suggestions for the Television Industry

University and industry researchers in Japan have conducted research to find out ways of improving toddlers' attention to and understanding of educational programming at the time they are becoming full-fledged television viewers (at around age two and a half).[13] The results suggest that it is relatively easy to produce content that attracts two-year-olds, but difficult to present such content in a way that two-year-olds understand.

Features that attracted the attention of two-year-olds included using animation, using children and large animals as characters, having children's voices on the sound track, and using a great deal of "active stationary movement" (activity done while remaining in the some part of the screen, such as waving the arms or jumping on the spot, without the use of panning or zooming in the camera work).

Techniques that appeared to improve two-year-olds' understanding of television content were simplifying the backgrounds, including more repetition, and making the main characters larger than the secondary characters. However, only 20 percent of two-year-olds demonstrated any comprehension of the material they were shown, and they were usually "older" two-year-olds (i.e., two years and seven months to just under three years old).

Since so few toddlers seem to understand what is being broadcast, even in simplified form, there would seem to be little direct educational gain from developing new programing especially for them. However, the availability of educational programming using the suggested features and techniques will likely win them as loyal viewers.[14] Thus they will be more likely to watch these programs later, when the educational content becomes meaningful to them. A pattern of viewing educational television, as opposed to commercial cartoons, would reduce their exposure to violent content as well.

Endnotes

[1]Anderson et al., 1986; Kodaira, 1990, 1992.

[2]Anderson and Lorch, 1983; Kodaira, 1990; Takahashi, 1991.

[3]Lyle and Hoffman, 1972.

[4]Singer and Singer, 1981; Kodaira, 1992; Lemish and Rice, 1986.

[5]Singer and Singer, 1981 ; Huston, Wright et al., 1990.

[6]Huston and Wright, 1983.

[7]Huston, Wright et al., 1990; Kodaira, 1992; Lemish, 1984; Winick and Winick, 1979.

[8]Kodaira, 1992; Lemish, 1984; McCall et al., 1977; Meltzoff, 1988.

[9]Lemish and Rice, 1986.

[10]Singer and Singer, 1981.

[11]Huston, Wright et al., 1990; Tangney and Feshbach, 1988; Williams and Boyes, 1986.

[12]Huston, Wright et al., 1990; St. Peters et al., 1991.

[13]Kodaira 1990; Akiyama and Kodaira, 1987.

[14]Kodaira 1990; Lemish and Rice, 1986.

EARLY CHILDHOOD OR PRESCHOOL AGE
(children ages 3 to 5)

PRESCHOOLERS FOCUS ON THE MOST PHYSICALLY OBVIOUS FEATURES OF TELEVISION PROGRAMS, PARTICULARLY WHEN THE CONTENT IS OUTSIDE THEIR OWN EXPERIENCE. IN ONE VISUALLY VIVID BUT INCIDENTAL SCENE FROM AN EDUCATIONAL PROGRAM ABOUT THE USES AND CONSTRUCTION OF CANALS, CANAL BOAT OPERATORS COVERED THEIR HEADS TO AVOID HAVING SPIDERS LAND ON THEM AS THEY WENT THROUGH A TUNNEL. PRESCHOOL VIEWERS WERE MOST LIKELY TO DESCRIBE THIS SHOW AS BEING ABOUT SPIDERS JUMPING DOWN ON PEOPLE AS THEY WENT THROUGH TUNNELS.

A great deal of the research on the effects of television violence has been directed at preschoolers. Relatively strong effects of televised violence for both girls and boys in this age group have been reported,[1] especially when the violence is in cartoon format. There are a number of reasons that preschoolers may be an especially vulnerable audience.

Approach to Processing Information and Television

Preschoolers demonstrate a strong tendency to focus on the most physically obvious features of their environment. They are also highly centred in their attention, focusing on a single feature of their environment at a time, often not noticing other aspects of a given situation. By the beginning of preschool age, children are able to use symbolic processes like thought and mental imagery, which allow them to begin developing organized expectations about what things are like, what features and events regularly go together and are in the same category, and what events are likely to follow each other in sequence. (These are called "schemas.") As they develop, children gradually become more capable of telling the difference between aspects of pictures, images and events that are important and those that are merely vivid. By using event schemas (sometimes also called "scripts"), preschoolers; also become increasingly able to recognize that a series of events is all part of a single process, rather than an unconnected array of separate characters and events.[2] Since their ability to form schemas depends upon their accumulated experience, as well as on their cognitive development, preschoolers remain quite dependent on physically obvious features while their own personal guiding schemas are developing.

This style of processing information leads preschoolers to watch television with an "exploration" approach.[3] Although they actively search for meaning in the television content,[4] they are still especially attracted to vivid production features (the "formal features" of television programs), such as rapid character movement, rapid changes of scene and character, varied settings, intense or unexpected sights and sounds, loud music, and peculiar or nonhuman voices. These formal features of production are, in fact, an expanded list of the features that attract the attention of toddlers and even infants.

Preschoolers are not responding mindlessly to these physical features. Just as they are beginning to develop scripts and other schemas that help them organize and make sense of their experience with real life, it seems that preschoolers are also developing schemas related to the formal features of television, and can use

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CARTOONS, IN PARTICULAR, MAY BE A SOURCE OF NEGATIVE STEROTYPES ABOUT MINORITY GROUP MEMBERS OR PEOPLE FROM OUTSIDE NORTH AMERICA, SINCE CHARACTERS TAKING THE ROLE OF THE "ENEMY" ARE FREQUENTLY PORTRAYED AS HAVING FOREIGN ACCENTS AND NON-CAUCASIAN FEATURES.

them to explore the medium. They appear to use these features as signals that something interesting is going to happen. It has been found that they may not notice or remember important or central aspects of the television content unless these aspects are signalled by the most obvious formal features of the production.[5] This is especially true when the material presented is outside the child's experience, and the child therefore has no way to understand the portrayed events.

An example of preschoolers focusing on formal features in a program presenting content outside their previous experience involves an educational program about the uses and construction of canals.[6] In one visually vivid but incidental scene from this program, canal boat operators covered their heads to avoid having spiders land on them as they went through a tunnel. Preschool viewers were most likely to describe this show as being about spiders jumping down on people as they went through tunnels. They did not mention the intended educational content of the program.

Another example involves a three-year-old watching a children's educational program about preparing to go on a dog sled race in the Arctic.[7] Having no experience against which to compare dog sledding, the child came up with a synopsis apparently based on a feature of the program with which he did have some experience: "They have sunglasses. I have sunglasses. Mommy bought me sunglasses."

Vivid production features are especially important as attention-getters for preschoolers, because at this age they are still watching an operating screen in the same room only about half the time the set is on.[8] During the time they are not watching, they appear to keep listening,[9] and will frequently turn their visual attention back to the screen in response to an obvious feature such as loud music or sound effects.[10] They are probably keeping an ear tuned more for signals that they should look at the screen to see what is going on, rather than as a way to keep up with plot events in the program by listening to the sound track. (Note that preschool-age children understand visual material on television more easily than auditory material,[11] although they can learn from auditory material if it uses dialogue that matches the preschooler's own vocabulary.[12])

By the time children are at the preschool age, they have developed considerable sophistication in their understanding of formal features of programming, but they still miss the meaning of more subtle features. For example, they readily recognize the format of animation (cartoons) as a signal that the content is meant for them.[13] They expect to understand it, and they will attend to even quite difficult material if it is presented to them in this format.[14] By age four, most children also understand that camera "zooms" in and out depict approaching and moving away from an object. Some, but not all, four-year-olds understand that moving away from or toward an object can also be signaled by showing an edited sequence of camera shots taken at different angles.[15]

Preschoolers, even older ones, rarely understand instant replays[16] or dissolves and cuts to flashback that signal the passage of time,[17] time leaps,[18] or dreams.[19] They also do not understand less obvious formal features used to mark changes between parts of a program or to mark a change from program content to advertising content. They may therefore incorporate an advertisement into their recounting of program plots, or may misunderstand the plot in other ways, especially if the program is longer than eight minutes.[20] However, with experience, even quite young children can catch on to the meaning of more subtle formal features. One researcher found that children who watched a lot of television were among the first in their age group to acquire an understanding of zooms and edits.[21]

Children who regularly watch a particular program can pick up on the formal features used specifically in that show. For example, three-year-olds who were regular viewers of a magazine-style children's program called *Playschool* consistently returned their visual attention to the screen at the program's segment switchpoints - a very subtle formal feature, indeed.[22] Most preschoolers will also respond quite consistently to the subtle formal feature of a child's or woman's voice on the sound track a feature that signals material that is likely to be interesting and comprehensible to them.[23]

The motivations of television characters or their emotional reactions to plot events are usually accompanied by quite difficult and subtle formal features.[24] This may be why preschoolers rarely seem to attend to or remember information about television characters' emotions, particularly if those characters are in animated or puppet form.[25] Nevertheless, they can quite readily divide characters into "good" and "bad" characters based on their appearance.[26] Children are likely to classify as "bad" and "scary" a vividly ugly character, or one who

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A PRESCHOOLER SURPRISED HER FAMILY BY SUDDENLY EXPRESSING FEAR AND HOSTILITY TOWARD "BLACK PEOPLE" AFTER SEEING ROOTS ON TELEVISION WITH HER FAMILY. SHE DESCRIBED THE SCENE THAT HAD FRIGHTENED HER WHERE A BLACK SLAVE WAS REPEATEDLY WHIPPED. SHE CONCLUDED THAT THE CHARACTER MUST BE A VERY BAD PERSON TO BE SO SEVERELY PUNISHED, AND THEREFORE MUST BE VERY SCARY. SHE JUDGED HIM ENTIRELY BY THE IMMEDIATE AND MOST OBVIOUS PHYSICAL FEATURES IN THAT SCENE, WHICH MADE HIS DARK SKIN AND PAIN-CONTORTED FACE APPEAR BOTH EVIL AND SCARY.

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has startling physical features such as a segmented body or green skin, even if that character is portrayed as behaving kindly or as having good intentions.[27] Cartoons, in particular, may be a source of negative stereotypes about minority group members or people from outside North America,[28] since characters taking the role of the "enemy" are frequently portrayed as having foreign accents and non-Caucasian features.[29]

Attraction to Television Violence

Preschoolers are predisposed to seek out and pay attention to televised violence because such violence is accompanied by formal features such as loud music, rapid movement, rapid scene changes, and sound effects that attract the attention of preschoolers.[30] The violent content itself is conveyed visually, making it especially likely that preschoolers will learn it easily. Furthermore, preschoolers; are unlikely to pick up on more subtly conveyed mitigating information such as negative motivations, punishing consequences that occur at another point in time, or the suffering of victims, making it unlikely that they will be able to put the violence in context.[31]

The Committee on Social Issues Group for the Advancement of Psychiatry has described a case example of a preschooler who surprised her family by suddenly expressing fear and hostility toward "black people" after seeing *Roots* on television with her family.[32] She described the scene that had frightened her as one in which a black slave is repeatedly whipped. She concluded from this scene that the character being whipped must be a very bad person, to be so severely punished, and therefore must be very scary.

Although there is no reason to believe that this particular reaction was typical of preschoolers who viewed Roots, it is certainly consistent with the way preschoolers watch television. This scene was highly visual, marked by the loud and repeated sounds of the lash and rapid camera cuts between the victim and the violent aggressor. The action and background were otherwise relatively simple, and the scene focused on only two characters. These features would likely attract the preschooler's attention and keep it. Other events in the plot, of course, revealed to adult and older child viewers that this whipping was undeserved, excessively cruel, and carried out by a character whose motivations and past behaviours were immoral, against a character whose motivations and past behaviour were admirable.

The preschooler likely missed all of this, since the information was presented in earlier scenes that she likely did not realize were connected to the whipping scene, and since the information was largely conveyed in adult dialogue, which she wouldn't understand. She may not even have recognized that the people in those earlier scenes were the same people who were in the whipping scene, since in the earlier scenes the characters had different clothes on and different expressions on their faces, were in different settings, and behaved differently. She therefore would not have understood this scene in the same way that adults and older children would, as one eliciting great empathy for the victim of the beating. She would have judged him entirely by the immediate and most obvious physical information in that scene, making his dark skin and pain-contorted face appear both evil and scary. Her lack of recognition of and empathy with his pain are also quite consistent with a preschooler's lack of response to emotional reactions of television characters. This scary character would seem especially threatening to her in light of her view of television as a "window on the world" (i.e., as giving an accurate, unaltered representation of the world). The fact that the series was performed by actors, portraying events that happened in the distant past, would have no meaning for her.

Preference for Cartoons

Preschoolers overwhelmingly prefer and pay close attention to cartoons,[33] - a format that is particularly violent. Saturday-morning cartoons, for example, have 20 to 25 violent acts per hour compared with five violent

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IT IS NOT THE VIOLENCE ITSELF THAT MAKES CARTOONS ATTRACTIVE TO PRESCHOOLERS, BUT THE VIVID PRODUCTION FEATURES OF CARTOONS, SUCH AS RAPID CHARACTER MOVEMENT, SOUND EFFECTS AND LOUD MUSIC.

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acts per hour in prime time programming.34 With their preference for cartoons, preschoolers are therefore being exposed to large numbers of violent acts in their viewing day. Based on their viewing patterns, it has been estimated that, by the time they start school, children will have seen an average of 8,000 murders and 100,000 assorted other acts of violence and destruction on television.[35]

Analysis of children's viewing preferences and attention to television has revealed that it is not the violence itself that makes cartoons attractive to preschoolers,[36] but the formal features of cartoons, such as rapid

character movement, sound effects, and loud music. Children are just as attracted to nonviolent cartoons[37] and to live action shows that have these formal features. (For example, this is the age group with the highest preference for children's educational television.[38])

Although it may be reassuring to know that preschoolers are drawn to the action of violent television rather than to the violent content itself, watching high levels of TV action may also make children more aggressive. Preschool-age children have been found to behave more aggressively than usual in their play after watching high-action television with no violence in it at all.[39] It has been found that high excitement level alone is sufficient to increase their aggression, and that vivid formal features produce such levels of excitement. It has also been demonstrated that violent content produces substantial effects over and above those brought about by excitement alone.[40]

Extent of Ability to Distinguish Reality from Fantasy

Because the programs preschool children watch are mostly cartoons, it might be argued that the violence they see is relatively harmless because they know it is just fantasy. Knowing that television content is fantasy does make a difference in the behaviour and emotions of older children and adults.[41] In studies that specifically compared the effects of live-action violence with those of cartoon violence, the live-action violence was found to have a substantially larger effect on aggressive behaviour than the cartoon violence.[42] These comparison studies have not been carried out with preschool-age children. Studies that used only cartoons for measuring the effects of violent television did include preschoolers, and they showed increases in aggression. An Australian study found the combination of violent cartoons and toys related to the cartoon violence to be particularly

A KINDERGARDEN STUDENT IS QUOTED AS SAYING, "I KNOW BIG BIRD ISN'T REAL. THAT'S JUST A COSTUME. THERE'S JUST A PLAIN BIRD INSIDE."[49]

potent: both boys and girls were more likely to be physically and verbally aggressive with another preschooler if they had just watched a violent cartoon together; this was especially true if they also had toys related to cartoons in their play area.[43]

When asked, preschoolers can usually identify cartoons as "not real" or as "pretend."[44] They also tend to call programs about ghosts, monsters, vampires, witches, and genies "not real."[45] However, preschoolers cannot usually explain what they mean by "real",[46] and more open-ended questioning usually reveals that they treat even cartoons as part of television's "magic window," which reveals an accurate, unaltered representation of the world.[47]

Preschoolers probably do not mean the same thing as adults do when they call things "real" or "pretend." Kindergarden boys who were asked to describe what happens after the *Superman* program is over responded that in his "real" life, the character goes home and takes off his cape, or turns into "Dick Clark" (presumably "Clark Kent" was meant).[48] Another kindergarden student is quoted as saying, "I know Big Bird isn't real. That's just a costume. There's just a plain bird inside."[49] Kindergarden children also didn't understand the difference between puppet, animated, and human characters in programs they typically watched.[50] In fact, the reality versus fantasy distinction may be quite irrelevant to preschoolers in their judgement of television content.[51]

Nor does the fact that cartoons are a fantasy stop preschoolers from identifying with cartoon characters. It has been found that the more unrealistic a character is, the more preschoolers both want to be like that character and think they are like that character.[52] An analysis of children's heroes from 1900 to 1980 and a survey of adults who grew up before and after television[53] confirmed that preschoolers today (but not children in middle childhood) are more likely to choose fantasy heroes over real-life heroes in their play, more likely to engage in more heroic adventure play, and more likely to learn about heroes and play themes from television rather than from friends, siblings or parents.

Television Content that Preschoolers Find Scary

About 50 percent of preschoolers report having been scared by something on television,[54] and even highly improbable creatures or events can scare a preschooler.[55] Preschoolers may not show as much fear watching cartoons as they do watching other violent programs. A study found that preschoolers showed physical signs of fear from watching cartoon violence, as opposed to cartoon or realistic programs that weren't violent. However, they showed even more physical signs of fear and more often described a program as "scary" after watching realistic violence featuring human actors than after watching cartoon violence.[56]

That said, realism is certainly not a prerequisite for scaring a preschooler. In fact one of the most frightening television segments found for preschoolers is the highly fantastic transformation of David Banner into *The Incredible Hulk* in the children's television series of that name.[57] Preschoolers find the Hulk himself terrifying and think he is evil as a result of his physical appearance, because they do not understand that things can remain the same while looking different and that the Hulk is, in fact, the same benevolent character as David Banner.

The most common ways parents try to help their young children cope with fears about what they see on

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PERHAPS ADULTS MISUNDERSTAND WHAT CHILDREN MEAN WHEN THEY USE THE WORDS "REAL" AND "PRETEND." ONE CHILD IN A STUDY OF CHILDREN'S FEARS DESCRIBED THE SCARY ANIMALS IN HER NIGHTMARES: "I TOLD THEM THEY WERE A DREAM, BUT THEY WOULDN'T GO AWAY."

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television are cognitive strategies such as talking to the children about the program or explaining that the scary parts are not real.[58] Although these strategies work well with older children, they do not with preschoolers. Preschoolers who were given verbal explanations in an educational program about snakes actually showed more fear when they later saw the snake-pit scene from *Raiders of the Lost Ark* than preschoolers did who were shown the education program without explanatory narration.[59] In another example, virtually all the preschoolers in a 1984 study were able to answer correctly that the wicked witch in *The Wizard of Oz* was not real, if they had previously been given that information. However, these children were just as frightened as children who had not been told to remember that the witch was not real when both groups viewed the witch threatening Dorothy on the TV screen.[60] One possible explanation is that preschoolers distracted by fear cannot reconceptualize a frightening stimulus another explanation is perhaps that adults misunderstand what children mean when they use the words "real" and "pretend." One child in a study of children's fears described the scary animals in her nightmares: "I told them they were a dream, but they wouldn't go away."[61]

Suggestions for Parents

Rather than trying to comfort a frightened preschooler with logical explanations, parents would do better to provide distraction such as a snack, or physical comfort such as letting the child sit close to them or giving the child a blanket or a toy to hold.[62] Besides providing distraction or comfort, parents of preschoolers may be able to prevent their children from having high levels of general fear from television by mediating their viewing in some way. Children whose parents do not use any means of mediation have been found to be likely to adopt a view of the world as "mean and scary."[63]

Children whose parents do provide mediation have been found to be not only less fearful, but also less aggressive.[64] Parental mediation to reduce a child's fears and aggression can include limiting the amount of programming the child watches (especially violent or scary content), watching with the child, encouraging or discouraging behaviour children are imitating from television, commenting on violent or scary content, and encourage the viewing of prosocial programs.[65] In addition, they can reduce the effect of television violence considerably if they refuse to provide their preschoolers with toys related to violent television.[66]

PARENTS CAN REDUCE THE EFFECT OF TELEVISION VIOLENCE CONSIDERABLY IF THEY REFUSE TO PROVIDE THEIR PRESCHOOLERS WITH TOYS RELATED TO VIOLENT TELEVISION.

The extent to which parents mediate their children's television viewing varies from country to country. In Japan, mothers report frequently using television as a "babysitter" for young children.[67] By age three or four, Japanese preschoolers were found to spend more than half their viewing time watching alone or with other children. In sharp contrast, American preschoolers spend about 75 percent of their viewing time in the company of one or both parents.[68] However, the programs they are watching are most likely to be those intended for an adult audience and chosen by the adults.[69] It is therefore likely that these parents are probably increasing their children's exposure to content that is violent, frightening, or, at least, incomprehensible.

The American pattern does not appear to be duplicated in Canada. Research done by the Centre for Media and Youth Studies reveals that well over 80 percent of the programs that preschoolers are watching in Canadian urban areas are programs intended for children.[70] On the other hand, it is not known to what extent Canadian parents use television as a "babysitter" for their preschoolers. It has been suggested that parents may be more likely to let young children view alone if they are watching children's educational programs.[71] Such a tendency is understandable, since children are most likely to need information and reassurance from their parents when they are watching adult programming.[72] Recent evidence suggests that even if children are watching alone, they are still learning new vocabulary - from Sesame Street at least.[73] But parents who do not watch children's shows with their preschoolers are losing out on an opportunity to maximize the child's learning by discussing the material and doing follow-up activities that elaborate on what has been learned from the programs.[74]

Suggestions for the Television Industry

It would be a good idea for the television industry to avoid the use of violence in programming for preschool-age children, since violence is not necessary to attract their attention and has been shown to increase their level of aggression. There is not much point in using television violence to teach preschoolers lessons about the negative aspects or consequences of violence, since their ability to comprehend these concepts from television portrayals is extremely limited.

Canadian children watch programs that are especially intended for children if such programs are available, but unfortunately they are frequently not available.[75] Children therefore end up watching a great deal of television that is intended for an older audience. Canadian television stations could improve the situation by offering a wider variety of children's programming (rather than the cartoon fare that currently makes up the majority of children's programs) and scheduling it at the times preschoolers are likely to be viewing: in the morning, after three o'clock in the afternoon, and in the early evening.[76]

The research into how preschoolers watch and understand television points to ways of providing more appropriate programs for them.[77] For example, obvious formal features can be used to direct preschoolers' attention to the most important features of the program's content, such as critical plot events. Sound effects may be more effective than visual inserts.[78] Inserting random bursts of vivid formal features or humour can increase children's general attention to television material. Such insertions will not interfere with the child's understanding of the material, as long as the form of humour used does not appear to convey things that are not true (for example, irony, which might be taken as meaning the opposite of what is intended).[79]

> CANADIAN CHILDREN WATCH PROGRAMS THAT ARE ESPECIALLY INTENTED FOR CHILDREN IF SUCH PROGRAMS ARE AVAILABLE, BUT

Fast pacing is another formal feature that seems to imporve children's attention and comprehension,[80] although fast pacing may also make the child more agressive. Rather than hectic pacing, programs can use narration and dialogue in women's and children's voices and ("child-directed speech" involves using a slow rate of speech, simple sentences, repetition, and references to events and objects that are actually being shown on the screen.[81]) These methods have also been found to imporve children's attentions and comprehension.

Emotion is a difficult concept for preschoolers to understand from television. To teach about emotions on television, it might be more effective to use human, rather than animated or puppet characters.[83] Suggestions for drawing the child's attention to the emotion being presented include using attention-getting formal features; inserting pauses in the flow of events after the material is presented, to allow the child to think about the event; providing narration about the emotion; or extending the period during which the emotion is expressed. Such efforts are worth investigating, but may have limited effect. Attempts to train preschoolers to recognize the emotions of others have resulted in only short-term success.[84]

Endnotes

[1]Hearold, 1986.
[2]Keating, 1984; Schank and Abelson, 1977; Hawkins and Pingree, 1986.
[3]Wright and Huston, 1983.
[4]See, for example, Takahashi, 1991; Lorch et al., 1987.
[5]Calvert and Gersh, 1987.
[6]Choat, 1988.
[7]Winick and Winick, 1979, p. 40.
[8]Anderson and Lorch, 1983.
[9]Hawkins, Kim and Pingree, 1991; Rolandelli et al., 1991.
[10]Anderson and Lorch, 1983.
[11]See, for example, Choat, 1988; Hayes and Birnbaum, 1980; Hayes et al., 1981.
[12]Jacobvitz et al., 1991; Peracchio, 1993; Rolandelli, 1989.
[13]Huston and Wright, 1983.
[14]Campbell et al., 1987.
[15]Abelman, 1989.
[16]Huston and Wright, 1989.
[17]Calvert, 1988.
[18]Abelman, 1990.
[19]Wilson and Weiss, 1993.
[20]Huston and Wright, 1989; Kunkel, 1988; Stutts and Hunnicutt, 1987; Van Evra, 1990; Wilson and
        Weiss, 1992.
[21]Abelman 1989; 1990.
[22]Duck et al., 1988.
[23]Huston and Wright, 1983.
[24]Collins, 1982.
[25]Hayes and Casey, 1992.
[26]Liss, Reinhardt and Fredriksen, 1983.
[27]Hoffner and Cantor, 1985; Liss et al., 1983.
[28]Dietz and Strasburger, 1991.
[29]Hesse and Mack, 1991.
[30]Rice, Huston and Wright, 1982.
[31]Collins, 1982, 1983.
[32]Committee on Social Issues Group for the Advancement of Psychiatry, 1982.
[33]See, for example, Argenta, Stoneman and Brody, 1986; Caron and Croteau, 1991; Caron, Nardella, et
        al., 1993; Huston, Wright et al., 1990; Jaglom and Gardner, 1981; Kodaira, 1992.
[34]Huston, Donnerstein et al., 1992.
[35]Huston, Donnerstein et al., 1992.
[36]See, for example, Potts, Huston and Wright, 1986.

[37]See, for example, the "mesmerized" preschoolers in Argenta, Stoneman and Brody's 1986 study. The discovery that cartoons' formal features may "mesmerize" preschoolers may in itself be a cause for concern. Preschoolers have a tendency to look more at the screen the longer they have been looking - a pattern of visual attention termed "attentional inertia" (Anderson and Lorch, 1983; Krull, 1983). Preschoolers tend to stop watching television when the content becomes incomprehensible to them, but their "attentional inertia" keeps their attention beyond the first indication of incomprehensibility, allowing them to "venture into unknown cognitive territory" (Anderson and Lorch, 1983; p. 25). Cartoons probably do not have too much "unknown cognitive territory," but attentional inertia may be sufficient to keep the child's attention on the screen in the relatively short portions of cartoon programs in which there are not vivid formal features that would otherwise draw the child's attention back to the screen - hence the apparent state of being "mesmerized." This may be a phenomenon unique to preschoolers. Although Anderson and Lorch (1983) have reported attentional inertia in older children and adults, as well, Krull (1983) notes that it accounts for little of the variance in television viewing after the preschool age. He estimates that up to 50 percent of preschoolers' attention to television is the result of "attentional inertia," but that this inertia accounts for only about 10 percent of the attention of seven and eight-year olds.

[38]Jaglom and Gardner, 1981; Lemish, 1984; Winick and Winick, 1979; Huston,Wright et al., 1990.

[39]Huston-Stein et al., 1981; Greer et al., 1982.

[40]Potts, Huston and Wright, 1986; Josephson, 1987.

[41]See, for example, Feshbach, 1976; Hapkiewicz and Stone, 1974; Huesmann, Eron et al., 1983.

[42]Hearold, 1986.

[43]Sanson and DiMuccio, 1993.

[44]Dorr, 1983; Downs, 1990; Jaglorn and Gardner, 1981.

[45]Dorr, 1983.

[46]Dorr, 1983.

[47]Flavell et al., 1990; Lurcat, 1991; Nikken and Peeters, 1988; Potter, 1988; Watkins, Sprafkin, et al., 1988.

[48]Fernie, 1981.

[49]Morison and Gardner, 1978.

[50]Quarforth, 1979.

[51]Flavell et al., 1990; Morison and Gardner, 1978.

[52]Fernie, 1981.

[53]French and Pena, 1991.

[54]Wilson, Hoffner and Cantor, 1987.

[55]Huston, Donnerstein et al., 1992.

[56]Osborn and Endsley, 1971.

[57]See, for example, Sparks and Cantor, 1986.

[58]Wilson and Cantor, 1987.

[59]Wilson and Cantor, 1987.

[60]Cantor and Wilson, 1984.

[61]Jersild and Homes, 1935, cited in Cantor and Wilson, 1984, p. 443.

[62]Wilson and Cantor, 1987; Wilson, Hoffner and Cantor, 1987; Wilson and Weiss, 1993.

[63]Singer et al., 1988.

[64]Singer and Singer, 1981; Singer et al., 1988

[65]Huston, Wright, et al., 1990.

[66]Dorr, 1986; Huston and Wright, 1989; Sanson and DiMuccio, 1993.

[67]Kodaira, 1990, 1992.
[68]Huston, Wright et al., 1990.
[69]St. Peters et al., 1991; Singer and Singer, 1981.
[70]Caron, Frenette et al., 1992; Caron, Nardella et al., 1993.
[71]Singer and Singer, 1981.
[72]Singer and Singer, 1981.
[73]Rice, Huston, Truglio and Wright, 1990.
[74]See, for example, Choat, 1988; Cook et al., 1975; Salomon, 1977.
[75]Caron, Nardella et al., 1993.
[76]Caron, Nardella et al., 1993; Luke, 1988; Kodaira, 1992.
[77]See, for example, Keating, 1984.
[78]Calvert and Gersh, 1987.
[79]Zillmann and Bryant, 1988.
[80]Calvert and Scott, 1989.
[81]Rollandelli, Wright et al., 1991.
[82]Rollandelli, 1989; Rolandelli, Wright et al., 1991.
[83]Hayes and Casey, 1992.
[84]Feshbach and Cohen, 1988.

MIDDLE CHILDHOOD OR ELEMENTARY SCHOOL AGE (children ages 6 to 11)

THE AGE OF EIGHT IS CRITICAL IN THE RELATIONSHIP BETWEEN TELEVISION VIOLENCE AND THE DEVELOPMENT OF AGGRESSION, BECAUSE OF THE COGNITIVE AND EMOTIONAL DEVELOPMENTS THAT OCCUR AT THIS AGE.

Television-viewing Habits

When children start school, they watch less television, since they have less time available for day-time viewing. By grade two or three, they start watching more TV again, since they are able to stay up later in the evening. From this time, the amount of television that children watch increases gradually until adolescence.[1] At elementary school age, North American and Japanese children watch more often without their parents than they did when they were preschoolers.[2] Swedish children however, are much more likely to watch with their parents than without them.[3] At this age, children begin to watch less educational television and more cartoons, situation comedies, and action-adventure programs.[4]

Middle childhood is considered to be an especially important period for understanding the effects of television on aggression. Some researchers focus on children between the ages of nine and twelve because of the large amount of television they watch (and hence their potential to be immersed in violent content).[5] Other researchers believe that the age of ten to twelve is most important because it is at this age that children's long-term interests and behaviour patterns emerge.[6] Most researchers, however, agree that the age of eight is critical in the relationship between television violence and the development of aggression. This is because of the cognitive and emotional developments that occur at this age. Perhaps the most important of these is the shift from relying primarily on perceptual information to relying on conceptual information to understand the world.[7]

Approach to Processing Information and Watching Television

Between the ages of six and seven, children develop a memory or expectation for how stories (conveyed through any medium) are structured.[8] They become more efficient at processing information about a story (including the plots of television programs) because they are now able to anticipate and direct their attention to important story content, store information in their memories according to its importance, and match the information presented with their expectations of what will happen.

By about age seven, children's visual attention to television increases to about 70 percent of their viewing time and then levels off.[9] Although children of this age are still attentive to vivid formal features, they can more readily ignore them in favour of content features that are important to the plot or to the child's own personal reasons for viewing. By age eight, children can interpret most complex formal feature codes of television, such as dissolves and cuts to denote time leaps, flashbacks and dreams, and the perspective information conveyed by edited compilations of multiple camera angles.[10] Elementary school-aged children can identify formal features that distinguish real from fantasy television content. For example, children in one study said they knew

the televised event of the Challenger space shuttle explosion was real because of the poor-quality video, disjointed speech by the announcers, printed words on the screen, and absence of close-ups.[11]

BY AGE EIGHT, CHILDREN ARE LESS LIKELY TO BECOME MORE AGGRESSIVE THEMSELVES IF THE VIOLENCE THEY SEE IS PORTRAYED AS EVIL, AS CAUSING HUMAN SUFFERING, OR AS RESULTING IN PUNISHMENT OR DISAPPROVAL.

At this age, children develop the ability to recognize unchanging properties of apparently changing objects and become capable of using more complex systems of classifying objects and events. This allows them to understand more subtle formal features and content and to make reliable inferences in the absence of concrete events. They can therefore understand story plots more fully and interpret them in light of the emotions and motivations of TV characters.[12] Children will use stereotypes to classify characters as good or bad if no information about a character's past behaviour or motivation is given, but when such information is provided, they will attend to it and incorporate it in their assessment of he character.[13] By age eight, children are more likely to be sensitive to important moderating influences of television content, and they will not become more aggressive themselves if the violence they see is portrayed as evil, as causing human suffering, or as resulting in punishment or disapproval.[14]

Although children at this age have a truly impressive ability to make sense of the television world, they do not always use it. It is the amount of mental effort children invest that determines whether they will use their cognitive abilities and critical skills to process television information deeply, or merely react to it in an unfocused, superficial way.[15] While preschool-age children invest a great amount of mental effort if they think they will be able to understand the material,[16] children of elementary school age invest increasingly less mental effort overall in watching television.[17] Those children who watch television for information do invest more

IN CULTURES WHERE CHILDREN CONSIDER TELEVISION TO BE AN EASY MEDIUM TO WATCH,SUCH AS IN NORTH AMERICA, IT MAY BE NECESSARY FOR ADULTS TO REMIND CHILDREN TO USE THE PERCEPTUAL AND CRITICAL SKILLS THEY HAVE DEVELOPED.

mental effort and learn more, but it is more common for children to watch for relaxation, amusement or just to pass the time[18] and hence process the information superficially and uncritically.

The amount of mental effort children invest when watching television varies from culture to culture. For example, compared with American children their age, Israeli children consider television a less "easy" medium to understand, so they invest more mental effort and learn more from it when they watch.[19] In cultures where children do consider television to be an "easy" medium, it may be necessary to provide reminder cues[20] or for adults to initiate discussion[21] that will remind children to use the perceptual and critical skills they have developed.

Particular Susceptibility to the Effects of Television Violence

The age of eight has been identified as a watershed period for the effects of television violence on children.[22] There are a number of reasons for this.

"REAL" TO AN EIGHT YEAR OLD APPEARS TO MEAN PHYSICALLY EXISTING IN THE WORLD. THEY MAY REGARD POLICE DRAMA TO BE REAL BECAUSE POLICE OFFICERS DO EXIST. ONE GRADE TWO STUDENT IN A STUDY EXPLAINED THAT THE BRADY BUNCH WERE REAL BECAUSE "THEY HAVE A REFRIGERATOR, AND THERE ARE SUCH THINGS AS REFRIGERATORS."

Ability to distinguish reality from fantasy. By age eight, children are more likely to become aggressive after watching violent television if they believe the violence they have seen reflects real life.[23] "Real" to an eight-year-old appears to mean physically existing in the world.[24] They see characters with superhuman powers as not real, because they recognize that their activities are physically impossible in the real world. However, they may regard police drama as real because police officers do exist. One grade two student in a study explained that *The Brady Bunch* were real because "they have a refrigerator, and there are such things as refrigerators."[25]

By age ten, "real" is more likely to mean "possible in real life."[26] Children at this age in one study tended to consider the British police drama *The Bill* "real" because they thought that it portrayed events that could happen, even though they knew its gory injury scenes were produced with make-up or paint. One twelve-year-old even went so far as to say that actors in *The Bill* "have to be policemen for about a month or something - they have to join it and see what happens."[27] Some eight-year-old children in this study used the dimension of violence itself as a criterion for the reality of a show. They described *The Bill* as real "because it's about robbers," or "because it's all about handcuffing and police and blood."[28] For children who equate violence with reality, all violent content is considered real and therefore a potentially useful guide for how to behave in real life. The belief that violence is inherently realistic is not common, even among eight-year-olds, but there is some evidence that it may persist beyond middle childhood for those who do subscribe to it. In other studies, some twelve-year-old boys (but only those who were delinquents with lower IQS) also shared this belief,[29] as did some adults interviewed in both the United States and Britain,[30] in spite of the fact that violence is vastly more prevalent on prime time television than it is in even the most violent North American cities.[31]

FOR CHILDREN WHO EQUATE VIOLENCE WITH REALITY, ALL VIOLENT CONTENT IS CONSIDERED "REAL" AND THEREFORE A POTENTIALLY USEFUL GUIDE FOR HOW TO BEHAVE IN REAL LIFE.

Tendency to identify with aggressive heroes and engage in aggressive fantasies. When asked who they wanted to be like, eight- to ten-year-olds in one study named unrealistic characters from television much more often than characters whom they knew to be more like real people.[32] The common theme in the reasons for their choice was that the unrealistic characters were powerful, brave, and strong. Unfortunately, the characters tended to express these qualities primarily through violent action.

Bravery, strength, and power are themes that have run strongly through the fantasy play of six-to eleven-year-olds, even long before television entered children's lives in the 1950s. When children in one study chose to emulate and dramatize fantasy heroes (as opposed to heroes from real life), they almost always described

those heroes as brave or courageous.[33] The theme of "power" has been found to be one the most frequently expressed themes by children of this age group while watching or discussing television.[34]

This theme no doubt arises because children of this age are struggling to achieve competence and independence in their own personal and social development.[35] Nevertheless, it is surprising to find children adopting such one-dimensional heroes, given how much more complex and sophisticated their perceptions and mental processes are supposed to have become by this age. One explanation may be that television provides children with rather narrow and stereotypical characters, so that they have relatively little opportunity to express their increased sophistication if they choose television characters as heroes.[36] In one study, children who chose family members or other real people as their heroes did show a more sophisticated understanding. The children described real-life heroes as having a much wider range of human qualities,[37] such as "helpful," "kind," and "gentle," in addition to "strong."

Although they may be rather one-dimensional, television heroes of action drama and violent cartoons embody the dimensions that may be the most important to children at this age, especially boys. These heroes are

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CHILDREN WHO CREATE VIOLENT OR HEROICALLY AGGRESSIVE FANTASIES AND WHO IDENTIFY WITH AGGRESSIVE HEROES ARE THE ONES MOST LIKELY TO BE AFFECTED BY VIOLENT TELEVISION, BECAUSE THESE FANTASIES SERVE AS REHEARSALS FOR VIOLENT RESPONSES TO REAL-LIFE EVENTS.

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unusually admirable, powerful, and successful in their aggression.[38] No wonder children identify with them! The heroes' victims are portrayed as dangerous, vicious, deserving of their fate, and as not suffering any pain with which the viewer might empathize.[39] In fact, the concept of justification is one area in which children of this age have shown they do make relatively complex judgements about television characters. Children in grades five and six have drawn distinctions between justified and unjustified violence in cartoons, and have consequently found the comic violence of *The Pink Panther* more violent and less acceptable than the action adventure violence of *Dick Tracy*.[40]

It appears that watching violence on television makes it more likely that children will later create violent fantasies. Children in grades one and two have a strong tendency to reenact the content of televised cartoons in their play immediately after they see it, especially if program-related toys are available.[41] Eight-year olds who watch a great deal of violent programming have been found to create more aggressive-heroic fantasies when they are ten.[42] Children who do create violent or heroically aggressive fantasies [43] and who identify with aggressive heroes[44] are the ones most likely to be affected by violent television.[45] The reasoning is that fantasies serve as rehearsals for violent responses to real-life events. Children who do not dwell on the televised violence in their personal fantasies and play are less likely to have their behaviour affected by these violent images, perhaps because they see it as irrelevant to their real lives or self-image.

Expectations about gender-related reactions to violence. At elementary school age, there appears to be a growing recognition by girls that aggression is not appropriate for them, which may account for both lesser interest in viewing violence on television and less likelihood of using aggression in real-life situations.[46] At this age, girls seem increasingly to recognize that violent content and the cartoon format is "for boys."[47] Some researchers have noted that children entering middle childhood recognize the formal features (such as more obvious features, male narrators, and noise) that signal content for boys and those (such as fades, dissolves,

background music, female dialogue, and female narrators) that signal content for girls.[48] Elementary school-age boys continue to report enjoying vivid formal features and continue to watch lots of cartoons and action adventure programming (which are both violent and full of "boy typed" formal features). Girls this age do not report watching a lot of cartoons, and thus their favourite programs - mostly comedies - contain less violence.[49] Girls are less likely to identify with the violent heroes that most attract boys, and they seem less interested in the power or strength of their chosen heroes.[50] While girls are just as confident as boys are that they could effectively carry out aggressive activities, they are significantly more likely than boys are to believe that such behaviour would meet with social disapproval.[51] Girls also expect to feel more guilty if they are aggressive, and they have a stronger expectation that they will cause suffering to victims. Boys of this age who are not very aggressive also feel guilt about aggression and empathy for the suffering of others.[52]

For these reasons some researchers have concluded that television violence has a greater effect on boys than on girls, from about age eight to ten onwards. Nevertheless, girls who do watch violent television are likely to become more aggressive than girls who do not, and girls who prefer masculine activities during their elementary school years are especially affected by watching violent television.[53]

Perception of the World from Watching Television

Since the 1970s, researchers have known that children who watch a great deal of television see the world as a meaner, scarier, and more dangerous place than children who do not watch a lot of television.[54] Similar patterns have been found with adults.[55]

Do children come to believe the world is a violent, dangerous place because television portrays it that way, or do we just find a relationship between heavy viewing and a perception that the world is mean because fearful children take refuge in television rather than going out to face the world they fear? Evidence has been found that adults who live in dangerous neighbourhoods are especially likely to watch a lot of television, and if children follow the same pattern, this might account for the finding that children who watch a lot of television see the world as a mean place.[56] On the other hand, experimental evidence[57] shows that heavy exposure to "slasher" movies like *Friday the 13th* series actually does increase young adults' fears and their tendency to see the world as a meaner, scarier place, so this might be the case with violent television and younger children, too. It is quite conceivable that both of these things are happening.

HEAVY EXPOSURE TO "SLASHER" MOVIES INCREASES YOUNG ADULTS' FEARS AND THEIR TENDENCY TO SEE THE WORLD AS A MEANER, SCARIER PLACE.

Unfortunately, if fearful children are seeking out television as a refuge, they are unlikely to find much there to reassure them. The message children are likely to receive about themselves from television is one of devaluation and danger, especially if they are girls.[58] When children are featured as characters in North American prime-time and weekend day-time television, they are even more likely than adults are to be depicted as victims of violence and ill-health.[59] Adolescents are portrayed as being not only frequently victimized by others, but also as engaging in self-destructive behaviours such as smoking and drinking.[60]

Elementary school-age children in one study were even more likely than were preschool children to say that they

had been scared by something on television.[61] This pattern may be more than sheer accumulation of scary experiences over time. Another study found that children in grade six reported feeling deeper, more emotional

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ELEMENTARY SCHOOL-AGED CHILDREN ARE MORE LIKELY TO BE AFRAID OF TELEVISION PORTRAYALS IF THE DEPICTED SCARY EVENTS SEEM POSSIBLE AND ESPECIALLY IF THEY ARE SHOWN IN CIRCUMSTANCES THAT RESEMBLE THE CHILD'S OWN.

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fears than did children in grade two after having seen *The Day After*, a dramatization of what would happen after a nuclear explosion.[62] It is also possible that girls may feel this deeper fear sooner than boys. Following the televised coverage of the *Challenger* explosion, girls in grades four to six showed a more intense and emotional reaction than boys, who reported a more impersonal regret.[63]

Television Content that Children Find Scary

Elementary school-aged children do not necessarily find televised violence frightening.[64] At this age, children are more likely to be afraid of television portrayals if the depicted scary events seem possible[65] and especially if they are shown in circumstances that resemble the child's own.[66] *The Day After* was particularly frightening to the sixth graders not only because it was portrayed so realistically, but also because its heroes and heroines were children like themselves, who suffered and died in a context that was otherwise very much like the viewers' own.[67] With their capacity to identify with others, to empathize, and to imagine transformations that maintain their essential identity in different circumstances, elementary school children are apparently highly vulnerable to such presentations.[68] Children may enjoy rather than fear violence at a distance violence that happens to people unlike themselves and in circumstances different from their own.

ONE BOY HAS DESCRIBED A DELIBERATE ATTEMPT TO REDUCE HIS OWN FEAR BY USING IDENTIFICATION, THE FIRST TIME HE SAW *NIGHTMARE ON ELM STREET:* "IT WAS EASY. I PRETENDED I WAS FREDDY KRUGER. THEN I WASN'T SCARED. NOW, THAT'S WHAT I ALWAYS DO AND I AM NEVER SCARED." SINCE IDENTIFYING WITH AN AGGRESSIVE HERO HAS A STRONG INFLUENCE ON INCREASING AGGRESSION, THIS TACTIC FOR REDUCING FEAR IS CHILLING, INDEED.

After in-depth interviews with Toronto children in grades four and five, one researcher elaborated:

> What the children describe as scary are those incidents when the familiar and safe, like the home and parents and loved one, are negatively transformed. Home becomes a killing ground, parents are powerless to protect, dolls become killers.[69]

It is when children identify with the victim of television violence that they become frightened.[70] But, as previously noted, most boys, at least, identify with the strong, powerful heroes of television programs, not with the victims.[71] By doing so, they may avoid the fear and worry that have been found, in one study at least, among children who watch a lot of televisions For example, one boy has described a deliberate attempt to reduce his own fear by using identification, the first time he saw *Nightmare on Elm Street*: "It was easy. I pretended I was Freddy Kruger. Then I wasn't scared. Now, that's what I always do and I am never scared."[73] Since identifying with an aggressive hero has a strong influence on increasing aggression, this tactic for reducing fear is chilling, indeed.[74]

Attraction to Horror Movies

A taste for horror movies is one of the more surprising developments in elementary school-aged children.[75] This is the genre that is probably the most likely to frighten children.[76] Besides a great deal of graphic and gory violence, horror movies have formal features that make them especially scary. Close-up shots, for example, elicit a more intense response to startling or gory events. Sudden cuts into scenes and abrupt reorientation of the camera angle are used to startle and disorient the viewer. Close-ups and camera shots from the perspective of the victim increase the likelihood that the viewer will identify with the victim. Cuts to black are used to heighten suspense.[77]

Why do children deliberately scare themselves with horror movies? (Or, as one research team has put it, "How can this formula work for nonmasochistic audiences?"[78]). We do not know for sure, but a number of explanations have been offered. One is that suffering so intensely with the victimized protagonist makes the relief of the happy ending more enjoyable.[79] The reasoning is that the viewer is likely to experience a leftover physiological arousal from all the uncertainty and distress that precedes the final resolution of the plot. This leftover arousal adds to the power of the positive emotions experienced at the happy ending, creating a feeling of greater heartiness and euphoria. This effect can be compared with the greater joy experienced by fans after their home team wins a tense and difficult game than after an easily won game.[80]

A second explanation is that children at this age are so preoccupied with overcoming their state of vulnerability and dependence that they actively seek out opportunities that might provide them with more information about fearfulness and the things they fear.[81] A somewhat related explanation is that children may be deliberately trying to conquer their fears of vulnerability and victimization by desensitizing themselves through repeated exposure to horror movies.[82] Desensitization has been found to be quite effective in reducing the fears of children at this age.[83] In contrast to preschoolers, children of elementary school age experienced less fear during the snake pit scene in *Raiders of the Lost Ark* when they were previously shown an educational program about snakes, even if there was no accompanying narration.[84]

CHILDREN MAY BE DELIBERATELY TRYING TO CONQUER THEIR FEARS OF VULNERABILITY AND VICTIMIZATION BY DESENSITIZING THEMSELVES THROUGH REPEATED EXPOSURE TO HORROR MOVIES. BUT TO THE EXTENT THAT THEY DESENSITIZE THEMSELVES TO VIOLENCE AND FEAR, THEY ARE ALSO VERY LIKELY BECOMING MORE TOLERANT OF VIOLENCE IN THE REAL WORLD.

When people see the same television program repeated, they experience the same pattern of physical response that they did when they saw it the first time but at a reduced level.[85] Perhaps, the popularity of horror movie sequels (for example, the apparently endless series of *Freddy* videos[86]) stems from this effect. Each time they are exposed to a familiar horrifying character or predictable event, children may feel they are coming closer to conquering their fear of what used to terrify them. It may be particularly gratifying to children of this age to successfully overcome their fears, in light of their overall concern with developing personal competency and independence. Mastering frightening situations may be especially important for boys, who see it as an expectation for their gender.[87] For example, one of the sixth graders who saw *The Day After* - had this reaction to the prospect of a nuclear attack: "....If it's going to happen, I should get ready for it ... like think of some way not to be scared when it does happen."[88]

It has been reported that people who are apprehensive about being victimized (and presumably this could include children seek out action drama for its reassuring and comforting theme of the restoration of social justice.[89] While there is a great deal of violence in such programs, the benevolent authorities are better at it than the villains are, and they put an end to criminal victimization, at least until the next episode. Young adults who have been made to feel apprehensive seek out such dramas more often than usual, and the theme of social justice is a more important determinant of their choice than is the level of violence in the program (especially for women).[90]

It is possible that children seek out horror movies for the same reasons, but it is unlikely that horror movies are going to reassure them that the world is just.[91] For one thing, there are so many scenes of victimization, and the victims are usually so innocent and suffer so much, that most of the scenes actually depict unjust victimization, not the restoration of justice. At best, the message of horror movies might be that justice is <u>eventually</u> restored, but often too little and too late. Moreover, the need to keep the horrifying villain around for sequels means that evil cannot usually be resoundingly and permanently defeated. Children, then, are not likely to find watching horror movies a very successful strategy in assuring themselves that the world is just. To the extent that they desensitize themselves to violence and fear, they are also very likely becoming more tolerant of violence in the real world.[92]

Suggestions for Parents

Parents can influence their child's viewing by modifying their own viewing, since parental habits continue to be an important determinant of the amount and types of programs children are watching at this age.[93] Fathers become more important influences than mothers, perhaps because at this age children watch more often during the times when men watch most, in prime time.[94]

One recommendation, especially for younger school-aged children, is that parents restrict the amount and types of programs children watch, in order to reduce their children's fears and aggressiveness. This restriction is like an announcement that the parents - "and not the TV - will raise their children."[95] One hour a day for preschoolers and two hours a day for early school-aged children is one recommendation for the amount to let children watch.[96] Of course, if parents limit television time, it means they should provide alternative activities for their children.[97] Constructive learning and play will not necessarily just happen because the television is turned off.[98] In one study, first graders who had their television viewing time decreased and replaced by more time with their parents showed improvements in their reading and cognitive skills.[99]

Parents are much less likely to restrict their older school-aged children's television watching,[100] and restriction may be relatively ineffective for these older children anyway.[101] What is more likely to help is for parents to help children to understand and evaluate the content that they are watching. This is because at this age the meaning (both factual and emotional) of the violence is an important mediator of the effect such violence will have. At the beginning of this stage, parents can also help children to decode some of television's more difficult formal features, since children at this age are still just learning how to interpret these more sophisticated aspects of the medium.[102]

IT HAS BEEN FOUND THAT WHEN PARENTS DO WATCH VIOLENT PROGRAMS WITH THEIR CHILDREN BUT DO NOT DISCUSS THE CONTENT WITH THEM, THEIR CHILDREN MAY ACTUALLY BECOME MORE AGGRESSIVE.

Discussing, explaining, and challenging television communication have been found effective in helping children to understand and interpret television material[103] and in overcoming the effect televised violence has on their attitudes and behaviour.[104] It has been found that when parents do watch violent programs with their children but do not discuss the content with them, their children may actually become more aggressive.[105] It may be that children are exposed to more televised violence if they are watching television with the parents, or it may be that their parents appear to be endorsing violent activities if they watch

such actions on the screen and do not comment on their inappropriateness.

It is advisable for parents to discuss and explain even the reasons for restricting their elementary school children's watching, in order to help the children learn the intellectual and moral concerns that guide their parents' decisions.[106] It is also recommended that parents discuss the meaning of televised (and of course real-life) events with their child before the child is actually faced with them, and then again after the event has happened. In this way parents are helping their child to develop a framework for understanding and evaluating those events.

PARENTS OUGHT TO DISCUSS AND EXPLAIN NOT ONLY THE MEANING OF TELEVISED EVENTS, BUT ALSO THE REASONS FOR RESTRICTING THEIR ELEMENTARY SCHOOL CHILDREN'S WATCHING. THESE STRATEGIES WILL HELP CHILDREN INVEST MORE MENTAL EFFORT IN THEIR WATCHING, BECOMING MORE CRITICAL AND ANALYTICAL VIEWERS OF TELEVISION.

Another positive effect of these strategies is that children invest more mental effort in their watching, becoming more critical and analytical watchers of television.[107] For parents, watching television with their children, answering their questions and providing commentary can become another way of furthering their child-rearing goals, even if they are only watching together because they like the some programs and not because the parents are deliberately using the occasion for teaching.[108] Parents are more likely to discuss television content with their children if the children are intellectually gifted, probably because they recognize their children's relatively high ability to understand parental commentary. However, even children who are not unusually advanced appear to benefit from this approach.[109]

In helping children overcome their fears, parents might be tempted to tell their elementary school-aged children to cover their eyes or just to turn off the television if they are scared, but this strategy will not help much. In fact, turning off the television has not been found to be an effective strategy even for preschoolers.[110] Elementary school-age children can effectively reduce their fear by using a cognitive strategy, such as emphasizing the unrealistic nature of a scary television event or talking to their parents about it.[111] Non-cognitive strategies do not work as well for them, except for "sitting close to Mom or Dad," a strategy that works well for both preschool and elementary school children.

As for horror movies, parents are right to be concerned about their potential negative effects. Fortunately, horror movies are not widely accessible to children of this age, except on a few cable channels and through video rentals.[112] But children need an opportunity to discuss and deal with the fears they face at this age,[113] and parents can provide this opportunity in ways that are more helpful and direct than through horror movies. Parents can, for example, discuss their own experiences and set an example of successful coping, help children to reinterpret and challenge fears that are not based in reality, and help them develop the confidence and skills that they need to deal with the real-life challenges that cause realistic fears.

Suggestions for the Television Industry

Probably the greatest challenge for the industry is to provide entertainment programming in which life's problems are not simply and quickly solved with either violent action or hostile humour.[114] Elementary school-aged children (especially boys) watch a great number of cartoons and action-adventure dramas, and in their preoccupation with power, competence, and independence, they may be especially affected by television's simplistic and often violent portrayal of problem solving and conflict resolution.

Creating programs that have no violence or violent heroes but are still popular with children (and with the likely intended adult audience) is not the impossible challenge it might seem to be. Children at this age are more attracted to variability and tempo than to violence,[115] and adult ratings are affected very little by the amount of violence in a program.[116] While it is true that boys seek male heroes[117] and sometimes reject counterstereotypical male characters on television,[118] there are strong and positive male models (such as Bill Cosby in *The Cosby Show*) who are popular and who have influenced boys to adopt a variety of less sex-stereotyped behaviours.[119] Girls benefit even more from televised portrayals of less sex-stereotyped behaviours. It is important to remember that it is power, not violence or conformity with sex stereotypes, <u>per se</u>, that boys identify with. Boys have been found to accept highly counterstereotypical behaviour from male television characters who were powerful and had high status.[120]

The elementary school-aged audience has been called the "almost forgotten group" when it comes to targeted programming, even in American public television, which does emphasize programming for children.[121] A recent Canadian report has suggested that Canadian children of this age group may have adopted a preference for cartoons and programs intended for adults because there is little specifically for them in Canada either.[122] Given the important cognitive and social developments children experience at this age, the need to create programming that meets the needs and interests of this audience segment seems well justified.[123]

The types of programs that would be valuable include programs that demonstrate the way in which television's special effects (especially those intended to provoke fear) are made, since children at this age are developing a more sophisticated understanding of how the medium works. Children at this age appear very interested in such matters,[124] and this kind of programming has been found effective in helping them to overcome their fears of scary television content.[125]

IT IS POWER, NOT VIOLENCE OR CONFORMITY WITH SEX STEREOTYPES, THAT ELEMENTARY SCHOOL-AGED BOYS IDENTIFY WITH. BOYS HAVE BEEN FOUND TO ACCEPT HIGHLY COUNTERSTEREOTYPICAL BEHAVIOUR FROM MALE TELEVISION CHARACTERS WHO WERE POWERFUL AND HAD HIGH STATUS.

A number of techniques have been identified to help younger elementary school children (ages six and seven) make the transition from perceptually based to conceptually based understanding. These include using previews of the main plot features, to help children to attend to and recall important features of a story;[126] inserting synopses of program events after advertisements, to improve their later comprehension of the program;[127] and narration, to improve their understanding of off-screen plot events and other implicit content.[128] Obvious and stylized formal features such as dreamy

visual dissolves are more effective than camera cuts to help young viewers understand such concepts as flashbacks.[129] Humour can be used to improve both children's attention and their comprehension of television material, as long as irony and misinformation are avoided.[130] It is best to avoid fast, melodic background music; while it attracts the attention and interest of first and second graders, it actually interferes with their comprehension of the content it is accompanying.[131]

Endnotes

[1]Luke, 1988, in Canada; Rosengren and Windahl, 1989, in Sweden; Kodaira, 1992, in Japan; Utamachant and Kodaira, 1991, in Thailand; St. Peters et al., 1991, in the United States.

[2]Dorr, Kovaric and Doubleday, 1989; Kodaira, 1992; Lawrence and Wozniak, 1989; St. Peters et al., 1991.

[3]Schyller et al., 1986.

[4]Caron, Frenette et al., 1992; Caron, Nardella et al., 1993; St. Peters et al., 1991; Winick and Winick, 1979.

[5]van der Voort, 1986; Eron et al., 1983.

[6]Winick and Winick, 1979.

[7]For example, Cantor, Wilson and Hoffner, 1986.

[8]Meadowcroft and Reeves, 1989.

[9]Huston, Donnerstein et al., 1992.

[10]Abelman, 1989; 1990; Calvert, 1988; Wilson and Weiss, 1993.

[11]Wright, Kunkel et al., 1989.

[12]Collins, 1983; Huston and Wright, 1983; Knowles and Nixon, 1989, 1990.

[13]Hoffner and Cantor, 1985.

[14]Collins, 1982, 1983; Comstock, 1980; Hearold, 1986.

[15]Salomon, 1981, 1983.

[16]See, for example, Hawkins, Kim and Pingree, 1991; Pingree, 1986.

[17]Bordeaux and Lange, 1991; Fowles, 1992.

[18]See, for example, Rubin, 1977; Atkin, 1985.

[19]Salomon, 1983.

[20]Brucks et al., 1988.

[21]Watkins, Calvert, et al., 1980.

[22]See, for example, Eron et al., 1983; Huesmann and Eron, 1984; Huesmann, Lagerspetz and Eron, 1984.

[23]Eron et al., 1983.

[24]Kelly, 1981.

[25]Kelly, 1981; Buckingham, 1993.

[26]Kelly, 1981; Dorr, 1983.

[27]Buckingham, 1993, p. 224.

[28]Buckingham, 1993.

[29]Chaney, 1970.

[30]Messaris, 1986, in the United States and Docherty, 1990, in Britain.

[31]Gerbner, Gross, Morgan and Signorielli, 1986.

[32]Fernie, 1981.

[33]French and Pena, 1991.

[34]Winick and Winick, 1979.

[35]For example, Owens, 1993.

[36]French and Pena, 1991. See also Babrow et al., 1988.

[37]French and Pena, 1991.
[38]See, for example, Luke, 1988; Selnow, 1986; Gerbner, Gross, Morgan and Signorielli, 1986.
[39]See, for example, Meyrowitz, 1986.
[40]Haynes, 1978.
[41]Greenfield, Yut et al., 1990.
[42]Valkenburg et al., 1992-93.
[43]Huesmann and Eron, 1984.
[44]Huesmann et al., 1983.
[45]A similar pattern has been found among Finnish children, especially among boys (Viemero and Paajanen,
1992).
[46]Eron et al., 1983.
[47]Buckingham, 1993.
[48]Huston and Wright, 1983.
[49]Kent, Nixon and Rendell, 1986; Huston, Wright et al., 1990.
[50]Reeves and Miller, 1978.
[51]Perry, Perry and Rasmussen, 1986.
[52]Perry and Bussey, 1977.
[53]Eron et al., 1983.
[54]See, for example, Gerbner, Gross, Eleey et al., 1977, and Singer, Singer and Rapaczynski, 1984, in the United
States; McIlwraith and Schallow, 1982, in Canada.
[55]Gerbner, Gross, Eleey et al., 1977; McIIwraith and Josephson, 1985.
[56]Doob and Macdonald, 1979.
[57]See, for example, Ogles and Hoffner, 1987.
[58]Signorielli, 1987.
[59]Signorielli, 1987.
[60]Signorielli, 1987.
[61]Wilson et al., 1987.
[62]Palmer, 1986.
[63]Wright, Kunkel et al., 1989.
[64]Campbell, 1992; Cullingford, 1984.
[65]Wilson et al., 1987.
[66]Campbell, 1992, in Canada; Cullingford, 1984, in Britain; Cantor and Hoffner, 1990, and Palmer, 1986, in the
United States.
[67]Palmer, 1986.
[68]See, for example, Cantor, Wilson and Hoffner, 1986.
[69]Campbell, 1992, p. 24.
[70]Cantor and Wilson, 1984.
[71]See, for example, Fernie, 1981; DeAngelis, 1993.
[72]McIIwraith and Schallow, 1982.
[73]Campbell, 1992.
[74]Campbell, 1992.
[75]Campbell, 1992.
[76]See, for example, Cantor, Wilson and Hoffner, 1986.
[77]Meyrowitz, 1986.

[78]Zillmann and Bryant, 1986, p. 315.

[79]Zillmann and Bryant, 1986.

[80]Zillmann and Bryant, 1986.

[81]cf. the "perceptual readiness explanation" in Fenigstein and Heyduk, 1985.

[82]cf. Zillmann and Bryant, 1985.

[83]Wilson and Cantor, 1987.

[84]Wilson and Cantor, 1987.

[85]Tannenbaum, 1985.

[86]Caron, Meunier et al., 1990, have documented the popularity of these videos.

[87]Zillmann and Bryant, 1986.

[88]Palmer, 1986.

[89]Zillmann and Wakshlag, 1985.

[90]Zillmann and Wakshlag, 1985.

[91]Zillmann and Bryant, 1986.

[92]Drabman and Thomas, 1974, 1976.

[93]St. Peters et al., 1991.

[94]Webster et al., 1986.

[95]Desmond et al., 1990.

[96]Desmond et al., 1990; Fosarelli, 1986.

[97]See, for example, Jason, 1987.

[98]Mutz et al., 1993.

[99]Gadberry, 1980.

[100]Austin, 1992; van der Voort, Nikken and van Lil, 1992; Weaver and Barbour, 1992.

[101]Sarlo et al., 1988.

[102]Collins et al., 1981; Desmond et al., 1990.

[103]Austin et al., 1990; Collins et al., 1981; Corder-Bolz, 1980; Desmond et al., 1990; Watkins, Calvert et al.,

1980.

[104]Abelman, 1990; Desmond et al., 1990; Grusec, 1973; Vooijs and van der Voort, 1993a, 1993b.

[105]Wright, St. Peters and Huston, 1990.

[106]Desmond et al., 1990.

[107]Singer et al., 1988.

[108]Dorr et al., 1989.

[109]See, for example, Abelman, 1987.

[110]Cantor and Wilson, 1988; Wilson, 1989.

[111]Cantor and Wilson, 1988.

[112]Campbell, 1992; Caron, Nardella et al., 1993; Caron, Meunier et al., 1990.

[113]Campbell, 1992.

[114]See, for example, DeAngelis, 1993; Luke, 1988; Selnow, 1986.

[115]Huston and Wright, 1989.

[116]Diener and DeFour, 1978.

[117]Reeves and Miller, 1978.

[118]See, for example, Calvert and Huston, 1987; Wroblewski and Huston, 1987.

[119]Rosenwasser et al., 1989.

[120]Jeffery and Durkin, 1989.

[121]Palmer, 1988.

[122]Caron, Nardella et al., 1993.
[123]See, for example, Hall et al., 1990.
[124]See, for example, Buckingham, 1993.
[125]Cantor, Sparks and Hoffner, 1988.
[126]Calvert et al., 1987; Neuman et al., 1990.
[127]Kelly and Spear, 1991.
[128]Calvert et al., 1987.
[129]Calvert, 1988.
[130]Weaver et al., 1988.
[131]Wakshlag, 1985.

ADOLESCENCE
(children ages 12 to 17)

FOR ADOLESCENTS, WATCHING TELEVISION IS A PASSIVE, RELAXING ACTIVITY REQUIRING LOW CONCENTRATION, AND THEY ARE MOST LIKELY TO DO IT WHEN THEY ARE BORED OR LONELY

Television-watching Habits

Adolescents in middle school and high school watch less television than they did when they were younger, since they begin to spend more time away from home, do more things with peers, and listen more to the radio.[1] For many adolescents, this change in media use marks the transition between childhood and adolescence.[2] Popular music becomes the medium most appropriate to the developmental concerns of adolescents independence, romance, and sexuality - themes that are featured prominently in the lyrics of popular music. Adolescents listen to music alone and with their friends. When they do watch television, they are most likely to watch it with members of their family, since television is the medium of the mainstream culture of their parents.[3]

In one study, American and Italian adolescents who continued to watch television at their preadolescent rate also continued to spend more time with family and less with friends and to have a preference for spending time with family.[4] A similar pattern has been reported for Swedish adolescents.[5] Watching television may be one of the few activities that adolescents do with their parents. Out of 1000 "time samples" of adolescents' daily activities, only ten found them spending time alone with their fathers; five out of these ten were times watching television.[6]

Adolescents also watch different programs than they did when they were younger. They still like comedies, but watch fewer cartoons, with the exception of "adult-oriented" animated programs such as *The Simpsons* (possibly in part because adolescents are sleeping in on Saturday mornings!). Dramas become popular, especially those featuring adolescent characters, such as *Beverly Hills 90210* and *Blossom*. Girls at the end of adolescence start including soap operas in their lists of favourites, and many adolescents include sports fairly often, as well as music programs and science fiction. Crime adventure is a popular choice with American adolescents, but is not often chosen as a favourite by Canadians at this age.[7]

Approach to Processing Information and Watching Television

Adolescence is the period during which young people become capable of abstract reasoning, extracting principles from concrete instances, taking on complex and multiple roles of others, integrating contrasting and contradictory aspects of people and experiences, and extracting what is personally relevant from a complex array of situations. They are no longer so rooted in the immediate present, and can think more about future or hypothetical possibilities.[8]

By early adolescence (i.e. in middle school), children are often adopting multiple meanings of the word "real." ("Real in what way?" is sometimes a counter question when they are asked if something is real.[9]) They can fully articulate what they mean by "real,"[10] one meaning being "plausible" or "probable." *The Brady Bunch*, while possessing a physically possible refrigerator and even being a possible blending of two families, would be considered "unreal" by this definition if the show didn't portray relationships and human behaviour in a way that is consistent with the viewer's expectations about human nature. Adolescents have considered television families to be "unreal" when, for example, they were too nice to each other, had too few or too many problems, or had surroundings that were too beautiful to be true.[11] There is also a sense, though, of "real" being relative to the adolescents' own lives. As one adolescent said of the Australian soap opera, *Neighbours*, "It's probably realistic in Australia."[12] Another definition of "real" used at this age is really an aesthetic judgement about the acting and sets, referring to high technical quality that does not draw attention to the fake or constructed nature of the content.

Yet, for all these new abilities, adolescents rarely use them when they're watching TV. For adolescents, watching television is a passive, relaxing activity requiring low concentration, and they are most likely to do it when they are bored or lonely (much the same way adults do).[13] When adolescents do make use of their more mature cognitive and empathic abilities while watching television, it may have either a positive or a negative influence on the effect that television has on them. For example, they may use these abilities to dismiss what they see on television as unrealistic conversely, they may use these abilities to improve upon a crime that they have seen on television and are considering committing themselves.

> FOR ALL THEIR NEW COGNITIVE AND EMPATHIC ABILITIES, ADOLESCENTS RARELY USE THEM WHEN THEY'RE WATCHING TELEVISION.

Susceptibility to Imitating Television Violence and Crime

Adolescents are much more likely than younger children to doubt the reality of television content[14] and much less likely to identify with television characters.[15] Those who continue to believe in the reality of television and to identify with its violent heroes are the ones likely to be more aggressive, especially if they continue to fantasize about aggressive-heroic themes.[16]

Although concerns about imitative violence most often focus on preschoolers, with their lack of life experience and their belief in television's reality, it is actually copycat crimes or other acts of violence committed by adolescents that most often come to public attention.[17] Programs adolescents are likely to copy are those that demonstrate, in detail, the method of committing a crime. With their superior abstract reasoning ability, adolescents are capable of imagining and planning a real-life reenactment, including detecting and correcting the gaps or flaws that may have caused the television crime to fail.[18] In addition, their newfound appreciation of the relativity of rightness and wrongness, along with their tendency to challenge conventional authority, probably makes this the only group of viewers with a significant tendency to admire the wrongdoer.[19]

The steps that appear to be necessary for imitation of violent crimes from television and films are:

1) strong identification with the movie/program or its hero,
2) perseverance through extensive and elaborative fantasy about the program, and
3) the capacity to commit the physical act.[20]

An example of an imitated scene in film is the Russian roulette scene from *The Deer Hunter*, which may have caused an unusually large number of adolescents to identify with it because of its effective portrayal of a warm and committed peer group of young people. The scene was portrayed in a vivid way, using camera techniques (close-ups and shots from the protagonist's point of view) that likely increased identification by the viewer. In addition, the scene was relatively easy for American adolescents to recreate because of their ready access to guns.

In this example, the guns may have contributed more than just the means to commit the act. Sometimes the leap from thoughts to violent actions can be triggered by some cue common to both the adolescent's immediate environment and the "script" of the televised violent events.[21] For some imitators of this scene, the presence of guns in their environment may have brought *The Deer Hunter* scene to mind. Recent research in the United States suggests that adolescents are particularly vulnerable to imitating televised portrayals of suicide,[22] especially if these portrayals

> WHEN ADOLESCENTS INVEST MENTAL EFFORT WHEN WATCHING TELEVISION, IT MAY HAVE EITHER A POSITIVE OR A NEGATIVE EFFECT. FOR EXAMPLE, THEY MAY DISMISS WHAT THEY SEE ON TELEVISION AS UNREALISTIC, OR THEY MAY IMPROVE UPON A CRIME THAT THEY HAVE SEEN ON TELEVISION AND ARE CONSIDERING COMMITTING THEMSELVES.

are of real-life events.[23]

Perception of the World from Watching Television

Parents of adolescents are just as worried about the effects of television content on their children's fears as they are about effects on aggressions About 80 percent of adolescents watch horror movies or other material that scares them.[25] Watching violent content contributes to adolescents' sense of the world as a mean place, [26] although even adolescents who watch only a little television appear to feel much more vulnerable to crime than do young adults.[27] However, it appears that adolescents who do not consider the televised violence to be real

> THERE IS SOME DISAGREEMENT ABOUT THE PLEASANTNESS GIRLS EXPERIENCE FROM WATCHING HORROR MOVIES ON VIDEO. IN ONE STUDY, ADOLESCENT GIRLS REPORTED A MUCH LESS POSITIVE REACTION THAN BOYS DID FROM WATCHING VCR MOVIES, POSSIBLY BECAUSE OF THE HIGH FREQUENCY WITH WHICH WOMEN WERE VICTIMIZED AND DEVALUEDIN THE MOVIES THEY WATCHED.

will not see the world as a mean and scary place or feel an exaggerated sense of personal vulnerability to crime from watching violent or other scary content on television. In addition, adolescents who have been victims of crime or who know someone who has been a victim tend not to rely on television as their source of information about the likelihood of being victimized.[28]

Attraction to Horror Movies, Music Videos and Violent Pornography

Horror movies take on a new importance in the context of adolescents' concerns about sex, romance and further definition of sex roles. One study has found that young men seem to enjoy horror movies more when they are with a visibly frightened woman of the same age, and that young women enjoy horror movies more when they

are in the company of a young man who is apparently not frightened.[29] Watching horror movies together, then, may provide an opportunity for boys to comfort (and demonstrate their mastery of frightening situations) and for girls to be comforted, a ritual that is meaningful and pleasing to both in a dating context.

There is, however, some disagreement about the pleasantness of this experience for girls.[30] In another study, adolescent girls reported a much less positive reaction than boys did while watching VCR movies, possibly because of the high frequency with which women are victimized and devalued in the movies (especially horror movies) that adolescents most often watch. Adolescent girls have been reported to be more likely than boys to regret having seen horror movies.[31]

As might be expected, children begin watching more music programming during adolescence, although television is not the preferred medium for popular music.[32] One study of American cable subscribers found that 41 percent of younger adolescents included MTV in the repertoire of channels they used (compared with only 16 percent of their parents, whose average age was in the mid-thirties).[33] In a study of older American adolescents, 80 percent were MTV viewers.[34] As with VCR movies, girls have less positive experiences than boys do from watching music programming (both broadcast and videotape).[35] It has been argued that the high levels of violence toward women and the sexist imagery make music videos less attractive to adolescent girls. However, although both music videos and music television contain well documented sexist and racist imagery[36] and violence,[37] reviews of their content[38] indicate that they are not more violent than prime time TV and that - unlike violent TV they do not portray women more often than men as the targets of their violence.

> A SURVEY OF CANADIANS IN THE 1980S FOUND THAT ADOLESCENTS AGED 12 TO 17 WERE THE AGE GROUP MOST LIKELY TO REPORT VIEWING SEXUALLY EXPLICIT VIDEO MATERIAL. ABOUT 38 PERCENT OF THESE ADOLESCENTS SAID THAT THEY WATCHED SUCH MATERIAL ON TELEVISION, IN MOVIE THEATRES, OR ON VIDEOCASSETTES, AT LEAST ONCE A MONTH.

A survey of Canadians in the 1980s found that adolescents aged 12 to 17 were the age group most likely to report viewing sexually explicit video material[39]. About 38 percent of these adolescents said that they watched such material on television, in movie theatres, or on videocassettes, at least once a month. Canadians in this age group expressed the highest rate of acceptance (35 percent) for sexually violent or degrading material. (The next highest acceptance rate was 12 percent, among Canadians aged 18 to 34.)

The effects of violent pornography on male viewers are indeed worthy of concern. These effects include increased acceptance of violence against women, increased belief in rape myths (for example, that women really want to be raped), and increased tendency to use painful means of punishing women.[40] The effects on girls of watching violent pornography have not been much studied, although one study has found that young women's belief in rape myths was not affected by a film that served to increase those beliefs in young men.[41] It would be reasonable to expect that exposure to violent pornography would increase girls' fears and reduce their self-esteem.

For ethical reasons, most investigations of violent pornography have been done with adults (usually university students). However, it has been argued[42] that adolescents are even more likely than adults to be affected by exposure to violent pornography because

1) even among adults, younger people seem to be more influenced by violent and dehumanizing pornography,

2) their relative lack of experience and strong interest in sexual relationships may mean that pornography is their first exposure to detailed information about many sexual behaviours, and

3) sex education in Canadian schools tends to deal primarily with narrowly biological matters, so that adolescents may turn to media portrayals to learn about the social or interpersonal aspects of sexual relationships.

FOR ETHICAL REASONS, MOST INVESTIGATIONS OF VIOLENT PORNOGRAPHY HAVE BEEN DONE WITH ADULTS. HOWEVER, IT HAS BEEN ARGUED THAT ADOLESCENTS ARE EVEN MORE LIKELY THAN ADULTS TO BE AFFECTED BY EXPOSURE TO VIOLENT PORNOGRAPHY.

Suggestions for Parents

Parents impose few restrictions on the amount and types of programs their adolescents watch as they grow older.[43] It may, however, be wise for parents to continue to impose some rules, since adolescents who have no such restrictions are more likely to be fearful and to endorse the stereotypes portrayed on television. This is especially true of adolescents whose relationships with their parents lack warmth and closeness.[44] However merely maintaining warm and close relationships (a challenge worth pursuing in

DIFFICULT THOUGH IT MIGHT BE FOR PARENTS AND ADOLESCENTS TO DISCUSS MATTERS SUCH AS SEXUAL VIOLENCE, IT HAS BEEN SHOWN THAT DEBUNKING RAPE MYTHS EITHER BEFORE OR AFTER EXPOSURE TO "SLASHER" FILMS AND VIOLENT PORNOGRAPHY REDUCES THE NEGATIVE EFFECTS OF THOSE FILMS ON BELIEFS AND ATTITUDES.

its own right!) is not necessarily an effective strategy for modifying the influence of television on adolescents.

While watching television together has positive benefits, it has been found that when parents build their family cohesion around television viewing, the negative effects of television are intensified.[45] Under these circumstances, children watch more violence, have more faith in the reality of television portrayals, and say they learn antisocial activities (including aggression) from television.[46] Rather than just watching together, then, it would also be wise for parents to encourage adolescents to express their opinions and to analyze and question television content, since this strategy has been found to reduce adolescents' fears and aggressiveness.[47]

Difficult though it might be for parents and adolescents to discuss matters such as sexual violence, it has been shown that debunking rape myths either before or after exposure to "slasher" films and violent pornography reduces the negative effects of those films on beliefs and attitudes.[48]

Suggestions for the Television Industry

Little programming is available to Canadians that is intended specifically for adolescents, although their viewing patterns indicate an interest in programs that reflect the concerns of adolescents.[49]

Because of adolescents' particular vulnerability and attraction to the theme of suicide, programs that deal with this theme should be handled carefully. The usual pattern of increased incidence of suicide following the broadcast of programs about suicide did not occur when community-based educational campaigns were developed to go along with the televised film about suicide.[50]

Television content that promotes rape myths should definitely be avoided, as should portrayals of mischievous, dangerous, or violent behaviour that seems to promise fun, "kicks," or quick publicity. Program content should also avoid portraying violent behaviour as requiring little effort to achieve consequences that are so awesome and grotesque as to promise instant notoriety or publicity.[51] Rather, television content should portray the downside risks and consequences of violent behaviour in order to

discourage adolescents from imitating or endorsing such behaviour.

It might lessen the number of horror and pornographic videos adolescents watch if television programming were provided that addresses the particular needs and interests of adolescents.

Endnotes

[1]Caron, Frenette et al., 1992, Caron, Nardella et al., 1993, in Canada; Csikszentmihalyi and Larson, 1984, Fine et al., 1990, and Neumann, 1988, in the United States; and Johnsson-Smaragdi, 1983, and Rosengren and Windahl, 1989, in Sweden.

[2]Larson et al., 1989.

[3]Indeed, Lull (1990) calls the social use of television an extension of the family.

[4]Larson et al., 1989; Kubey, 1990; Csikszentmihalyi and Larson, 1984; Kubey and Csikszentmihalyi, 1990.

[5]Johnsson-Smaragdi, 1983.

[6]Csikszentmihalyi and Larson, 1984.

[7]Caron, Nardella et al., 1993; Hawkins, Reynolds and Pingree, 1991 Larson et al., 1989.

[8]Faber et al., 1986.

[9]Kelly, 1981.

[10]Dorr, 1983.

[11]Kelly 1981 and Buckingham, 1993.

[12]Buckingham, 1993, p. 230.

[13]Krendl and Lasky, 1989; Kubey and Csikszentmihalyi, 1990.

[14]Dorr, 1983.

[15]Johnsson-Smaragdi, 1983.

[16]See, for example, Huesmann and Eron, 1984; Dominick, 1984.

[17]See, for example, Stanley and Riera, 1976; Heller and Polsky, 1976.

[18]Heller, 1978, cited in Liebert and Sprafkin, 1988.

[19]Winick and Winick, 1979.

[20]Wilson and Hunter, 1983.

[21]Wilson and Hunter, 1983; Huesmann, 1982.

[22]Phillips and Carstensen, 1986; Gould and Shaffer, 1986; Gould et al., 1988.

[23]Phillips and Paight, 1987; Kessler and Stipp, 1984.

[24]Ridley-Johnson et al., 1991.

[25]Wass, Raup and Sisler, 1989; Cantor and Reilly, 1982.

[26]Potter and Chang, 1990.

[27]Potter, 1986.

[28]Slater and Elliott, 1982; Potter, 1986; Weaver and Wakshlag, 1986.

[29]Zillmann and Bryant, 1986.

[30]Kubey and Csikszentmihalyi, 1990.

[31]Cantor and Reilly, 1982.

[32]Larson et al., 1989; Caron, Frenette et al., 1992; Caron, Nardella et al., 1993; Greenfield, Bruzzone et al., 1987.

[33]Heeter et al., 1988.

[34]Sun and Lull, 1986.

[35]Larson et al., 1989.

[36]See, for example, Brown and Campbell, 1986.

[37]See, for example, Sherman and Dominick, 1986.

[38]See Gerbner, 1988, for a review of American research and Spears and Seydegart, 1993, for a review of Canadian content.

[39]Check et al., 1985.

[40]See, for example, Linz, Donnerstein and Penrod, 1984; see Malamuth and Billings, 1986, Malamuth

and Briere, 1986, and Malamuth, 1989, for a review.

[41]Malamuth and Check, 1981.

[42]Check and LaCrosse, 1989.

[43]See, for example, Lin and Atkin, 1989.

[44]Rothschild and Morgan, 1987.

[45]Rothschild and Morgan, 1987.

[46]McLeod and Brown, 1976.

[47]McLeod and Brown, 1976.

[48]Linz, Fuson and Donnerstein, 1990; Malamuth and Briere, 1986.

[49]Caron, Frenette et al., 1992; Caron, Nardella et al., 1993.

[50]Gould et al., 1988.

[51]Heller, 1978, cited in Liebert and Sprafkin, 1988, p. 125.

CONCLUSION

THE EFFECT OF TELEVISION VIOLENCE LEADS "AT-RISK" CHILDREN TO BE EVEN MORE AGGRESSIVE THAN THEY WOULD OTHERWISE BE, AND ALTHOUGH THE GROUP AT RISK MIGHT BE A MINORITY OF VIEWERS, THEY ARE LIKELY TO BE THE MAJORITY OF AGGRESSORS. THIS MAKES THEM WORTHY OF OUR ATTENTION, EVENIF WE WERE NOT CONCERNED ABOUT THEM FOR OTHER REASONS.

There are certainly things that parents can do to influence the effect that television content has on their children. However, an entertainment medium that purports to meet the needs of the Canadian public should not be so saturated with potentially harmful content that parents are considered negligent if they don't constantly monitor their children's watching. Children whose parents have the motivation and resources to be vigilant and active mediators will likely avoid most of the negative effects of violent content. But not all parents will do that, and, in fact, the children who are otherwise the most vulnerable to the effects of television violence may be the ones whose parents are least likely to be vigilant mediators (for example, abusive parents and parents of families in distress).

It is certainly true that television violence does not account for all the causes of children's aggression, and it is also true that some children are a great deal more likely to be affected by television violence than others, and that it is these children who are likely to be potentially more aggressive anyway. But the effect of television violence leads these "at-risk" children to be even more aggressive than they would otherwise be. And although the group especially at risk might be a minority of viewers, they are likely to be the majority of aggressors. This fact makes them, and the violent content of television, worthy of our attention.

APPENDIX 1:
effects of television violence on especially vulnerable groups

ABUSED CHILDREN WATCH MORE TELEVISION THAN OTHER CHILDREN DO, PREFER VIOLENT PROGRAMS, AND APPEAR TO ADMIRE VIOLENT HEROES. CHILDREN WHO ARE BOTH ABUSED AND WATCHERS OF A GREAT DEAL OF TELEVISION ARE LIKELY TO COMMIT VIOLENT CRIMES LATER IN LIFE.

Although it is beyond the scope of this report to discuss the matter in detail, there are groups of children who may be especially vulnerable to the effects of violent television, beyond the developmental considerations that have been raised here. These include:

1)   Children from minority and immigrant groups.[1] These children are particularly vulnerable because they tend to watch a great deal of television. Immigrant children may watch entertainment programs with the intent of learning more about the culture of their new count. Children from minority groups may not see many actors from their own culture represented, and those that they do see may be presented in a stereotyped or devalued way (for example, a member of a minority group being presented as the "bad guy"). A particular concern in Canada is the potential of television to "homogenize" cultures in a way that undermines cultural values.

2)   Children who are emotionally disturbed or who have learning disabilities.[2] These children may also watch a great deal of television and may prefer violent programs. They are more likely than other children to perceive television content as accurately reflecting the real world, and they may identify with violent characters.

3)   Children who are abused by parents. Abused children watch more television than other children do, prefer violent programs, and appear to admire violent heroes. Children who are both abused and watchers of a great deal of television are likely to commit violent crimes later in life.

4)   Families in distress. Children whose families are under high levels of stress watch more televisions and may receive less parental mediation of their television viewing and less support from their parents than other children do.

Endnotes

[1]See, for example, Berry and Mitchell-Kernan, 1982; Granzberg, 1985; Greenberg, 1986; and Zohoori, 1988.
[2]See Sprafkin et al., 1992, for an extensive review.
[3]See Donohue et al., 1988; and Heath et al., 1986.
[4]See, for example, Henggeler et al., 1991; Tangney, 1988; and Tangney and Feshbach, 1988.

APPENDIX II: responses to common criticisms of research on the relationship between television violence and aggression

EVEN IF WE CONSIDER ONLY THOSE STUDIES THAT HAVE MOST THOROUGHLY MET THE STANDARDS OF CRITICS, THE PATTERN OF RESULTS STILL SUPPORTS THE CONCLUSION THAT TELEVISION VIOLENCE LEADS TO INCREASED AGGRESSION.

There are critics who still do not accept the conclusion that violent television increases children's aggressiveness and fears.[1] The following are some typical criticisms that have been raised and responses to these criticisms that are usually made.[2]

1)   "The jury is still out on the effects of television: the research is inconsistent and flawed."

This report has reviewed only the research that is relevant to the question of how television violence affects children at different ages. Hundreds of studies have been done that were not reviewed for this report because they did not provide information on the effects of violence at different ages. The large majority of scholars who have studied this body of research have concluded that television does increase children's aggression and fears. Some scholars are not convinced, but they are in the minority. There are some studies that have not shown the effects, but the large majority of them have.

Although early research (especially from the 1950s and 1960s) was rightly criticized for being flawed, methods have since steadily improved. Designs have been improved, new designs have been adopted, and enough studies have now been done that a consistent pattern of effect has emerged. In fact, it is largely in response to the careful scrutiny of critics that the body of research has evolved to the point where we can now confidently draw the conclusions we do. Even if we consider only those studies that have most thoroughly met the standards of critics,[3] the pattern of results still supports the conclusion that television violence leads to increased aggression.

As a result, there is widespread agreement among credible authorities that television violence does increase children's aggression and fears. Reports supporting the conclusion have been circulated by the United States Surgeon General,[4] the Royal Commission on Violence in the Communications Industry,[5] the American National Institute of Mental Health,[6] UNESCO,[7] the American Psychological Association,[8] the CRTC,[9] and the Canadian House of Commons Standing Committee on Communications and Culture.[10]

2)   "The effect is too small to make much difference."

It is certainly true that, in any study where it has been studied, television violence does not account for all the variability in children's aggression. In most studies, television violence usually ranges somewhere around 10 to 20 percent of the variability.[11] Although this amount may seem small, it holds its own with other important determinants of aggression, such as gender and social class. Human behaviour is complex and multiply determined. No single variable is likely to be a "magic bullet" that accounts entirely for aggression or any other human activity.

3) "We don't even have a clear definition of violence."

It is true that many definitions of violence have been used in the research, but most of these definitions agree that violence involves a character doing deliberate harm to another creature. So we can, in fact, point to the conditions on the screen that are actually responsible for children's aggressiveness. Most Canadians are talking about a shared set of instances and examples when they make statements about television violence.

4) "Violence on TV is just reflecting real life."

The world as portrayed on Prime Time and Saturday morning television is much more violent than real

THE WORLD AS PORTRAYED ON PRIME TIME AND SATURDAY MORNING TELEVISION IS MUCH MORE VIOLENT THAN REAL LIFE. TELEVISION CRIME IS ABOUT 10 TIMES THE REAL-LIFE RATE, AND MOST DEATHS OF TV CHARACTERS ARE VIOLENT.

life. Television crime is about 10 times the real-life rate, and most deaths of television characters are violent.[12]

5)   "Violence is only on TV because that's what people want to watch."

As pointed out in this report, even though violent television programs tend to be popular with children and some adults, it is not the violence that makes them popular. Other attractive features of programs could be used to gratify audiences instead. George Comstock has suggested that it is really the creators of general audience programming who "welcomed violence as meeting the specifications for the product - conflict visually portrayable, conventions understood by all, attention-drawing action, and repeated crescendos of suspense amenable to punctuation by commercials."

Endnotes

[1]See, for example, Duhs and Gunton, 1988; Freedman 1986 and 1988; Locke, 1974; Lande, 1993; and
    Stipp and Milavsky, 1988.
[2]See, for example, Comstock and Strasburger, 1990; Friedrich-Cofer and Huston, 1986; Rosenthal, 1986;
    Silver, 1993; and Tan, 1986.
[3]For example, Turner et al., 1986; and Wood et al., 1991.
[4]Cisin et al., 1972.
[5]Royal Commission on Violence in the Communications Industry, 1976.
[6]Pearl et al., 1982.
[7]Gerbner, 1988.
[8]Huston, Donnerstein et al., 1992.
[9]Martinez, 1992.
[10]Canadian House of Commons Standing Committee on Communications and Culture, 1993.
[11]See, for example, Rosenthal, 1986; and Wood et al., 1991.
[12]See, for example, Gerbner, Morgan and Signorielli, 1982.
[13]Comstock, 1982.

APPENDIX III: research on the effects of violent video games

ONE WOULD EXPECT CHILDREN TO BECOME MORE AGGRESSIVE FROM PLAYING VIDEO GAMES THAN FROM WATCHING TELEVISION BECAUSE IN PLAYING VIDEO GAMES, CHILDREN ARE REWARDED FOR BEING SYMBOLICALLY AGGRESSIVE.

There is little research literature on the effects of violent video games on aggressive behaviour.[1] Although both children and their parents tend to evaluate video games more positively than television,[2] television violence and video-game violence are sufficiently similar that one would expect to find children becoming increasingly aggressive from playing violent video games. In fact, one would expect children to become more aggressive from playing video games than from watching television because in playing video games, children are rewarded for being symbolically aggressive.[3] It has been reported that children who play with toy weapons or play a competitive game become as aggressive as children who have been exposed to television violence.[4]

Most studies[5] have found no effects of video game violence on children's aggression, but one study did report that both video games and violent cartoons made children equally more aggressive in their play.[6]

SINCE VIOLENCE IS NOT AN IMPORTANT PART OF THE APPEAL OF VIDEO GAMES FOR CHILDREN, IT WOULD NOT BE IMPOSING UNDUE HARDSHIP ON EITHER GAME DEVELOPERS OR CHILD CONSUMERS TO PUT RESOURCES INTO THE DEVELOPMENT OR PURCHASE OF NON-VIOLENT GAMES - AT LEAST UNTIL SUFFICIENT RESEARCH HAS BEEN DONE ON THE EFFECTS OF THE GAMES.

Despite the sparse evidence pointing to the negative effects of violent video games, there are reasons to be cautious about making assumptions that they are harmless. It should be kept in mind that research on televised violence also started out reporting small and relatively benign effects,[7] as well as attracting criticism for its poor methodology. Once researchers understood the medium and the target behaviours well enough to design adequate studies, effects became apparent and were found more consistently. The same may well be true for research on video games.

In addition, the video games that have been the subject of the aggression studies have been fantasy games with nonhuman targets,[8] and all but one of these have studied the effects on children of elementary school age. Games with human or human-like targets may have much stronger effects, and younger children, who do not distinguish so clearly between reality and fantasy, may be more affected.[9]

Finally, it has been pointed out that violence is not an important part of the appeal of video games for children.[10] It would not be imposing undue hardship on either game developers or child consumers to put resources into the development or purchase of nonviolent games - at least until sufficient research has been done on the effects of the games.

Endnotes

[1]Ledingham et al., 1993.

[2]Sneed and Runco, 1992.

[3]Loftus and Loftus, 1983.

[4]Huston and Wright, 1989; Turner and Goldsmith, 1976; and Rocha and Rogers, 1976.

[5]Three studies reviewed by Ledingham et al., 1993.

[6]Silvern and Williamson, 1987.

[7]Himmelweit et al., 1958; Schramm et al., 1961.

[8]Loftus and Loftus, 1983.

[9]Berkowitz and his colleagues (for example, Berkowitz and Geen, 1966) have found that the similarity of real- life and film targets was an important contributor in increasing children's aggression after watching violent films.

[10]Greenfield, 1984.

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