

suggests that the terror of death did not manifest itself until life became more precious.

2. The annual reports of London's Local Government Board show not only a marked decline in smallpox deaths among the London poor between 1871 and 1881 but also an increase in the percentage of deaths in hospitals over deaths at home. In 1871-1872, the total number of dead equaled 9,742, of which 6,509 had died in private houses. In 1881, the death total was 2,371; 797 had died at home (Rivett, 1986, p. 91).

3. On January 8, 1853, the *Illustrated London News* wrote that "Life Assurance" was important, but only 240,000 people had taken it out. That is already a large-enough number to swell the tide of fancy funerals, and if this paper was urging people to buy insurance, presumably the matter was a topic of some interest.

4. *Illustrated London News*, July 24, 1858, p. 77. On the Metropolitan Intermments Act, see Morley, 1971, p. 50.

5. Though the general decline is unmistakable, religious belief and its diminution are notoriously difficult to pin down and vary from place to place and time to time. See, for instance, McManners, 1985, p. 440, on the "de-Christianization" of death rituals in France in the late eighteenth century, and Pelling, 1964, for a brief discussion of the decline of religion in large cities in England in the nineteenth century, especially among the working classes, although Scotland, Wales, and Ireland, as well as smaller English towns and rural areas, remained more religious.

6. Loyette cites Jean-Paul Bouillon, (Ed.), *La critique d'art en France, 1850-1900: Actes du colloque de Clermont-Ferrand 25, 26 et 27 mai 1987* (Saint-Etienne France: CIEREC, 1989), p. 51 n. 26.

7. My thanks to Joel Wallman for reminding me that these crimes might scarcely have existed for the public, or for history, had it not been for the press.

8. *Harper's*, March 5, 1859, p. 1; March 12, 1859, pp. 168-69; March 19, 1859, p. 1; January 4, 1862, p. 2. *Figaro* cited in *Harper's* October 30, 1869, p. 698.

Immortal Kombat: War Toys and Violent Video Games

JEFFREY GOLDSTEIN

Attractions of War Toys and Violent Video Games: *Jurassic Park* Meets *StreetFighter II*

The second most profitable item on the entertainment agenda in 1993 was the film *Jurassic Park*. Its financial success was exceeded only by a video game with violence as its theme. "One single game—*StreetFighter II*—made \$1.5 billion last year [1993]. Nothing, not even *Jurassic Park*, touched that success in the entertainment business," said screenwriter Michael Backes (quoted in Covington, 1994). Nineteen ninety-three also saw two versions of the video game *Mortal Kombat* in the shops: the original version, sold by Sega, with its notorious decapitations and blood-dripping spinal cords, and a sanitized version in which the violence was toned down, offered by Nintendo. Although there were more Nintendo than Sega game systems present in U.S. households, the bloody Sega version of *Mortal Kombat* outsold the less violent version by about 7 to 1.¹

There appears to be a ready market for violent entertainment. Perhaps there always has been. Playing at and with images of war and violence is nothing new. It is certainly not a product of the electronic or television age. In this chapter we consider the appeals of playing at and with violence and war. In considering not only the passive witnessing of violence but also its mock reenactment in play, this chapter has a slightly different vantage point than the remaining chapters in this book. We begin with play fighting and go on to toy soldiers, war toys, and video games with violent themes. The pronounced sex differences in this kind

of play are examined to better understand its appeal to some youngsters, particularly boys.

Aggression and Play Fighting

Sometimes I accompany teachers to the playground during recess to watch elementary-school children at play. Boys are seen running, chasing, pretending to shoot one another or to be shot, or they stand face-to-face as they go through martial-arts movements. Girls, more often than not, do not participate in this highly active, raucous, almost anarchic play. Instead, they stand mostly in small groups talking animatedly, their conversations punctuated by shrieks and laughter.² When asked to describe what they see, the teachers invariably say that the boys are aggressive and the girls are "nice" and not aggressive.

In many respects, the boys' play resembles real aggression, which also involves running, chasing, and fleeing. But there are differences between play fighting and real fighting, notably in facial expressions, the longer duration and repetition of play fighting, and the fact that the boys remain together once these play episodes have run their course (Boulton, 1991; Costabile et al., 1991; Fry, 1990; Pellis & Pellis, 1996; Smith & Boulton, 1990; Wegener-Spöhring, 1994). The main difference—the defining feature of aggression, which is absent from aggressive play—is the intent to injure another person.

The boys recognize these differences and are cognizant that they are playing, not fighting. In fact, if some boys fail to observe this distinction—fighting while their counterparts are pretending to fight—they will be excluded from subsequent play (Willner, 1991). Boys generally agree that play fighting can become real fighting, particularly when accidental injury occurs. This happens only occasionally, according to many studies (Fry, 1990; Humphreys & Smith, 1984; Pellegrini, 1988; Sutton-Smith, Gerstmyer, & Meckley, 1988).

The girls standing and chatting on the playground, in contrast to the boys whose play is more active, may be engaged in aggression if their behavior is designed to injure someone. Social ostracism and gossip are often used by girls to hurt other girls, and thus constitute a form of aggressive behavior (Bjorkqvist, Lagerspetz, & Kaukiainen, 1991; Bjorkqvist & Niemela, 1992). What at first sight appears to be aggressive boys and nonaggressive girls may, in deed and in consequence, be the other way around.

Attitudes toward War Toys and Aggressive Play

Critics tend to focus on the similarities and overlook the distinctions that make *aggressive behavior* and *aggressive play* independent. Many studies fail to distinguish aggressive play from aggressive behavior. For

example, Sanson and DiMuccio (1993) claim that children who viewed an aggressive cartoon and then played with the associated aggressive toys were more aggressive than other children. However, the researchers fail to distinguish between pretending to shoot someone (aggressive play) and trying to injure someone (aggressive behavior).

Societal attitudes toward war play are, and apparently always have been, ambivalent (Beresin, 1989; Goldstein, 1995; Twitchell, 1989; Wells, 1913). Aggressive play, including war play and video games with violent themes, elicits two major reactions from adults (see Smith, 1994). Opponents argue that war play impoverishes the child's imagination, fosters imitative violence, perpetuates war, and is unseemly (Carlsson-Paige & Levin, 1987; Miedzian, 1991). Proponents of this sort of play argue that it is a natural, even inevitable aspect of boys' play. They point out that the young males of all primate species engage in play fighting. Furthermore, this sort of play heightens imagination, teaches role taking, and affords the child an opportunity to try to come to terms with war, violence, and death. Proponents argue also that war play reflects adult behavior and values.

Parents and teachers who view children's play from a distance seem less often to make a distinction between play fighting and real fighting. In a study of English and Italian parents' attitudes toward war play, parents did not consistently see aggressive play and aggressive behavior as different. Attitudes toward war play in the home are diverse, although parents seem most concerned about war play in girls (Costabile, Genta, Zucchini, Smith, & Harker, 1992).

Men and women differ in their interpretations of rough play. According to studies by Kathleen Connor (1989), women are more likely to interpret rough play as aggression, while men are more likely to see it as play. Connor videotaped 4- and 5-year-olds playing with toy trucks, dolls, and crayons (neutral toys) or with GI Joe, Rambo, guns, and grenades (war toys). Fourteen of these play episodes were shown to university students, who classified each as "play" or "aggression." Men and women viewed 10 of the 14 episodes differently. For example, in one incident, two boys and a girl are playing with toy guns. They decide that shooting a "dead" person with his own weapon restores him to life. In the incident, a "dead" boy is shot and revived in this way. Seventy-five percent of the men viewed this as playful, compared to only 38 percent of the women. "Aggression is in the eye of the beholder," writes Connor; women in comparison to men are more likely to label an episode as aggression.

Women who as children had engaged in aggressive play were more apt to interpret the episodes as play than as aggression. Likewise, parents with firsthand experience of video games have more favorable attitudes toward them than do adults with no experience (Sneed & Runco, 1992).

Perhaps the Connor study shows only that men and women differ

in their use of the word "aggression." But it does not matter if her results reflect "only" differences in vocabulary, since play that is labeled aggression will be treated differently than play not so called. For example, men will be more likely to allow the play to continue, while women may be more likely to try to stop it. Still, perhaps it is a mistake to regard aggressive play and aggressive behavior as completely independent. Surely the similarities between them are not accidental; one must have something to do with the other. What is the relation between war play and war? Between aggressive play and aggression?

The World at War Play: Relations between Violence and Aggressive Play

And sometimes for an hour or so
I watched my leaden soldiers go,
With different uniforms and drills
Among the bedclothes, through the hills.

—Robert Louis Stevenson,
"The Land of Counterpane"

Toy soldiers are among the oldest known toys, excavated from ruins throughout the ancient world, in Syria, Egypt, and Asia (Fraser, 1966; Foley, 1962; Mergen, 1982; Twitchell, 1989; Wells, 1913). Miniature soldiers and miniature weapons are thought to have been used to teach future generations of warriors the art of war. "Where girls had their dolls, the boys also had their soldiers," wrote Antonia Fraser (p. 51). "The lands and islands of the Mediterranean have all provided evidence of the ancient making of model warriors in metal or clay, and tiny Roman war-like figures have been found in Spain, Germany, Britain and even Abyssinia."

Of course, toys and games bear some relation to the culture of which they are a part. "In a martial era boys will inevitably turn to soldiers," writes Fraser. "Children's toys often reflect a nation's concept of a hero, and children as far back as in Greek times have had a predilection for war games as illustrated by [a] clay war chariot from Athens" (Fraser, 1966, p. 47).

Although they have long since lost their military association, playing cards, chess, and checkers began as games of military strategy. Playing cards originated in ancient India and were designed to teach military tactics to young nobles. Unlike chess, checkers, and backgammon, which were also developed to teach military strategy, playing cards have two different red armies and two different black armies, allowing for more intricate maneuvers as well as a greater number of possible participants in the game (Reid, 1993).

The highest level of symbolic aggression is found in games in which one opponent directly attacks another, such as by capturing or neutralizing an opponent's piece (as in checkers, chess, or the Japanese game go). "Only a few games other than organized sports have retained overt aggression, such as 'King-of-the-mountain' and 'Flinch' (the latter involves one person hitting another if the other moves in response to the pretend action of hitting)" (Reid, 1993, p. 327). According to Loy and Hasketh (1992), competitive play among nineteenth-century Plains Indian boys helped to prepare them for their future role as warriors. In the modern world, too, bellicose cultures permit or encourage warlike play (Keefer, Goldstein, & Kasiarz, 1983; Roberts & Sutton-Smith, 1962; Sipes, 1973).

War Play during Times of War

Although war toys made of clay and wood are ancient artifacts, we must speculate on their use and popularity. Mass-manufactured tin soldiers may have begun with the exploits of Frederick the Great, King of Prussia from 1740 to 1786, which, according to Foley (1962), "captured the imagination of the whole world" (p. 62). Tin soldiers were produced in Nuremberg from 1760 on. German manufacturers, such as Johann Hilpert and Ernst Heinrichsen, emerged as Europe's first mass producers of toy soldiers. In the nineteenth century the major toy supplier was Germany, whose wares included fully modeled three-dimensional lead soldiers produced by the firm of George Heyde. The French firm of Mignot turned out a similar product, which found a ready market in Britain.

Toy soldiers became popular in Europe after the introduction of professional standing armies. By the early nineteenth century, new metals and cheaper production considerably widened the toy-soldier market. There was a substantial output of toy soldiers in late Victorian and Edwardian Britain (1875–1910). Among those who participated in the craze for toy soldiers were Robert Louis Stevenson, Jerome K. Jerome, G. K. Chesterton, H. G. Wells, and Winston Churchill.

What of the relationship between toy soldiers and militarism? Brown (1990) has written a history of toy soldiers, focusing specifically on nineteenth- and early-twentieth-century Britain. He believes that war games contributed to a buildup of aggression that resulted in enthusiasm for World War I. He identifies two ways in which toy soldiers and war were linked at the turn of the century. First, toy soldiers formed part of a continuum of militaristic influences to which boys were exposed. Implicit in simulated battles played with toy soldiers are "the ideas of enemy and conflict. Here perhaps the toys may have contributed to that build up of aggression which, in some commentators' views, explains the rush to the colours in 1914" (p. 248). Brown's second argument is that toy soldiers were insidious because they "helped to reinforce a particular view

TABLE 3.1 Correlations among War Toys, War Movies, and Militarization

	War Movies	War Toys
Militarization	.83	.74
War Movies		.64

Adapted from Regan, 1994, p. 52.

of the nature of war." Was it to this romanticized, heroic version of war, he asks, that the volunteers of 1914 thought they were going? Brown adds, "In the last resort, it is impossible to prove conclusively that playing with toy soldiers had any influence at all on subsequent behavior. . . . Nor was any relationship necessarily a straightforward causal one. Some individuals doubtless took to the soldiers because their enthusiasm for martial matters had already been fired by other aspects of contemporary militarism."³

Interest in war toys and war movies is correlated with heightened public support for military expenditures, according to a study by Patrick Regan (1994), who examined the prevalence of war toys, war movies, and militarization within the United States for the years 1900–1985. War toys were measured as the proportion of military toys in the Sears catalog and war movies as the proportion of U.S. films with war themes. Militarization was regarded as the percentage of the labor force involved in the production and preparations necessary to wage war. The main findings appear in table 3.1, which shows strong relationships among the three measured variables.

According to Regan, "toys, movies, and the education system help to form mental images of the dominant norms within the society" (p. 48). He says not that the creation and manipulation of these symbols is responsible for these dominant norms, "but rather that they are part of the process in the militarization of society" (p. 52).

The studies by Brown and Regan both demonstrate a relationship between war and war toys. This, as both note, does not imply causality. Offerings of war toys and war movies rise and fall with militarization, perhaps reflecting the attitudes of the people who choose them, or who choose to produce them.

There is at least one study showing a causal relation between war and war play. Shortly after the bombing of Pearl Harbor, Hawaiian schoolchildren began to play more war games and make more toy weapons (Bonte & Musgrove, 1943). Girls, too, took part in this play, making buildings to be "bombed" and playing the roles of military nurses.

The salience of war influences the propensity for war play, as these studies illustrate. If children are first "primed" by listening to aggressive stories, they are more likely to choose toy weapons for play (Jukes &

Goldstein, 1993; Lovaas, 1961). The reasoning underlying this research is that exposure to violence activates aggressive associations and images. These, in turn, heighten the preference for further exposure to violence (Berkowitz, 1984). Lovaas (1961) found that an aggressive prime influenced the aggressive toy preferences of 5-year-olds. Children who viewed a violent television program chose to play with an aggressive toy; those who had seen a nonviolent program preferred a nonaggressive toy. Priming also affects preference for violent film entertainment (Langley, O'Neal, Craig, & Yost, 1992). One study reported an increase in attendance at violent films by University of Wisconsin students following the murder of a student on campus (Boyanowsky, Newton, & Walster, 1974). There is also anecdotal evidence to support the priming position. During the Persian Gulf War, sales of replica missiles skyrocketed, though the market for these expensive models consisted mainly of adults (Goldstein, 1994).

Video Games with Violent Themes

The most recent—though certainly not the last—manifestation of violent toy play are video games with aggressive themes.⁴ Video games occupy an interesting position among the various forms of entertainment considered in this book. They fall somewhere in the middle of a continuum from passive viewing of violence, as in film or spectator sports, to active reenactment of violence, as in aggressive play.

Based on a content analysis of the then best-selling video games, Malone (1981) concluded that video games are attractive (to boys) to the extent that they contain the following characteristics:

- uncertainty
- speeded responses
- multiple levels of difficulty
- sound effects
- feedback/scoring, and
- gradually revealed hidden information.

Although these are structural, not content, qualities of video games, violence may be featured in many of these ways. Indeed, it is difficult to think of potential video games that meet these criteria that do *not* rely upon shooting, intercepting, chasing themes. Nevertheless, many or all of these features can, in principle, be achieved without violent images.

One difference between violent video games and violent images on television and in film is that video-game players, in contrast to television viewers, exert *control* over what takes place on the screen (Goldstein, 1994, 1995). They are participants in a quasi-interactive system that allows them to regulate the pace and character of the game. This, in turn, gives them increased control over their own emotional states during

play. A substantial body of research demonstrates that perceived control over events reduces the emotional or stressful responses to those events (e.g., Cortez & Bugental, 1995; Langer & Rodin, 1976; see Cantor, this volume).

A study at the University of Utrecht (Goldstein, Claassen, van Epen, de Leur, & van der Vloed, 1993) found attenuated emotional reactions to violent imagery when viewers had control over the images. Students viewed a 10-minute violent scene from a film (*Rambo*) with or without a remote control in their hands. They then completed a mood adjective checklist measuring their emotional states immediately after viewing. Those who had control (although they rarely used the remote-control device) experienced less negative reactions to the violence than those without (the remote) control. Because video-game players have more control than, say, TV viewers, perhaps the effects of violent images are reduced. An alternative explanation for these findings is based on Bem's self-perception theory (1972): those with the remote control rarely used it and therefore may have concluded that the violence could not have been very disturbing. Whatever the correct explanation, the violence in video games may have different consequences than the violent images found in other media.

Explanations for Aggressive Play

How has children's perennial interest in aggressive play and war toys been explained? Table 3.2 contains a distillation of the various accounts that have been offered. For the sake of convenience they are divided into three categories: biological/physiological, psychological, and social/cultural. These are neither exhaustive nor mutually exclusive. All three levels of influence can occur simultaneously and may interact with one another. Furthermore, not all of these have been studied closely or at all (Goldstein, 1995). They are offered here to demonstrate the diversity of positions about the appeal of one sort of violent entertainment: aggressive play. Where possible, I cite evidence that bears on the utility or validity of an explanation.

Biological Foundations of Play Style and Toy Preference

Some theories of rough-and-tumble and other forms of aggressive play are based on the idea of energy regulation. For example, Herbert Spencer (1891) wrote that "surplus energy" not needed for more serious pursuits is burned up in play. This idea is still found in the use of school recess to allow children to "blow off steam" after sitting through their lessons (Pellegrini, 1989). Recent versions of this position are based not on the discharge of "energy" but on the regulation of "arousal" of one sort or

TABLE 3.2 25 Reasons for Play with War Toys

Biological/Physiological

1. To discharge energy
2. To achieve a desired level of arousal/stimulation/excitement
3. "Hard-wired" tendency to practice adult skills and roles
4. Hormonal and genetic influences

Psychological

5. To engage in fantasy/imaginative play
6. To experience "flow"
7. In response to priming/salience of violence
8. To come to terms with violence, war, death
9. To achieve a desired emotional state
10. To experience and express intense emotions
11. To see justice enacted
12. To control and resolve conflict satisfactorily
13. To practice strategic planning
14. To set goals and determine effective means for accomplishing them; to gain a sense of mastery
15. To experience intimacy

Social/Cultural

16. Direct modeling by peers or family
17. Indirect modeling: influences of media, marketing
18. To belong to a group
19. To exclude oneself from a (negative reference) group (e.g., parents, girls, boys who disapprove of these games)
20. Rewards and encouragement for such play
21. Salience within a culture of war, violence
22. To wield power; to affect others
23. To elicit a predictable reaction from parents/teachers
24. To sample a variety of adult roles
25. As a reflection of cultural values—dominance, aggression, and assertion

another (Apter, 1992; Barber, 1991; Burghardt, 1984; Zillmann, this volume).

The different activity levels of boys and girls may help explain their play styles and toy preferences. Children with a high need for movement and activity may play with traditionally masculine toys because these permit highly active play. The strong differences between males and females in the appeal of violent entertainment can be explained on the basis of their differing needs for arousal and excitement (Eaton & Enns, 1986; Maccoby & Jacklin, 1974).

Boys, who in most situations are restrained in their public display of emotion, may also find violent entertainment an appropriate medium

for the experience and display of strong emotions. This should not be confused with catharsis, which is the purging of emotion. In the guise of aggressive play, boys can shout, express passion, and share these intense experiences with their peers. Perhaps males can overcome the social pressures on them not to be emotional or intimate with other males only in a hypermasculine context, like aggressive play and games.

THE PRACTICE HYPOTHESIS

The philosopher Karl Groos (1898) viewed play as preparation for adulthood. In a safe setting, the young of many species, including humans, practice roles and learn skills that they may need to succeed later in life. This is known as "the practice hypothesis." It is supported by observations that children's play reflects activities and roles found in the larger adult society (Fry, 1990; Parker, 1984; Roberts & Sutton-Smith, 1962; Sipes, 1973).

How do the youthful participants in rough-and-tumble play know that it is play and not to be taken as aggression? According to ethologists and others who study play *in situ*, there are nonverbal signals or cues that "this is play" (Bateson, 1955; Boulton, 1991; Fry, 1990; Smith & Boulton, 1990). Facial expressions, the duration and repetition of the activity, the wish to remain together following aggressive play all signal that it is something other than true aggression. The message communicated by these cues, that the activity is not to be taken seriously, appears also to be important in our enjoyment of other forms of violent portrayal—films, television programs, and video games, for example. (See chapters by Hoberman, Tatar, McCauley, and Zillmann in this volume.)

Humphreys and Smith (1984) observe that "the most likely original function of human rough-and-tumble play . . . is as practice for fighting and hunting skills. This is the only hypothesis which has so far provided a convincing explanation of the forms of the activity and the appreciable sex differences" (p. 262). Since that was written, studies have reported a link between prenatal exposure to sex-linked hormones and the play and toy preferences of boys and girls.

SEX DIFFERENCES IN AGGRESSIVE PLAY: BOYS R US

Boys as young as 2 years of age show a preference for tanks, planes, toy guns, and male action figures (Almqvist, 1989; Singer & Singer, 1990). Interviews with a (nonrepresentative) sample of 5- and 9-year-old German schoolchildren found that 76 percent of the boys owned toy guns, compared with 29 percent of the girls (Wegener-Spöhring, 1989). In a 1994 U.K. survey, 13 percent of boys said they liked violent themes in video games (Phillips, Rolls, Rouse, & Griffiths, 1995). A second English survey found that 44 percent of boys and 11 percent of girls

preferred video games with violent themes (Cumberbatch, Maguire, & Woods, 1993). If an aggressive theme, like blasting an enemy, is added to a video game, its popularity increases among boys but decreases among girls (Malone, 1981; see Cantor, this volume).

Someone once said that if you gave dolls to 100 boys and footballs to 100 girls, within the hour most of the boys would be kicking the dolls around the room and the girls would be nurturing the footballs. Is there any truth to this ugly tale?

Although sex differences in rough-and-tumble play and preference for aggressive toys are reliably found, the reasons for these differences are in dispute. Explanations span a wide spectrum—from prenatal exposure to hormones (Meyer-Bahlburg, Feldman, Cohen, & Ehrhardt, 1988; Berenbaum & Hines, 1992) to social modeling (Shell & Eisenberg, 1990) and marketing/advertising influences (Karpoe & Olney, 1983; Kline & Pentecost, 1990; Schwartz & Markham, 1985).

Specific toy preferences have been related to prenatal exposure to hormones. Both boys and girls exposed prenatally and in early postnatal months to high levels of androgens, the male hormones, showed greater preference for traditionally boys' toys at ages 3 to 8 years (Berenbaum & Hines, 1992; Berenbaum & Snyder, 1995). Studies by Meyer-Bahlburg et al. (1988) have documented the relationship between prenatal exposure to the synthetic female hormone progesterone and rough-and-tumble play in both sexes. Early exposure to progesterone is related to reduced levels of aggressive play.

Even if there are biological bases of toy play, however, this does not preclude a host of psychological and social influences. We consider some of them below.

Psychological Explanations for Aggressive Play

Historian Bernard Mergen (1982) says that the creation of imaginary worlds is "the most important characteristic" of war toys (p. 164). To the extent that war toys stimulate imaginative play, they are related to a variety of positive cognitive and social skills (Singer, 1994).

Flow

Intense, repetitive play may result in an altered state of consciousness, referred to as "flow" by Csikszentmihalyi (1990). Perhaps play scripts are so often repeated because their familiarity has a different "feel" from other, more improvised play. Active play that occurs during flow states is experienced as more positive and desirable (Goldstein, Calko, Oosterbroek, Michiels, Houten, & Salverda, 1997; Stein, Kimiecik, Daniels, & Jackson, 1995; Turkle, 1984). Aggressive play may be repeated because it lends itself to this experience. This interpretation still does not

explain what there is about specifically aggressive or war play that makes it such a common vehicle for the experience of flow. The use of imagination or of repetitive acts is not limited to play with war toys but can be stimulated by any toy and by many sorts of play. So the question remains why war play is particularly appealing to some boys at some times.

Salience of Violence

Two school teachers in Hawaii reported an increase in war play shortly after the bombing of Pearl Harbor. Bonte and Musgrove (1943) attribute their students'—both boys and girls—greater interest in war play to the heightened anxiety brought on by the bombing.

But it does not take a Pearl Harbor to make war and violence salient to children. Brian Sutton-Smith (1988) has said that boys learn at an early age that it is men who fight and die in all those wars and crimes that fill the news, the papers, and the screens large and small. In their aggressive war play they try to envision what lies in store for all too many of them (Lahey, 1996).

Relative to other children, aggressive boys prefer aggressive toys (Jenvey, 1993; Watson & Peng, 1992). In a study of 7- and 8-year-old English schoolchildren, Jukes and Goldstein (1993) found a correlation of +.63 between aggression (as measured by questionnaire) and preference for war toys. The correlation for girls was not statistically significant.

These findings are consistent with research by Lefkowitz, Eron, Walder, and Huesmann (1977), also with children of about this age. Although a relationship was found between boys' aggression and violent television program preference, Lefkowitz et al. did not find a similar relationship for girls. They suggest that this is due to social pressures that discourage girls from watching violent television. Similar forces may deter girls from playing with aggressive toys.

The relationship between play with aggressive toys and level of aggressive behavior says nothing of cause and effect. Nevertheless, it provides one answer to the question of which children most like this sort of play, even if it does not tell us why.

AGGRESSIVE ENTERTAINMENT AND THE SEARCH FOR JUSTICE

Aggressive/war play may be an attempt by children to achieve a complete or satisfactory resolution to conflict, which in real life, is so difficult to achieve. This type of play, if it is not prematurely terminated (for example, by teachers or parents, or by the accidental injury of a playmate), plays itself out, so to speak—it lasts until children mutually agree to

terminate it. This allows for a "peaceful" resolution to conflict, a sense of closure, and often an enactment of the child's sense of justice, with evildoers receiving their just desserts. De Waal (1989) has observed a similar sort of peaceful resolution of conflict among primates.

The idea that justice may lie beneath an attraction to violence has been tested, not with toys or video games, but with violent films (Boy-anowsky et al., 1974; Langley et al., 1992; Wakshlag, Vial, & Tamborini, 1983). In a replication and extension of these studies, we⁵ asked 30 university students to read one of three newspaper articles: (1) an article about a violent crime with a just resolution (arrest and confession), (2) one about a violent crime without resolution (unknown assailant escaped), or (3) a noncrime article. Students then selected from a list of films with accompanying descriptions those films they would most like to see at that moment. There was a significant preference for films depicting successfully resolved violence after subjects had first read a newspaper article about an unresolved violent crime. If we can extrapolate from these findings, children select scripts for their play that enable them to enact conflict and aggression that end in ways that are satisfying to them. Although this simple study bears replication, it suggests that perhaps not all the motives for aggressive play stem from aggression or negative emotions. Instead, there may be positive reasons behind such play—the wish to see justice restored or to be reassured that good prevails over evil. Likewise, many children may use aggressive play not as a way of being antisocial, but as a way of joining in intense and satisfying activities with their peers.

Social Bases of Aggressive Play

The often horrified reactions of adults to unseemly or aggressive play may reflect what Norbert Elias (1969) refers to as "the civilizing process." Violence is increasingly removed from public view, and what violence remains is less tolerable to people. (See Goldberg, this volume.)

Children's identities are made known to their peers by the clothes they wear, the toys they play with, and the music they listen to. Children use sex-typed toys to identify with a particular group, to distinguish themselves from others, and to elicit predictable reactions from others, particularly approval or disapproval from parents and teachers (Goldstein, 1995).

Early exposure to particular hormones influences children's play styles and toy preferences. So, too, does early exposure to the behavior of parents, siblings, and peers. Sex-stereotyped play increases with age, reflecting mainly parental and peer modeling (Moller, Hymel, & Rubin, 1992; Parten, 1933; Rheingold & Cook, 1975; Zammuner, 1987).

Whether a toy is perceived as appropriate for a boy or a girl is determined partly by the child's same-sex peers. In a study by Shell and



FIGURE 3.1 *Kinderspiele* (Children's games), painted in 1560 by Pieter Bruegel, shows many varieties of horseplay and rough-and-tumble. Courtesy Kunsthistorisches Museum, Vienna.

Eisenberg (1990), 4- and 5-year-olds viewed a toy as a "boys' toy" if they previously observed mainly boys playing with the toy and as a "girls' toy" if girls were seen playing with the toy. Children, particularly boys, tend to avoid the toy preferences of age-mates of the other sex (Ruble, Balaban, & Cooper, 1981).

When children choose toys considered appropriate for their sex, playmates of the same sex are more likely to approach them (Eisenberg, Tryon, & Cameron, 1984; Moller et al., 1992). Indeed, among the reasons for making these toy choices may be the desire for peer approval, the wish to avoid negative reactions from peers, and the desire to engage in further interactions with same-sex peers (Cooper, Hall, & Huff, 1990; Shell & Eisenberg, 1990).

Parents are also sex-role models for their children. According to Catherine Garvey (1991), sex-typed toy preferences are due to "parents' influence as models and to their approval or support of children's interest in sex-stereotyped objects" (p. 54). Many studies report that parents are likely to purchase sex-stereotyped toys for their children, particularly if the parents themselves hold traditional sex-role attitudes (Eckerman & Stein, 1990; Rheingold & Cook, 1975; Zammuner, 1987).

Adults pass their own attitudes on to children along with the toys they give them. As these attitudes change among parents, they are reflected in toy purchases for their children (Singer & Singer, 1990).

Conclusions

Toy soldiers and weapons are as old as any known toys. Aggressive play and military toys are ancient; they certainly are not a product of the modern age. Even though they may be regarded as universal, the popularity of war toys and aggressive play themes changes with changing circumstances. They are to be found especially in cultures where war and aggression are prevalent. The relationship between adult culture and children's play is not necessarily a causal one. Both war and war play may reflect the prevailing values of the cultures in which they flourish, values that stress aggression, assertion, and dominance.

Aggressive and war play are found mainly among boys. Attitudes toward and views of aggressive play vary with the sex and childhood experiences of the observer. Those who played with war toys as children, for example, are less opposed to them than those who lack such experience. The latter group, of course, consists disproportionately of women.

Many interpretations of aggressive play are possible, ranging from biological necessity to social by-product. We are not in a position to choose one from among them and proclaim it as the explanation for aggressive play. We can, however, point to the plurality of influences that appear to give rise to and sustain periodic interest in aggressive play.

Of the more than two dozen explanations for the appeals of aggressive play shown in table 3.2, we have discussed about 20 here. There is little to go on besides speculation for many of them. For example, in their war play children may make elaborate strategic plans for attack and defense, and for some children this may be an appealing feature of such play. But there is virtually no research on this subject and no theory that addresses the attractiveness of strategic planning. Likewise, there is nothing but anecdotal evidence to support explanations about the exercise of power or the sense of competence to be gained from war play.

On the basis of the weight of evidence alone, one would have to favor the biological explanations—the practice hypothesis in particular—and the social modeling and imitation positions. However, like the drunk who looks for his lost keys under the lamppost because the light is better there, psychologists tend to study what has been studied before. So basing conclusions on the sheer quantity of evidence alone may be inadequate.

Children play with toy weapons for many reasons, many of them having nothing to do with aggression or war, although war and violence may temporarily enhance or dampen enthusiasm for such play.

Notes

1. *Mortal Kombat 2* was on the shelves in time for Christmas 1994. This time around Nintendo chose not to dilute the violence and to compete head-to-head with Sega.
2. Iona Opie (1993) observed similar sex differences on the playground, although she notes that girls fight too.
3. Concerning Brown's point that enthusiasm for war may have contributed to an interest in toy soldiers, Jukes and Goldstein (1993) did not find heightened interest in war toys by boys during the Gulf War. However, this may have been due to the very high level of interest in war toys that predated their study.
4. The first published experiment of virtual reality I have seen is an experiment on the effects of violent virtual reality games (Calvert & Tan, 1994).
5. Jeffrey Goldstein, Carla Claassen, Elsbeth van Epen, Wieger de Leur, and Gert van der Vloed.

4

“Violent Delights” in Children’s Literature

MARIA TATAR

“Children don’t read to find their identity. They don’t read to free themselves of guilt, to quench their thirst for rebellion, or to get rid of alienation. They have no use for psychology. They detest sociology” (Singer, 1994). These words reveal just how repellent the notion of bibliotherapy was to Isaac Bashevis Singer, who believed that children read because they love stories and are fascinated witnesses to what is enacted in them—especially when it takes the form of “violent delights,” to use Shakespeare’s oxymoronic formulation. Singer rightly stresses fascination over function, but his evident disdain for considering the sources and implications of that fascination speaks volumes about our cultural unwillingness to consider the degree to which that fascination is a product of adult calculation and has been instrumentalized by adults. The cultural stories to which we have exposed children over the centuries—those that have real staying power—are more than pure entertainment devoid of psychological weight or social significance. The stakes are always high when words and images prove so riveting that a child remains wide-eyed at story time or is unable to put a book down.

Violence as a Laughing Matter

Few scholars, researchers, or parents will contest the notion that children are fascinated by violence, whether it takes the form of Bugs Bunny in a pot of boiling water, Snow White opening the door to an old hag handing out red apples, or Max squaring off with the Wild Things. But this fascination with catastrophic events, with perilous encounters, and

