A Content Analysis of Violence in American War Movies

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In a content analysis of movie violence, we randomly selected twelve top-grossing American war films from four decades (1970 to 2002). We coded for implements of violence, length of violence, gore, and violence directed at noncombatants. We hypothesized that recently released war movies would be more violent than those released earlier. We found that films released since 1990 did contain more violence compared to others. Further, the intensity of gore increased in recently released movies.

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Many are concerned about media violence (Slocum, 2000; Morag, 2000; Verrips, 2001; Gitlin, 1991; Giroux, 1995). Studies such as those done by Bar et al. (2001) and Sargent et al. (2002), showed that movies, television, and even video games have become increasingly violent over time. According to Lancet’s *Reel Violence* (1994), 8,000 murders and 100,000 acts of violence are witnessed by children before they reach the age of eleven. In one day, researchers noted 138 murders, 333 gunfights, and 175 stabbing/club attacks between the hours of 6:00 AM and noon on ten different television channels (excluding news broadcasts). A significant number of these violent acts happened during television’s “children’s hours” of 6:00–9:00 AM and 2:00–5:00 PM. Violence in the media has been linked with “imitative violence, aggressive behavior, acceptance of violence as a solution, increased feelings of hostility, and willingness to deliver painful stimuli to others” (Sargent et al., 2002). Exposure to movie violence in particular could result in more aggressive behaviors because movie violence is more salient than the violence shown in television programming (Lancet, 1994). Some maintain that movie violence conditions audiences, especially children, to become more careless and violent (Ferguson, 2002).

The vast majority of Americans believe modern movies are too violent and consider such violent imagery a serious social problem (see AMA, 1996). Media violence is generally seen as a problem because it may desensitize viewers, making them less sensitive to violence in general; it may cause viewers to distort their world view, which increases their fear of victimization; it may lead to behavioral effects where viewers imitate violence thereby increasing antisocial behavior as well as increasing their taste for ever more media violence (see also *Media Violence*, AAP Committee on Communications, 1995; Potter, 1999). We believe it is important to better understand media violence. We contribute to the literature by examining media violence in an area where such violence can be presented as acceptable, namely violence in war movies. War, Danto (1978) wrote, offers a license for violence, whereby anything that contributes to victory is legitimate. Similarly, Milano (1988) maintained that some Hollywood studios glorify warfare and deliver fast action products marked by continuous violence. Milano (1988) argued further that an increase in sales of war toys and high-tech weapons follows in the wake of war films that romanticize the use of military machinery. Action-packed war films may well contribute to the cause of groups aiming to increase public support for conflict/war efforts.

We examined both the severity and amount of violence in American war movies. To capture severity, we created a “gore” scale to measure the degree of violence in films. In addition, we measured how much time during the film was devoted to violence. We hypothesize that recently released war films are more violent and gory compared to movies released earlier. We analyzed how violence has changed over time in war films, because other researchers have neglected this
film genre (see Browne et al., 2002). While there has been some discussion of violence in particular war films, especially the Vietnam era war films, we need a better understanding of how war and conflict are mirrored on film and how this has changed over time. We expected more violence in recently released war movies compared to movies released earlier because we were influenced by the work of Bar et al. (2001), Sargent et al. (2002), and Giroux (1995). A taste for violence, like any addiction, needs more of a fix over time. We believe that it will take more violence, and more graphic violence, to capture the attention of modern audiences.

A basic concern with media violence is that the consequences of violent acts are generally not shown (see Giroux, 1995; Browne et al., 2002). Violence in the media can affect children in many ways, including aggressive behavior, desensitization to violence, nightmares, depression, sleep disturbances, and fear of being harmed (Bar et al., 2001; Giroux, 1995; Huesmann, 1986; Singer & Singer, 1986). The strength of the correlation between media violence and aggressive behavior is even greater than the correlation found between calcium intake and strong bones (or tobacco smoke and lung cancer) (Bar et al., 2001). Thus, while many see a correlation between media violence and aggressive behavior, few (Sargent et al., 2002; Rule & Ferguson, 1986) posit that media violence actually shapes the way children behave. Still, Ferguson (2002) made the point that media violence negatively affects us all (see also Verrips, 2001; Browne et al., 2002; Boggs, 2001; Tarasov, 1996; Morag, 2000).

Boggs (2001) wrote that postmodern cinema often depicts society in the midst of chaos and violence, which encourages feelings of cynicism and complacency. Film, Boggs (2001) argued, has a deleterious effect on collective political activity as viewers accept the turmoil of what is rather than feeling empowered to create change (see also Bisi, 1995; Karaganov, 1974; Romanov, 1975). Similarly, Rondeli (1995) suggested that the abundance of movie violence makes it difficult to distinguish between what is real and what is not (see also Verrips, 2001).

In the 1950s, crime and violence were featured in only 15% of prime time television shows. By 1990, that percentage jumped to between 70% and 80% for programs during prime time (Lancet, 1994). Oliver and Kalyanaraman (2002) did a content analysis of violence and sexuality in movie previews. Movie previews are critical in determining whether or not a person will view a particular film. The amount of violence in a movie preview is positively correlated with the amount of violence in that film. Today, more than 75% of movie previews show at least

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Many researchers (Cowan & O’Brien, 1990; Weaver, 1991; Molitor & Sapolsky, 1993; Linz & Donnerstein, 1994; Pinedo, 1996) have examined violence in slasher films. Interest in these films centers on the perpetrator of violence, the gender of the victim, and which characters survive. The combination of sex and violence in this subgenre of horror movies is much different from violence in war movies. Violence in war movies, we believe, is more realistic. Further, gender questions that researchers focus on in slasher films are generally lacking in war movies.
one aggressive scene, at least one gun scene appears in more than 45% of movie
previews, and an explosion occurs in 28% of all previews (Oliver & Kalyanaraman,
2002). Many assume that the extent of violence in modern films is the result of a
more socially acceptable attitude toward violence. Audiences of modern films have
grown not only to accept but to expect realistic movies that portray the graphic,
gory details of violence (McArthur et al., 2000; see also Rothman, Rothman, &

Methodology

Film Selection

We randomly selected three top-grossing popular American war films for each
of four decades (1970 to 2002). From the websites www.worldwideboxoffice.com
and www.suncoast.com, we constructed our sampling frame. We used the
original dates that the movies were released to date movies. Many of these movies
have been released on DVD, so we checked the above websites and the movie web-
site to ensure the original release date was correct. Our sampling frame included
the following movies. From this list, we randomly selected three films from each
Tora (1970)*, A Bridge Too Far (1977)*, Apocalypse Now (1979); A Rumor of War
(1980), Das Boot (1981), How Many Miles to Babylon (1982), The Scarlet and the
Black (1983), Missing in Action (1984), The Highest Honor (1984), Last Days of
Patton (1986), Platoon (1986)*, Full Metal Jacket (1987)*, Good Morning Viet-
Memphis Belle (1990)*, A Midnight Clear (1992), Gettysburg (1993), Crimson
Pearl Harbor (2001)*, Hart’s War (2002), K-19 The Widowmaker (2002), We
Were Soldiers (2002), and Windtalkers (2002).

Coding Scheme

Before coding began, we watched the film We Were Soldiers (2002) to help
define our categories and to serve as a pretest for code reliability. We coded for
implements of violence, the ratio of battle scenes to the duration of the movie,
gore, and violence other than soldier to soldier (noncombatants). These categories
were selected because we believe they represent our understanding of the amount
of violence and gore in a war film.

When coding for implements of violence, we used six categories. They were:
by hand, blades, primary weapons, small arms, artillery, and explosives/bombs.
Violent acts by hand include hand-to-hand combat, using the butt of the gun, shipping, and torching. For each movie, we counted each time any one of these acts occurred. The blade consists of knives, swords, and bayonets. The third category, primary weapons, is broad because different primary weapons were used in different wars. For instance, in *Glory*, the primary weapon was the musket or carbine, and the primary weapon used in Vietnam was the M-16. The primary weapon is defined as the weapon used in the film that corresponds with the time period of the war. Thus, the primary weapons category is tied to how wars were fought. During the Civil War, men lined up and fired all at once. In coding, this was called a volley and was counted as 20 shots fired. Since the M-16 used in Vietnam was semiautomatic or fully automatic, each bullet could not be counted. Therefore, with weapons that fire multiple shots, we counted the number of times the trigger was pulled, instead of gunshots. So, an M-16 may fire four bullets if it is semiautomatic but this was counted as only one shot. On the other hand, a fully automatic M-16 can fire 30 bullets on one trigger pull; this, too, was counted as one shot. Thus, this rating is a conservative estimate of gun power violence in later wars. The trigger-pull idea also applies to airplane fire (Tommy guns), because individual shots were impossible to count. In the film *Black Hawk Down*, there were helicopters (little birds) that had large caliber machine guns that fired many bullets at once. We counted each round of firing at 20. Also, in coding the category, only violence that was seen during the movie was counted. Thus, during battle scenes when gunshots were heard but not seen, the shots were not counted.

The next category is small arms, which consists of all handguns. Next is artillery, which comprises tanks, canons, mortars, howitzers, flak (anti-aircraft fire), self-propelled artillery, and other large guns. The last category, analyzing implementations of violence, is explosives, which includes land mines, C4, flamethrowers, grenades, grenade launchers, and dynamite. In this category, we included missiles and bombs. These were usually dropped from planes. We also included depth chargers in this category because they are dropped from ships. To get a ratio of battle scenes to the length of the movie, we timed the length of each battle scene. At the end of the movie, the times were added together. Using the total battle time and the length of the film, the ratio was then calculated.

We defined gore as a bloody wound resulting from an act of violence. Gore was coded in two ways. First, we coded for specific instances of gore. Next, we created a gore scale ranging from one to five, one being the least gory. We labeled a typical bullet wound as the bottom of the scale: for example, seeing blood resulting from a gunshot. An example of what would be coded as a three would be a gunshot to an artery with blood spouting out. For a scene to be coded as a five, it would have to be extremely gory. For instance, if a person were gruesomely burned to the point of bone being exposed, it would be coded as a
Our gore score is the total scaled points for all specific instances of gore in each film. For example, if a film has seven instances of gore then the gore score could range from seven (each instance rated one) to thirty-five (each instance rated five). Our gore rating is the total number of incidences of gore divided by the gore score.

The final area of violence we coded was violence other than soldier to soldier (noncombatants). This was broken into four categories: children, women, animals, and civilian structures. Each act of violence directed at noncombatants was counted and tallied at the end of the film.3

Analysis

Six movies fell in our earlier period (1970s and 1980s), and six movies were released in the later period (1990s and after). Looking at the mean differences in implements of war between these two periods, we found that movies released in the earlier period had 14.2 instances of hand-to-hand combat, compared to 17.8 in the later period. Little mean difference was found between these two periods (earlier compared to later) for blades (3.3/12), artillery (63.7/64.3), or explosives (37.3/61.2). However, for primary (185/523.8) weapons and small arms (4/20.2), there was more violence in recently released war films compared to those released earlier (see Table 1).

The ratio of battle scenes to the length of the movie increased over our two time periods. For the later period, there was a mean of 22.2 minutes of battle time compared to 11.7 minutes in earlier films. The gore ratio also increased in later films that had a mean gore ratio of 2.93 compared to a mean gore ratio of 1.68 in earlier war movies. Similarly, there was more violence among noncombatants in later films ($X = 18.5$ instances total) compared to earlier ones ($X = 8.7$ instances). Next, we looked for significant differences between implements of war, the ratio of battle scenes to the entire film, gore and violence involving noncombatants, and the period (earlier vs. later) in which the film was released.4

In terms of the implements of war, we found no significant difference between decades involving hand-to-hand combat, blades, artillery, or explosives. However, we did find a significant difference in the area of primary weapons ($t = 2.19$; due to concerns regarding subjectivity in coding gore, five coders coded for gore. When there was any discrepancy in coding, the majority rule applied. Inter-coder reliability was excellent. Rarely was there discussion on how to code gore. We believe that differences in what was perceived as gory varied primarily by gender. Male coders tended to code gore more conservatively than female coders.7

Giroux (1995) defines three categories of violence in his analysis of pulp fiction: ritualistic, symbolic, and hyper-real violence. Pulp fiction, he finds, exhibits both hyper-real and ritualistic violence, which are socially destructive.

Due to our small sample size, we did not find as many significant differences by periods as we expected.
<table>
<thead>
<tr>
<th>Movie Title</th>
<th>Incidents of Violence</th>
<th>Length of Violence</th>
<th>Gore</th>
<th>Total (Women Children, Civilian Structures &amp; Animals)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hand</td>
<td>Blades</td>
<td>Primary</td>
<td>Small</td>
</tr>
<tr>
<td><strong>Earlier period</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Bridge</td>
<td>4</td>
<td>1</td>
<td>255</td>
<td>7</td>
</tr>
<tr>
<td>Patton</td>
<td>2</td>
<td>0</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>Tora</td>
<td>0</td>
<td>0</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Full Metal</td>
<td>56</td>
<td>0</td>
<td>184</td>
<td>1</td>
</tr>
<tr>
<td>Glory</td>
<td>14</td>
<td>13</td>
<td>401</td>
<td>6</td>
</tr>
<tr>
<td>Platoon</td>
<td>9</td>
<td>6</td>
<td>134</td>
<td>0</td>
</tr>
<tr>
<td><strong>Later Period</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Hawk</td>
<td>9</td>
<td>0</td>
<td>1046</td>
<td>39</td>
</tr>
<tr>
<td>Private Ryan</td>
<td>17</td>
<td>1</td>
<td>514</td>
<td>11</td>
</tr>
<tr>
<td>Memphis Belle</td>
<td>0</td>
<td>0</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>Thin Red</td>
<td>14</td>
<td>5</td>
<td>397</td>
<td>13</td>
</tr>
<tr>
<td>Pearl Harbor</td>
<td>6</td>
<td>0</td>
<td>222</td>
<td>34</td>
</tr>
<tr>
<td>Patriot</td>
<td>61</td>
<td>66</td>
<td>838</td>
<td>24</td>
</tr>
</tbody>
</table>

*% shows the percentage of violence in movie (running time divided by time devoted to violence in the film).
There was more violence and gunfire in movies from the 1990s and 2000s than there was in movies from the 1970s and 1980s. Again, we believe the primary weapons category was coded conservatively during later wars because of the difficulty of counting when automatic weapons were used. We found more small arms (handguns) used in later war films compared to those films released earlier.

Gore was broken down into two categories (instances and severity). We found no significant difference in terms of instances of gore between decades. We did, however, find a significant difference in the overall gore rating between decades ($t = 2.46; p = .03$). Although there was approximately the same number of gory scenes between decades, the graphic intensity of these scenes increased over time. We also found a significant difference in the percentage of time devoted to violence in movies of the 1990s and 2000s compared to those of the 1970s and 1980s ($t = 4.04; p = .002$). There is a higher content of violence in more recent movies. Not only did our findings show that the amount of violence has increased over the decades, our study shows that the graphic nature of the violence has increased in intensity as well. We did not find a significant difference in violence among noncombatants between decades.

**Discussion**

We analyzed violence in top-grossing American war movies released in the 1970s and 1980s compared to those released from 1990 to 2002. We expected to find more violence in movies released since 1990. We did find more violence in these war movies, as well as the use of more small arms (handguns). Further, we found that the intensity of gory scenes in war movies has increased over time. Although the number of instances in which gore appears in war movies has not changed significantly, the intensity of the gore has changed. We did not find any significant differences between decades in hand-to-hand combat or in the use of blades, artillery, or explosives. We also found no differences in violence directed at noncombatants between time periods. Nevertheless, we find overall more violence and gore in movies released since 1990 compared to those released between 1970 and 1989. It might be worthwhile for future researchers to untangle the reasons for increased violence in modern movies. Is it because the movie-going audience wants and expects to see such action or is this the type of movie that producers and directors believe will succeed (see also Powers, Rothman, & Rothman, 1996)?

Our study only includes war violence, which is often deemed socially acceptable, so our contribution to the literature on media violence is limited. Further, our sample size is small. Nevertheless, we wanted to explore the concept of degree of violence, or gore, in war films, and we believe we have made a start. In future work, researchers might refine a measure of gore and better capture how the explicitness of violence has changed over time. Further, researchers might aim
to measure violence heard in film but not seen. It would also be interesting to see if violence in film, in general and within specific film genres, has increased over time.

Our work shows that there is more violence in recently released war films, as well as more graphic violence, compared to those films released earlier. We expect this trend to continue. Perhaps audiences have grown numb to the amount of violence in war films and that is why the degree of violence or gore has increased over time. Our work does not support the idea that media violence increases societal violence. While violent crimes have been declining in the United States since 1970, violence in the movies we examined has increased.

At this point, the desire for government intervention to regulate the film industry seems ill advised. Concern about government regulations outweights what may be gained by a stricter rating system. In any discussion of possible government regulation of media violence, difficult questions must be addressed. Who defines the problem? How are regulations formulated and enforced? What penalties are levied? We believe public education and debate is a better direction to take.

Discussion of the causes and consequences of media violence is important both in schools and in the wider community. We need to think critically about media violence and how such violence affects society as a whole. A national education campaign promoting a dialogue between producers/directors and activists concerned about media violence could lead to a stricter rating system based on voluntary participation. Currently, movie ratings are based on age groups and are defined by the extent of sex, violence, and strong language in the film (see Federman, 1996). Given our findings that recently released war films are more violent and gory than those released in the 1970s and 1980s, policy makers may want to reconsider how films are rated. Instead of the current rating system, films could be rated separately by sex content, violence content, and strong-language content. This distinction would provide more information for those wanting guidance in particular areas. More empirical research that explores the connections between exposure to various types of violence and how such exposure shapes behavior, ideas, and the public imagination may convince more people that media violence is not benign. Perhaps in the end, if the public sees media violence as a social problem and recognizes the possible consequences of graphic and subtle violent imagery, movie viewers will vote with their dollars and feet and not support films (and other media) that contain such material.

Our work provides empirical support to those who argue that audiences of modern film accept, indeed expect, the graphic and gory details of violence (see McArthur et al., 2000; Rothman, Rothman, & Powers, 1990; Morag, 2000). How the degree of exposure to such violence shapes aggressiveness or desensitizes one to societal problems merits future research. Surely, extensive viewing of graphic violence by both children and adults is a media and social issue that merits continued debate and better understanding.
References

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