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FILM VIOLENCE AND SUBSEQUENT AGGRESSIVE TENDENCIES*

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In a world greatly concerned about peace, it seems ironic that there should be so much violence. Not only are the newspapers filled with reports of mob action, forceful overthrow of established governments, and local wars, but the mass media also present a surprisingly large number of fictitious accounts of violence. The relation of such themes to fundamental aspects of human nature and their effect upon human behavior are a matter of dispute. Here is a study aimed at developing experimentally some evidence with respect to the effect of the presentation of violence in moving pictures.

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FEW contemporary social problems outside the political arena have received as much attention from Main Street, Madison Avenue, and Washington as the question of the effects of violence in the mass media. By and large, the controversy centering around this problem has generated more heat than light. The present paper will review a portion of the pertinent research literature, and then will try to show that some tentative conclusions can be advanced concerning the effects of filmed aggression.

Repeating many of the charges leveled against movies in the 1920's and 1930's,[1] some critics have accused motion pictures, television, and even comic books of causing, stimulating, and encouraging socially improper attitudes and behavior. Media violence, such writers contend, degrades tastes, seduces the innocent, and incites crime and juvenile delinquency. On the opposite side of the argument, however, a substantial group of authorities have claimed that such fantasy aggression often has socially beneficial effects by providing safe, vicarious outlets for the supposedly pent-up hostile energy within the audience.[2]

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1 See W. W. Charters, *Motion Pictures and Youth: A Summary*, New York, Macmillan, 1935.

2 A more comprehensive discussion of these charges and countercharges, together with reviews of relevant empirical investigations, can be found in the following sources: Leonard Berkowitz, *Aggression: A Social Psychological Analysis*, New York, McGraw-Hill, 1962; J. T. Klapper, *The Effects of Mass Communication*, Glencoe, Ill., Free Press, 1960; and W. Schramm, J. Lyle, and E. B. Parker, *Television in the Lives of Our Children*, Stanford, Calif., Stanford University Press, 1961.

There is some empirical evidence to support both the prosecution and the defense. While most quantitative surveys seem to indicate that the mass media probably do not have much of a role in the development of *persistent* criminal and delinquent characteristics,[3] several recent laboratory investigations have shown that TV and movie violence can instigate aggressive behavior immediately following the aggressive scene. Other laboratory research, on the other hand, points to an apparent reduction in the strength of the aggressive drive after viewing filmed aggression.

What are the conditions determining whether media violence will increase or decrease the likelihood of subsequent aggressive behavior? One obvious factor has to do with the emotional state of the audience at the time the film is seen. The experiments obtaining indications of film-instigated hostility typically employed subjects who had not been aroused to anger prior to the aggressive movie. For example, Lovaas found that nursery school children exposed to an aggressive movie cartoon made more aggressive responses with a toy than did other children shown a less violent film,[4] while Bandura, Ross, and Ross noted that preschool youngsters who witnessed the actions of an aggressive adult model on a movie screen tended to imitate this behavior later after they had been subjected to mild frustrations.[5] Such instigational effects are not limited to young children. Walters, Thomas, and Acker demonstrated that male hospital attendants with a median age of thirty-four years who had witnessed a filmed knife-fight scene generally administered more severe punishment to a peer via electric shocks soon afterward than did comparable hospital attendants shown a more innocuous movie.[6]

Feshbach has hypothesized that these instigational effects are unlikely to occur if the audience is angry when viewing the hostile film.[7] According to his thesis, symbolic expression of aggressive responses, or participation in vicarious aggressive activity, will weaken the instigation to subsequent aggression only if the aggressive drive has been aroused

[3] See the above mentioned sources, as well as Hilde T. Himmelweit, A. N. Oppenheim, and Pamela Vince, *Television and the Child*, London, Oxford University Press, 1958.

[4] O. Ivar Lovaas, "Effect of Exposure to Symbolic Aggression on Aggressive Behavior," *Child Development*, Vol. 32, 1961, pp. 37-44.

[5] Albert Bandura, Dorothea Ross, and Sheila A. Ross, "Imitation of Film-mediated Aggressive Models," *Journal of Abnormal and Social Psychology*, Vol. 66, 1963, pp. 3-11.

[6] Richard H. Walters, Edward L. Thomas, and C. William Acker, "Enhancement of Punitive Behavior by Audio-Visual Displays," *Science*, Vol. 136, 1962, pp. 872-873.

[7] Seymour Feshbach, "The Stimulating versus Cathartic Effects of a Vicarious Aggressive Activity," *Journal of Abnormal and Social Psychology*, Vol. 63, 1961, pp. 381-385.

at the time of participation in the fantasy activity. From his point of view, then, the previously cited studies obtained a heightened occurrence of aggressive responses after exposure to the media violence because the subjects had not been angry at the time. To buttress his argument, Feshbach reported that deliberately angered male college students exhibited less hostility on a questionnaire and word-association task after witnessing a filmed prize-fight scene than did similarly insulted men shown a more neutral movie.

Berkowitz has questioned the symbolic catharsis hypothesis, however, contending that the angered individual will experience a cathartic relief of internal tension only to the extent that he believes that the anger instigator, or someone closely associated with him, is aggressively injured by himself or some acceptable substitute.[8] Symbolic catharsis is possible, according to this formulation, but should generally be relatively ineffective as a means of reducing the instigation to aggression. As a test of the symbolic catharsis hypothesis, Berkowitz and Rawlings conducted an experiment in which male and female college students received either anger-arousing insults or a more neutral, noninsulting treatment from a male test administrator.[9] Following this, another experimenter, a woman, introduced the film they were to see and gave the subjects a brief outline of the plot. In half the cases, in both the angered and nonangered groups, the subjects were told the movie protagonist was a downright scoundrel, while the remaining subjects were informed that he had been the victim of unfortunate circumstances and that he really wasn't a "bad guy." Since the filmed scene showed this fantasy character taking a fairly bad beating in the course of a prize fight, the students in the former condition presumably regarded the fantasy aggression as being more justified—a villain was receiving his "just deserts"—than did the subjects in the latter condition.

Berkowitz and Rawlings maintained that the symbolic catharsis hypothesis would make a definite prediction for the angered subjects witnessing the justified fantasy aggression. Assuming the justification information lowers the audience's restraints against aggression, the decreased inhibitions should facilitate the catharsis process. Because they now have weak guilt-aroused barriers against aggressive responses, these people should enter wholeheartedly into the aggressive scene shown to them and, consequently, should experience a relatively strong emotional "purge." As a result, they then should have relatively little residual hostility toward the anger instigator.

[8] Berkowitz, *op.cit.*

[9] Leonard Berkowitz and Edna Rawlings, "Effects of Film Violence on Inhibitions against Subsequent Aggression," *Journal of Abnormal and Social Psychology*, Vol. 66, 1963, pp. 405-412.

The instigational conception of movie aggression favored by Berkowitz and Rawlings, on the other hand, predicts the opposite effect. According to this argument, people seeing fantasy violence under conditions lowering their inhibitions against aggressive responses should display an increased likelihood of subsequent aggression. The results of their experiment supported the Berkowitz-Rawlings formulation. The angered college students viewing the justified fantasy aggression generally expressed stronger hostility toward the insulting test administrator than did the similarly treated subjects shown the less justified aggression scene.

These findings are potentially of some importance, both theoretically and practically. Without fuller knowledge of the conditions either arousing or reducing the instigation to aggression, our understanding of this drive is at best incomplete. Research into the effects of movie violence can contribute to this knowledge. Thus, as indicated by the Lovaas and Walters experiments, stimuli presented on the movie screen apparently can arouse previously learned aggressiveness habits, producing overtly hostile behavior.[10] Further investigations may help clarify the nature of these instigational stimuli.[11] Similarly, future studies in this area may tell us what conditions lead to a decreased likelihood of overt aggression, either by inducing guilt or anxiety reactions or by providing an opportunity for hostility catharsis.

But in addition to their bearing on such theoretical questions, the Berkowitz-Rawlings findings pose a problem for the social regulation of media violence. Agencies seeking to control media depictions of crime and aggression generally insist that a lesson must be taught: the audience must be left with the message that crime does not pay. By and large, these control agencies do not prescribe how the lesson should be taught or the message conveyed, just as long as the criminal is caught and the villain receives his come-uppance. If there is any consistent principle regulating how punishment is to be administered to the screen villain, it seems to be the Mosaic injunction of an "eye for an eye." Such a reciprocity may be emotionally satisfying for the audience, but, the Berkowitz-Rawlings study suggests, it nevertheless may lead to socially harmful consequences. If the villain or criminal is

[10] Lovaas, *op.cit.*; and Walters, Thomas, and Acker, *op.cit.*

[11] In his discussion of the effects of violence in the mass media, Berkowitz has proposed that the likelihood that depicted aggression will serve as a cue setting previously learned aggressiveness habits into operation increases with each of the following factors: (1) the strength of the aggressiveness habits; (2) the intensity of the hostile tendencies evoked by the media violence; (3) the degree of association between the fantasy situation and (a) the situations in which the hostile habits were learned, and (b) the postfantasy setting; and (4) the intensity of the guilt or aggression anxiety also aroused by the fantasy violence (see Chapter 9 in Berkowitz, *op.cit.*).

defeated or punished aggressively, receiving the treatment he administered to others, we clearly have a case of justified aggression. This type of fantasy violence may actually increase the likelihood that some recently angered member of the movie or TV audience will attack his own frustrater, or perhaps even some innocent people he happens to associate with the anger instigator. Seeing the fantasy villain "get what he deserved" may make the angered individual more inclined to hurt the villain in *his* life, the person who had angered *him*.

Because of these implications, the writers repeated and extended the original Berkowitz and Rawlings experiment. As before, some subjects were deliberately angered, while others were not provoked, and, again, the prize-fight scene was shown, with some of the subjects being told the film protagonist was a scoundrel, and others given a kindlier description of him. The present study, however, also employed some additional controls. First, some of the angered and nonangered subjects were shown a neutral film in order to assess whether the aggressive film itself had any anger-arousing effects. If we can generalize from the previously cited investigations by Lovaas and by Walters and his colleagues, will the subjects witnessing the prize-fight scene display stronger overt hostility than the people viewing the neutral movie even though they had not been angered before seeing the film?

What hostility is aroused in the experiment may, of course, generalize to people other than the test administrator (who insulted the subjects in the angered conditions). Thus, as a second type of comparison, we also ask whether ratings of a second, neutral person would be affected by the experimental treatments.

A third question has to do with the consequences of the presumed relatively strong restraints against aggression in the provoked subjects shown the less justified fantasy aggression. In a subsidiary analysis of the data obtained from the first experiment, Rawlings found that these angered but inhibited people tended to exhibit stronger hostility displacement (in attacks upon the experiment rather than the test administrator) than the less inhibited subjects in the justified fantasy aggression condition. This observation is consistent with the reasoning underlying the frustration-aggression hypothesis.[12] According to this well-known social science doctrine, frustrations increase the instigation to aggression, whether the interference prevents the satisfaction of some drive, such as for food or ego enhancement, or blocks the individual from making the aggressive responses he wants, and is set, to

[12] See *ibid.* and the original monograph presenting the frustration-aggression hypothesis: John Dollard, Leonard Doob, Neal Miller, O. Hobart Mowrer, and Robert Sears, *Frustration and Aggression*, New Haven, Conn., Yale University Press, 1939.

perform. If an angered person cannot attack his frustrater as he wants to do because of his inhibitions, he is thwarted still more and his aggressive inclinations theoretically are increased. As a consequence, there is a stronger instigation to aggress against other objects. Where the less inhibited individual directs his aggression primarily against the person who he believes has provoked him and exhibits relatively little displaced hostility toward other objects, the restrained individual shows comparatively little aggression toward the frustrating agent but relatively strong hostility toward other objects.[13] Extending this reasoning to the present study, we would expect the following: to the extent that there are stronger restraints against aggression in the angered subjects viewing less justified fantasy aggression than in those insulted people seeing the justified aggression, the former should display weaker hostility toward the anger instigator (the test administrator) but a comparatively stronger dislike for the experiment.

METHOD

The subjects were male college students enrolled in the beginning psychology course at the University of Wisconsin who had volunteered to serve in an experiment for which they would receive points counting toward their final course grade. Each subject (S) signed up without knowing the nature of the experiment.

When each S, scheduled singly, came to the assigned experimental room, he was greeted by one of the two experimenters, MH, who introduced himself and explained the ostensible purpose of the investigation. He told S that the experimenters were graduate students interested in studying physiological reactions to various tasks, and that after S had rested for a few minutes MH would take his blood pressure and then he or the other graduate experimenter, RC, would give S various tasks to perform. Five minutes later MH strapped the blood-pressure apparatus onto S, obtained the baseline pair of systolic pressure readings, and after asking S to perform the first task—counting backward from 100—took the second set of readings. MH then released the blood-pressure cuff and, after telling S that the other experimenter, RC, was interested in physiological reactions to complex intellectual tasks and would administer the next phase of the study, left the room. The second experimenter, RC, came in after MH had gone.

Experimental procedure and manipulations. RC established the first experimental variations. He gave S a page from a standard multiple-choice intelligence test (actually used for high school students, although S did not know this) and said he would like S to complete the problems on the page as quickly as possible. In half the cases (the *angered* condition) RC explained the test in an extremely condescending manner, and insulted the intellectual competence of students at the university while doing so. He also badgered and insulted S while he worked on the problems. The remaining S's, those in the *nonangered* condition, received a neutral treatment from the test administrator.

[13] Data consistent with this formulation are reported by Albert Pepitone and George Reichling, "Group Cohesiveness and the Expression of Hostility," *Human Relations*, Vol. 8, 1955, pp. 327-337.

RC stopped S after about ten minutes, collected the test paper, and left the room. MH then entered and obtained two quick systolic blood-pressure readings. When the cuff was released, MH introduced the second experimental manipulation. He said he would show S a brief scene from a motion picture and would again take S's blood pressure at the completion of the movie. One-third of the men in both the *angered* and *nonangered* conditions, those in the *neutral movie* groups, witnessed a seven-minute film clip about the canal boats of England. The other S's in both the provoked and nonprovoked conditions were informed prior to the movie that they would see a prize-fight scene taken from the movie "Champion" (*aggressive movie* groups). In order to help them understand the scene, MH went on, he would give them a brief outline of the story.

This summary, the same one employed in the earlier Berkowitz-Rawlings experiment, served as the context defining the fantasy aggression as either justified or less justified. In the *justified fantasy aggression* condition the synopsis portrayed the protagonist (played by Kirk Douglas) as a cynical, heartless opportunist who took undue advantage of his friends. The story outline in the *less justified fantasy aggression* condition indicated that the protagonist's opportunistic behavior was a natural outgrowth of the harsh treatment this man had received from others earlier in life, but that he now (just before the fight) felt guilty about his behavior, and was on the verge of "turning over a new leaf." Although several of the S's had seen the movie before, both outlines were close enough to the actual plot to be accepted readily.

Like the neutral scene, the aggressive film clip lasted approximately seven minutes. MH again obtained two systolic blood-pressure readings at the termination of the movie, then administered four brief one-page questionnaires, saying this ended the experiment. When the forms had been completed, MH explained the nature of the deceptions practiced on S and the reasons for them. S was asked not to talk about the experiment for the remainder of the semester and then was dismissed.

There are fifteen S's in each of the six experimental conditions in the present study. No S's were discarded after the experimenters had practiced on nine pilot S's.

Dependent variables. The main dependent variables were contained

in three of the one-page forms given to S immediately after the movie. S was told that the chairman of the Psychology Department wanted to ascertain the subjects' opinions of the experiments in which they had served, and that S was to express his views on the three questionnaires.

One questionnaire had to do with the experiment itself. The page contained three fourteen-point rating scales on which S was to indicate (1) how interesting the experiment was to him; (2) how hard he had worked on the assigned task (with the scores ranging from "1. I worked in an indifferent manner," to "14. I worked as hard as I possibly could"); and (3) the extent to which he had enjoyed working on the task. The second of these scales, the only one of the three significantly affected by the experimental treatments, is here taken to be the measure of indirect hostility. By saying he had not worked too hard on the assigned tasks, S conceivably could be expressing his contempt for the researchers. However, since the contempt is not indicated in a blatant fashion, we would say the hostility is displayed only indirectly.

The other two one-page forms, containing identical questions, provided the more direct measures of hostility toward the experimenters. Along with other items designed to support the "cover" story, S was to rate MH and RC (on separate pages) on the following questions: (1) "My attitude toward this task might have been better if there had been another experimenter instead of Mr. ——" (here the scale was anchored at each end by "1. Definitely true" and "14. Definitely false, the experimenter did not bother me"); and (2) "If I were to serve in other psychological experiments I would (with the anchoring phrases being "definitely not want to be with the same experimenter," and "definitely want to be with the same experimenter"). Both these items had been employed in the earlier Berkowitz-Rawlings study. We might also note that the first question had generally yielded better results in that experiment.

When S had completed the three pages, he was given an envelope addressed to the department chairman. The questionnaires were inserted and the envelope then was sealed. Since S could well have believed that unfavorable ratings of the researchers might hurt them in some way, such unfavorable ratings are regarded as fairly direct acts of hostility.

The remaining questionnaire had to do with S's opinion of the movie he had seen. This time employing unnumbered twelve-point rating scales, S was to rate his enjoyment of the movie scene and, for those seeing the aggressive movie, the degree of sympathy S felt for each of the two main characters in the scene, namely, the Champion (played by Kirk Douglas) and the Challenger. These last measures serve as a test of the effectiveness of the aggression-justification information.

RESULTS

Reactions to the movies. One of the first questions that should be answered has to do with the effectiveness of the experimental manipulations. Did the plot summaries provided by MH in the aggressive movie condition influence the degree of sympathy the S's had for the movie protagonist, the Champion? Analyses of variance of the scores on the sympathy measures for the men seeing the prize-fight scene indicated that the sympathy manipulation was generally successful. The S's in the combined justified fantasy aggression conditions expressed significantly less sympathy for the protagonist than did the S's in the less justified fantasy aggression groups ($F = 4.90$, 1 and 56 df, $p = .05$). These two conditions did not differ, however, in the intensity of the rated sympathy for the Challenger.

The measures of the amount the S's enjoyed the film they had seen did not reveal any clear-cut and unequivocal results. For one thing, there were no reliable differences among the six experimental conditions on the item asking S to indicate his own enjoyment of the scene ($F = 2.02$, $p < .10$, for 5 and 84 df). There were such significant differences, however, on the second scale, in which S was to rate the extent to which he believed other students of his sex at the university would enjoy the film. As can be seen in Table 1, the S's in the neutral movie group believed there would be less enjoyment of the film than the men in the aggressive movie condition. Although this scale was intended to be a disguised measure of S's own attitude toward the film, the simplest explanation for these results does not assume any projective tendencies. The answers to the item were probably largely affected by the beliefs of the S's about the tastes of their fellow students; they were more likely to think that their peers would enjoy a prize-fight scene than a movie about English canal boats.

Nevertheless, there is some tentative evidence in Table 1 consistent with the original interpretation of the item. The scores suggest that the angered people viewing the less justified fantasy aggression may have experienced some dissatisfaction or tension that they then projected onto their peers. Note that the nonangered S's had higher enjoyment scores in the less justified fantasy aggression condition than in the justified aggression group. Perhaps reflecting their own feelings, they thought their fellows would be more likely to enjoy the film when the Champion (Kirk Douglas) was portrayed in a relatively favorable light. This difference did not emerge in the angered conditions and, if anything, went in the opposite direction. It may well be

TABLE 1

MEAN CONDITION SCORES ON S'S JUDGMENT OF EXTENT TO WHICH AVERAGE STUDENT OF SAME SEX WOULD ENJOY THE FILM

Movie	*Angered*	*Nonangered*
Aggressive movie:		
Justified fantasy aggression	4.20_{ab}	5.47_{b}
Less justified fantasy aggression	5.13_{ab}	3.53_{a}
Neutral movie	7.73_{c}	8.27_{c}

NOTE: The lower the score the greater the enjoyment. Cells having a subscript in common are not significantly different (at the .05 level) by Duncan Multiple Range Test. (N = 15 in each condition.)

that the greater expressed dissatisfaction with the movie by the angered men seeing the less justified fantasy aggression stemmed from their own internal conflict. They had been insulted by one of the researchers and presumably wanted to express their hostility toward him. However, the strong inhibitions induced by the relatively unwarranted aggression shown to them conceivably blocked the display of hostility, producing internal strain that they then may have attributed to their peers.

Attitudes toward the researchers. Since the protagonist was by far the most central character in the aggressive film clip, and also the best-known actor in the scene, the men's judgment of the propriety of the aggression they witnessed—directed mainly against the protagonist—probably varied inversely with the intensity of their sympathy for him. The S's expressing relatively strong sympathy for this person, in other words, presumably were likely to believe he did not entirely deserve the beating he took. Through prior learning, this notion of unwarranted aggression probably evoked guilt feelings or, more generally, relatively strong restraints against aggression. Such movie-induced inhibitions, on the other hand, should have been comparatively weak in the S's observing a scoundrel receive well-deserved aggressive attacks. As a result of these weaker restraints, they then should have displayed stronger overt hostility toward the anger instigator than the other similarly provoked S's.

The data summarized in Table 2 indicate that this expectation is fulfilled for item 1 but not for item 2. (As was mentioned earlier, the former question was also more successful in the Berkowitz-Rawlings experiment.) Thus, where all of the men in the angered condition tended to agree strongly with the statement that their attitude toward the task would have been better if there had been another experimenter besides RC, the anger instigator, the insulted S's expressing the strongest

hostility toward this researcher were those who had witnessed the justified fantasy aggression. The difference between the justified and less justified fantasy aggression groups in the angered condition does not quite attain the customary level of significance in the present study,[14] but only the insulted S's in the justified fantasy aggression condition expressed reliably greater unfriendliness toward RC than the similarly provoked S's shown the neutral movie.

The differences among the angered movie groups are in the same direction for the second question dealing with whether the S's wanted to be in another experiment with RC, but, as noted above, these differences are not reliable.

TABLE 2

MEAN CONDITION SCORES ON ATTITUDE TOWARD THE TWO EXPERIMENTERS

	Angered			*Nonangered*		
	Aggressive Movie			*Aggressive Movie*		
Experimenter	*Justified Fantasy Aggression*	*Less Justified Fantasy Aggression*	*Neutral Movie*	*Justified Fantasy Aggression*	*Less Justified Fantasy Aggression*	*Neutral Movie*
RC:*						
Item 1	10.73_{c}	8.53_{bc}	6.87_{b}	2.53_{a}	1.87_{a}	2.67
Item 2	9.86_{c}	9.20_{c}	8.47_{bc}	4.93_{a}	5.53_{a}	6.80_{ab}
MH:						
Item 1	1.60	1.73	1.87	2.00	2.27	2.07
Item 2	4.73	4.53	5.13	4.60	5.53	5.33

* Anger instigator in angered conditions.

NOTE: The higher the score the greater the expressed unfriendliness to the experimenter. Separate analyses were conducted for the data summarized on each line. Cells having a subscript in common on a given line are not significantly different (at the .05 level) by Duncan Multiple Range Test. There are no significant condition differences in attitude toward MH.

The questionnaire scores in the nonangered condition indicate that the aggressive movie did not in itself arouse unfriendliness toward either experimenter. However, it may be that the present S's, unlike those in the previously cited experiment by Lovaas and Walters *et al.*, were aware of the *aggressive* nature of unfavorable questionnaire responses and therefore inhibited any signs of unfriendliness when this hostility did not appear warranted. Perhaps also because of such restraints against undeserved aggression, the experimental treatments

[14] A *t*-test between the two angered-aggressive movie groups, employing the residual mean square term from the one-way analysis of variance in the error term, produced a *t*-value of 1.69, which is significant at the .10 level of confidence using a two-tailed test.

did not differ in the mean level of unfriendliness toward the "neutral" experimenter, MH, whether they had been insulted by RC or not.[15]

Hostility displacement in the inhibited group. The context of the fantasy aggression, we have proposed, determines the likelihood of subsequent aggression by audience members, in part at least, by affecting the strength of inhibitions against overt hostility. Thus, the angered men observing relatively unjustified fantasy aggression presumably exhibited comparatively weak hostility toward the anger instigator because of their fairly strong internal restraints against aggression. Is there any other evidence of such inhibitions?

One manifestation of inhibited hostility is a heightened instigation to indirect acts of aggression or strengthened attacks upon substitute objects. In the present case, we would expect the restrained people to display a comparatively strong resentment toward the experiment rather than the experimenters. Table 3 reports the mean condition scores on the index of indirect hostility, the item asking S how hard he had worked on the assigned tasks. (People saying that they had worked in an indifferent manner supposedly are expressing their contempt for the study in an indirect manner.) As can be seen in the table, there is some support for our expectations. The S's scoring highest on this question are the angered men shown the unwarranted aggression scene. While they are not significantly higher than the angered group who had witnessed the justified fantasy aggression, unlike the latter group they are reliably different from the angered–neutral movie group on this measure.

TABLE 3

MEAN CONDITION SCORES ON ATTITUDE TOWARD THE EXPERIMENT

Movie	*Angered*	*Nonangered*
Aggressive movie:		
Justified fantasy aggression	6.7_{bc}	4.3_{a}
Less justified fantasy aggression	8.4_{c}	5.2_{a}
Neutral movie	5.8_{ab}	6.2_{abc}

NOTE: The lower the score the greater the contempt toward the study. Cells having a subscript in common are not significantly different (at the .05 level) by Duncan Multiple Range Test. (N = 15 in each condition.)

[15] MH could also have benefited by being contrasted with his unpleasant partner, RC. That is, as suggested by the responses to item 1, in comparison with the unpleasant RC he seemed to be fairly nice. This contrast effect could have counteracted the hostility generalized to MH from the movie and from RC. See Douglas S. Holmes and Leonard Berkowitz, "Some Contrast Effects in Social Perception," *Journal of Abnormal and Social Psychology*, Vol. 62, 1961, pp. 150-152.

A second way to demonstrate the existence of strong inhibitions is to compare the relative intensities of the direct and indirect expressions of hostility. An angered person experiencing only weak inhibitions against aggression should reveal stronger hostility toward the anger instigator than toward other available objects, while the opposite is more likely to be true for the provoked but inhibited individual. In other words, the greater the number of people in an angered condition displaying stronger direct than indirect aggression, the weaker are the restraints against aggression in that condition. A chi-square test was made by determining the number of men in each of the two angered–aggressive movie groups whose direct hostility score (the rating of RC on item 1) is either (a) higher, or (b) equal to or lower than the indirect hostility score. The hypothesis was confirmed (chi-square = 7.02, $p = .01$). Inhibitions against aggression seem to be stronger in the angered–less justified aggression condition; only 6 of the 15 S's in this condition exhibited stronger direct than indirect hostility, while 13 of the 15 men in the angered–justified aggression group did so.[16]

CONCLUSIONS

The present results generally agree with those obtained in the earlier experiment by Berkowitz and Rawlings. The findings in both studies offer little comfort for those who contend that fantasy aggression necessarily has socially beneficial effects. Rather than providing an easy and safe outlet for the pent-up hostility within the angered members of the media audience, film violence may well increase the probability that someone in the audience will behave aggressively in a later situation (soon afterward). If nothing else, as noted in the present paper, should the fantasy aggression appear socially justified—for example, when a villain is defeated aggressively—the consequence may be a weakening of restraints against hostility in angered audience members; they may be more likely to believe it is permissible to attack the "villains" in their own lives, at least during the time immediately following the movie.

[16] Chi-square becomes 5.17 and $p = .025$ when Yate's correction is employed.

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