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The interaction of political values and viewing aggression on anger and aggression.

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THE INTERACTION OF POLITICAL VALUES
AND VIEWING AGGRESSION ON
ANGER AND AGGRESSION

A Dissertation Presented
By

AUDREY PRENTISS HINDMAN

Submitted to the Graduate School of the
University of Massachusetts in
partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

April, 1973

Major Subject Psychology


THE INTERACTION OF POLITICAL VALUES
AND VIEWING AGGRESSION ON
ANGER AND AGGRESSION

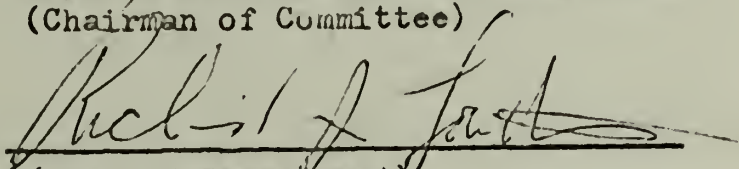
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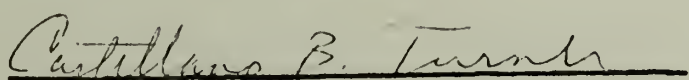
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of the portrayal of violence in the mass media. Investigators claim that this portrayal has the effect of reducing the tendency to aggression or that it augments that tendency, depending on their particular point of view. The researchers who took the former point of view believed that viewing aggression served to drain the feelings of aggression in the individual and therefore benefited him and society. This principle is generally known as the cathartic hypothesis. This thesis states that:

The occurrence of any act of aggression is assumed to reduce the instigation to aggression. In other words, any aggressive response no matter how indirect or how far displaced, is assumed to have a cathartic effect and to reduce the likelihood that other aggressive responses will occur (Kimbly & Garnezy, 1963).

Results Supporting the Cathartic Hypothesis

As an example of research on the cathartic hypothesis, consider the experiment by Rosenbaum and DeCharms (1960) which attempted to demonstrate two different kinds of catharsis, direct and vicarious. They found that subjects who either answered a verbal attack by an aggressor or who listened while the aggressor was attacked by a third person experienced more reduction in hostility than subjects who were not allowed to communicate. The only significant difference, however, was between the group who answered back directly and those who were not allowed to communicate at all.

In a similar study, Thibaut and Coules (1952) had

subjects write notes to a paid "diagnoser" who berated and denounced them through written communication. Half of the subjects were allowed to communicate to the diagnoser after the denunciation. The other subjects were interrupted by the experimenter who talked to them for three minutes. The latter group was allowed later to communicate with the diagnoser. The results showed that the subjects who were interrupted exhibited more aggression than those who were able to immediately communicate, but the differences were non-significant.

That direct participation in aggressive acts can have a cathartic effect for an aroused person appears established. What is of particular concern here is whether or not there is a vicarious cathartic effect to the viewing of aggression or if indeed the effect is the opposite. In other words, would an individual experience a reduction of his aggressive impulses if he watched others engage in direct aggression?

There is some support in the literature for vicarious reduction of aggressive impulses. Feshbach (1955; 1961) dealt with this question in two experiments. In the first experiment, the experimenter aroused aggressive impulses in two groups of college students by insulting their maturity, ability and motivation. A control group received a friendly talk. Half of the insulted group and the entire control group were asked to respond to four Thematic Apperception Test cards, thereby allowing them opportunity to reduce

their aggression through fantasy. The other insulted group was asked to take an aptitude test, thereby closing off any opportunity for them to respond aggressively through fantasy. All groups took a sentence completion test and were asked questions concerning their attitudes toward the experiment. The results of this study showed that the subjects who were allowed to respond through fantasy (Thematic Apperception Test cards) showed significantly less aggression on all measures than the subjects who were not allowed to respond through fantasy.

Although this study is important in that it pointed out that it might be possible to reduce aggression vicariously, the results cannot be taken as conclusive with respect to the question at hand because the subjects who responded to the Thematic Apperception Test cards actually participated in the reduction of aggression. They were able to actually write aggressive stories to the cards; whereas the subjects who responded to the aptitude test could not. Thus, the reduced aggression was not due to a purely vicarious reduction. It is also not clear whether the subjects who responded to the Thematic Apperception Test cards actually had their aggression reduced or if the subjects who took the paper test increased their aggression, because the control group was not similarly split.

In the second experiment, Feshbach (1961) attempted to prove that "in order for an activity to have drive-reducing

properties, components of the drive must be present or evoked during performance of the activity" In this experiment, the experimenter insulted one group of college subjects, then showed half of the group a prize fight film sequence and the other half a neutral film. Another group of subjects was not insulted but was shown the fight film sequence also. All subjects were asked to take a word association test and to rate the experimenter. An analysis of the results showed that those subjects in the insult-fight film group expressed less aggression than those who were in the insult-neutral film group. The non-insulted fight film group responded with more aggressive association than the insulted subjects who saw the neutral film. Although the results of this study showed a tendency for the aggressive film to reduce the aggressive impulses of previously aroused subjects, the differences between groups were not significant.

Siegal (1956) studied the aggressive play of four year olds after they had viewed an aggressive film or a non-aggressive one. All subjects were rated on aggressive play by the experimenter. Trends in the data lend some support to the hypothesis that "fantasy aggression reduces the instigation to all other acts of aggression." The results were not significant.

In summary, these studies attempted to support the cathartic effect of the viewing of violence. They tended to support the contention that vicarious participation in

aggression could reduce the probability of aggression occurring later in another situation. In general, these studies showed that (1) participation in vicarious aggressive activities tended to reduce aggressive impulses; (2) when direct expression of aggression was blocked, subjects sought to express their aggression indirectly; and (3) any expression of aggression through direct or vicarious activities led to a reduction of aggression. However, none of these studies showed conclusive evidence that the cathartic effect was operating. The measures of aggression were not objective; in some studies, the aggression measure was confounded with other variables such as dislike of the experimenter and hostility (Feshbach, 1955); and, except for one study (Feshbach, 1955), the main results were not significant.

Results Supporting the Aggression Enhancing Effect of Fantasy Aggression

Most of the studies in the literature support the contention that indirect participation in aggression on any level leads to an increase in aggressive impulses. Films were the most frequently used independent variable. They were easy to use and could be standardized for each group. The majority of these studies found that viewed aggression led to increased aggression in the participants.

Studies using children as subjects. Mussen and Rutherford (1961) frustrated half of their first grade

subjects by having the teacher criticize them as they engaged in a boring task. Other subjects were not frustrated but participated in the boring task. The subjects then saw an aggressive movie cartoon, a non-aggressive cartoon, or no cartoon at all. Aggression was measured by having each child verbally express a desire to destroy an object. The conclusions reached in the study showed that subjects who saw the aggressive cartoon expressed significantly more aggressive impulses than subjects who saw the neutral film or none at all. The lack of significant differences between the non-aggressive film group and the no film group pointed up the fact that it was not watching the film as such that precipitated the aggression but that the important variable was watching the aggressive film.

Lovaas (1961) also used children in his study. The subjects were shown either an aggressive film or a non-aggressive one. Aggression was measured by rating aggressive play. The subjects were not frustrated or angered. Those subjects who were shown the aggressive film displayed more aggressive behavior than the subjects who were shown the non-aggressive film.

Larder (1962) had four year olds listen to either an aggressive story or a non-aggressive story. Afterwards subjects were given an opportunity to play with an aggressive toy and a non-aggressive toy. It was found that the aggressive story group made more aggressive responses with the

aggressive toy than the non-aggressive story group.

Bandura, Ross, and Ross (1961; 1963a; 1963b) did a series of experiments in which the effects of modeling on aggressive behavior were measured. In the 1961 experiment, nursery school children observed either aggressive or non-aggressive adult models and then were frustrated. The subjects who observed aggressive models exhibited more aggressive behavior as measured by observed play than the subjects who observed the non-aggressive models.

In a later experiment Bandura, Ross, and Ross (1963a) manipulated the kind of model used. Children saw either a real live model, the same model depicted in a film, or a cartoon character in a film. Results showed that "exposure of subjects to aggressive models increased the probability that subjects will respond aggressively later on." The kind of model shown did not significantly influence the results.

These investigators' third study (Bandura, Ross, & Ross, 1963b) was concerned with the effects of vicarious reinforcement on imitative behavior. Models were viewed in films and were either punished or rewarded for their aggressive acts. Results showed that the subjects who viewed the model who was rewarded for aggressive acts imitated this model significantly more than the subjects in the other groups.

Hicks' (1965) study dealt with the modeling effects

of film on nursery school children. The study attempted to show "the relative effects of peer and adult models as transmitters of novel aggressive responses." Models were of both sexes and represented adult and peer groups. All subjects were asked to view a film in which the model was aggressive toward toys. Afterwards, they were mildly frustrated. An analysis of the results showed that all models had a significant effect in shaping aggressive responses. It is interesting to note that six months later only those children who were exposed to the adult male model maintained their aggressive behavior. However, the aggressive behavior was considerably reduced then in comparison to the earlier results.

Other experimenters using children as subjects have also found that viewing aggressive films tended to increase the likelihood of aggressive responses among their subjects. In addition, the later experimenters have attempted to add other dimensions to this finding of increased aggressiveness. For example, Ellis and Sekyra (1972) extended this finding by conducting their experiment in their first grade subjects' natural environment, the schoolroom. The subjects were first observed and rated on degree of aggressiveness in their classroom. They were later shown either an aggressive cartoon, a neutral cartoon, or were engaged in five minutes of informal activity in a separate room. All subjects were later rated for aggressiveness in the main schoolroom.

The subjects who were exposed to the aggressive film made significantly more aggressive responses than the subjects who saw the control film or the subjects who engaged in the informal activity.

Cameron and Janky (1971) studied 254 kindergarten children in a natural environment--their homes. The experimenters had parents control the television viewing of their children for three weeks. The subjects were assigned to one of four conditions: (1) three weeks of aggressive television shows; (2) two weeks of aggressive shows followed by one week of passive shows; (3) two weeks of passive shows followed by one week of aggressive shows; and (4) three weeks of passive shows. Parents were interviewed after each week and reported more pathologic changes in their children after viewing the aggressive shows than after viewing the passive shows. One serious problem with this study is that parents may have been biased in their reporting of their children's behavior due to a desire to please the experimenters or their desire to indict the television industry.

Another group of experimenters have been concerned with the influence of watching aggressive films on the behavior of children toward another human being. Leibert and Baron (1972) attempted to test whether their five, six, eight, and nine year old boy and girl subjects were willing to hurt another child. All subjects watched either an

aggressive or a non-aggressive film and were taken to another room and taught a game sequence whereby they had an opportunity to interact with another child who ostensibly was in another room. Each subject had to respond to a light by pushing a green button which was supposed to help the other child or by pushing a red button which was supposed to hurt the other child. The results showed that the subjects who saw the aggressive film engaged in significantly longer attacks and more aggressive play against the ostensible child victim than the subjects who saw the non-aggressive film. It was also found that the boys were significantly more aggressive than the girls.

In a similar study, Hanratty, O'Neal, and Sulzer (1972) had half of their first grade subjects (all boys) view a film in which a clown was attacked by an adult male model. The other half of the subjects saw no film. One third of each group was frustrated and led to believe that the clown was responsible for their frustration. Another third was told that their frustration was the fault of another child. The remaining third was not frustrated. All subjects were then given an opportunity to attack the person who had played the clown in the film. They found that the subjects who saw the film exhibited significantly more aggression than those who didn't. There was no significant difference between the two different frustrated groups on their aggressive responses. There

are two major criticisms of this study. First, the control group did not see any film at all. Second, the person supposedly responsible for the frustration of one third of the subjects was a character in the film seen by only half of them. Nevertheless, the study did demonstrate a willingness of children to imitate aggressive behavior.

Fechter (1971) used mental retardates in his study. The subjects were matched on aggressiveness, age, sex, and IQ. They were shown either an aggressive film or a film showing friendly behavior. The less aggressive subjects displayed modeling effects after viewing the aggressive film whereas the most aggressive subjects did not. Later, on the ward, the subjects who had seen the aggressive film displayed aggression and the subjects who had seen the friendly film displayed friendliness.

Osborn and Endsley (1971) measured the emotional reactions of children to filmed aggression. Emotional reaction was measured by the Galvanic Skin Response. The subjects were four to five years old and were shown four short film clips. There were two cartoon films, one involving violence and the other not involving violence. The other two films involved human characters, including violent and nonviolent characterizations. The subjects responded more emotionally, as measured by the Galvanic Skin Response, to the two films containing violence than to the nonviolent films. The film involving the human aggres-

sive character tended to have more effect on the Galvanic Skin Response than the film involving the cartoon aggressive character.

Hapkiewicz and Roden (1971) attempted to replicate the studies concerned with the effects of aggressive films with second grade subjects. These subjects were shown either an aggressive cartoon, a non-aggressive cartoon, or no cartoon. Their only significant finding was that the boys were rated as being more aggressive than the girls.

In summary, the results of the studies done with children showed that: (1) viewing aggressive models increased the probability of subjects making aggressive responses; (2) frustrating subjects before or after viewing aggression did not necessarily increase the number of aggressive responses made; (3) boys displayed more aggression than girls; (4) for young children, adult models were more effective than peer models in producing aggressive responses; (5) models who were rewarded for their aggressive behavior were imitated more often than models who were punished for the same behavior; (6) the tendency to imitate aggressive behavior remained even in natural surroundings; (7) subjects tended to be more emotionally aroused by viewing aggressive films than by viewing non-aggressive films; and (8) aggressive responses were made with the intent to hurt a human victim.

Studies using adults as subjects. Studies that were

done with adult subjects tended to lend support to the main results obtained from studies done with young subjects. In general, most of the studies dealing with the effect of filmed violence on adult subjects have found that observing violence increased the probability that aggression would occur in a subsequent situation. The results of these studies contradicted those studies which supported the cathartic hypothesis in which the opposite effect was purported to hold.

Some of the experiments done to test this hypothesis used questionnaires to measure aggression. In Berkowitz and Rawlings' (1963) study, college subjects were either insulted or treated in a neutral manner before they watched a prize fight on film. Some were told that the viewed aggression was justified, while others were told that it was unjustified. The subjects had to rate, both before and after the movie, the confederate who had either insulted them or treated them in the neutral manner. The results showed that the angered subjects who saw the justified film expressed stronger hostility toward the accomplice than the subjects who saw the unjustified film. Another study by Berkowitz, Corwin, and Heironimus (1963) supported this same result. In addition, they found that subjects in the unjustified group displaced their hostility from the confederate to the experiment itself.

The use of questionnaires presents many problems that

are difficult to overcome. Here, the measure of aggression is not very accurate. The subjects may not be in close contact with their feelings. In addition, the subjects have an opportunity to deliberately distort their answers. Furthermore, questionnaires such as those used confounded aggression with dislike. Although there may be components of dislike in aggression, the two variables are not synonymous.

Several other studies have been done that circumvent these problems. These studies have used the amount or duration of shock administered by the subject in a supposed learning situation as the measure of aggression. The advantage of this method lies in the fact that the subject actually thinks that he is causing pain to another person. That is, he is given a realistic aggressive outlet.

In one study that used shock, Walters and Acker (1962) had one group of subjects watch a knife fight scene on film. Another group saw an innocuous film. All subjects later participated in a conditioning experiment in which they were asked to punish errors by shocking the learner. Analysis of the data showed that the subjects who saw the aggressive film shocked the learner significantly more often than the subjects who saw the other film.

Berkowitz (1964) found that the subjects who were angered and who had seen a film in which the aggression was justified gave more shocks to the confederate who

angered them than those subjects who were not angered and who saw an aggressive film in which the aggression was not justified.

In a later study, Berkowitz (1965) found that angered subjects administered more shocks to a confederate when he was made similar to a character in an aggressive film by being identified through his occupation, boxing.

These aggression-invoking cue properties were further investigated in another study by Berkowitz and Geen (1966). In this study, the accomplice who angered the subjects was either given the name of the protagonist in the film or a neutral name. After viewing an aggressive or neutral film, the subjects were allowed to shock the accomplice in a socially sanctioned situation. The data showed that the angered subjects who saw the fight film and who were told that the accomplice's name was that of the protagonist in the film administered a significantly greater amount of shocks to the accomplice. This phenomenon was attributed to the observation that "the latter's name-mediated association with the witnessed aggression had apparently heightened his cue value for aggression from the men who were ready to act aggressively."

Berkowitz and Geen (1967) did a similar study in which the confederates were either given the same name as that of one of the characters in the film or a neutral name. The results showed that after viewing an aggressive

film, the angered subjects administered more shocks to the confederate who had the aggressive cue-value name than to the confederate with the neutral name. In addition, all subjects who were angered and who saw the aggressive film behaved more aggressively than subjects who saw a neutral film.

These results were again supported by Geen and Berkowitz (1967) who found that subjects who had been frustrated or angered would administer more shocks to a confederate who had the same name as the victim in a film depicting justified aggression. These subjects differed significantly in their reaction to this name cue from the control subjects.

Geen and O'Neal (1969) found that subjects who witnessed the aggressive film and who had received a white noise while shocking the accomplice exhibited more aggression than other subjects who did not receive the white noise or see the aggressive film. These findings concur with Berkowitz's proposal that arousal facilitates the expression of aggressive responses.

These results were basically supported by Hartmann's (1969) experiment which was conducted with a group of male juvenile delinquents. He found that aroused subjects shocked confederates significantly more often after viewing an aggressive film than did subjects who had not seen an aggressive film.

Meyer (1971) compared the effects of justified and unjustified aggression and real versus fictional violence on aggressive behavior. All subjects were angered and were shown either a violent newsfilm, a fictional violent film, or a non-violent film. Another group saw no film. The violence was alleged to be either justified or unjustified by the experimenter. Afterwards, subjects were allowed to shock the instigator. The results showed that subjects who saw the justified violence in the films gave significantly more shocks and more intense shocks than subjects who saw the unjustified violence in any of the three films. In addition, there were no significant differences found between the effects of real and fictional film violence, whether justified or unjustified.

In summary, the results with adult subjects showed that: (1) viewing aggression leads to an increased probability that subjects will engage in aggressive behavior; (2) arousal facilitates the expression of aggression; (3) aggression is facilitated when there is a similarity between the target of aggression and the characters in the film; (4) aggression is more likely to be expressed when the filmed aggression is presented as justified; and (5) when the direct target of aggression is unavailable, subjects will release their aggression upon targets that are related to the main target.

These results tend to refute the hypothesis that

the viewing of aggressive films is cathartic in nature. It is possible, however, that this effect may be present in some situations. Further, the viewing of aggression might be cathartic for some people and increase the tendency to aggression in others. The studies which have been done would then merely have shown that more people fall into the latter category than in the former.

As has already been mentioned, it is well established that actual participation in aggression is cathartic. A possible prediction is that viewing aggression is cathartic provided that the subject identifies sufficiently with the aggressor so that he imagines himself as a participator in the aggression taking place. Alternatively, one could theorize that increased identification with the aggressor would teach the subject to respond in a similar fashion and hence increase the likelihood that aggression will be expressed.

In a recent study, Turner and Berkowitz (1972) attempted to determine if identification with the aggressor in a movie would influence the effect of the movie. All subjects were insulted and shown a prize fight film in which the loser was represented as deserving of a beating. One third of the subjects were asked to think of themselves as the victor in the fight, one third were asked to think of themselves as a judge scoring the fight, and the other third had no identification instructions. In each of these

groups one half received instructions to press a button each time the victor scored a hit on his opponent while the other half had no such instructions. In a subsequent measure of the subjects' aggression by shocking it was found that the group that was asked to identify with the victor gave more shocks than the other two groups. The instructions to press the button with each hit did not produce any significant differences on number of shocks administered.

Thus it was shown that identification with the aggressor can influence aggression. But it should be noted that this was not a spontaneous identification but was artificially induced in the experimental setting. The present study examines the effect of spontaneous identification through shared values.

Statement of the Problem

The violent nature of aggression has been pointed up in statistics that show waste of human resources and potential. In the United States during 1969, there were over 14,500 murders and over 300,000 cases of aggravated assault, according to FBI statistics. In 1967, rioting cost 83 deaths, nearly 2,000 injuries and more than 60 million dollars (The 1971 World Almanac, 1970).

As our society has become more complex, man has fewer avenues through which to appropriately channel his

aggression. Since many direct avenues are closed, the most socially sanctioned channel is the vicarious participation in the direct aggressive acts of others. In light of the recent political assassinations, urban riots, wars, and general increase in crime in the United States, it becomes imperative that harmless outlets exist through which aggression can be expressed. To allow for these outlets, aggression must be studied in order to understand which factors increase the tendency toward aggression.

One possible outlet through which individuals may appropriately channel their aggressive tendencies is through the mass media. The mass communication industry feels that one of its main functions is to provide vicarious experiences for basic human emotions thereby decreasing the likelihood that these emotions will be expressed directly (Barnouw, 1956). Thus, this industry felt that it was providing a necessary and profitable service. Critics, however, contended that in reality this emotional release did not occur. These detractors felt that the viewing of aggression merely increased the aggressive impulses within the individual whose impulses would have been quiescent at the time (Newsweek, 1972). They further contended that this increase in the aggressive impulses also increased the probability that the individual would act aggressively in a later situation. In other words, rather than provide an avenue for the harmless release

of these aggressive impulses, the media only taught the individual to act aggressively in situations where aggression was likely to be used.

The critics of media violence generally based their position on case studies that were reported in the mass media. Since the 1967 riots in several United States cities, the mass media came under attack for their share of perpetuating violence. During these civil disorders, the Riot Commission Report (1968) stated that "in some cities people who watched television reports and read newspaper accounts of riots in other cities later rioted themselves." This perception was attributed to the following hypothesis:

No doubt, in some cases, the knowledge or the sight on a television screen of what had gone on elsewhere lowered inhibitions or kindled outrage or awakened desires for excitement or loot---or simply passed the word.

There were no statistics to substantiate these claims and there were counter examples in which individuals in similar circumstances did not riot at all. It appeared that the media in this instance was the target of unfair criticism; other factors, such as poverty, hunger, and unemployment, which were more basic to the situations appeared to have been overlooked.

Another instance in which the media was accused of perpetuating violence involved bomb threats. In 1971, a series of bomb threats were made to airlines demanding

ransoms in exchange for knowledge of where the bombs were located. The Federal Aviation Administration stated that the number of bomb threats increased significantly after each showing of the movie, "The Doomsday Flight" (Los Angeles Times, 1971).

These case studies did not show a causal relationship between the viewing of aggression and the actual aggressive acts that took place later. They merely pointed out that the aggressive acts had certain elements in common with those portrayed. It is possible that the aggressive acts would have taken place had the aggressors not viewed the film.

More recently a new series of studies concerning the media and violence was undertaken by the Surgeon General's Scientific Advisory Committee on Television and Social Behavior. Reports on the results (Newsweek, 1972) suggested that:

(1) some children may become more aggressive after viewing video violence; (2) children's response to televised blood and gore may be mitigated by their preception of such violence as "fantasy"; and (3) while there is some evidence that TV mayhem might produce short-term aggression among adolescent viewers, it is much less certain that any long-term damage can result.

This summary of the findings has been subjected to controversy within the committee itself. Some of the psychologists and social scientists who did the original research claim that the results were softened to favor

the television industry. They stated that their "findings did, in fact, establish a clear and direct link between TV violence and youthful, antisocial behavior," (Newsweek, 1972).

It is the purpose of this study to shed some light on situations that lead to instigation to aggression. The study attempts to determine some of those factors which inhibit or increase the tendency for an individual to act aggressively in a given situation after he has viewed aggressive acts on film. The study also attempts to determine whether or not the cathartic effect is operating for some individuals while others increase their aggressive tendencies.

Considering the potential danger and harm that aggression can cause as pointed out by the statistics quoted earlier, it behooves psychologists to identify those conditions in which an individual will act upon his aggressive impulses or will hold them in check. The resulting findings can therefore lead to a situation whereby society can allow for appropriate expression of aggression and inhibit inappropriate aggressive responses.

Specifically, this study focuses on values and how they relate to the instigation to aggression. The effect of belief similarity between the subject and the victim on aggression (not film mediated) was investigated recently by Hendrick and Taylor (1971). They found that the degree

of similarity between the subject's and the victim's beliefs did not effect the aggression of the subject. It is possible, however, that the method of conveying the victim's beliefs to the subject (showing the subject a questionnaire supposedly filled out by the victim) was not convincing.

Values have been defined as ". . . an ideal on which people act, or a principle on which they judge how to act," (Taylor, 1954). Thus values are reflected in our every action and inaction. When our basic values are threatened, we tend to react defensively. If that value is very important to us, we may react with aggression and hostility toward the threatening object. Of particular concern in this study is what effect the viewing of a film with aggressive conflict, in which the values of the participants are evident, has on individuals who share and individuals who oppose those values.

The aggressive film, "Chicago: The Seasons Change," deals with the Chicago riots of 1968 and was produced by the American Civil Liberties Union. The opponents in the film are the police and the demonstrators. The police are depicted as the aggressors and the demonstrators are shown as the victims.

It is assumed that the two groups in this film form two distinct and homogeneous value groupings. This assumption is based on the findings of Adorno, Frenkel-Brunswik,

Levinson, and Sanford (1950) in The Authoritarian Personality. They pointed out that membership in occupational, fraternal, religious and social groups reflected certain values. Specifically they stated that:

There is reason to believe that individuals, out of their need to conform and to belong and to believe, and through such devices as imitation and conditioning often take over more or less ready-made the opinions, attitudes, and values that are characteristic of the group in which they have membership.

The film in the present study depicts two groups of people, an occupational group and a social group, with two distinct sets of values. To the extent that the subject identifies with one group over the other group it can be assumed that he is in agreement with those values said to be characteristic of that group. An important purpose of this study is to determine whether this identification with the aggressor reduces subsequent aggression or has an aggression enhancing effect. A similar attempt will be made to determine which of these two effects identification with the victim will have. One could argue, for example, that a subject who identifies with the aggressor would experience the aggression vicariously and would reduce his subsequent aggression. Alternatively, he might imitate those he identifies with. This study attempts to determine which of these effects occurs.

Method

Subjects

The subjects consisted of 96 undergraduate psychology students at California State University, Los Angeles. They were assigned to one of three groups: a high conservatism group, a middle conservatism group, or a low conservatism group. Assignment to these groups was based on the subject's scores on a revised version of the Adorno Political Economic Conservatism Scale. (See Appendix 2 for a copy of the revised scale.) The Political Economic Conservatism Scale has been revised by updating some of the items and by omitting some others. In the items that contained money figures, a higher amount was substituted to bring it more in line with the standard of today. Some names were omitted in other items because they were more well known during the period the scale was first published than now. Some other out-of-date items that were concerned with the issues of the day were omitted entirely.

The Political Economic Conservatism Scale was given to the students in all introductory psychology classes at California State University, Los Angeles. A total of 223 students were tested. Cutoff scores were determined to divide the potential subjects as nearly as possible into high, middle, and low thirds. A potential subject with a score of 20 or less (out of a possible 48) was assigned

to the low conservatism group. A potential subject with a score of 25 or more was assigned to the high conservatism group and the remainder (with scores of 21 to 24) were assigned to the middle conservatism group. These cut-off scores resulted in the assignment of 76 potential subjects (34% of the total) to the low conservatism group, 64 potential subjects (29%) to the middle conservatism group, and 83 potential subjects (37%) to the high conservatism group.

Thirty-two subjects from each group participated in the experiment. Their selection was at random subject to their willingness to participate and availability. There were 18 males among the 32 low conservatism subjects, 13 males among the middle conservatism subjects, and 24 males among the high conservatism subjects. All subjects who participated received partial credit in their psychology class for this participation.

Apparatus

Upon entering the experimental situation, each subject completed the Epstein-Taylor Adjective Check List to determine his base level of emotional arousal upon entering the experimental situation. (See Appendix 3 for a copy of the Adjective Check List.)

At the completion of the entire experiment each subject completed the Epstein Taylor Semantic Differential

twice, once with reference to himself and once with reference to the learner-accomplice. (See Appendix 4.)

Two films were used in this study. One of the films was entitled "Chicago: The Seasons Change" and was produced by the American Civil Liberties Union. This black and white film was concerned with the riots accompanying the 1968 Democratic convention in Chicago, Illinois, and had considerable coverage of police using aggressive action in their handling of demonstrators. The film was edited to exclude interviews with people who had witnessed the demonstrations, as well as to eliminate most scenes from inside the convention hall. The original length of the film was 30 minutes. The edited version ran 15 minutes. This is the film referred to as the aggressive film.

The control film was also in black and white and ran 15 minutes. The title was "Biography of the Unborn". It dealt with the growth of the fetus from conception to birth. This film was selected because it contained no scenes of aggression and was not excessively boring.

Another portion of the apparatus was the shocking equipment used by the subject. This apparatus was modeled after that used by Buss (1961, pp. 47-51) and was designed solely to measure the aggressive tendencies of the subject. In actuality the subject did not shock anyone but he was led to believe that he would.

The aggression machine consisted of two consoles

connected by 30 feet of cable. The subject's console had 11 pushbutton switches, one 12 position rotary switch, one toggle switch, and two lights. One pushbutton switch was set off by itself and was labeled "correct". The purpose of this switch was for the subject to signal to the learner when a correct response was made. The other 10 pushbutton switches were labeled 1 to 10 and represented 10 different shock levels. The rotary switch had 12 numbered positions. Each position set up a different combination of light patterns on the learner's console. The toggle switch was an "on-off" switch. The two lights on the subject's console were labeled "correct" and "incorrect" and informed the subject whether the learner had made a correct or incorrect response.

The second console was for use by the "learner" who was in fact an accomplice. This console had a group of four lights, a group of 10 lights, 2 pushbutton switches, and 2 shock electrodes. There was also a two position rotary switch on the side of the console. The four lights displayed the pattern set up by the subject. The ten lights were initially inoperative. After the switch on the side of the console was turned, they were connected to the shock switches (as the shock electrodes were disconnected) and indicated the level of shock selected by the subjects. These lights were unlabeled. (In the event the subject asked about them he was told they

were for another experiment.) The two pushbutton switches were labeled "A" and "B" and were connected to the "correct" and "incorrect" lights on the subject's console.

In addition to the shock electrodes on the learner's console (which were operative in the event of a doubting subject) there were two shock electrodes protruding from the subject's console. These were used to give the subject an indication of the various levels of shock.

There was also a relay-outlet combination inside the learner's console, which, in combination with an electric clock, was designed to measure the total duration of shock administered. However, it failed to operate properly and so this data was unusable.

Procedure

When the subject entered the experimental room, he was told that he was going to participate in a series of experiments. He was then given the Adjective Check List to complete. (See Appendix 1 for verbatim instructions to the subjects.)

Within each conservatism group, the subjects were assigned randomly to one of four treatment groups. These determined which of the films the subject saw and (later) which of two attitudes was assumed by the learner-accomplice.

Depending on this assignment, the subject was then asked to view either the aggressive film or the control

film. After viewing the film, the subject was then asked to take both the Adjective Check List and the Political Economic Conservatism Scale again. There were two purposes to the readministration of both questionnaires. One was to convince the subject that the first experiment was over and that the second experiment was separate from it. The Adjective Check List scores were also used as a measure of emotional arousal of the subject following the viewing of the film.

After the subject took the tests again, another experimenter entered the room and asked him to take part in a second experiment which was set up in an adjoining room. This section of the experiment was modeled after Buss (1961). The experiment was presented to the subject as a teacher-learner situation in which the subject was put into the role of teacher. The subject was told the the purpose of the experiment was "to investigate the effect of sex and personality of the experimenter on conceptual learning," (Buss, 1961).

The subject was shown both the teacher's and learner's consoles and was told that the learner was to learn a correct response to light patterns on the group of four lights on the learner's console. One such pattern was displayed for each of the twelve positions of the rotary switch on the subject's panel. He was also told that the correct response was for the learner to press the button

labeled "A" if the upper left light was lit and to press the button labeled "B" in any other situation. He was also told that the learner was not to be informed of this but had to figure it out for himself.

The subject was then told that in the event of a correct response he was to signal the learner by pressing the "correct" button. In the event of an incorrect response he was to shock the learner by pressing one of the shock buttons numbered 1 through 10. The subject was also told that there were to be a total of 60 trials (five complete turns of the 12 position rotary switch). On the third set of 12 trials the subject was instructed to shock the learner every time regardless of whether the learner made the correct response or not. He was told that the purpose of this was to confuse the learner and determine how well he could relearn the task. The real purpose was to verify that high levels of shock were not given in order to teach more effectively but that they were genuinely aggressive.

At this point the subject was connected to the shock electrodes and the shock buttons were pressed beginning with 1 and continuing until the subject indicated that he had felt enough. The highest level which the subject took was noted by the experimenter and recorded later.

The subject was then given an opportunity to ask questions about the procedure. When all was clear, the

experimenter left the room to see if the learner had arrived yet. He then said, "He should have been here by now," and paced for a few seconds. Then the learner came in and said, "I'm sorry I'm late, but I just got a ticket on my car." He then proceeded to either make derogatory remarks about the "pig" or to say: "Oh well, I can't be too mad because he was just doing his job and the police get too much abuse now anyway." Which attitude he assumed was determined by the treatment group to which the subject had been assigned.

Following this short conversation the experimenter took the learner and his console to an adjoining room, plugged the clock into the back, and turned the switch disconnecting the shock electrodes and simultaneously connecting the lights. While doing this, with both doors open so that the subject could hear but not see, the experimenter was explaining the experiment to the learner.

The experimenter then returned to the subject's room and told him that he could begin by setting up the first pattern. The experimenter then busied himself in the corner of the room with his back to the subject, but remained available in case the subject had any questions.

During the teacher-learner experiment the learner made a predetermined "correct" or "incorrect" response each time. The shock levels were recorded by the learner

by observing which light was lit. He also recorded the elapsed time, but as previously remarked the relay frequently stuck so that these results were unusable.

The sequence of correct (c) and incorrect (i) responses throughout the 60 trials were as follows:

i - i - c - i - i - i - i - c - i - i - c - i
 i - i - c - i - i - c - c - i - c - c - c - c
 (The next 12 are the confusion trials with shock each time.)
 c - c - i - i - c - i - i - c - i - c - i - i
 (The next 24 resume regular trials with only incorrect responses punished.)
 i - i - i - i - c - i - c - i - i - c - c - i
 i - c - c - c - c - i - c - c - c - c - c - c

There were thus a total of 36 administrations of shock by each subject.

At the conclusion of the trials, the experimenter went into the adjoining room to tell the learner that he could go. He then returned and asked the subject to fill out the Epstein-Taylor Semantic Differential checking closer to the one of the two opposite words that he felt most closely described himself. (He was to place his check adjacent to the word if he felt it described him closely. If he felt one word came closer to describing him than the other, but that neither strongly described him he was to place his check in the position between this word and the center.) When the subject completed this he was then asked to fill it out again, this time with reference to how well the words described the learner.

The subject was then thanked, told that he had not

in fact shocked anyone (and any other questions honestly answered), and asked not to discuss the contents of the experiments with any other students in his class.

The first experimenter was blind as to the attitude which would be assumed by the learner and the learner was blind as to the film seen by the subject. The second experimenter could hear the film being shown and the attitude expressed by the learner so was aware of both conditions.

Experimental Design

There were three independent variables: the three levels of conservatism of the subjects, the viewing of the aggressive or control film by the subject, and the attitude taken by the learner-accomplice toward the police. There were six separate dependent variables which were intended to be measures of aggression: (1) the average level of shock administered; (2) the average level of shock administered during the third (confusion) round of trials; (3) the difference between the average level of shock administered and the highest level of shock which the subject took himself; (4) the difference between the average level of shock administered during the third round of trials and the highest level of shock which the subject took himself; (5) the change in scores on the Aggression scale of the Adjective Check List; and (6)

the scores on the Aggression scale of the Epstein-Taylor Semantic Differential, when the subject was describing himself. In addition, data from each of the scales of the Adjective Check List and the Epstein-Taylor Semantic Differential was treated as a separate dependent variable.

The scores from the Adjective Check List were analyzed by an F-test with a 3×2 design. There were 3 levels of conservatism (high, middle, and low) and 2 levels of film (aggressive and control). Each of the six blocks had 16 subjects. (The attitude assumed by the accomplice played no role in these scores.)

All other dependent variables (except the scores on the Political Economic Conservatism scale, for which no significant results were obtained) were analyzed by a $3 \times 2 \times 2$ design, with eight subjects in each block. There were 3 levels of conservatism, 2 levels of film, and 2 attitude levels (pro-cop and anti-cop). An analysis of variance was performed for each of the dependent variables.

In addition to these overall analyses, separate analyses of variance (F-tests) were performed at each level of each variable with each group of subjects. In all cases where the results using all subjects were significant, these results will be indicated and discussed. In those cases where there was no significant results using all subjects, the restricted analyses that had

significant results will be listed and discussed.

The reason for performing the restricted analyses was the consideration that they might shed some light on the nature of the relationship between a group of subjects and that variable being considered.

In addition Z-tests were used to determine which of the dependent variables exhibited sex differences.

Predictions

Predictions were made only with respect to the measures of aggression. In the statements of the predictions "A" represents the three levels of conservatism; "B" represents the viewing of the aggressive or control film; and "C" represents the attitude assumed by the accomplice, pro-cop or anti-cop.

The following predictions were made:

1. It was expected that there would be no significant A effect. That is, among the three levels of conservatism no one group was expected to be more aggressive than any other group.

2. A significant B effect was predicted. In accordance with previous results it was expected that those subjects who watched the aggressive film would exhibit more aggression than those subjects who saw the control film.

3. No significant C effect was expected. It was felt that the average aggression (over the levels of

conservatism and film) exhibited toward the accomplice would not depend on the attitude which he took toward the police.

4. A significant A x B interaction was expected.

It was predicted that the effect of watching the aggressive film would vary depending on the degree of conservatism of the subject. The mechanism for this effect was the presumed identification of the more conservative subjects with the police (the aggressors in the film) and the identification of the less conservative subjects with the demonstrators. The direction of this interaction was not predicted.

5. A significant A x C interaction was predicted.

It was expected that the more conservative subjects would exhibit more aggression toward the accomplice when he assumed the anti-cop attitude and that the less conservative subjects would exhibit more aggression toward the accomplice when he took a pro-cop stance.

6. A significant B x C interaction was not expected.

The effect of watching the aggressive film was not predicted to depend upon the attitude the accomplice took toward the police.

7. It was expected that there would be a significant A x B x C interaction. It was expected that the nature of the interaction between conservatism and film would vary depending on the attitude assumed by the accomplice.

Results

In the reporting of the results, those results which are also included as parts of higher order interactions will not be specifically mentioned. The significance levels for all results can be seen in Tables 2, 3, and 5. Tests were performed on both the change in scores on the Adjective Check List scales and on the second administration of the Adjective Check List by itself. Since the changes constitute a stronger measure, results from the second administration will be mentioned only when no corresponding significance is obtained on the change in scores.

Effects of Conservatism

The Political Economic Conservatism scale was administered twice over a period of approximately three weeks. A Z-test was performed on the scores of all 96 subjects to see if there was any change in scores over this period. It was found that there was a significant decrease of 1.8 points on the scale overall ($Z = \pm 2.86, p < .01$). This result indicates that in general, the subjects decreased their conservatism over this period. This change was also significant when only the male subjects were considered ($Z = \pm 2.52, p < .02$).

The change in scores on this scale was again analyzed

with a 3 x 2 design using an F-test. There were three levels of conservatism (high, middle, and low) and two levels of film (aggressive and control). The data yielded no significant results which indicated that, although there was a change in scores, this change was not related to the political group to which the subject was originally assigned nor to the film which the subject saw.

Effects of Conservatism on Adjective Check List Scores

Except where otherwise stated, data on each of the subscales of the Adjective Check List listed below was analyzed with an F-test using a 3 x 2 design. There were 3 levels of conservatism (high, middle, and low) and 2 levels of film (aggressive and control).

An F-test performed on the scores from the first administration of the Adjective Check List over the 3 levels of conservatism yielded no significant results on any of the subscales (see Table 1).

Change in Surgency scores. An analysis of variance was performed on the change in Surgency scores over the 3 levels of conservatism for only those subjects who had seen the control film. The results showed that Surgency varied significantly with political economic conservatism level ($F = 4.36, p < .05$). The low conservatism group had a slight increase in Surgency, whereas the middle conservatism group had a slight decrease and the high

TABLE 1

Mean Adjective Check List Scores before Exposure
to Movies for the Groups Divided According to
Political Economic Conservatism Scores

Adjective Check List Subscales	Political Economic Conservatism Level			Average
	Low Conservatism	Middle Conservatism	High Conservatism	
Fatigue	3.22	2.97	2.88	3.02
Social Affection	7.56	6.47	7.04	7.03
Surgency	5.78	5.41	5.81	5.67
Egotism	3.15	2.13	3.25	2.84
Concentration	9.66	8.56	9.50	9.24
Vigor	4.56	4.28	5.22	4.69
Anxiety	2.69	3.63	3.38	3.23
Aggression	1.50	1.16	1.44	1.36
Depression	3.44	2.72	3.09	3.08
Guilt	1.06	0.53	1.38	0.99

conservatism group had a large decrease in Surgency after viewing the control film (see Table 2).

Second administration of Surgency. An F-test was performed on the Surgency scores from the second administration of the Adjective Check List using only those subjects who had seen the aggressive film. The independent variable was the level of conservatism. A significant difference was found among the three levels of conservatism ($F = 5.60, p < .01$), the middle conservatism group being the lowest (see Table 3).

Change in Vigor scores. Vigor scores varied significantly with conservatism level ($F = 3.22, p < .05$). There was a decrease in Vigor after subjects viewed either of the two films. There was a positive relationship between the amount of change and political economic conservatism level. Thus, the high conservatism group had the largest decrease, the middle conservatism group had the next amount of change, and the low conservatism group had the least amount of change (see Table 2).

A separate F-test was performed over the 3 levels of conservatism on the change in Vigor scores for only those subjects who saw the aggressive film. The results produced a significant conservatism effect ($F = 5.03, p < .025$). The low conservatism subjects had an increase in Vigor, whereas the high conservatism and middle conservatism subjects had decreases in Vigor (see Table 2).

TABLE 2

Change in Adjective Check List Scores from before Viewing to after Viewing Movie
Divided According to Political Economic Conservatism Scores and Movie Viewed

Adjective Check List Subscales	Film Viewed	Political Economic Conservatism Level		
		Low Conservatism	Middle Conservatism	High Conservatism
Fatigue	Aggressive	- 0.81	- 0.25	- 0.50
	Control	- 0.94	- 0.63	- 0.25
	Average	- 0.88	- 0.44	- 0.38
Social Affection	Aggressive	- 3.88]	- 2.94	- 3.06]
	Control	- 0.13]	- 0.38	- 0.44]
	Average	- 2.00	- 1.66	- 1.75
Surgency	Aggressive	- 2.56]	- 3.56]	- 2.50
	Control*	+ 0.13]	- 1.25]	- 2.25
	Average	- 1.22	- 2.41	- 2.38
Egotism*	Aggressive	+ 0.25]	- 0.63	- 1.06
	Control	- 1.69]	- 0.63	- 0.81
	Average	- 0.72	- 0.63	- 0.94
Concentration	Aggressive	- 0.56	- 0.94	- 0.06
	Control	- 1.38	- 0.25	- 0.38
	Average	- 0.97	- 0.59	- 0.22
Vigor	Aggressive*	+ 0.38	- 1.94	- 1.13
	Control	- 0.44	- 0.56	- 1.56
	Average*	- 0.03	- 1.25	- 1.34
Anxiety*	Aggressive	+ 4.88]	+ 5.38]	+ 1.63
	Control	- 1.56]	- 2.31]	- 0.50
	Average	+ 1.66	+ 1.53	+ 0.56

TABLE 2--Continued

Adjective Check List Subscales	Film Viewed	Political Economic Conservatism Level			
		Low Conservatism	Middle Conservatism	High Conservatism	Average
Aggression*	Aggressive	+ 8.56]	+ 8.25]	+ 5.44]	+ 7.42]
	Control*	- 1.94]	- 1.06]	+ 0.63]	- 0.79]
	Average	+ 3.31	+ 3.59	+ 3.03	+ 3.31
Depression	Aggressive	+ 2.88]	+ 3.75]	+ 1.06	+ 2.56]
	Control	- 2.31]	- 0.94]	- 1.13	- 1.46]
	Average	+ 0.28	+ 1.41	- 0.03	+ 0.55
Guilt	Aggressive	+ 2.88]	+ 3.75]	+ 2.63	+ 3.08]
	Control*	- 0.56]	- 0.44]	+ 0.63	- 0.13]
	Average	+ 1.16	+ 1.66	+ 1.63	+ 1.48

Note.--The first scale score is subtracted from the second scale score so that a plus (+) sign represents an increase in the scale score and a minus (-) sign represents a decrease in the scale score.

[(**)] means that the scores indicated differ significantly at the level indicated.

An asterisk(s) after "Aggressive" or "Control" means that, for the subjects indicated, the conservatism groups differ significantly. An asterisk(s) after "Average" means that, for all subjects, the conservatism groups differ significantly. An asterisk(s) after the name of a scale indicates that there was a significant interaction between the film viewed and the level of conservatism.

* p < .05

** p < .01

*** p < .001

TABLE 3

Mean Adjective Check List Scores after Viewing Movie Divided According
to Political Economic Conservatism Scores and Movie Viewed

Adjective Check List Subscales	Film Viewed	Political Economic Conservatism Level			Average
		Low Conservatism	Middle Conservatism	High Conservatism	
Fatigue	Aggressive Control Average	2.25 2.44 2.34	3.19 1.88 2.53	2.19 2.81 2.50	2.54 2.38 2.46
Social Affection	Aggressive Control Average	3.69 7.44 5.56	3.13 6.50 4.81	4.69 5.88 5.28	3.83 6.60 5.50
		**	*		***
Surgency**	Aggressive** Control Average	3.31 5.81 4.56	0.88 5.12 3.00	3.81 3.19 3.50	2.67 4.71 3.69
		*	***		**
Egotism	Aggressive Control Average	2.19 2.69 2.44	2.00 1.00 1.50	2.31 2.31 2.31	2.17 2.00 2.08
Concentration	Aggressive Control Average	9.19 8.19 8.69	7.44 8.50 7.97	9.69 8.88 9.28	8.77 8.52 8.65
Vigor*	Aggressive* Control Average	4.50 4.56 4.53	2.19 3.88 3.03	5.00 2.75 3.88	3.90 3.73 3.81
				*	
Anxiety*	Aggressive Control Average	6.94 1.75 4.34	9.69 0.63 5.16	6.19 1.69 3.94	7.61 1.55 4.48
		***	***	**	***

TABLE 3--Continued

Adjective Check List Subscales	Film Viewed	Political Economic Conservatism Level			
		Low Conservatism	Middle Conservatism	High Conservatism	Average
Aggression	Aggressive	9.12]	9.50]	7.94]	8.85]
	Control	0.50]	0.00]	1.00]	0.50]
	Average	4.81	4.75	4.47	4.68
Depression	Aggressive	5.19]	7.31]	4.56]	5.69]
	Control	2.25]	0.94]	1.56]	1.58]
	Average	3.72	4.13	3.06	3.64
Guilt	Aggressive	4.00]	4.31]	4.50]	4.27]
	Control*	0.43]	0.06]	1.50]	0.96]
	Average	2.22	2.19	3.00	2.47

Note.--] *(**) means that the scores indicated differ significantly at the level indicated.

An asterisk(s) after "Aggressive" or "Control" means that, for the subjects indicated, the conservatism groups differ significantly. An asterisk(s) after the name of a scale indicates that there was a significant interaction between the film viewed and the level of conservatism.

* p < .05

** p < .01

*** p < .001

Change in Guilt scores. An F-test was performed over the 3 levels of conservatism for all subjects who had seen the control film. It was found that change in Guilt scores varied significantly with conservatism ($F = 3.76, p < .05$). The change in scores represented a decrease in Guilt for the low and middle conservatism groups and an increase in Guilt for the high conservatism subjects (see Table 2).

Effects of Conservatism on Behavioral Aggression

There were four measures of behavioral aggression which were employed. These were the mean level of shock administered, the mean level of shock administered on the third (confusion) round, and the difference between each of these and the highest self-administered level of shock.

This data was analyzed with an F-test in a $3 \times 2 \times 2$ design. There were the 3 levels of conservatism, 2 levels of film, and 2 attitudinal stances (pro-cop and anti-cop). The only significant conservatism effect was in the form of a conservatism by film interaction. This result and results involving the other independent variables will be discussed later.

Effects of Conservatism on Perception of Self and of Learner

Perception of self and perception of learner were measured by ratings on the Epstein-Taylor Semantic Differen-

tial scale. The Potency subscale was modified by omitting the word pair "masculine-feminine", since there were unequal numbers of males and females involved in the various groups. At the end of each session, the subjects rated how they perceived themselves and how they perceived the learner on the same set of word pairs. Except where otherwise noted, the data was analyzed using an F-test with a $3 \times 2 \times 2$ design. The independent variables were the 3 levels of conservatism, the 2 levels of film, and the 2 attitude levels.

Self Potency. An F-test (over the 3 levels of conservatism) was performed using only those subjects who saw the aggressive film and heard the anti-cop attitude expressed. There was a significant conservatism effect ($F = 3.47, p < .05$). The low conservatism group perceived themselves as having the most Potency while the high conservatism group perceived themselves as having slightly less. The middle conservatism group perceived themselves as having the least Potency (see Table 4).

Learner Potency. There was a significant conservatism effect on perceived learner Potency ($F = 3.11, p < .05$). The low conservatism group perceived the learner as having the least Potency while the middle conservatism group perceived him as having the most Potency (see Table 4).

Difference between self Potency and learner Potency. There was a significant conservatism effect on the difference

Mean Epstein-Taylor Semantic Differential Scores Divided According to Political Economic Conservatism Scores, Movie Viewed, and Attitude Assumed by the Learner

Epstein-Taylor Semantic Differential Subscales	Political Economic Conservatism Level																										
	Low						Middle						High														
	Conservatism Attitude						Conservatism Attitude						Conservatism Attitude														
	Pro-Cop			Anti-Cop			Pro-Cop			Anti-Cop			Pro-Cop			Anti-Cop			Pro-Cop			Anti-Cop			Average Attitude		
	Pro-Cop	Anti-Cop	Average	Pro-Cop	Anti-Cop	Average	Pro-Cop	Anti-Cop	Average	Pro-Cop	Anti-Cop	Average	Pro-Cop	Anti-Cop	Average	Pro-Cop	Anti-Cop	Average	Pro-Cop	Anti-Cop	Average	Pro-Cop	Anti-Cop	Average			
Self Social Desirability	17.75	18.00	17.88	15.63	16.63	16.12	17.38	19.88	18.63	17.38	19.88	18.63	16.92	18.17	17.54	16.92	18.17	17.54	16.92	18.17	17.54	16.92	18.17	17.54			
	14.63	16.63	15.63	18.13	18.00	18.06	19.88	15.50	17.69	19.88	15.50	17.69	17.54	16.71	17.13	17.54	16.71	17.13	17.54	16.71	17.13	17.54	16.71				
	16.19	17.31	16.75	16.88	17.31	17.09	18.63	17.69	18.16	18.63	17.69	18.16	17.23	17.44	17.33	17.23	17.44	17.33	17.23	17.44	17.33	17.23	17.44	17.33			
Self Aggression	8.13	8.38	8.25	9.00	8.50	8.75	11.38	6.25	8.81	11.38	6.25	8.81	9.50	7.71	8.60	9.50	7.71	8.60	9.50	7.71	8.60	9.50	7.71	8.60			
	9.50	7.88	8.69	8.38	8.00	8.19	6.50	6.38	6.44	6.50	6.38	6.44	8.13	7.42	7.77	8.13	7.42	7.77	8.13	7.42	7.77	8.13	7.42	7.77			
	8.81	8.13	8.47	8.69	8.25	8.47	8.94	6.31	7.63	8.94	6.31	7.63	8.81	7.56	8.18	8.81	7.56	8.18	8.81	7.56	8.18	8.81	7.56	8.18			
Self Potency	11.13	12.00	11.56	9.88	9.63	9.75	11.50	11.50	11.50	11.50	11.50	11.50	10.83	11.04	10.93	10.83	11.04	10.93	10.83	11.04	10.93	10.83	11.04	10.93			
	10.38	10.50	10.44	11.13	10.50	10.81	11.25	9.00	10.13	11.25	9.00	10.13	10.92	10.00	10.46	10.92	10.00	10.46	10.92	10.00	10.46	10.92	10.00	10.46			
	10.75	11.25	11.00	10.50	10.06	10.28	11.38	10.25	10.81	11.38	10.25	10.81	10.88	10.52	10.70	10.88	10.52	10.70	10.88	10.52	10.70	10.88	10.52	10.70			
Learner Social Desirability	16.63	18.00	17.31	17.50	16.75	17.13	16.13	17.88	17.00	16.13	17.88	17.00	16.75	17.54	17.15	16.75	17.54	17.15	16.75	17.54	17.15	16.75	17.54	17.15			
	15.88	15.13	15.50	18.50	15.63	17.06	18.88	15.88	17.38	18.88	15.88	17.38	17.75	15.54	16.65	17.75	15.54	16.65	17.75	15.54	16.65	17.75	15.54	16.65			
	16.25	16.56	16.41	18.00	16.19	17.09	17.50	16.88	17.19	17.50	16.88	17.19	17.25	16.54	16.90	17.25	16.54	16.90	17.25	16.54	16.90	17.25	16.54	16.90			
Learner Aggression	9.13	8.38	8.75	9.88	12.38	11.13	10.00	9.38	9.69	10.00	9.38	9.69	9.67	10.04	9.85	9.67	10.04	9.85	9.67	10.04	9.85	9.67	10.04	9.85			
	10.38	13.50	11.94	9.63	9.63	9.63	9.25	6.88	8.06	9.25	6.88	8.06	9.75	10.00	9.88	9.75	10.00	9.88	9.75	10.00	9.88	9.75	10.00	9.88			
	9.75	10.94	10.34	9.75	11.00	10.38	9.63	8.13	8.88	9.63	8.13	8.88	9.71	10.02	9.86	9.71	10.02	9.86	9.71	10.02	9.86	9.71	10.02	9.86			
Learner Potency	10.13	10.00	10.06	11.13	12.38	11.75	9.63	11.88	10.75	9.63	11.88	10.75	10.29	11.42	10.85	10.29	11.42	10.85	10.29	11.42	10.85	10.29	11.42	10.85			
	8.63	10.38	9.50	10.63	11.38	11.00	11.50	10.25	10.88	11.50	10.25	10.88	10.25	10.67	10.46	10.25	10.67	10.46	10.25	10.67	10.46	10.25	10.67	10.46			
	9.38	10.19	9.78	10.88	11.88	11.38	10.56	11.06	10.81	10.56	11.06	10.81	10.27	11.04	10.66	10.27	11.04	10.66	10.27	11.04	10.66	10.27	11.04	10.66			

between perceived self Potency and perceived learner Potency ($F = 4.22, p < .025$). The high conservatism subjects rated themselves as considerably more potent than the learner; the low conservatism subjects rated themselves as being slightly more potent than the learner; and the middle conservatism subjects rated the learner higher on Potency than they rated themselves. Similar results were obtained when only the subjects who saw the aggressive film were considered (using a 3×2 F-test varying over conservatism and attitude levels) and when only those subjects who heard the anti-cop attitude were considered (using a 3×2 F-test varying over conservatism and film levels). (See Tables 4 and 5).

Summary of Effects of Conservatism

In summary, it is seen that the level of conservatism (based on the scores from the original administration of the Political Economic Conservatism Scale) did not affect the amount of change in conservatism nor did it affect significantly any of the scores on the initial administration of the Adjective Check List.

After viewing the control film there was a tendency for the low conservatism subjects to increase Surgency scores and decrease Guilt scores. The high conservatism subjects had the opposite tendency and the middle conservatism subjects fell in the middle on both scales. After

TABLE 5

Significant Effects of Political Economic Conservatism, Movie Viewed, and Attitude Assumed by the Learner on Scores on the Epstein-Taylor Semantic Differential

Epstein-Taylor Semantic Differential Subscales	Effects Using All Subjects	Effects Using Only These Subjects			
		Conser-vatism	Movie Viewed	Attitude of Learner	Significant Effects
Self	None	Low	---	---	B*
		High	---	---	B x C*
Social		---	---	Pro-Cop	A*
		---	---	Pro-Cop	A x B**
Desirability		Low	---	Pro-Cop	B*
		---	Control	Pro-Cop	A***
Self	None	High	---	---	C*
		High	Agg	---	C*
Aggression		High	---	Pro-Cop	B**
Self Potency	None	---	Agg	Anti-Cop	A*
Learner Social Desirability	B x C*	Middle	Control	---	C*
Learner	A x B*	Low	---	---	B*
		---	Control	---	A*
Aggression		---	---	Anti-Cop	A x B*
		---	Control	Anti-Cop	A*
Learner Potency	A*	---	Control	Pro-Cop	A*
Self Social Desirability Minus Learner Social Desirability	None				

TABLE 5--Continued

Epstein-Taylor Semantic Differential Subscales	Effects Using All Subjects	Effects Using Only These Subjects			
		Conser- vatism	Movie Viewed	Attitude of Learner	Significant Effects
Self Aggression Minus Learner Aggression	None	High --- High Low ---	---- ---- --- --- Control	--- Anti-Cop Pro-Cop Anti-Cop Pro-Cop	B x C* A x B** B** B* A*
Self Potency Minus Learner Potency	A*	--- --- ---	Agg --- Agg	--- Anti-Cop Anti-Cop	A** A* A**

Note.--In the listing of the effects "A" represents an effect of Political Economic Conservatism, "B" represents a film effect, and "C" represents an effect of the attitude assumed by the learner. Also, "x" represents an interaction between the independent variables listed.

* $p < .05$

** $p < .01$

*** $p < .001$

viewing either film there was a tendency for the subjects to decrease Vigor scores, with the low conservatism subjects changing hardly at all and the high conservatism subjects changing the most.

In contrast to these Adjective Check List scores, where the middle conservatism group had scores in the middle, the three tests on the Potency scale of the Semantic Differential had the middle conservatism group at one of the extremes. They were the lowest in perceived self Potency, highest on perceived learner Potency, and were the only group to rate the learner as more potent than themselves.

There were also effects of conservatism on the scores on the Aggression and Social Desirability scales of the Semantic Differential as well as on the Aggression scale of the Adjective Check List which will be apparent when the conservatism by film interaction effects are discussed.

Film Effects

The data was analyzed in order to determine what effect, in any, the viewing of the different films had on the subjects' responses on the various scales of the Adjective Check List, the Epstein-Taylor Semantic Differential scales, and on the levels of shock administered to the learner.

Film Effects on Adjective Check List Scores

Except where otherwise stated, data on each of the subscales of the Adjective Check List listed below was analyzed with an F-test using a 3 x 2 design. There were 3 levels of conservatism (high, middle, and low) and 2 levels of film (aggressive and control).

Change in Social Affection scores. There was a significant film effect on the change in Social Affection scores ($F = 20.37, p < .001$). There was a decrease in Social Affection after seeing either of the two films. The subjects who saw the aggressive film had a greater decrease in their scores than the subjects who saw the control film.

Change in Surgency scores. There was a significant effect of the films on change in Surgency scores ($F = 13.22, p < .001$). The subjects who saw the aggressive film decreased their Surgency scores more than the subjects who saw the control film (see Table 2).

Change in Anxiety scores. The effect of the films on the change in Anxiety scores was significant ($F = 36.79, p < .001$). The subjects who saw the aggressive film increased their Anxiety scores while the subjects who watched the control film actually decreased their Anxiety scores.

Change in Aggression scores. There was a significant film effect on changes in the Aggression scale scores

($F = 74.23$, $p < .001$). The subjects who viewed the aggressive film had increases in their Aggression scores, whereas the subjects who viewed the control film had decreases.

Change in Depression scores. Which film was seen affected significantly the change in Depression scale scores ($F = 24.49$, $p < .001$). Those subjects who saw the aggressive film increased their Depression scores and those who saw the control film decreased their Depression scores.

Change in Guilt scores. The effect of the films on the change in Guilt scores was significant ($F = 27.86$, $p < .001$). The aggressive film subjects had an increase in Guilt scores while the control film subjects had a slight decrease in Guilt scores.

Film Effects on Perception of Self and of Learner

All data from the Epstein-Taylor Semantic Differential was analyzed by an F-test with a $3 \times 2 \times 2$ design. There were 3 levels of conservatism (high, middle, and low), 2 levels of film (aggressive and control), and 2 levels of attitude (pro-cop and anti-cop). Under this analysis no significant film effects were obtained. Some results were obtained, however, by considering certain restricted groups of subjects (see Tables 4 and 5).

Self Aggression. A 2 level F-test was performed on the perceived self Aggression scores using only those subjects who were high on conservatism and who heard

the pro-cop attitude expressed, with film as the independent variable. The analysis yielded a significant result ($F = 9.94, p < .01$). Those subjects who saw the aggressive film perceived themselves as having more Aggression than did the subjects who saw the control film.

Difference between self Aggression and learner Aggression. As above, an F-test over the levels of film was performed using only the high conservatism subjects who had heard the pro-cop attitude. The significant result ($F = 9.40, p < .01$) corresponded to that given above. That is, those subjects who had seen the aggressive film perceived themselves to be more aggressive than the learner, while those who had seen the control film perceived themselves to be less aggressive than the learner.

Summary of Film Effects

There were significant film effects on the Social Affection, Surgency, Anxiety, Aggression, Depression, and Guilt scales of the Adjective Check List. In each case the significance was at or beyond the .001 level. Those who saw the aggressive film had less Social Affection and Surgency and had more Anxiety, Aggression, Depression, and Guilt than those who saw the control film.

Considering only the high conservatism subjects who heard the pro-cop attitude expressed, those who saw the aggressive film were, by their own assessment on

the Semantic Differential, more aggressive than those who saw the control film.

There were also some effects of the films on the Vigor and Egotism scales of the Adjective Check List and on the Social Desirability scale of the Semantic Differential. These were parts of interaction effects and will be discussed with the interactions.

Pro-cop and Anti-cop Attitude Effects

Except where otherwise stated, the data from the Epstein-Taylor Semantic Differential and from the shock levels administered by the subjects was analyzed by an F-test using a $3 \times 2 \times 2$ design over the 3 levels of conservatism, the 2 levels of film, and the 2 attitudes.

Effects on Perception of Self and of Learner Associated with Attitude Assumed by the Learner

See Tables 4 and 5 for the data and significance levels associated with the scores on the Epstein-Taylor Semantic Differential.

Self Aggression. A 2 level F-test, with the attitude assumed by the learner as independent variable, was performed using only those subjects who were high on conservatism and who had seen the aggressive film. The result was statistically significant ($F = 8.79$, $p < .025$). Those subjects who had heard the pro-cop attitude expressed had higher scores on perceived self Aggression

than did those subjects who had heard the anti-cop attitude expressed.

Learner Social Desirability. An F-test was performed using only those subjects who had seen the control film and were in the middle on conservatism. With the attitude assumed by the learner as independent variable, a significant result was obtained ($F = 5.52, p < .05$). Those subjects who heard the pro-cop attitude expressed rated the learner as having more Social Desirability than did those subjects who heard the anti-cop attitude.

Effects on Behavioral Aggression Associated with Attitude Assumed by the Learner

See Table 6 for data and significance levels associated with levels of shock administered by the subjects.

Mean shock level. A 3×2 F-test, with conservatism and the attitude assumed by the learner as independent variables, was performed using only those subjects who had seen the aggressive film. There was a significant effect associated with the attitude assumed by the learner ($F = 6.74, p < .025$). Those subjects who had heard the learner express a pro-cop attitude administered a higher level of shock over the full set of 60 trials than did those who had heard the learner express an anti-cop attitude.

Mean shock level on the confusion block of trials.

As above, a 3×2 F-test using those subjects who had

TABLE 6

Mean Shock Levels Divided According to Political Economic Conservatism Scores, Movie Viewed, and Attitude Assumed by the Learner

Shocking Trials	Political Economic Conservatism Level											
	Low			Middle			High			Average		
	Conservatism Attitude			Conservatism Attitude			Conservatism Attitude					
	Pro- Cop	Anti- Cop	Aver- age	Pro- Cop	Anti- Cop	Aver- age	Pro- Cop	Anti- Cop	Aver- age	Pro- Cop	Anti- Cop	Aver- age
Mean of all Trials	4.87 3.39 4.13	2.98 3.46 3.22	3.93 3.43 3.68	4.06 [*] 2.87 3.47	2.21 3.19 2.70	3.14 3.03 3.09	3.17 3.96 3.56	2.26 3.77 3.02	2.72 3.87 3.29	4.03 [*] 3.41 3.72	2.49 3.47 2.98	3.26 3.44 3.35
Self Level Minus Mean of all Trials	1.50 3.61 2.56	2.39 1.42 1.90	1.95 2.51 2.23	1.81 2.25 2.03	2.66 3.56 3.11	2.24 2.90 2.57	2.33 3.91 3.12	3.11 2.35 2.73	2.72 3.13 2.93	1.88 3.26 2.57	2.72 2.44 2.58	2.30 2.85 2.58
Mean of Third Round of Trials	4.92 3.52 4.22	2.96 3.88 3.42	3.94 3.70 3.82	4.52 2.96 3.74	2.35 3.20 2.78	3.44 3.08 3.26	3.32 3.96 3.64	2.22 3.85 3.04	2.77 3.91 3.34	4.25 [*] 3.48 3.87	2.51 3.64 3.08	3.38 3.56 3.47
Self Level Minus Mean of Third Round of Trials	1.46 3.48 2.47	2.42 1.00 1.71	1.94 2.24 2.09	1.35 2.17 1.76	2.52 3.55 3.04	1.94 2.86 2.40	2.18 3.92 3.05	3.16 2.27 2.71	2.67 3.09 2.88	1.66 3.19 2.43	2.70 2.27 2.49	2.18 2.73 2.46

Note.--The first row of scores consists of the scores for those subjects who saw the aggressive film. The second row has scores for subjects who saw the control film and the third row has the average over both groups.

* -- means that the scores indicated differed at the .05 level of significance
^athere was a film by attitude interaction for these scores ($p < .05$).

seen the aggressive film was performed and it was found that there was a significant effect associated with the attitude assumed by the learner ($F = 7.01, p < .025$).

Those subjects who had heard the pro-cop attitude expressed gave out higher shock levels on the third block of twelve trials than did those subjects who had heard the anti-cop attitude expressed.

Summary of Effects Associated with the Attitude Assumed by the Learner

There were no attitude effects when all subjects were considered. However, when attention was restricted to those subjects who had seen the aggressive film it was found that more overt aggression (in the form of shock administered) was exhibited toward the learner when he assumed a pro-cop attitude than when he assumed an anti-cop attitude.

When attention was further restricted to those subjects high on conservatism who had seen the aggressive film, it was found that they perceived themselves to be more aggressive when the learner assumed the pro-cop attitude than when he assumed the anti-cop attitude. In addition, when only those subjects in the middle on conservatism who had seen the control film were considered, the learner was rated higher on Social Desirability when he expressed the pro-cop attitude than when he expressed the anti-cop attitude.

Effects of Interaction Between
Conservatism and Film

Interaction effects between conservatism level and film viewed were observed on subscales of the Adjective Check List and on subscales of the Epstein-Taylor Semantic Differential.

Conservatism by Film Interaction Effects on Adjective
Check List Scores

All data from the Adjective Check List was analyzed by a 3 x 2 F-test. The independent variables were the level of conservatism and the film viewed. As was previously remarked, when individual effects constituting part of an interaction were significant by themselves this fact will be indicated, often merely by citing the level of significance.

Second administration of Surgency. There was a significant conservatism by film interaction effect on the results of the second administration of the Surgency subscale ($F = 5.06, p < .01$). The low conservatism ($F = 6.58, p < .025$) and middle conservatism ($F = 19.22, p < .001$) groups had lower Surgency scores after viewing the aggressive film than after viewing the control film. For the high conservatism subjects the trend was in the opposite direction (see Figure 1).

Change in Egotism scores. Figure 2 illustrates the

FIGURE 1

Effect of Interaction between Political Economic Conservatism and Film Viewed on the Scores from the Second Administration of the Surgency Scale

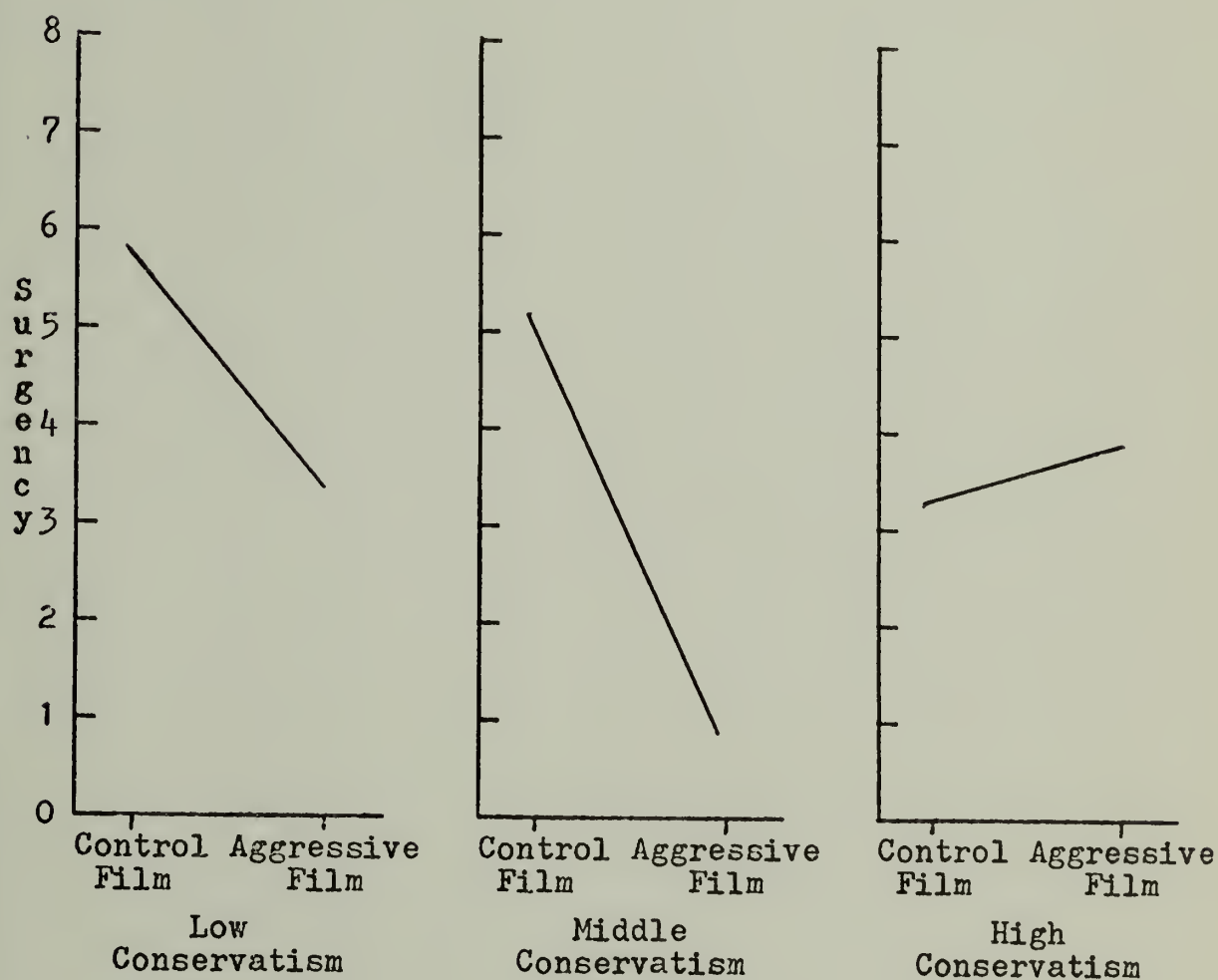
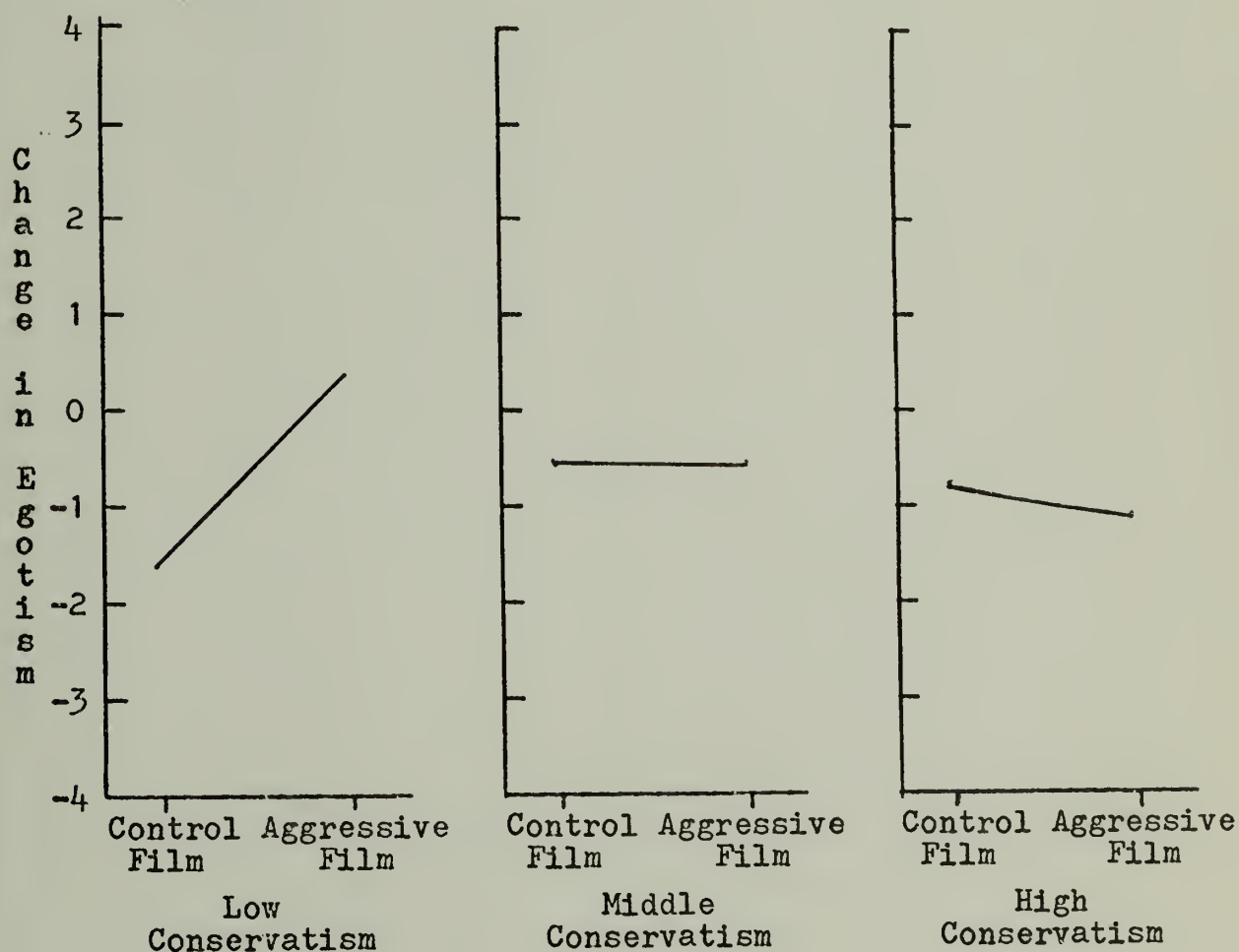


FIGURE 2

Effect of Interaction between Political Economic Conservatism
and Film Viewed on the Change in Egotism Scores
from before Viewing to after Viewing Film



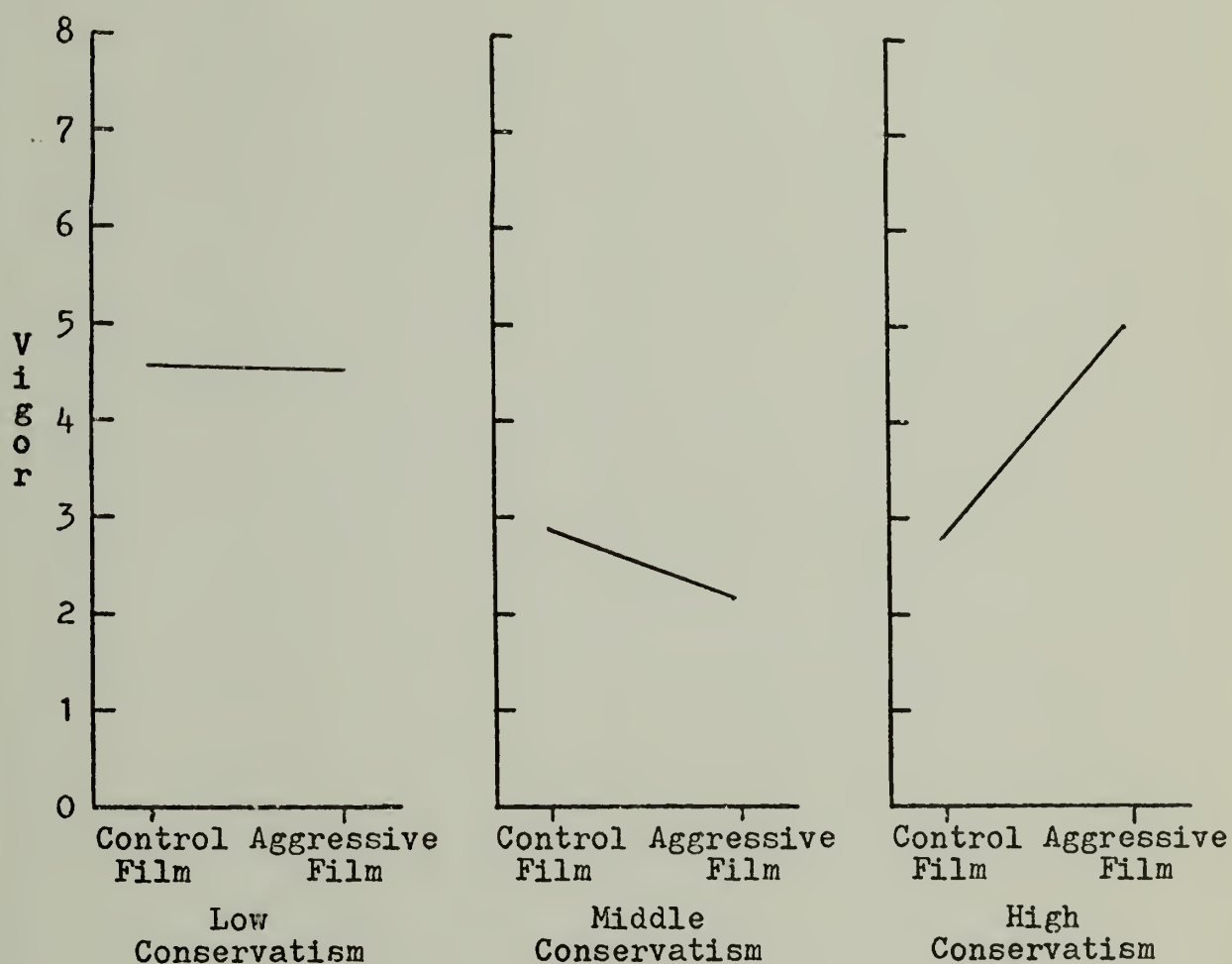
significant conservatism by film interaction effect on the change in Egotism scores ($F = 3.45$, $p < .05$). For the low conservatism subjects there was an increase in Egotism scores after viewing the aggressive film and a decrease in Egotism scores after viewing the control film ($F = 10.93$, $p < .01$). The middle conservatism subjects decreased their Egotism by exactly the same amount after viewing the aggressive film as they did after viewing the control film. The high conservatism subjects tended to have a larger decrease in Egotism after viewing the aggressive film than after viewing the control film.

Second administration of Vigor. The data derived from these scores yielded an interaction effect significant at the .025 level ($F = 4.06$). For the high conservatism subjects the effect of viewing the aggressive film was to increase Vigor (when compared to the control group), ($F = 5.26$, $p < .05$). For the middle conservatism group viewing the aggressive film tended to decrease Vigor (when compared to the control group) while the Vigor scores for the low conservatism group were about the same regardless of which film was seen. As can be observed in Figure 3, the middle conservatism subjects who saw the aggressive film scored lower on Vigor than did either the low or high conservatism subjects ($F = 5.03$, $p < .025$).

Change in Anxiety scores. There was a significant interaction between conservatism and film on the difference

FIGURE 3

Effect of Interaction between Political Economic Conservatism and Film Viewed on the Scores from the Second Administration of the Vigor Scale



between the second and the first administrations of the Anxiety scale ($F = 3.56, p < .05$). While each conservatism group had an increase in Anxiety after viewing the aggressive film and a decrease after viewing the control film, and this difference was significant for both the low conservatism ($F = 15.90, p < .001$) and middle conservatism ($F = 22.54, p < .001$) groups, the amount of difference varied significantly. The middle conservatism group had the greatest difference and the high conservatism group had the least difference (see Figure 4).

Change in Aggression scores. There was a significant conservatism by film interaction effect on the change in Aggression scores ($F = 3.31, p < .05$). As can be seen by observing Figure 5, the situation is essentially the same as that described above with respect to the change in Anxiety scores. The difference between the aggressive and control films was significant at each level of conservatism (see Table 2). As can also be seen in Figure 5, both the low conservatism subjects who saw the control film and the middle conservatism subjects who saw the control film actually decreased their Aggression scores while the high conservatism subjects who saw the control film increased their scores ($F = 3.20, p < .05$).

Conservatism by Film Interaction Effects on Perception of Self and of Learner

See Tables 4 and 5 for the data and significance

FIGURE 4

Effect of Interaction between Political Economic Conservatism
and Film Viewed on the Change in Anxiety Scores
from before Viewing to after Viewing Film

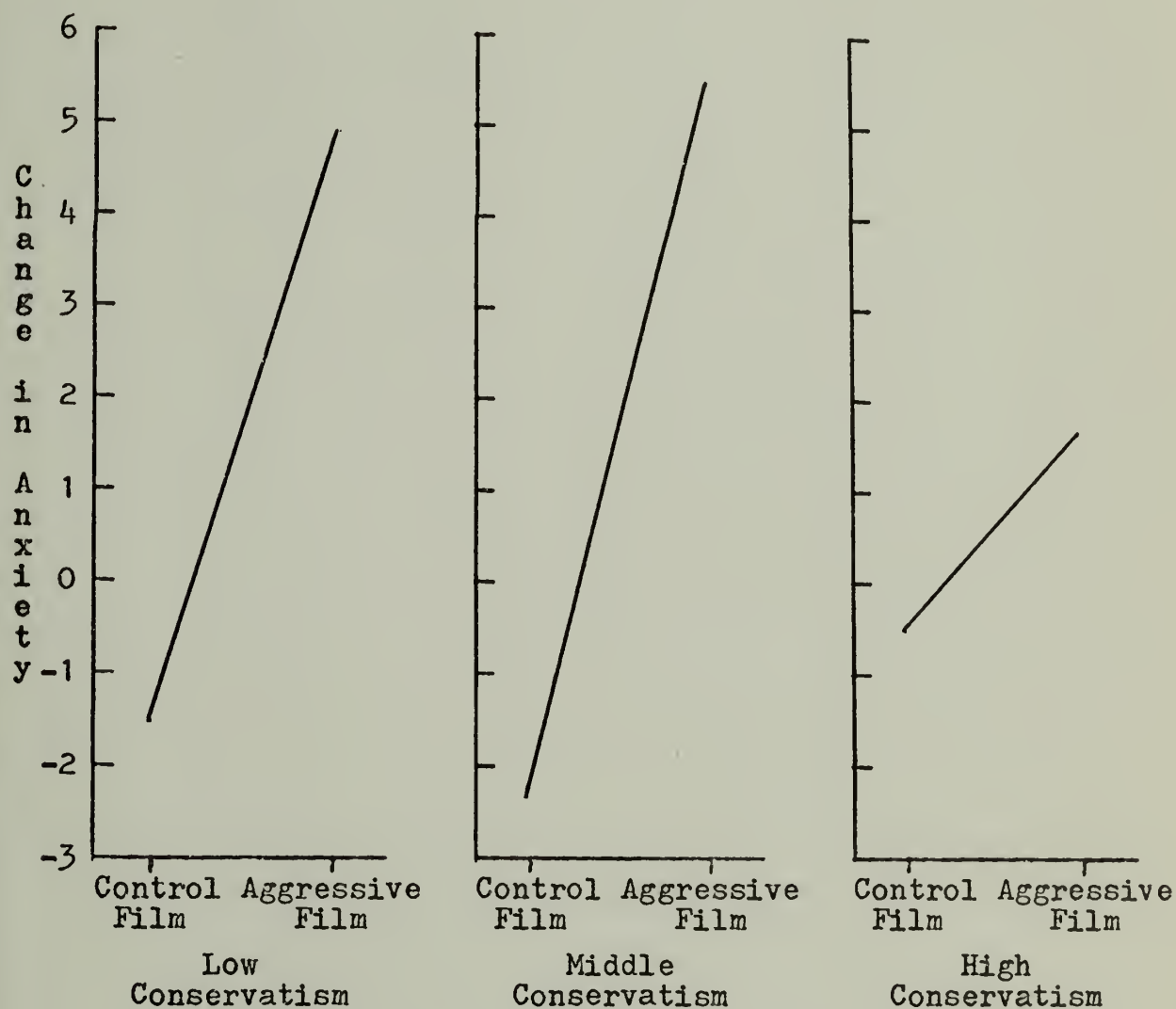
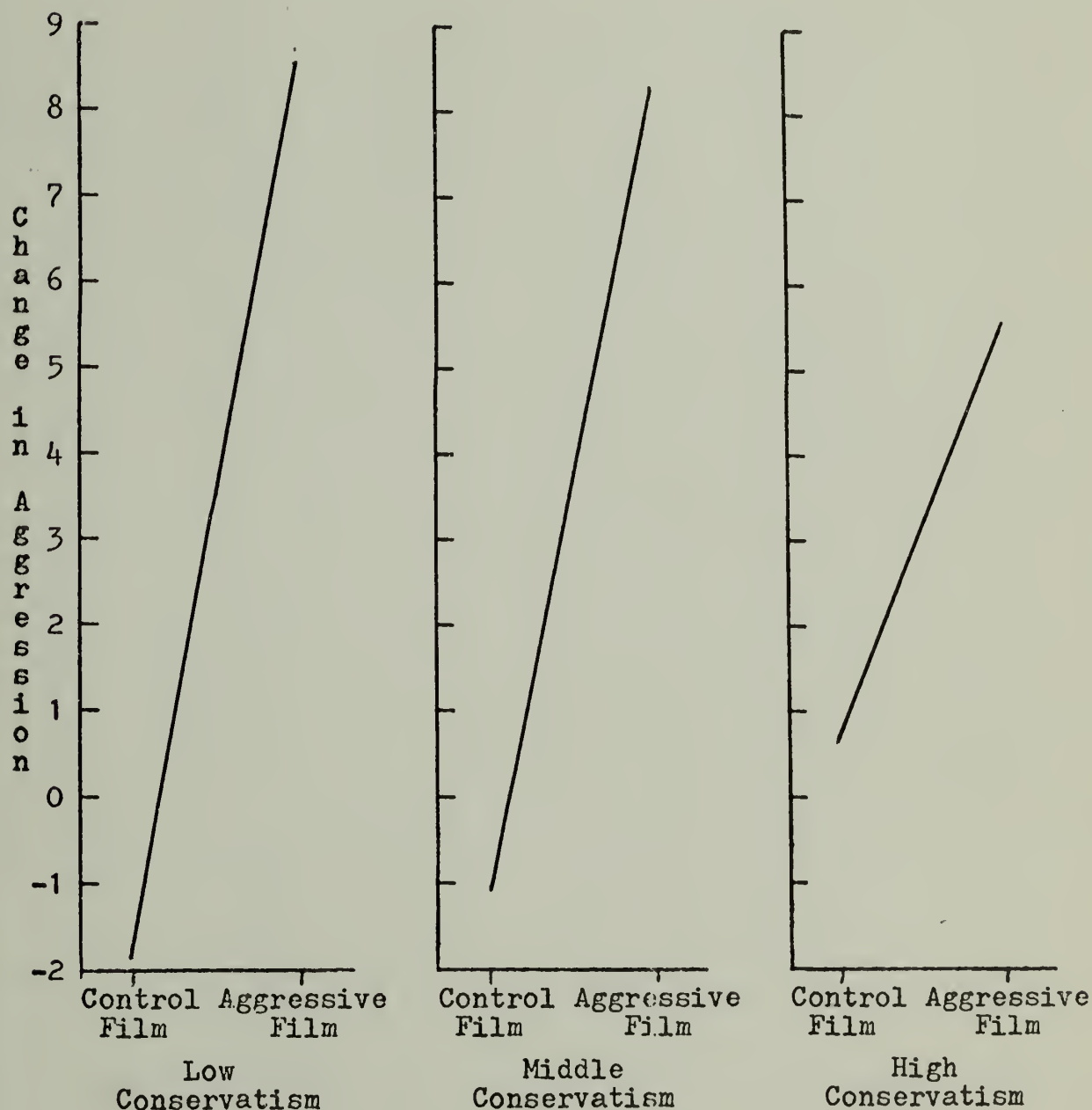


FIGURE 5

Effect of Interaction between Political Economic Conservatism
and Film Viewed on the Change in Aggression Scores
from before Viewing to after Viewing Film



levels associated with the scores on the Epstein-Taylor Semantic Differential.

Learner Aggression. A $3 \times 2 \times 2$ F-test, with conservatism, film, and attitude of learner as independent variables, was performed on the ratings of perceived learner Aggression. A conservatism by film interaction was found ($F = 4.33$, $p < .025$). For those subjects in the low conservatism group, seeing the aggressive film decreased the learner's perceived Aggression (in comparison to the control film), ($F = 4.41$, $p < .05$). For the middle and high conservatism groups seeing the aggressive film increased the learner's perceived Aggression (see Figure 6). It should be observed that this effect is due largely to those subjects who heard the learner express the anti-cop attitude. For, when a 3×2 F-test (over levels of conservatism and film) was performed using only those subjects who heard the anti-cop attitude, significance was obtained ($F = 4.36$, $p < .025$). The effect was exactly as described above except that it was more pronounced (see Figure 7).

As can also be seen in Figure 7, for those subjects who heard the anti-cop attitude and saw the control film, the level of conservatism significantly ($F = 4.94$, $p < .025$) affected the perceived Aggression of the learner, with the high conservatism subjects ranking him lowest on perceived aggression. The low conservatism subjects ranked the learner highest on Aggression.

FIGURE 6

Effect of Interaction between Political Economic Conservatism and Film Viewed on the Perceived Aggression of Learner

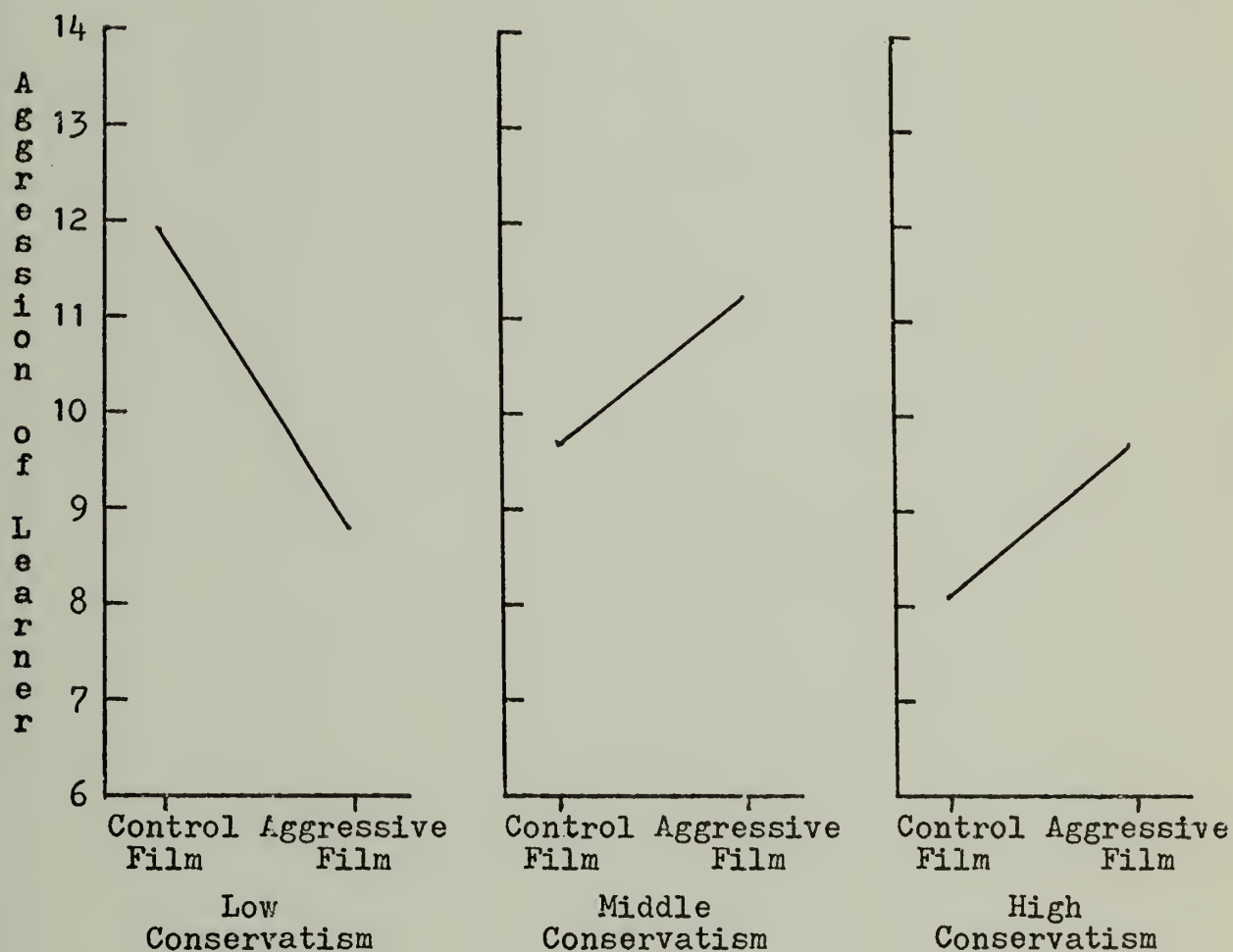
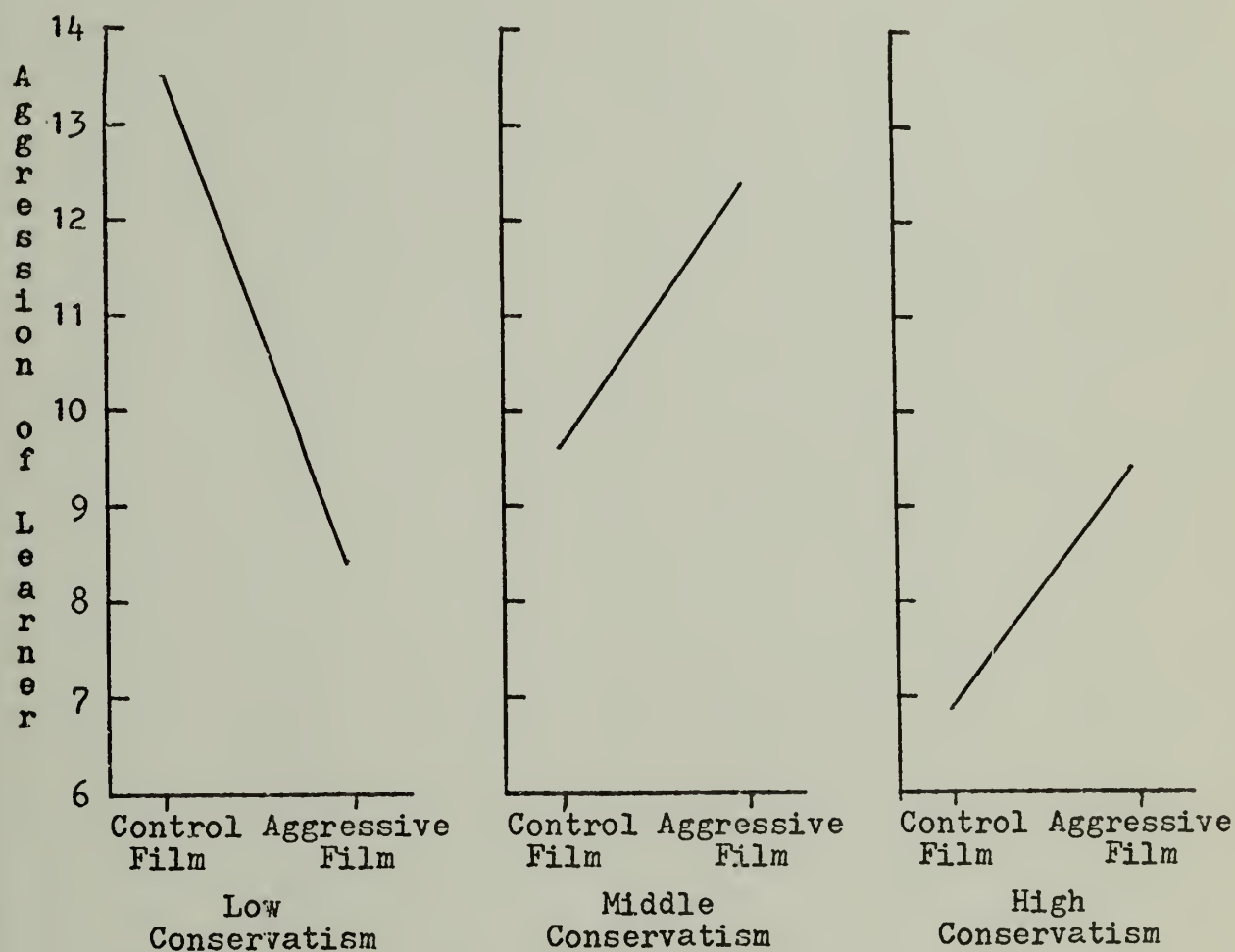


FIGURE 7

Effect of Interaction between Political Economic Conservatism
and Film Viewed on the Perceived Aggression of Learner
Using only subjects Who Heard the Anti-Cop Attitude



Difference between self Aggression and learner

Aggression. An F-test, over the 3 levels of conservatism and the 2 levels of film, was performed using only those subjects who had heard the anti-cop attitude expressed. A significant conservatism by film interaction was found ($F = 5.35, p < .01$). For the high and middle conservatism subjects the effect of seeing the aggressive film (as compared to the control film) was to increase the amount by which the learner was perceived to be more aggressive than themselves. For the low conservatism subjects the effect was reversed. That is, those subjects who saw the control film rated the learner as considerably more aggressive than themselves while those who saw the aggressive film rated themselves and the learner the same on Aggression. (See Figure 8.)

Self Social Desirability. A 3×2 F-test was performed using only those subjects who heard the pro-cop attitude expressed by the learner (with conservatism and film viewed as independent variables). A significant interaction between conservatism and film was discovered ($F = 5.56, p < .01$). The effect of the aggressive film (in comparison to the control film) was to increase the perceived self Social Desirability for the low conservatism group ($F = 4.38, p < .05$) and to decrease the perceived self Social Desirability for the middle and high conservatism groups (see Figure 9).

FIGURE 8

Effect of interaction between Political Economic Conservatism
and Film Viewed on the Difference between Perceived
Aggression of Self and Perceived Aggression
of Learner Using only Subjects Who
Heard the Anti-Cop Attitude

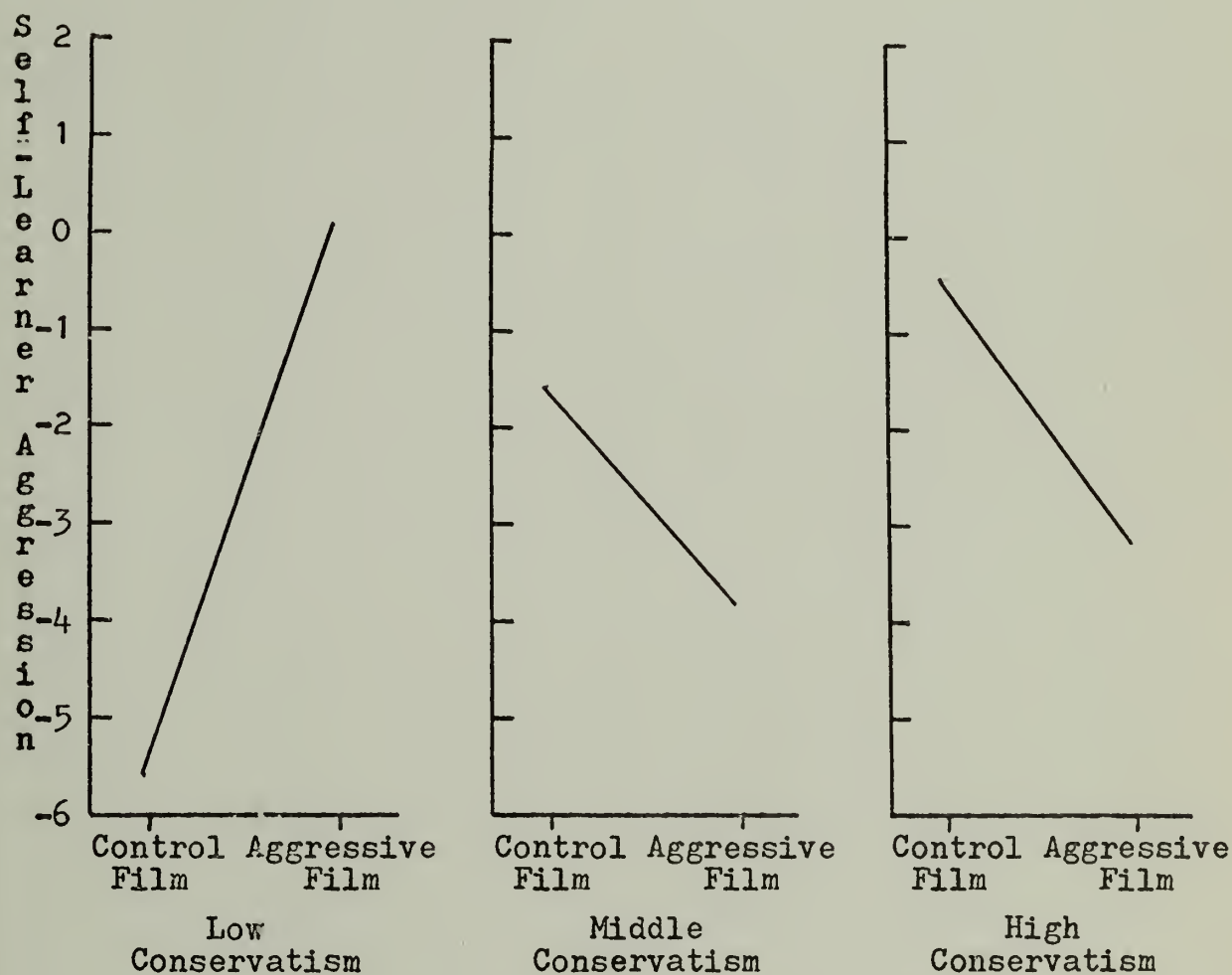
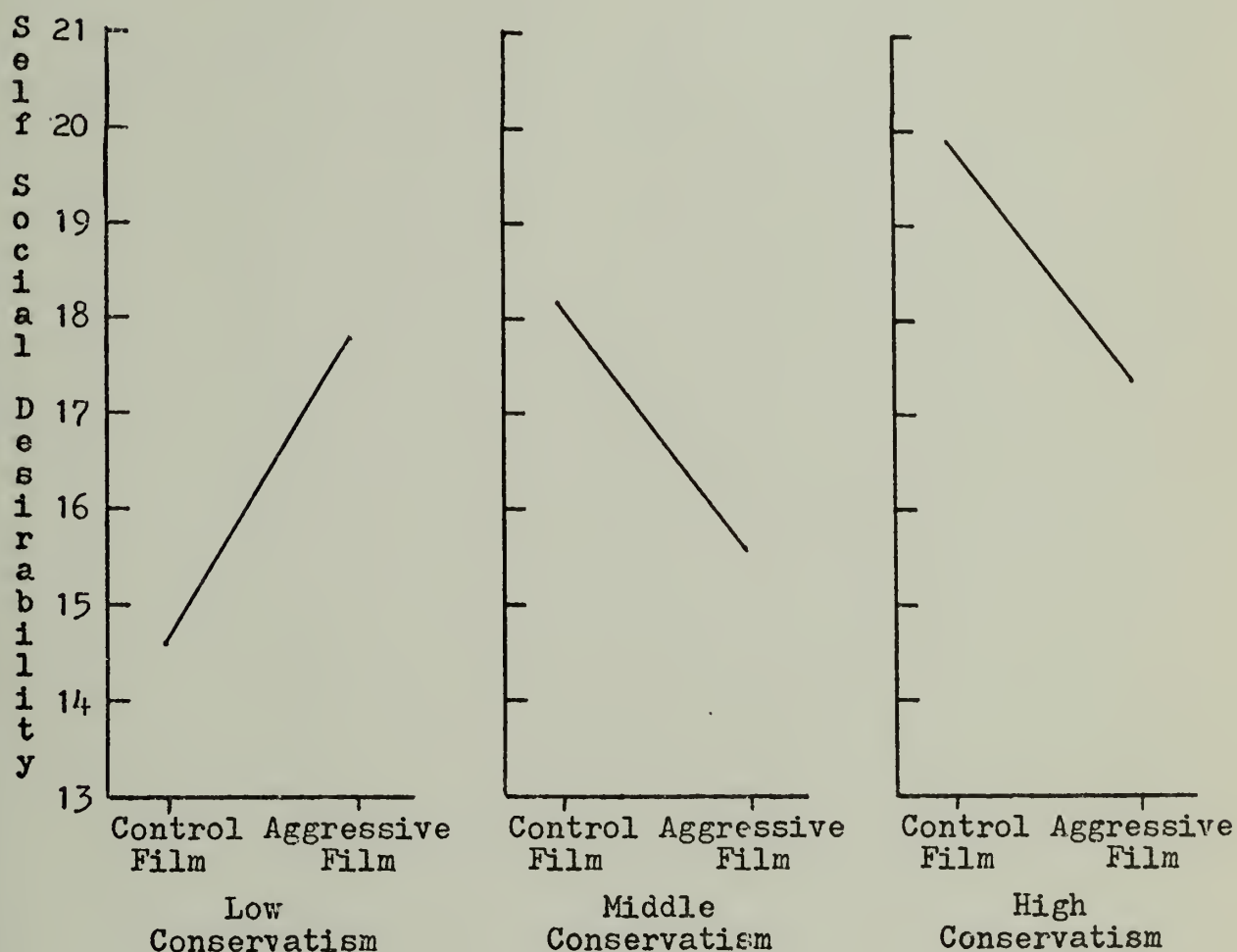


FIGURE 9

Effect of Interaction between Political Economic Conservatism
and Film Viewed on Perceived Self Social Desirability
Using only Subjects Who Heard the Pro-Cop Attitude



Summary of Effects of Interaction between Conservatism and Film

The effect of watching the aggressive film, as compared to watching the control film, was modified by the level of conservatism as follows. For the low and middle conservatism groups the aggressive film decreased Surgency and for the high conservatism group it increased Surgency. The aggressive film increased Egotism for the low conservatism group and left it essentially unchanged for the middle and high conservatism groups. Vigor was unchanged by the aggressive film for the low conservatism group, but was decreased for the middle conservatism group and increased for the high conservatism group. The effect of the aggressive film was to increase Anxiety and Aggression for all groups, but the increase for the high conservatism group was significantly smaller than for the other two conservatism groups.

For those subjects who heard the learner express the anti-cop attitude, the effect of the aggressive film on the low conservatism group was to decrease the perceived Aggression of the learner, and correspondingly, to decrease the difference between perceived learner Aggression and perceived self Aggression. For the high and middle conservatism subjects (who had heard the anti-cop attitude) the effect of the aggressive film was the opposite. That is, it increased the perceived learner

Aggression and increased the difference between perceived learner Aggression and perceived self Aggression. For the subjects who heard the pro-cop attitude, the effect of the aggressive film was to increase the perceived self Social Desirability for the low conservatism group and to decrease perceived self Social Desirability for the middle and high conservatism groups.

Effects of Interaction between Film Viewed
and Attitude Assumed by the Learner

Interaction effects between film and attitude were observed on subscales of the Epstein-Taylor Semantic Differential and on the mean level of shock administered during the confusion round of trials.

Film by Attitude Effects on Perception of Self and of Learner

See Tables 4 and 5 for the data and significance levels associated with the scores on the Epstein-Taylor Semantic Differential.

Difference between self Aggression and learner Aggression. A 2 x 2 F-test, with film viewed and attitude assumed by the learner as independent variables, was performed using only those subjects who were high on conservatism. An interaction between film and attitude was found ($F = 7.37$, $p < .025$). The group (of high conservatism subjects) who heard the pro-cop attitude perceived the learner to be more aggressive than themselves if

they saw the control film and perceived themselves to be more aggressive than the learner if they saw the aggressive film ($F = 9.40, p < .01$). For those who heard the anti-cop attitude expressed the opposite tendency held. That is, seeing the aggressive film increased the amount by which they perceived the learner to be more aggressive than themselves (see Figure 10).

Self Social Desirability. As above, a 2×2 F-test using only the high conservatism subjects yielded a significant film by attitude interaction ($F = 5.32, p < .05$). The aggressive film, in comparison to the control film, tended to lower the subjects' perceived Social Desirability when they were exposed to the pro-cop attitude and tended to raise their perceived Social Desirability when they were exposed to the anti-cop attitude (see Figure 11).

Learner Social Desirability. A significant film by attitude interaction was found ($F = 4.29, p < .05$) when a $3 \times 2 \times 2$ F-test was performed (over the 3 levels of conservatism, the 2 levels of film, and the 2 attitude levels). For the pro-cop group, the effect of seeing the aggressive film was to decrease the learner's perceived Social Desirability while for the anti-cop group the effect of seeing the aggressive film (in comparison to the control film) was to increase the learner's perceived Social Desirability (see Figure 12).

FIGURE 10

Effect of Interaction between Film Viewed and Attitude Assumed
by the Learner on the Difference between Perceived
Aggression of Self and Perceived Aggression of
Learner Using only High Conservatism Subjects

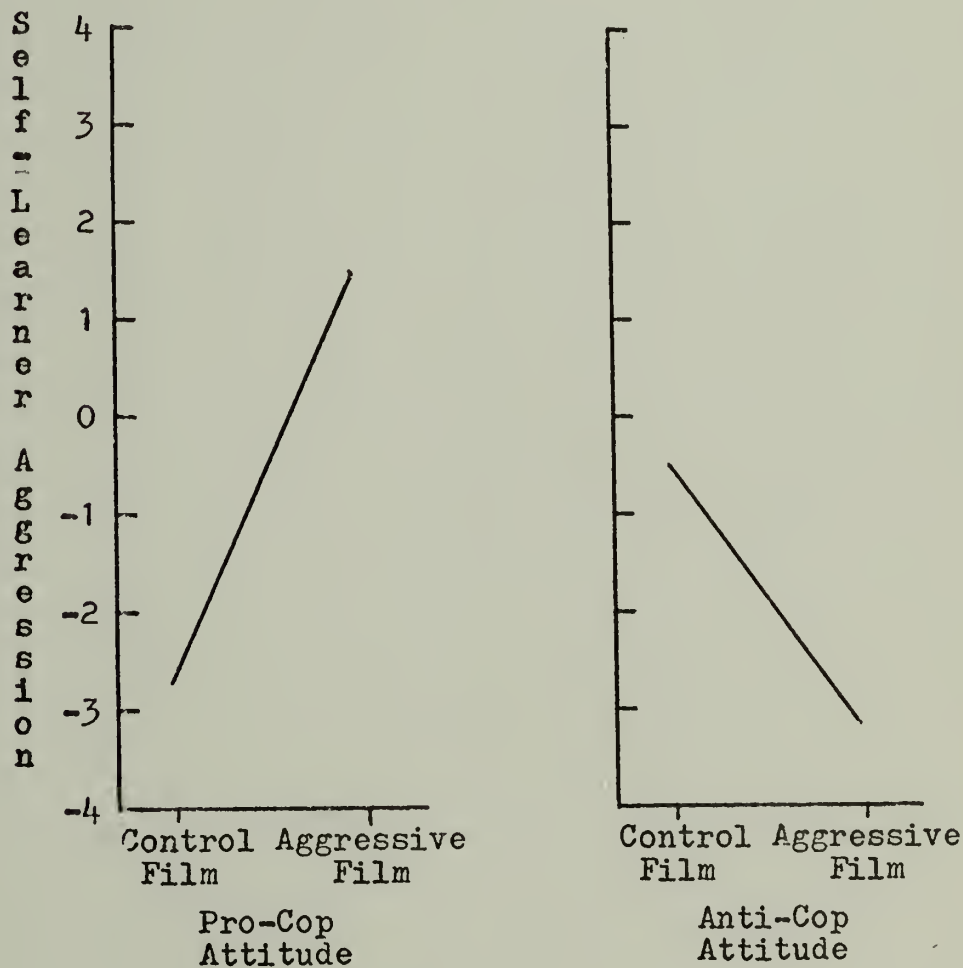


FIGURE 11

Effect of Interaction between Film Viewed and Attitude Assumed
by the Learner on Perceived Self Social Desirability
Using only High Conservatism Subjects

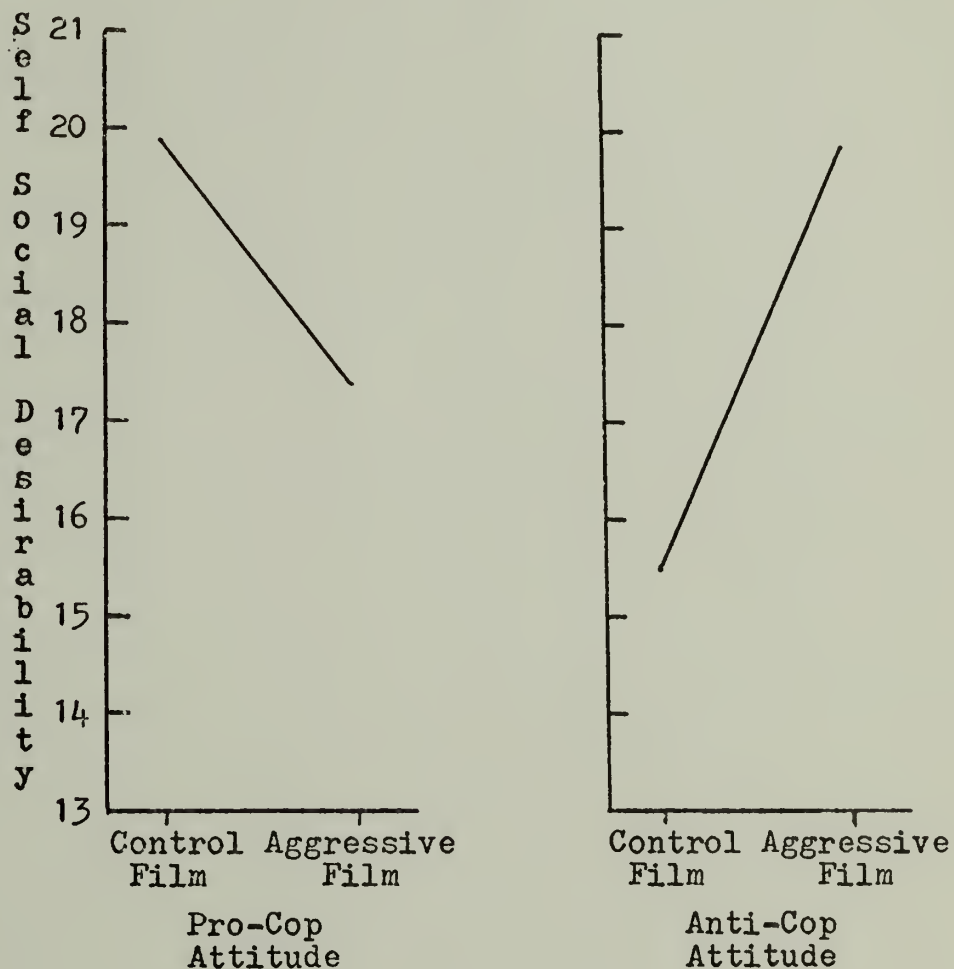
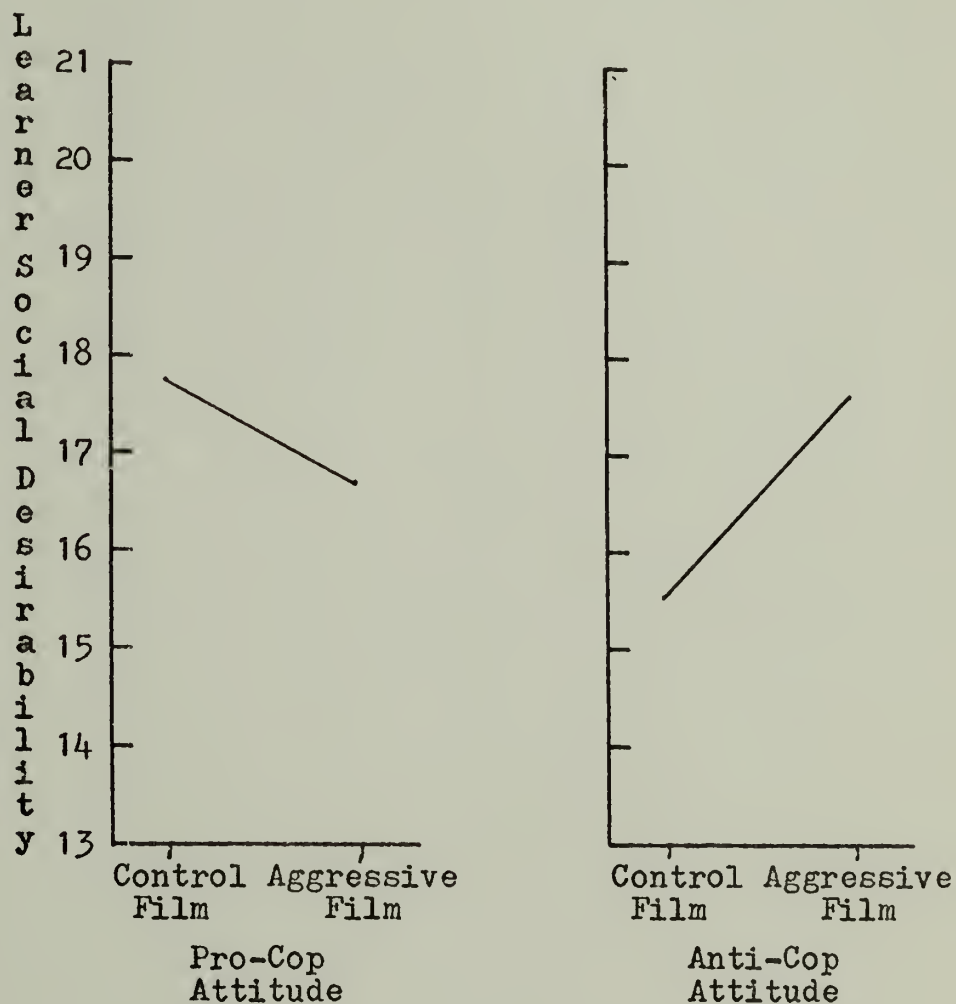


FIGURE 12

Effect of Interaction between Film Viewed and Attitude Assumed by the Learner on Perceived Social Desirability of Learner



Film by Attitude Effects on Behavioral Aggression

See Table 6 for data and significance levels associated with levels of shock administered by the subjects.

Mean shock level on the confusion block of trials.

A 3 x 2 x 2 F-test over the 3 levels of conservatism, 2 levels of film, and 2 attitude levels yielded a significant film by attitude interaction ($F = 4.02$, $p < .05$). Viewing the aggressive film tended to increase the level of shock administered (on the third block of trials) when the pro-cop sentiments were heard. The effect of the aggressive film was the opposite when the anti-cop sentiments were heard (see Figure 13).

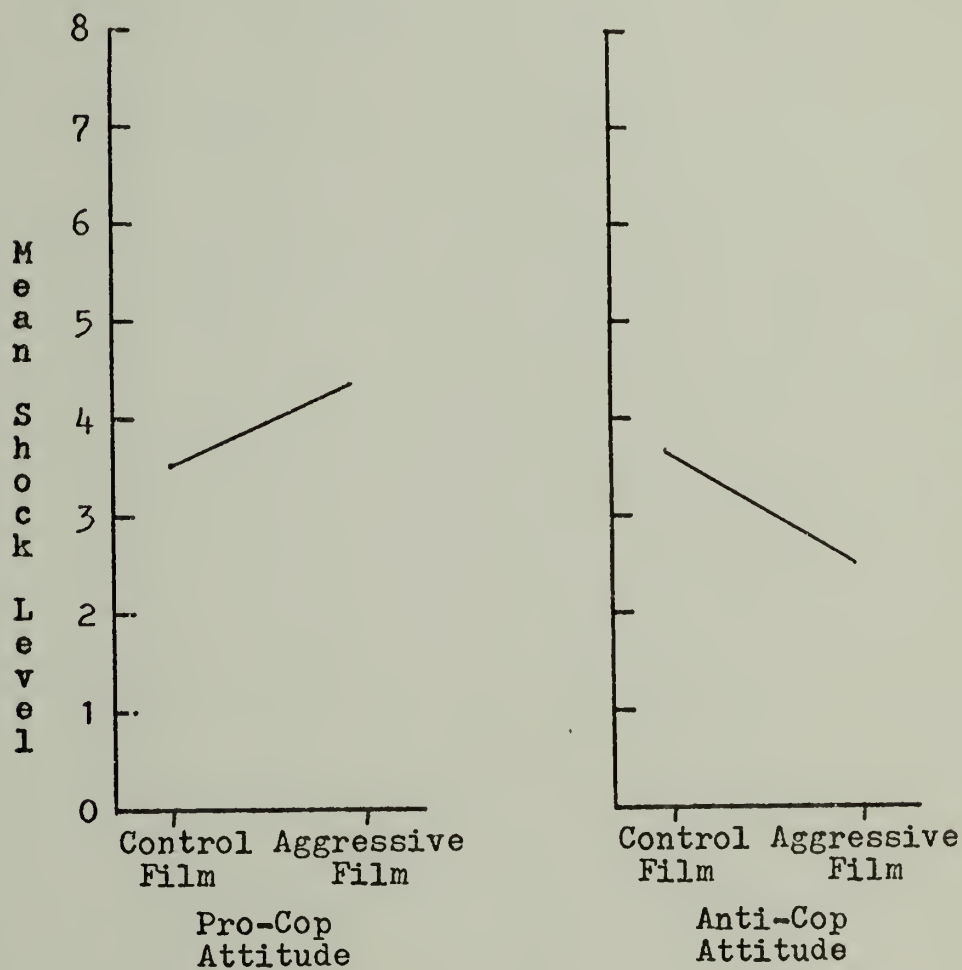
Summary of Effects of Interaction between Attitude and Film

For each of the variables for which an interaction between the film viewed and the attitude expressed by the learner was discovered, the effect of the aggressive film (as compared to the control film) was not only modified but in fact reversed when the attitude expressed was changed from pro-cop to anti-cop.

Two of the results involved only the high conservatism subjects. When these subjects were exposed to the pro-cop attitude the effect of the aggressive film was to increase their own perceived Aggression in comparison to the learner's perceived Aggression and to decrease their own perceived Social Desirability. As remarked above, exposure to the anti-cop attitude reversed these effects.

FIGURE 13

Effect of Interaction between Film Viewed and Attitude
Assumed by the Learner on the Mean Shock Level
Administered during the Third Round of Trials



The other two results involved all subjects. When the pro-cop attitude was heard the effect of the aggressive film was to decrease the learner's perceived Social Desirability and to increase the level of shock administered during the confusion round of trials. The effect of the aggressive film under the anti-cop attitude was the opposite.

Comparison of Male and Female Subjects

In comparing the responses of the male and female subjects in this study, the Z-test was used since there were a sufficiently large number of each (41 females and 55 males) but they were randomly assigned within the groups. As before, only those results significant at at least the .05 level are reported.

Scores on the Adjective Check List

Second administration of Vigor. There was a significant difference between males and females on their scores on the Vigor scale ($Z = \pm 2.42$, $p < .025$). The males rated themselves as having more Vigor after viewing either film than did the females.

Perception of Self and of Learner

Learner Social Desirability. There was a significant difference between the sexes on their perception of the learner's Social Desirability ($Z = \pm 2.86$, $p < .01$). The females rated the learner higher on Social Desirability

than did the males.

Difference between self Social Desirability and learner Social Desirability. The difference on this score between males and females was significant ($Z = \pm 4.66$, $p < .001$). The females perceived the learner as having more Social Desirability than themselves and the males perceived the learner as having less Social Desirability than themselves.

Self Potency. The males perceived themselves as having significantly more Potency than the females did ($Z = \pm 2.45$, $p < .025$). (It should be recalled that the word pair "masculine-feminine" was excluded from the Potency scale.)

Learner Potency. The females rated the learner as having significantly more Potency than the males did ($F = \pm 1.97$, $p < .05$).

Difference between self Potency and learner Potency. There was a significant difference at the .001 level between the males and females on this variable ($Z = \pm 3.65$). The females rated the learner higher on Potency than themselves and the males rated themselves higher on Potency than the learner.

Behavioral Aggression

There was a significant difference between the males and females on two of the measures of behavioral aggression which were employed. These were the difference

between the mean level of shock administered and the maximum level of self administered shock ($Z = \pm 3.85$, $p < .001$) and the difference between the mean level of shock administered on the confusion round and the maximum level of self administered shock ($Z = \pm 5.03$, $p < .001$). These results are due to the fact that the males gave out significantly less shock than they took themselves ($Z = \pm 9.39$, $p < .001$). In fact only 3 of the 55 males gave out more shock than they took themselves, in large part because most of the males took the maximum level of shock themselves. In comparison, the females did not give out significantly less shock than they took themselves.

Summary of Comparison of Male and Female Subjects

The males perceived themselves as having more Vigor and Potency than the females did. The females perceived the learner as having more Social Desirability and Potency than did the males. Finally, the males gave out significantly less shock than they took themselves, while the females did not (largely because the females administered lower levels of shock to themselves than did the males).

Discussion

Based on previous studies, it was predicted that ratings of aggressiveness would vary with the nature of the film shown. That is, those subjects who viewed the aggressive film, as opposed to those who viewed the control film, would rate themselves higher on measures of aggression and display more aggression toward an appropriate object. This prediction was strongly supported by the ratings on the Adjective Check List Aggression scale. There was also some support for this prediction from the ratings of Self Aggression on the Epstein-Taylor Semantic Differential.

These feelings of increased aggressiveness were later translated into actual behavioral aggressive responses when the subjects were given an opportunity to respond toward an appropriate target. Figure 13 illustrates that viewing the aggressive film led to more aggression toward the person who was favorable to the police than toward the person who was unfavorable to the police.

This result suggests that the aggressive film operated more through the arousal of passions than through direct causation of increased aggressive behavior. That is, the normal situation, indicated by the behavior of those who saw the control film, was to administer more shock to the accomplice when he made unfavorable comments

about the police. He was, after all, more hostile himself when he assumed this attitude. In the aggressive film the police were portrayed as villains and it appears that this portrayal aroused the passions of the subjects so that they exhibited more aggression to the accomplice when he assumed an attitude which was favorable toward the police.

This result may also have been influenced by the fact, which will be discussed later, that the population sampled did not contain subjects who were extremely high in conservatism. Trends in the data indicate that the high conservatism subjects who saw the aggressive film did not shock the pro-cop learner as much as the other conservatism groups did (see Table 6). This suggests that the arousal of passions by the film depends upon an interaction between the viewer's initial values and what is actually depicted in the film.

Although there was this effect of viewing the film on behavioral aggression, the results were not nearly as impressive statistically as those on the Aggression scale of the Adjective Check List. It can be noted that Doob and Climie (1972) have found that simple delay can affect the level of shock administered. Also the administration of the Adjective Check List after the film, with its opportunity to express aggressive feelings, may have been cathartic in nature and thus reduced later aggression.

Additional Effects of the Aggressive Film

The results of this study showed that, just as the aggressive film produced increased ratings of aggression (as compared to the control film) it also produced increased ratings on the Anxiety, Guilt, and Depression scales of the Adjective Check List.

Corresponding to the increase in ratings on the negative scales of the Adjective Check List after seeing the aggressive film, there was a concomitant decrease in ratings on the positive Adjective Check List scales of Social Affection and Surgency. A possible explanation for these increased ratings on the negative scales and corresponding decreased ratings on the positive scales is that, in general, the subjects were disturbed and angered by the depiction of the police aggression in the film. This is therefore additional support for the viewpoint that the action of the aggressive film on the viewer is through the arousal of passions and the influencing of attitudes.

These results lend support to the stimulating or aggression enhancing effect of viewing aggression. The aggressive cues in the film aroused the subjects' emotions and were facilitated by events in the film being relevant, that is, being events with which the subjects could identify. It is clear that the cues in the film were the stimuli for aggressive arousal since the subjects

were not angered before or after the experiment. In addition, a baseline of emotions was contained in the pre-test on the Adjective Check List and the results indicated a significant increase in emotional arousal on these scales for those subjects who saw the aggressive film.

These results are contrary to what one might expect if the viewing of an aggressive film was cathartic in nature, that is if there was a vicarious participation in the aggression which reduced subsequent aggressive tendencies. This may be an indication that few of the subjects identified with the aggressors.

However, partial catharsis may be said to have operated with the high conservatism subjects. Even though they increased their aggressive tendencies after watching the aggressive film, their increase was not as high as the other subjects in the low and middle conservatism groups. But close examination of the scores for each subject showed that only two of the forty-eight subjects who saw the aggressive film reduced their Aggression scores from before viewing to after viewing the film, and these subjects were both from the middle conservatism group. With the exception of their reduced Aggression scores, the data for these two subjects did not seem unusual.

It can therefore be reasonably concluded that for

none of the conservatism groups was the cathartic effect operating. What can be concluded from the interaction between film and conservatism level (Figure 5) is that the aggressive film was less aggression enhancing for the high conservatism subjects than for the middle and low conservatism subjects. A more adequate test of the catharsis effect could have been possible if the sample of subjects had contained more extreme subjects in the high conservatism group. These subjects might well have identified more strongly with the aggressors (police) in the film and it could have been determined if the identification turned the experience into a cathartic one.

Thus it is seen that, while the effects of viewing the aggressive film are negative in nature (increases in negative scales and decreases in positive scales), these effects are modified by Political Economic Conservatism, with the effects being less pronounced, and in some cases reversed, for the high conservatism subjects.

Although there was an increase in the ratings of Aggression after viewing the aggressive film, the high conservatism subjects tended to have smaller increases on this scale than the low or middle conservatism subjects. In addition, on the difference scores between self and learner Aggression on the Epstein-Taylor Semantic Differential, the high and middle conservatism groups who saw

the aggressive film had a decrease, whereas the low conservatism groups registered an increase when compared to those who saw the control film (Figure 8). There were also differences in the change in negative scale scores among the three Political Economic Conservatism groups. Overall there tended to be increases in ratings on the negative scales scores. However, the high conservatism subjects evidenced smaller increases than the other subjects. The high conservatism subjects also had slight increases in the positive Surgency and Vigor scales due to the aggressive film, whereas the other groups had decreases.

The results of the present study have thus succeeded in isolating a factor (Political Economic Conservatism) which, for this film, influences the aggression enhancing properties of the film. The conclusion which we would like to generalize to is that the underlying factor is the degree of identification of the subject with the aggressors or victims in the film. The more the subject identified with the aggressors (police) in the film, the less frustrating viewing the film was for him and therefore the less aggression enhancing. The more the subject identified with the victims (demonstrators) in the film, the more frustrating and therefore the more aggression enhancing viewing the film would be for him.

Turner and Berkowitz (1972) have studied the effect

of identification with the aggressor, as opposed to identification with a passive observer, on subsequent aggression. They found that, for an angered subject, identification with the aggressor increased subsequent aggression. However, the nature of this "identification" was entirely different from that referred to here. For in their study, the subject was requested to identify himself with certain characters in the film. In this study, the identification referred to is a spontaneous identification based, presumably, on shared values. It should be observed that, in this instance, the subjects tended to identify with the victim and not the aggressor; it is this identification which varied among the conservatism groups.

We shall now see how much of the remaining evidence supports this relationship between conservatism and identification with the aggressor or victim in the film.

Relationship between Political Economic Conservatism and Identification with Victim or Aggressor in the Film

There was a tendency for the majority of the subjects to identify with the victims in the film. This observation is taken from the significant interaction between film viewed and attitude assumed by the learner on the ratings of learner Social Desirability. The learner was rated higher on this scale by those who saw the aggressive film when he made unfavorable statements about the police

than when he made favorable statements. The reverse situation held for those who saw the control film (Figure 12). A similar result is obtained by considering the mean shock level administered on the third set of trials. That is, the learner was given more shock by those who saw the aggressive film when he assumed the pro-cop attitude than when he assumed the anti-cop attitude. Those who saw the control film administered about the same level of shock to the learner regardless of the attitude assumed (Figure 13). Similarly considering the overall level of shock administered by those who saw the aggressive film it was found that the learner received more shock when he assumed the pro-cop attitude.

The situation here is similar to the situation with respect to the effects of the aggressive film. That is, there is the evidence cited above that all subjects tended to identify with the victims in the film. However, there was also a tendency for the low conservatism subjects to have a stronger identification with the victims than the other subjects had. For example, for the middle and high conservatism subjects there was little difference between those who saw the aggressive film and those who saw the control film on their change in Egotism scores from before viewing the film to after viewing the film. However, the low conservatism subjects who saw the aggressive film increased their Egotism

scores while the low conservatism subjects who saw the control film decreased their Egotism scores (Figure 2). Also, considering only those who saw the aggressive film, one finds an increase in Vigor for the low conservatism subjects and a decrease in Vigor for the high and middle conservatism subjects. (The idea is that the low conservatism subjects, through their stronger identification with the heroes and victims of the film thought more highly of themselves and felt more vigorous.)

By observing Figure 9, one sees that the low conservatism subjects felt they were more socially desirable after shocking the learner who had assumed the pro-cop attitude when they saw the aggressive film than when they saw the control film. Further, this effect was reversed for the high conservatism and middle conservatism subjects. Here the mechanism could again be that, identifying themselves with the victims and the pro-cop learner with the aggressors, they (the low conservatism subjects) felt quite socially desirable administering retribution.

From Figure 7 it can be observed that for the low conservatism subjects the effect of the aggressive film, by comparison to the control film, was to decrease the perceived aggression of the anti-cop learner. The effect was the opposite for the middle and high conservatism subjects.

There is thus considerable statistical evidence

supporting the contention that all subjects tended to identify with the victims and that this identification was stronger for the low conservatism subjects. In addition the data on two of the statements on the first administration of the Political Economic Conservatism scale was examined non-statistically by groups. Each subject had been asked to Strongly Agree, Agree, Disagree, or Strongly Disagree with each statement. The statements which were sorted out for this analysis were questions 5 and 13:

5. The police should be free to perform their role without outside interference.

13. The courts are coddling the criminal at the expense of public safety.

It was found that all 32 of the low conservatism subjects either marked "Disagree" or "Strongly Disagree" on question 5 and all but 3 of them marked that way on question 13. By contrast 6 of the middle conservatism subjects and 11 of the high conservatism subjects marked "Agree" or "Strongly Agree" on question 5. Likewise 17 of the middle conservatism subjects and 22 of the high conservatism subjects marked "Agree" or "Strongly Agree" on question 13.

There is also some statistical support for a tendency for the high conservatism subjects to identify with the aggressor in the film. As can be seen in Figure 11, the high conservatism subjects felt more socially desirable

shocking the learner under the anti-cop attitude than under the pro-cop attitude when they saw the aggressive film. The reverse situation held when they saw the control film.

Also, the high conservatism subjects who saw the aggressive film felt they were more aggressive when they shocked the learner under the pro-cop attitude than under the anti-cop attitude. While this is not a clear cut support for the identification hypothesis, it might be explained by noting that they felt their aggression to be higher because they felt that in this case it was undeserved.

There remains one body of data which was not utilized in the above discussion. That is the fact that, of those subjects who saw the aggressive film, the middle conservatism subjects rated themselves lowest among the conservatism groups on Potency, Surgency, and Vigor. The mechanism is not clear but it is a fact that the middle conservatism group had more females (19) than either of the other conservatism groups. It might well be expected that the females would be less assertive, more modest, and more disturbed by witnessing aggression.

In conclusion, the evidence indicates that identification with the aggressors or victims tended to develop through the mechanism of shared attitudes, and that film exerts an effect by developing attitudes and arousing passions.

Summary

Ninety-six college students enrolled in an undergraduate Introductory Psychology class were pretested on the Political Economic Conservatism scale and assigned on the basis of their score to one of three conservatism groups: high, middle, or low. There were 32 subjects in each group with males and females distributed unevenly throughout each group. Each subject was randomly assigned to view either an aggressive film that depicted real life aggression (the 1968 Chicago convention riots) or a control film that depicted the development of a human fetus. Immediately before viewing the film each subject was asked by the first experimenter to complete an Adjective Check List and immediately after viewing the film each subject was again asked to complete the Adjective Check List and the Political Economic Conservatism scale.

Each subject was then placed in a new experimental environment with a second experimenter and given an opportunity to shock a confederate who had made either favorable remarks or unfavorable remarks about the aggressors (police) in the aggressive film. All subjects were allowed to shock themselves on the equipment before shocking the confederate in order to let the subject get an idea of the noxiousness of the different shock levels. After meeting the subject, the confederate was sequestered in an adjoining room and actually never

felt the shocks the subject delivered.

The dependent variables consisted of (a) ratings of the emotions of the subjects as measured by the scales of the Adjective Check List (Fatigue, Social Affection, Surgency, Egotism, Concentration, Vigor, Anxiety, Aggression, Depression, and Guilt); (b) behavioral aggression as measured by the shock settings of the subject; and (c) ratings by the subject of himself or herself and of the learner (confederate) on the scales (Aggression, Potency, and Social Desirability) of the Epstein-Taylor Semantic Differential. This latter test was administered at the conclusion of the second experiment.

The major findings of the study were as follows:

(1) viewing the aggressive film yielded significant increases in feelings of anger; (2) viewing the aggressive film increased self ratings on the Anxiety, Aggression, Depression, and Guilt scales and decreased self ratings on the Social Affection and Surgency scales of the Adjective Check List; (3) the effect of the aggressive film was modified by the level of conservatism of the subject, (for example, the increases in Aggression and Anxiety were smallest for the high conservatism subjects); (4) viewing the aggressive film increased the level of shock administered to the accomplice when he assumed an attitude favorable to the police and decreased the level when he was unfavorable to them; and (5) there appeared to be

a tendency for the subjects to identify more with the victims in the film than with the aggressor, and this effect was strongest for the low conservatism subjects. In particular, subjects who had seen the aggressive film were more likely to shock the confederate when he expressed the pro-cop attitude than when he expressed the anti-cop attitude.

A finding of some interest in this study is that Political Economic Conservatism was related to the effect of the aggressive film. The reactions of the different conservatism groups to the aggressive film, by comparison to the control film, were different. For example, despite the fact that there were overall increases in feelings of aggression following the film, the increase was smallest for the high conservatism group. The film was less aggression enhancing for some subjects and more aggression enhancing for other subjects. A close look at the data revealed that a cathartic effect was not operating for any group. Only 2 subjects who saw the aggressive film actually decreased their scores on the Aggression scale of the Adjective Check List.

A mechanism by which Political Economic Conservatism modified the effect of the film was proposed to be identification of the subject with either the victims or the aggressors in the film. The degree to which the subject identified with one or the other group presumably influenced

his anger and other reactions to the aggressive film.

That the subjects in general tended to identify with the demonstrators was supported by the tendency for all subjects who saw the aggressive film to shock the confederate more, and to rate him as less socially desirable, when he made favorable comments about the police. That the low conservatism subjects had a stronger identification with the victims was supported by the fact that they rated the learner as being least aggressive when he made unfavorable remarks about the police, whereas the middle and high conservatism groups rated him as being the most aggressive in the same situation.

To conclude, the results of this study have demonstrated that a film depicting aggression can stimulate different aggressive reactions, depending upon the attitudes and values of the viewer. These reactions are facilitated and modified through the mechanism of identification with those in the film who exemplify the attitudes and values of the viewer. Thus it appears that the media, such as television and film, can exert an effect on aggression through developing attitudes and values.

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Appendix 1

Instructions to Subjects

(The subject was met at the door.) "Hello, please come in. You may sit down over here. You have been asked to take part in a series of short experiments, each lasting about 15 to 20 minutes. I would like you to begin by filling out this short questionnaire."

(The subject was handed the Adjective Check List.)

"It should take you no longer than about five minutes.

The directions to the questionnaire are on the first sheet. If you have any questions please let me know.

When you finish please let me know." (The first experimenter sat down in a corner of the room and busied herself with papers.)

(The subject informed the experimenter that he had completed the questionnaire.) "Thank you very much.

Now, if you will turn your seat around facing this wall I will show you a short film." (The subject was shown either the aggressive or control film.)

(When the film was concluded, the subject was handed the Adjective Check List and the Political Economic Conservatism scale.) "I would like for you to fill out this set of questionnaires. Please fill out the top one first." (The Adjective Check List was on top.)

"The directions are again on the front sheet of each questionnaire. If you have any questions, please let

me know."

(When the subject was finished the first experimenter excused herself and went to the next room to get the second experimenter and returned with him.) "This experiment is now over, thank you very much for participating in it. This is _____ who would like for you to participate in his experiment. Would you please go with him to his experimental room down the hall." (The subject left with the second experimenter.)

(The subject entered the room with the second experimenter.) "Have a seat right here please. The object of this experiment is to determine the effect of sex and personality of the experimenter on conceptual learning. That is, you will be asked to train another person, who should be here shortly, to recognize a correct response to patterns of light which you will set up on this board." (The experimenter indicated the learner's console which, together with the subject's console, was on the table in front of the subject.)

(The experimenter turned the aggression machine on.) "You will notice that as you turn this dial here you set up different patterns of light on this board. What the subject is to learn is that whenever the upper left light is on he is to press button 'A' and when it is not on he is to press button 'B'. That doesn't really concern you, however, because in the first place the

subject and this box will be in the next room. In the second place, this is wired internally so that whenever he makes the correct response you will see this 'correct' light light up and whenever he makes the incorrect response you will see this 'incorrect' light light up." (The experimenter pressed buttons "A" and "B", in that order, on the learner's console. Button "A" was in fact wired directly to the "correct" light on the subject's console and button "B" was wired directly to the "incorrect" light on the subject's console.)

"Your job is to press this 'correct' button whenever the learner makes the correct response and to inform him when he has made an incorrect response by pressing one of these buttons which give him a shock through these electrodes. You choose whatever level of shock you think will do the best job of teaching him at that particular time. You may want to vary the level according to his response pattern or you may decide that a particular level is most effective. That is up to you. There will be a total of 60 trials, that is five times around this dial. For the first two times around the dial you do exactly as I said. That is you press the 'correct' button if he is correct and shock him if he is incorrect. We have found that the subjects have usually learned the response toward the end of the second time around so the third time around you will shock him every time

regardless of whether he is right or not. This confuses the subject and tends to unlearn the response. Then we have two more times around the dial to teach him again. Now, let me repeat that. On the first, second, fourth, and fifth time around the dial you press 'correct' when he is correct and shock him when he is incorrect. On the third time around you shock him every time, regardless of whether he is correct or not. In a few seconds I will hook you up to the electrodes so that you may feel as much of the shock as you care to and get an idea of what the levels are like. But first are there any questions?" (Any questions were answered in the context of this cover story.)

(The electrodes were attached to the subject.)

"Now I'm going to press these shock buttons starting with 1. When you have felt as many as you care to let me know. The levels won't actually do any harm to anyone, but as you will see the upper levels are fairly painful." (The buttons were pressed one at a time until the subject indicated that he had felt enough.)

"Now are there any questions?" (Questions were again answered in the context of the cover story.)

"I'll see if the subject is here yet." (The second experimenter went out into the hall and paced for a few seconds.) "He should have been here by now; we're running a little late. Oh, here he comes now."

(The learner-accomplice came briskly into the room and delivered one of the two following speeches, depending upon the treatment group to which the subject was assigned.)

(Anti-cop attitude.) "I'm sorry I'm late, but I just got a ticket on my car. Those damn cops never leave you alone. I wasn't there over five minutes, but the pig gave me the ticket anyway."

(Pro-cop attitude.) "I'm sorry I'm late, but I just got a ticket on my car. It sort of makes me mad because I wasn't there very long. Oh well, I can't be too mad because he was just doing his job and the police get too much abuse now anyway."

(The second experimenter then resumed talking.) "That's OK. We were running a bit late anyway." (To the subject:) "You're going to be training him." (To the learner:) "You come with me and I'll explain the experiment to you." (The experimenter and the learner-accomplice left the room, taking along the learner's console, and went into an adjacent room, leaving both doors open so that the subject could not see but could hear the following.)

"The object of this experiment is for you to learn a correct response to the various patterns of light that will occur on this board. For each pattern either button 'A' or button 'B' is the correct response. There is some aspect of the pattern which determines which

is the correct response. For example, it might be that when these two lights are on you should press button 'B' and otherwise you should press button 'A'. That's not it, but it is something similar to that. When you make the correct response you will see this light light up. When you make the incorrect response you will receive a shock through these electrodes which I am about to attach to your hands." (The experimenter then made noises, tearing tape for example, as though fastening the electrodes to the learner's hands. Meanwhile, he turned the switch on the side of the console disconnecting the electrodes and connecting the lights which indicated the shock level chosen.)

"Now, when you see the pattern of lights change you make a response. You make your first response when you see the pattern change the first time. Is everything clear?"

"I think so."

(The second experimenter then returned to the room with the subject.) "You may begin; he will make his first response when you set the switch to 1. I'll be over here if you have any questions." (The experimenter then busied himself with some papers at a separate table, with his back to the subject. At the conclusion of the 60 trials the subject informed the experimenter that he was done.)

"OK. Thank you very much. I'll go let him go. I have one more little thing for you to do." (The experimenter then went to the other room, thanked the accomplice, and told him he could go. He then returned to the subject's room.)

(The experimenter brought out two copies of the Epstein-Taylor Semantic Differential stapled together. The first sheet had the word "yourself" written at the top and the second sheet had the word "learner" written at the top.) "I have here a set of words which are opposites. For example 'weak--strong' and 'friendly--unfriendly'. You are to check toward the one which you feel most describes yourself. That is, you check here if you are very weak, here if you are more weak than strong, here if you are about the same and so on. When you finish this sheet let me know and I'll tell you about the other one."

(The subject finished the first sheet.) "This is the same as the first except that you are to check toward the word that most describes the person you just trained. We realize that you can only record impressions, but that's what we want."

(The subject finished the second sheet.) "Thank you very much. That is all. I would like to inform you that you did not in fact shock anyone. I would also like to ask that you not discuss the contents of

this experiment with anyone in your Psychology 150 class since we will be using them for subjects. Again, thank you very much for your help." (While questions were not encouraged, any which were asked about the experiment were honestly answered.)

Appendix 2

Revised Adorno Political Economic Conservatism Scale

(Based on The Authoritarian Personality

by Adorno, et. al., 1950)

Here are some statements that people have different feelings about. Read each sentence and decide whether you: Strongly Agree (SA); Agree (A); Disagree (D); or Strongly Disagree (SD). Then circle the answer that tells how you feel about it.

1. Read each statement carefully and mark it according to your first reaction. It isn't necessary to take a lot of time for any one question.

2. Answer every question.

3. Give your personal point of view. Don't talk questions over with anyone until you have finished.

4. Be as sincere, accurate, and precise as possible.

- | | | | | |
|---|----|---|---|----|
| 1. America may not be perfect but the American Way has brought us about as close as human beings can come to a perfect society. | SA | A | D | SD |
| 2. In general, full economic security is bad. Most men wouldn't work if they didn't need the money for eating and living. | SA | A | D | SD |
| 3. Men like Henry Ford or J. P. Morgan, who overcame all competition on the road to success, are models for all young people to admire and imitate. | SA | A | D | SD |
| 4. Businesses should be more strongly regulated in order to prevent exploitation of their workers and the general public. | SA | A | D | SD |
| 5. The police should be free to perform their role without outside interference. | SA | A | D | SD |
| 6. A good political candidate should be a family man. | SA | A | D | SD |

- | | | | | |
|---|----|---|---|----|
| 7. No one should be allowed to earn more than \$50,000 per year. | SA | A | D | SD |
| 8. It is the responsibility of society, through its government, to guarantee everyone adequate housing, income, and leisure. | SA | A | D | SD |
| 9. Recessions are like occasional headaches and stomach aches. It's natural for even the healthiest society to have them once in awhile. | SA | A | D | SD |
| 10. Poverty could be almost entirely done away with if we made certain basic changes in our social and economic system. | SA | A | D | SD |
| 11. The government should own and operate all public utilities (transportation, gas, electric, etc.). | SA | A | D | SD |
| 12. The best way to solve social problems is to stick close to the middle of the road, to move slowly, and to avoid extremes. | SA | A | D | SD |
| 13. The courts are coddling the criminals at the expense of public safety. | SA | A | D | SD |
| 14. The only way to provide adequate medical care for the entire population is through some program of socialized medicine. | SA | A | D | SD |
| 15. It is a fundamental American tradition which should be preserved that the individual must remain free to make money and spend it as he likes. | SA | A | D | SD |
| 16. Character, honesty, and ability will tell in the long run. Most people get pretty much what they deserve. | SA | A | D | SD |

Scoring of the Political Economic Conservatism Scale

Statements 1, 2, 3, 5, 6, 9, 12, 13, 15, and 16 were "conservative" statements. Each of these statements received 0 points if "SD" was circled, 1 point if "D" was circled, 2 points if "A" was circled, and 3 points if "SA" was circled.

Statements 4, 7, 8, 10, 11, and 14 were "liberal" statements. Each of these statements received 3 points if "SD" was circled, 2 points if "D" was circled, 1 point if "A" was circled, and 0 points if "SA" was circled.

The Political Economic Conservatism score was the sum of the scores for all statements.

Appendix 3

Epstein-Taylor Adjective Check List

Each of the following words describes feelings or mood. Please use the list to describe your feelings at the moment you read each word. If the word definitely describes how you feel at the moment you read it, circle the double check (vv) to the right of the word. For example, if the word is relaxed and you are definitely feeling relaxed at the moment, circle the vv as follows:

relaxed (vv) v ? no (This means you definitely feel relaxed at the moment.)

If the word only slightly applies to your feelings at the moment, circle the single check v as follows:

relaxed vv (v) ? no (This means you feel slightly relaxed at the moment.)

If the word is not clear to you or you cannot decide whether or not it applies to your feelings at the moment, circle the question mark as follows:

relaxed vv v (?) no (This means you cannot decide whether you are relaxed or not.)

If you definitely decide the word does not apply to your feelings at the moment, circle the no as follows:

relaxed vv v ? (no) (This means you are definitely not relaxed at the moment.)

Work rapidly. Your first reaction is best. Work down the first column, then go on to the next. Please mark all words. This should take only a few minutes. Please begin.

enraged	vv	v	?	no	talkative	vv	v	?	no
intent	vv	v	?	no	energetic	vv	v	?	no
clutched-up	vv	v	?	no	affectionate	vv	v	?	no
tired	vv	v	?	no	egotistic	vv	v	?	no
alone	vv	v	?	no	mean	vv	v	?	no
shameful	vv	v	?	no	concentrating	vv	v	?	no
carefree	vv	v	?	no	shaky	vv	v	?	no
vigorous	vv	v	?	no	sluggish	vv	v	?	no
forgiving	vv	v	?	no	blue	vv	v	?	no
boastful	vv	v	?	no	remorseful	vv	v	?	no
mad	vv	v	?	no	lively	vv	v	?	no
earnest	vv	v	?	no	kindly	vv	v	?	no
jittery	vv	v	?	no	aloof	vv	v	?	no
drowsy	vv	v	?	no	irritated	vv	v	?	no
low	vv	v	?	no	attentive	vv	v	?	no
guilty	vv	v	?	no	fearful	vv	v	?	no
witty	vv	v	?	no	sad	vv	v	?	no
active	vv	v	?	no	ashamed	vv	v	?	no
warmhearted	vv	v	?	no	playful	vv	v	?	no
self-centered	vv	v	?	no	angry	vv	v	?	no
furious	vv	v	?	no	introspective	vv	v	?	no
serious	vv	v	?	no	nervous	vv	v	?	no
tense	vv	v	?	no	gloomy	vv	v	?	no
dull	vv	v	?	no	terrified	vv	v	?	no
unhappy	vv	v	?	no	upset	vv	v	?	no
sorry	vv	v	?	no					

Scoring of the Adjective Check List

The words which comprised the individual scales are listed below. Each word received 3 points if "vv" was circled, 2 points if "v" was circled, 1 point if "?" was circled, and 0 points if "no" was circled. The scale score was the sum of the scores for the words which comprised the scale.

Fatigue scale: drowsy, dull, sluggish, tired.

Social Affection scale: affectionate, forgiving, kindly, warmhearted.

Surgency scale: lively, playful, talkative, witty.

Egotism scale: aloof, boastful, egotistic, self-centered.

Concentration scale: attentive, concentrating, earnest, intent, serious.

Vigor scale: active, energetic, vigorous.

Anxiety scale: fearful, nervous, shaky, tense, terrified, upset.

Aggression scale: angry, enraged, furious, irritated, mad, mean.

Depression scale: alone, blue, gloomy, low, sad, unhappy.

Guilt scale: ashamed, guilty, remorseful, shameful, sorry.

Appendix 4

Epstein-Taylor Semantic Differential

weak	/___/___/___/___/___/	strong
friendly	/___/___/___/___/___/	unfriendly
fair	/___/___/___/___/___/	unfair
destructive	/___/___/___/___/___/	nondestructive
unpredictable	/___/___/___/___/___/	predictable
brave	/___/___/___/___/___/	cowardly
fascinating	/___/___/___/___/___/	repulsive
reasonable	/___/___/___/___/___/	unreasonable
nonassaultive	/___/___/___/___/___/	assaultive
tense	/___/___/___/___/___/	relaxed
dominant	/___/___/___/___/___/	submissive
attractive	/___/___/___/___/___/	ugly
bad	/___/___/___/___/___/	good
active	/___/___/___/___/___/	passive
bloodthirsty	/___/___/___/___/___/	nonbloodthirsty
masculine	/___/___/___/___/___/	feminine
happy	/___/___/___/___/___/	sad
stimulating	/___/___/___/___/___/	dull
honest	/___/___/___/___/___/	deceitful
aggressive	/___/___/___/___/___/	nonaggressive
accepting	/___/___/___/___/___/	rejecting
independent	/___/___/___/___/___/	dependent
cruel	/___/___/___/___/___/	kind

Scoring of the Semantic Differential

The word pairs which comprised the individual scales are listed below, with the positive or scale-related word listed first. There were 0 points allotted to the pair if the check was closest to the negative word. Scoring continued in increments of 1 point so that 4 points were allotted to the pair if the check was closest to the positive word. The scale score was the sum of the scores for the word pairs which comprised the scale.

Aggression scale: aggressive--nonaggressive, assaultive--nonassaultive, bloodthirsty--nonbloodthirsty, cruel--kind, destructive--nondestructive, rejecting--accepting, unfriendly--friendly.

Potency scale: active--passive, dominant--submissive, independent--dependent, strong--weak. (The original Potency scale contained the pair "masculine--feminine" which was omitted here because there were unequal numbers of males and females in the study.)

Social Desirability scale: brave--cowardly, fair--unfair, good--bad, honest--deceitful, reasonable--unreasonable, stimulating--dull.

