THE EFFECTS OF PRINTED ACCOUNTS OF VIOLENCE ON AGGRESSION

By

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THE EFFECTS OF PRINTED ACCOUNTS OF

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PREFACE

The primary objective of this study was to determine whether exposure to printed reports of violence (in books, newspapers, magazines, etc.) would stimulate a recently angered individual to act out his aggression (i.e., lower his inhibitions against aggression), or whether such exposure would serve as a cathartic outlet for the built up aggressions of the individual. Secondly, it was believed that prior aggressive arousal is necessary, and that non-aroused individuals would not react significantly to the violent reports alone. Lastly, it was believed that the emotional overtones of the reports would affect the intensity of the subsequent aggression. An analysis of covariance was conducted on the data.

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A note of thanks is given to Dr. Barbara Weiner for her assistance in the analysis. Special thanks are extended to Don Gentz, Richard Palazzo, and Pat Thompson for the many hours they spent assisting in the experimentation phase of the study, and for the boundless good humor they brought to the task.

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CHAPTER I

INTRODUCTION

In recent years the public has evinced strong opposing reactions to the violence presented in the various media, particularly television. On one side are ranged those who decry what they consider to be the excessive representations of violence in the media. They argue that such presentations carry with them an implicit "seal of approval," implanting in individuals, particularly the young, the idea that life's frustrations can be solved with the appropriate aggressive and, sometimes, violent methods. As a result, they argue, the mass media are helping to undermine the bonds of society. Cited as evidence by this group are the recent rash of assassinations, multiple-slayings and skyjackings.

On the other side are those who argue that the delineation of violence and aggression in the mass media serves a socially necessary function. According to this view, the individual who is exposed to the violent fare identifies with the individuals and incidents portrayed, making them, for the moment, his own. As a result, the expressed aggressive act serves as a vicarious outlet for the pent-up frustrations and anger of the individual exposed to it. Thus, the media portrayals of violence allow for the dissipation of aggression in a relatively harmless manner, and as such actually provide a necessary and beneficial function to society.

A number of studies cited by the Surgeon General's Scientific Advisory Committee on Television and Social Behavior (1972) have explored the effects of televised violence on aggression. In addition, a recent study (Scharff, 1971) explored the tendency to aggress following exposure to non-visual actual verbal reports of violent news events. The present study was designed to determine whether exposure to violent literature serves as a cathartic mechanism, allowing pent-up frustrations to find harmless expression; or whether such exposure strengthens the tendency to aggress. And, if the latter, to determine whether the "emotional loading" of the violent material affects the intensity of the induced aggression.

CHAPTER II

LITERATURE REVIEW

The Catharsis Hypothesis

The catharsis hypothesis contends that the performance of, or vicarious participation in, an aggressive act will reduce the instigation to further aggression (Berkowitz, 1962). Furthermore, this decrease in the strength of the aggressive tendency does not result from the elimination of the frustrating agent. Dollard, Doob, Miller, Mowrer and Sears (1939) argued that there will be a momentary reduction in the strength of the instigation to aggression following an aggressive act regardless of the act's effectiveness in eliminating the source of frustration.

The catharsis hypothesis, when applied to everyday situations, holds that the expressions of violence in the various media--radio, television, literature--serve as socially acceptable outlets for the pent-up hostilities of individuals. In other words, the individual exposed to the media aggression vicariously participates in the aggression. The individual or situation aggressed against becomes a symbolic representation of the frustrating agents in the individual's own life. By identifying with the aggressor and vicariously participating in the aggressive act, some reduction in the tendency to aggress is believed to occur. This explanation of the efficaciousness of "catharsis" has served to justify the artificial representation of

violence in the various media since the period of the Greek tragedies.

A modern proponent of the catharsis doctrine holds that the expression of hostility through fantasy reduces induced aggression. In a well-known study, Feshbach (1955) used projective tests to study the catharsis hypothesis. Two groups of subjects were insulted and then participated in either a fantasy activity (responding to four TAT cards) or a non-fantasy activity. A non-insulted fantasy group served as a control. Finally, each subject responded to aggression-measuring instruments (a questionnaire dealing with the subject's reactions to the experiment and the experimenter, and a sentence completion task). The results indicated that the insulted group which had had a chance to express aggression in fantasy, and did, displayed significantly less aggression than did either of the other two groups--indicating that the fantasy responses had been cathartic in nature.

Other studies have produced similar results. Levin, Lippitt and White (cited by Lovaas, 1961), in a study employing children, found that the overall level of aggression was reduced following scapegoating behavior. In a later study, Feshbach (1961) found that a fight film served as the occasion for catharsis, but only if the subjects had been aroused (insulted) prior to the film.

Feshbach and Singer (1971) have provided one of the most comprehensive studies of the catharsis hypothesis to date. The television diets of preadolescent and adolescent boys in an institutional setting were controlled for several weeks. One group of boys received a steady diet of violent television fare while the other group watched shows low in violent content. Day by day ratings of each boy's aggressive behavior were kept. The results indicated that in at least

some of the cases those boys who viewed the non-violent shows exhibited more aggressive behavior than did the boys who viewed the violent programs.

All of the above studies lend support to the doctrine of catharsis by suggesting that the overt expression of aggression (Feshbach, 1955) or vicarious involvement in the expression of aggression (Feshbach and Singer, 1971) leads to a decrease in the instigation to aggression, at least temporarily.

Opposition to the Catharsis Hypothesis

Despite the results obtained in the studies cited above, most research in this area tends to reject the catharsis hypothesis as an accurate description of the effects of expressed aggression. In a discussion of the catharsis hypothesis, Berkowitz (1970) stated that it "blinds us to the important social principle that aggression is all too likely to lead to still more aggression (p. 1)."

Attempts to replicate some of the pro-catharsis studies have resulted in failure. Hornberger (cited by Mallick and McCandless, 1966) in a partial replication of Feshbach's (1955) early study, failed to obtain similar results. Berkowitz (1961), attempting to explain the disparity, suggested that the subjects in the insult-fantasy group may have experienced anxiety as a result of their aggressive responses to the TAT cards and may therefore have inhibited their expressions of aggression to the questionnaires. And Wells (Surgeon General's Scientific Advisory Committee on Television and Social Behavior, 1972) in a replication of the Feshbach and Singer (1971) study, found that boys exposed to the diet of aggressive television exhibited signifi-

cantly more physical aggression than boys exposed to the non-violent fare. Siefel (1956) studied "the effects of film-mediated fantasy aggression on strength of aggressive drive in young children (p. 375)" and found no data to support the catharsis hypothesis.

And in a study conducted by Mallick and McCandless (1966), third grade children were presented with a difficult task to perform. Half of the subjects were interfered with by the experimenter's confederate and prevented from completing the task. The remaining children were allowed to complete the task without interruption. The treatments following the frustrating or non-frustrating experiences included aggressive play (shooting a gun at a target), social talk or a reasonable interpretation of the confederate's frustrating behavior. The child was then given a chance to impede the work of the confederate. No reduction in the instigation to aggression was found in either the frustrated or non-frustrated aggressive play group. The researchers concluded that aggressive play has no cathartic value. However, the results did indicate that providing a reasonable explanation of a frustrating situation is cathartic and reduces subsequent aggression.

As the evidence cited above indicates, it seems likely that the catharsis hypothesis of hostility offers a misleading description of the effects of witnessed aggression. Berkowitz (1962) has proposed a counter-explanation. He argues that participation, actual or vicarious, in aggression will heighten the individual's tendency to aggress by lowering his inhibitions against aggression.

Research in the area tends to support Berkowitz's version of the effects of exposure to aggression. Bandura, Ross and Ross (1961) exposed one group of young children to an aggressive model who dis-

played unusual physical and verbal aggression toward a large inflated plastic doll. A second group of children were exposed to a model who sat quitely in the experimental room, ignoring the doll and the other aggressive apparatus. The members of a control group were not exposed to a model. Later, when placed in the same situation, the children who had been exposed to the aggressive model exhibited a number of the behaviors previously displayed by the model, whereas the children in the control and non-aggressive model groups rarely exhibited such behavior. Furthermore, the children in the non-aggressive model group reproduced the behavior of the inhibited model more often than did the members of the control group.

Similar results were reported by Mussen and Rutherford (1961). Children who had viewed an aggressive cartoon expressed greater willingness to "play with" or "pop" a balloon held by the experimenter than did children viewing either a non-aggressive cartoon or no cartoon. Two explanations of the results were discussed. The children may have identified with the cartoon characters, adopting their motives and thereby increasing their own instigation to aggression. Or, it is possible that the permissive atmosphere was conducive to a reduction in the childrens' inhibitions against the expression of aggression.

Lovaas (1961) observed children's responses to an aggressive lever-pressing task. By pressing a lever, the children could activate a doll that hit another doll with a club, or a neutral toy similar to a pinball machine. Evidence was obtained indicating an increase in aggressive responses subsequent to exposure to an aggressive film.

The four studies discussed above support the hypothesis that exposure to aggression increases the tendency to aggression in

children. However, the disinhibitory effects of exposure to violence are not limited to children. Walters and his associates (cited in Bandura and Walters, 1963) conducted studies employing male hospital attendants, high school boys and young women. In each study, the effect of exposure to aggressive film content was to increase the intensity of electric shock administered by the subject. Other studies (Goldstein and Arms, 1971; Wheeler and Caggiula, 1966) have employed adults and obtained similar results.

Factors Involved in the Expression of Aggression

The data cited above clearly indicate that mere exposure to violence is sufficient to increase aggressive behavior. However, research indicated that attitudinal factors are also involved; for example, the attitude of the observer. Geen (1968) reinforced or did not reinforce subjects for shocking a peer. In one condition the experimenter verbally reinforced the subject for shocking the confederate by making statements like "Good" or "That's right" after some of the administered shocks. In the second condition the experimenter remained in the room while the shocks were administered, but made no comments. He then subjected them to one of three treatments: (1) failure at a task, (2) peer-thwarting of the task (preventing the subject's finishing a jigsaw puzzle), or (3) peer-insult following successful completion of the task. Following exposure to a violent movie, subjects were again given a socially sanctioned opportunity to shock the peer. Although the increase in shock intensity was greater for all three treatment groups than for untreated controls, the

increase was greatest in the insulted group. Hokanson (1961) and Geen and Berkowitz (1967), using frustration and insult respectively, also found that frustrated or insulted subjects expressed more aggression than non-frustrated or non-insulted subjects.

The justification of the expressed aggression also appears to be a factor in determining the individual's reaction. In a study conducted by Berkowitz and Rawlings (1963), college men were insulted or received neutral treatment from a male graduate student prior to watching a seven minute prize fight scene. Just before the movie, subjects were presented with a short synopsis of the film by the female experimenter. Half of the subjects were told that the protagonist was a scoundral and that he deserved the beating he received in the scene--presumably justifying the depicted aggression. The synopsis given to the remaining subjects stated that the protagonist had been an opportunist but was in the process of "turning over a new leaf" just prior to the beating--presumably leading the subjects to regard the aggression as less justified. Following the movie, all subjects rated the male graduate student. As hypothesized, viewing the "justified" aggression increased the overt hostility toward the insulting agent, presumably by lowering the subjects' inhibitions against aggression.

Studies by Berkowitz (1965) and Berkowitz, Corwin and Heironimus (1963) also indicated that the justification of the expressed aggression, or lack of it, influences the observer's reactions. These results suggest another chapter to the text being compiled against the catharsis hypothesis. Visual media-expressed violence, rather than providing a harmless outlet for pent-up hostility, tends to enhance it.

And, if the aggression appears to be socially justified--as is the case when the "good guy" beats the "bad guy"--the inhibitions against aggression of angry observers may be reduced to the point that they feel justified in attacking the "bad guys" in their own lives (at least during the period immediately following exposure to the socially justified aggression).

The stimulus properties of the aggressor and of the situation also affect the subject's tendency to aggress. Berkowitz and Geen (1966) conducted a study in which the experimenter introduced an insulting or neutral accomplice to the subject as either "Kirk" or "Bob." Then the subjects were either shown a segment of the movie "Champion" in which the actor Kirk Douglas received a beating, or an exciting track film. The subjects were then given a socially sanctioned opportunity to shock the confederate. The greatest number of shocks were administered by the insulted subjects to the accomplice identified as "Kirk." Geen and Berkowitz (1966) obtained similar results in a study identifying the confederate with the surnames of the characters in "Champion."

Kniveton and Stephenson (1970) investigated situational cue properties. They hypothesized that an aggressive film model would have a greater influence on children who had not had previous experience in the situation portrayed in the film than on children who had been exposed to the experimental situation prior to viewing the film. The hypothesis was substantiated.

Researchers have also investigated the effects of sex differences on the tendency to aggress. Eron (1963) obtained information about the TV-viewing habits of third grade children from their mothers and

fathers. This information was then related to the aggressive-behavior ratings of the children made by their peers. A significant positive relationship was observed between the violence ratings of the boys' favorite programs and the ratings of their aggressive behavior in school. And a significant negative relationship was obtained between the total amount of time spent watching TV and the boys' aggressive ratings. However, no consistent relationships were found for the girls.

In a ten-year follow-up of the 1963 study, Eron, Huesman, Lefkowitz and Walder (1972) interviewed almost half of the original subjects regarding their television viewing habits. A strong relationship was found between the boys' preference for violent programs in the third grade and aggression expressed ten years later. The researchers concluded "that there is a probable causative influence of watching violent television programs in early formative years on later aggression (p. 263)." No claim establishing televised violence as the only factor contributing to aggression was made, although the investigators did state that it explained more of the variance than any other factor (IQ, ethnicity, social status, etc.) studied. Again, it was found that televised violence did not significantly affect the aggressive tendencies of girls.

In another study, Bandura, Ross and Ross (1963) found that boys exhibited significantly more total aggression, imitative aggression, aggressive gun play and non-imitative aggressive behavior than girls. And Levin and Sears (1956) found that both male and female aggressiveness are related, in part, to the child's identification with aggressive parents.

A final factor to be considered is the effect on the individual of repeated exposure to violence. Berger (1962) using physiological measures, observed a decrease in subject's emotional responsivity during repeated exposure to arousal-eliciting stimuli. And similar habituation was observed to occur when individuals were shown films of the "subincision" rites of primitive adolescents (Speisman, Lazarus, Mordkoff and Davidson, 1964; Lazarus and Alfert, 1964). These results lead one to conclude that similarly complacent attitudes toward observed aggression could be fostered by repeated exposure to media violence.

While it has been shown that mere exposure to violence is a sufficient inducement of aggressive behavior (Bandura, Ross and Ross, 1961), the studies discussed in this section indicate that other factors are also involved. The attitude of the observer, the justification or otherwise of the observed aggression, the stimulus properties of aggressor and situation, sex differences, and prior exposure to aggression have all been shown to affect the tendency of the individual to aggress following exposure to violence.

CHAPTER III

THE PROBLEM

Tannenbaum (Surgeon General's Scientific Advisory Committee on Television and Social Behavior, 1972) has recently questioned the assumption that exposure to violence, per se, is responsible for the observed increase in instigation to aggression. At present, he is "investigating the hypothesis that the emotional arousal elicited by a communication affects the level of intensity of whatever subsequent behavior may occur (p. 119)."

In preliminary studies, Tannenbaum exposed subjects to erotic, humorous, aggressive or neutral videotape of film material. Measures of aggressive behavior included the subject's willingness to administer electric shocks or to give negative ratings that might jeopardize another's career. It was observed that exposure to erotic or humorous material resulted in greater aggressiveness than exposure to neutral material, and that exposure to erotic material resulted in greater aggressiveness than exposure to aggressive material. Indications are, then, that the arousal capability of the material is more important as a determiner of subsequent behavior than is the content of the material; however, Tannenbaum's studies do indicate that exposure to aggressive material increases the instigation to aggression.

The present study was designed to (1) explore the effects of printed accounts of violent occurrences on the tendency to aggress, and

(2) to determine if the "emotional loading" of the printed account will affect the intensity of the induced aggression.

The printed account of violence was chosen as the medium to determine whether such an account would affect an individual's tendency to aggress in a manner similar to the effects obtained in the majority of studies using audio reports of violence and visual methods of depicting violence. It was believed that with literature, as with radio, much is left to the imagination of the individual. Very often, in both media, the setting, character and events are outlined only enough to allow a smooth progression of the related incidents. It is then left to the individual reader to fill in the details with fantasy. And the author believes that by taking recourse to fantasy to complete the related incident, the individual becomes involved; and that the effects of the printed expression of violence should therefore be comparable to the effects of violence related in either the audio or video media.

The decision to use "emotionally loaded" violence was made on the basis of Tannenbaum's studies indicating that the arousal capability of material may be a more important determinant of subsequent behavior than content. It was expected that the incorporation of emotionally descriptive material into the factual printed account of violence would lead to increased arousal in the subject. And that the increased arousal would have the effect of lowering the subject's inhibitions against the expression of aggression and thereby increase the subject's aggressive behavior.

CHAPTER IV

METHOD

Subjects

Two hundred and seventy male freshman and sophomore college students from introductory psychology classes at Oklahoma State University participated in the initial phase of the study. One hundred and twenty-seven students were randomly selected from the larger group and were asked and agreed to participate in a later stage of the study. Of these, 37 were deleted from the study for various reasons (failure to attend the assigned session, prior knowledge of the study, apparatus failure necessitating cessation of the session, objection to the use of electric shock, etc.), leaving 90 students who participated fully in the study.

Apparatus

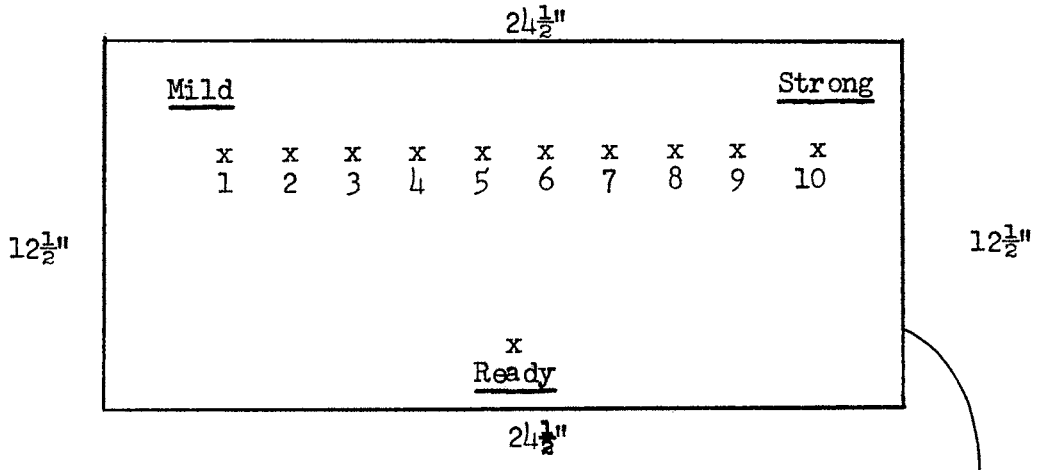
A "shock" apparatus identical to the one used by Wilkins (1972) and modeled after Buss' (1961) aggression machine was employed. The apparatus consisted of a black, box-shaped structure with dimensions $12\frac{1}{2}$" x $24\frac{1}{2}$" x $12\frac{1}{2}$". Ten levers, numbered in order from 1 to 10, were placed on the front panel. The extreme left lever was labeled "mild," while the word "strong" was located near the extreme right lever. A separate lever, designated as "ready," was located in the middle of the panel below the ten levers. Connecting wires extended from the

apparatus to a small board (14" x 6") in an adjoining room. The board consisted of a series of lights (numbered from 1 to 10) corresponding to the levers, and a light located at the extreme right was designated as "alert" (see Figure 1). A microphone and amplifer were employed to enable the confederate to respond after the subject pressed the "alert" lever.

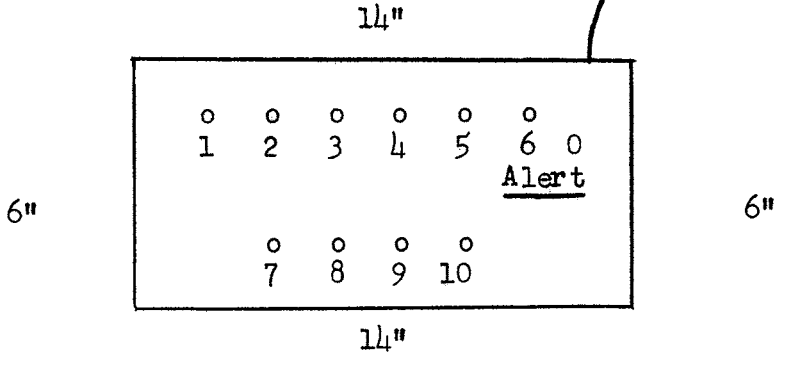
Procedure

The study was conducted in two phases. Phase I was conducted in various introductory psychology classes and was ostensibly a simple ESP experiment. The experimenter introduced a male confederate as a gifted and experienced ESP researcher. Then the confederate, with his back to the class members, pretended to concentrate on a set of ten colored cards. The students were asked to concentrate and to attempt to "pick up" the color of each card as the confederate concentrated on it and to put their choice in the appropriate blanks on the form provided by the experimenter (see Appendix A). Two trials, each consisting of ten responses, were conducted. Following completion of the trials, the experimenter told the class members that she would contact them if their score on the preliminary ESP study was above average. Phase I was conducted only to add credibility to the statement that the study involved extrasensory perception. No scores were actually collected in Phase I.

The experimenter contacted each of the 90 subjects who were randomly selected to participate in Phase II by phone, telling them only that they had scored above average on the preliminary experiment and making an appointment with the subject to participate in Phase II.



Front Panel of Shock Apparatus



Response Board

Figure 1. Apparatus (x = levers; o = lights)

The experimenter also cautioned all subjects against discussing the experiment.

The procedure employed in Phase II was similar to that used by Scharff (1971) and Wilkins (1972). The subject was informed, upon arrival, that the second phase of the study involved the use of electric shock, and that if he objected to the use of shock he could withdraw from the study. He was then informed by the experimenter that the purpose of the experiment was to determine the effect on ESP when an individual is threatened with shock. The subject was told that he would be the "transmitter" in the experiment and that a student from another class (in actuality the experimenter's confederate) who was attached to the shock apparatus in the next room would be the "receiver." The subject did not meet the confederate at any time during the experiment.

A pre-test measure of the subject's level of aggression (as indicated by the intensity of the shock allegedly administered to the confederate) was obtained at the beginning of the session. The subject was presented with the shock board and informed that the ten levers controlled ten levels of shock intensity, ranging from "mild" to "strong" but that none of the levels were intense enough to cause physical damage. He was told that by pressing a lever he would deliver an electrical shock to the receiver (the confederate). (See Appendix B for instructions for the first shock level.)

The subject was then given a set of 12 colored cards and was told to concentrate on them in the order presented. He was then told that when he was concentrating on a color to signal the receiver by pressing the "ready" lever on the apparatus. The Receiver would then respond

by means of a microphone. The subject was instructed to respond with any desired intensity of shock when the receiver's response was incorrect, and to place an X in the appropriate blank on the form provided when the correct response was given, and then to proceed to the next card. No shocks were actually given. The confederate, instead of being wired for shock, was seated in front of the small panel described above. As the subject pressed the levers, lights corresponding to the designated shock intensity would light up on the confederate's panel, allowing an accurate record of the subject's responses to be kept. The confederate responded to the subject in a predetermined order and made only two correct responses. Two practice trials without shock were held. The experimenter then left to room to allow the subject sufficient freedom to select and administer the shocks. The subject was asked to call the experimenter when he had finished with the set.

Following the experimenter's return to the experimental room, one of two procedures was instituted. Half of the subjects were insulted by the confederate over the microphone for their poor performance on the first task. The confederates complained about the subject's poor performance on the ESP task, accused the subject of being an idiot for not doing better, and called on the subject to try concentrating next time (see Appendix C). The experimenter then left the room, ostensibly to remonstrate with the receiver (confederate). When the experimenter returned, she apologized to the subject for the confederate's behavior, and the session continued. The remaining subjects proceeded directly to the second task.

The next procedure involved exposing the subject to one of three

literary selections: (1) a short selection of non-violent material; (2) a short selection of literature with heavy loadings of violence; (3) a short selection of violent literature (the same incident as described in #2 with heavy emotional overtones). The non-violent selection was a newspaper account of the elements involved in preparing for the opening of the Tulsa State Fair. Both violent selections were accounts of the Boston Strangler's eighth murder. However, the factual-violent account contained only the information that a girl was stabbed; in the emotional-violent account the body and events leading up to its discovery were described in detail. Twenty graduate students from various disciplines ranked the three articles in terms of the amount of violence depicted. A significant degree of agreement was found to exist between the judges' rankings using the Kendall coefficient of concordance ($W = .88$. $p<.01$). The judges' violence rankings corresponded to the description of the articles in the study. (See Appendixes D, E, and F for the articles.) The task was explained to the subject as a situation in which he and the receiver were both to concentrate on the same thing at the same time (see Appendix G for instructions for the reading task). To insure concentration, the subject was told that he would be tested on the material. When the subject finished reading the selection he was given five multiple-choice questions on the material to answer (see Appendix H for questions on the non-violent account and Appendix I for the questions on the violent accounts).

The final task involved obtaining a post-test measure of the subject's level of aggression. The procedure was identical to that used in the pre-test measure. The task was presented ostensibly to

determine if "thinking together" on the preceding tasks enhanced extrasensory perception (see Appendix J).

Following the last task, the subject was debriefed to determine whether or not he had realized the actual purpose of the task. He was then cautioned not to discuss the experiment with anyone else, and was dismissed.

Statistical Analysis

The means of the ten pre-test and ten post-test shock levels were obtained for each subject. The data was analyzed in a 2 x 3 analysis of covariance. The variables under study were the insult or non-insult conditions and type of presented account of violence (non-violent, factual-violent, or emotional-violent).

CHAPTER V

RESULTS

The means and standard deviations for each group on the pre- and post-test shock tasks are presented in Table I. The results of the analysis of covariance are presented in Table II. In the analysis the mean pre-test score was used as the covariate for each subject and the mean post-test score constituted the dependent variable. The non-insulted subjects were found to give significantly stronger shocks ($p<.01$) on the post-test shock task when compared to subjects in the insult condition (see Figure 2).

In addition, *a priori* comparisons were performed to investigate the differences between the experimental (factual- and emotional-violent accounts combined) and control (non-violent account) group, and between the two experimental groups themselves. Results indicated there were no significant differences between the experimental and control groups (for insulted subjects, $t = 0.99$, $df = 83$, $p>.05$, for non-insulted subjects, $t = 0.37$, $df = 83$, $p>.05$, for insulted and non-insulted subjects combined, $t = 0.97$, $df = 83$, $p>.05$). However, it was found that subjects exposed to the printed account of emotional violence administered significantly higher shocks on the post-test shock task than subjects exposed to the factual account ($t = 2.02$, $df = 83$, $p<.05$). Since these comparisons were planned *a priori* they are justified even in the absence of an overall significant F (Winer, 1962).

TABLE I

MEANS AND STANDARD DEVIATIONS ON THE PRE-TEST AND POST-TEST SHOCK LEVELS ADMINISTERED BY INSULTED AND NON-INSULTED SUBJECTS IN THE NON-VIOLENT, FACTUAL-VIOLENT AND EMOTIONAL-VIOLENT ACCOUNT CONDITIONS

Group	Pre-Test		Post-Test		Diff.
	X	SD	X	SD	+ -
Insult:					
Non-Violent	4.53	1.049	3.43	1.694	-1.10
Factual-Violent	5.27	1.242	3.99	1.912	-1.28
Emotional-Violent	5.10	1.298	4.91	1.472	-0.19
Non-Insult:					
Non-Violent	4.39	1.420	4.66	1.683	+0.27
Factual-Violent	3.32	1.549	3.79	1.801	+0.47
Emotional-Violent	5.13	.8022	5.63	1.069	+0.50

TABLE II

SUMMARY TABLE FOR ANALYSIS OF COVARIANCE

Source	Adjusted Sum of Squares	df	MS	F
Insult (A)	2,690.40	1	2,690.40	15.31*
Material (B) (non-violent, factual-violent, and emotional-violent)	935.02	2	467.51	2.66
A X B	209.46	2	104.73	<1
Error	14,585.20	83	175.73	

* $p < .01$

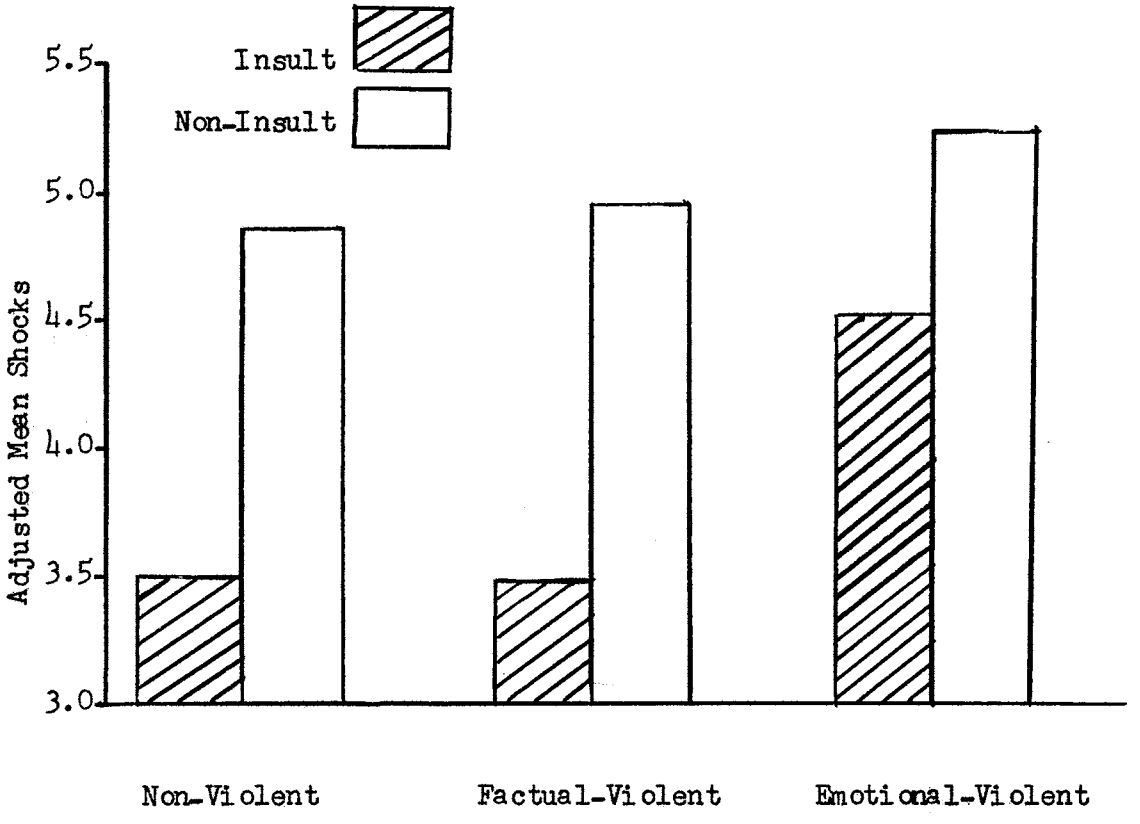


Figure 2. Adjusted Mean Shocks for Non-Violent, Factual-Violent and Emotional-Violent Account Condition Under Insult and Non-Insult Conditions

CHAPTER VI

DISCUSSION

As indicated by the data presented above, the results of this study are unusual and require explanation. As can be seen in Figure 2, the intensity of the post-test shock tasks for the non-insulted subjects are significantly greater than those of the insulted subjects. Furthermore, the intensity of post-test shocks given by the insulted subjects represents a decrease in intensity from the pre-test level. Such results are contrary to the findings of earlier studies. Berkowitz (1962) and Scharff (1971) both found that exposure of angered individuals to violence (video and audio, respectively) resulted in an increase in the individual's aggressive behavior. It was therefore expected that exposure of an angered individual to printed reports of violence would yield comparable results. The data warrants such a conclusion, but only after careful consideration of several factors that apparently contributed to the unusual results.

The first and primary contributing factor to be considered involves the insult procedure. Subjects questioned during the debriefing period indicated that the insult tended to intimidate, rather than arouse. The subjects, on the whole, tended to believe that the intensity of the confederate's insult toward them as poor transmitters was valid and deserved, even though they had been told by the experimenter that the confederate was no more experienced in ESP than they.

Such a conclusion is understandable when it is an area in which the subjects had few reference points to guide them. Earlier studies employing insult (Geen, 1968; Geen and Berkowitz, 1967) had primarily directed the insult against the subject's intelligence or intellectual ability--an area in which the individual had both experience and a stake in the outcome to guide his responses.

A second factor that may have contributed to the unusual results (i.e., the overall low level of shock administered by subjects exposed to violent accounts) was the fact that the reported violence used in this study could in no way be twisted to appear justified. In a series of studies (Berkowitz and Rawlings, 1963; Berkowitz, Corwin and Heironimus, 1963) researchers found that exposure to "justified" aggression lead to a decrease in the subjects' inhibitions against aggression, allowing an increase in overt hostility. Exposure to "non-justified" aggression had no such effect. The violence used in this study involved the brutal and apparently pointless ritual murder of an attractive and intelligent young woman by the Boston Strangler. The conclusion can be made that the subjects viewed the murder as "non-justified" aggression.

It can also be stated that the results of this study failed to support the catharsis hypothesis. Although a decrease in the intensity of shocks administered by insulted subjects did occur following exposure to violent accounts, such a decrease also occurred following exposure to non-violent material; thus eliminating the catharsis hypothesis as a possible explanation of the results obtained in this study.

The results also indicated that violence presented in the absence

of insult was insufficient to elicit aggression; exposure to non-violent, factual-violent and emotional-violent accounts yielded comparable results in the non-insult condition. This finding is inconsistent with the results reported by other researchers (Bandura, Ross and Ross, 1961; Wilkins, 1972) in which some increase in aggression was found to occur to violence alone. The results do not indicate whether the difference was due to the different procedure or to the violent accounts employed in the study.

As indicated by the analysis, a significant difference in post-test shock intensity was found between the factual-violent and emotional-violent groups. Inspection of the data revealed that the significant difference between the factual-violent and emotional-violent groups was due largely to the differences between subjects in the insulted conditions. Although the overall scores in both groups showed a decrease from pre-test levels, the greater intensity of shock elicited in the emotional-violent group confirms the author's expectations. This finding is in agreement with Tannenbaum's conclusion (cited by Surgeon General's Scientific Advisory Committee on Television and Social Behavior, 1972) that the arousal capability of the violent material, rather than content, is responsible for the observed increase in aggression found in most studies to date. The author believes that had the insult procedure been less intimidating, the results of this study would clearly have supported the hypothesis that exposure to violence following aggressive arousal leads to increases in aggressive behavior. Under the present circumstances, however, it can only be stated that exposure to the emotionally-loaded violent account lead to less of a decrease in aggressive behavior following insult than did

exposure to the non-violent account or the factual-violent account. Furthermore, the author had no way of comparing the violent material used in this study with that employed in earlier studies. It is possible that the material designated "emotional-violent" by the author is in fact more comparable to that employed in earlier studies than is the material designated "factual-violent."

CHAPTER VII

SUMMARY

Ninety male freshman and sophomore college students were used in the study to investigate the effect on aggression of printed accounts of violence. It was predicted that an angered male's inhibitions against aggression would be lowered sufficiently by exposure to printed accounts of violence to allow him to act more aggressively. And it was predicted that the inhibitions of non-angered subjects would not be lowered enough to allow them to act more aggressively. Furthermore, it was predicted that the "emotional loading" of the violent accounts would affect the intensity of the induced aggression.

Each subject participated in an ostensible extrasensory learning experiment and was given the opportunity to administer electric shocks to the confederate for wrong answers. The shock levers were numbered from one (mild) to ten (strong) and were connected to lights in a room adjoining the experimental room, allowing accurate records of the subject's responses to be kept. Forty-five subjects were insulted by a confederate following a pre-test measure of their level of aggression. They were then exposed to a printed account containing non-violent, factual-violent, or emotional-violent material. The remaining 45 subjects were exposed to one of the accounts following the pre-test, but without prior insult. Finally, a post-test measure of each subject's level of aggression was made. A 2 x 3 analysis of covar-

ience was performed on the data.

When the data for subjects exposed to factual and emotionally-laden printed accounts of violence were combined and compared to that obtained from subjects exposed to non-violent material, no significant differences were found irrespective of the prior insult condition. However, subjects exposed to emotional-violence administered significantly higher shocks than subjects exposed to factual-violence. Inspection of the data indicated the difference was attributable largely to subjects receiving prior insult and not to subjects in the non-insult condition. Insulted subjects administered significantly lower shocks than non-insulted subjects, and in fact decreased their shock level in comparison to their pre-test scores, but insulted subjects subsequently exposed to emotional violence did not decrease their shock level as much as subjects who were insulted and exposed to factual violence. The tendency for insulted subjects to decrease the level of shocks administered on the post-test was presumably due to an intimidating insult procedure and to the subjects low level of ego-involvement with their supposed ESP ability. However, the relative differences in shock level administered by insulted subjects on the non-violent, factual-violent and emotional-violent conditions were viewed as consistent with previous results in which audio reports of violence and visual means of depicting violence were employed.

BIBLIOGRAPHY

Bandura, A., D. Ross, and S. A. Ross. "Transmission of Aggression Through Imitation of Aggressive Models." Journal of Abnormal and Social Psychology, 63 (1961), 575-582.

Bandura, A., D. Ross, and S. A. Ross. "Imitation of Film-Mediated Aggressive Models." Journal of Abnormal and Social Psychology, 66 (1963), 3-11.

Bandura, A., and R. Walters. Social Learning and Personality Development. New York: Holt, Rinehart and Winston, 1963.

Berger, S. "Conditioning Through Vicarious Instigation." Psychological Review, 69 (1962), 405-456.

Berkowitz, L. Aggression: A Social Psychological Analysis. New York: McGraw-Hill, 1962.

Berkowitz, L. "Some Aspects of Observed Aggression." Journal of Personality and Social Psychology, 2 (1965), 359-369.

Berkowitz, L. "Experimental Investigation of Hostility Catharsis." Journal of Consulting and Clinical Psychology, 35 (1970), 1-7.

Berkowitz, L., R. Corwin, and M. Heironimus. "Film Violence and Subsequent Aggressive Tendencies." Public Opinion Quarterly, 27 (1963), 217-219.

Berkowitz, L., and R. G. Geen. "Film Violence and the Cue Properties of Available Targets." Journal of Personality and Social Psychology, 3 (1966), 535-553.

Berkowitz, L., and E. Rawlings. "Effects of Film Violence on Inhibitions Against Subsequent Aggression." Journal of Abnormal and Social Psychology, 66 (1963), 405-412.

Buss, A. H. The Psychology of Aggression. New York: Wiley, 1961.

Dollard, J., L. Doob, N. Miller, O. Mowrer, and R. Sears. Frustration and Aggression. New Haven: Yale, 1939.

Eron, L. D. "Relationship of T.V. Viewing Habits and Aggressive Behavior in Children." Journal of Abnormal and Social Psychology, 67 (1963), 193-196.

Eron, L., L. Huesman, M. Lefkowitz, and L. Walder. "Does Television Cause Aggression?" American Psychologist, 27 (1972), 253-263.

Feshbach, S. "The Drive-Reducing Function of Fantasy Behavior." Journal of Abnormal and Social Psychology, 50 (1955), 3-11.

Feshbach, S. "The Stimulating Versus Catharsis Effect of a Vicarious Aggressive Activity." Journal of Abnormal Social Psychology, 63 (1961), 381-385.

Feshbach, S., and R. Singer. Television and Aggression. San Francisco: Jossey-Bass, 1971.

Geen, R. G. "Effects of Frustration, Attack and Prior Training in Aggressiveness upon Aggressive Behavior." Journal of Personality and Social Psychology, 9, 4 (1968), 316-321.

Geen, R. G., and Berkowitz, L. "Name Mediated Aggressive Cue Properties." Journal of Personality, 34 (1966), 456-465.

Geen, R. G., and L. Berkowitz. "Some Conditions Facilitating the Occurrence of Aggression After the Observation of Violence." Journal of Personality, 35 (1967), 666-676.

Goldstein, J. H., and R. L. Arms. "Effects of Observing Athletic Contests on Hostility." Sociometry, 34 (1971), 83-90.

Hokanson, J. E. "The Effects of Frustration and Anxiety on Overt Aggression." Journal of Abnormal and Social Psychology, 62 (1961), 346-351.

Kniveton, B. H., and G. M. Stephenson. "The Effects of Pre-experience on Imitation of an Aggressive Film Model." British Journal of Social and Clinical Psychology, 9 (1970), 31-36.

Lazarus, R., and E. Alfert. "The Short-Circuiting of Threat." Journal of Abnormal and Social Psychology, 69 (1964), 195-205.

Levin, H., and R. R. Sears. "Identification with Parents as a Determinant of Doll-Play Aggression." Child Development, 27 (1956), 135-153.

Lovaas, O. I. "Effect of Exposure to Symbolic Aggression on Aggressive Behavior." Child Development, 32 (1961), 37-44.

Mallick, S. K., and B. R. McCandless. "A Study of Catharsis of Aggression." Journal of Personality and Social Psychology, 4 (1966), 591-596.

Mussen, P., and E. Rutherford. "Effects of Aggressive Cartoons on Children's Aggressive Play." Journal of Abnormal and Social Psychology, 62 (1961), 461-464.

Scharff, W. "The Effects of Violent Radio News Broadcasts on Aggression." (Unpublished Master's Thesis), Oklahoma State University, 1971.

Siegel, A. E. "Film-Mediated Fantasy Aggression and Strength of Aggressive Drive." Child Development, 27 (1956), 365-378.

Speisman, J., R. Lazarus, A. Mordkoff, and L. A. Davidson. "Experimental Reduction of Stress Based on Ego-Defense Theory." Journal of Abnormal and Social Psychology, 68 (1964), 376-380.

Surgeon General's Scientific Advisory Committee on Television and Social Behavior. Television and Growing Up: The Impact of Televised Violence. Washington, D. C.: U. S. Government Printing Office, 1972.

Wheeler, L., and A. A. Caggiula. "The Contagion of Aggression." Journal of Experimental and Social Psychology, 2 (1966), 1-10.

Wilkins, J. "Personality Type and the Effects of Verbal Reports of Violence on Aggression." (Unpublished Master's Thesis), Oklahoma State University, 1972.

Winer, B. J. Statistical Principles in Experimental Design. New York: McGraw-Hill, 1962.

APPENDIXES

APPENDIX A

PRELIMINARY ESP EXPERIMENT

Instructions: Colors used in the experiment are listed below. Each color is used once in each set of ten cards; no color is used more than once in the same set. List one color in each blank provided.

yellow	black	white
pink	orange	rose
brown	green	blue
red		

SET A	SET B
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____

Name _____ Instructor _____

Phone number _____ Section _____

APPENDIX B

INSTRUCTIONS FOR PRE-TEST

As I told you on the phone, your score on the preliminary ESP experiment was above average. That is why I have asked you to participate in this experiment. In this experiment you will be required to administer electric shocks to another student. If you object to administering shocks to another person, you are free to discontinue participation in the study. Do you object?

As you know, extrasensory perception is the ability to know what somebody else is thinking. In this experiment, we are trying to determine the effect on ESP when an individual is threatened with shock. The electric shock will be varied from mild to strong, but will never be so high as to cause tissue damage.

You will be the transmitter in the experiment and a student from another class who is hooked up in the next room will be the receiver.

In front of you is a shock board with levers numbered from 1 to 10. The shocks range from #1 mild to #10 strong. Your task is to push the single lever marked ready and concentrate on the colors on the cards. You must go in order. He will then respond over the microphone with a color. If he is right you don't shock him. If he is wrong you can give him any degree of shock you wish. Once the lever is depressed the shock will automatically cut off after one second. If the answer is correct you will also put an X in the blank

provided on the answer form. We will have two practice trials in which no shock will be given. Be sure to press all the levers down firmly. Do you have any questions?

Call me when you have completed the first list.

APPENDIX C

INSULT PROCEDURE

Just what the Hell's going on in there? Whoever you've got in there just got two right. I'm trying to concentrate and you're just jacking around. You're really an idiot if you can't do better than that. I don't know who you are, but I wish you'd try concentrating next time.

APPENDIX D

NON-VIOLENT SELECTION

GROUNDS BOSS HAS "FAIR" JOB AHEAD

What does it take to set up the third largest fair in the United States? Ralph Woods, as grounds superintendent at the Tulsa State Fair, has the difficult task of preparing the fair grounds and numerous buildings for the influx of exhibitors and participants of the 1972 fair. This year's fair will be held from Sept. 28 to Oct. 8.

Woods has a good background for handling a fair. This will be the twenty-ninth he has handled. Besides setting up the fair, sometimes two and three times in the same area, Woods is responsible for handling the parking for the estimated one and a half million fair visitors and for planning for the disposal of tons of trash.

Woods primary job is taking care of the fair grounds and buildings throughout the year. This year a great many of the buildings on the grounds have been repainted and new roofs have been put on the Pavilion and General Exhibits Building. There has also been extensive renovation around the grounds. Even though almost a half million dollars have been expended--profits derived in the past two years of operation by the Tulsa Fairgrounds Trust Authority--to build new structures and renovate other old buildings, Woods cannot get a good start on putting the buildings into shape for the fair until the last minute.

"They are either in use, or are serving as storage facilities,"

Woods explained to this reporter. "The buildings that are not being used are put into shape as far in advance as possible. The rest of them? Well, my men have to continue working on them as the various exhibitors move in," he said.

Woods has a fairly large regular crew to care for the fair grounds, but a number of part-time workers are added to the force to expand it to about 150 a week before the fair starts. It remains at that number until about two weeks after the end of the fair.

Fortunately for Ralph Woods, the various commercial exhibit booths are erected by a privately contracted firm and are finished by the exhibitor. But even then preparing for the fair is no small task for Ralph Woods and his dedicated crew. The animal exhibit barn is probably Woods' biggest headache each year. The buildings, 200-feet-wide by 1767 feet long, with a 200-foot-by-200-foot addition to the north, is the largest animal barn in the entire world. More than 7000 animals are housed in the barn and adjoining building during the fair. Sometimes the amount of space available is not enough. The fair employees are forced to move about 1,500 bales of straw to open the fair and move about 5,000 more bales before the fair begins.

A contract food dealer generally supplies more than 20,000 pounds of feed and exhibitors bring 10,000 to 15,000 more. It is Woods' responsibility to see that the straw and feed are stored properly.

When the animals begin to arrive a few days before the fair begins, every county in the state, several other states and Canada are represented, certain of Woods' employees must supervise the loading and unloading of trucks and vans and make sure that the animals are taken to the proper pens in the barn. Other employees put the hundreds

of pens together, with the knowledge that every board, bolt and post in the building will have to come down in just two short weeks.

The horse exhibits change three times during the fair. For this reason, the stalls must be thoroughly cleaned three times during the fair. Other areas are only cleaned twice, on the fifth day and at the end of the fair. The daily cleanup of the barns, straw and manure produces a mountain of material which is then sold in bulk to various individuals for potting soil. The tons of trash taken from the midway and walkways are taken to a private dump.

Another side job that is handled by Woods is providing dormitory facilities for those who stay on the fairgrounds throughout the fair. "We go on 16-hour days one week before the fair, then work around the clock during the fair. We all get very little sleep then," Woods concluded.

APPENDIX E

FACTUAL-VIOLENT SELECTION

BOSTON GIRL FOUND STABBED

At 7 P.M. Wednesday, May 8, the body of Beverly Samans, 23, was found at her apartment at 4 University Road, Cambridge. Oliver Chamberlin, Jr., the dead girl's fiancee, discovered the body. The police report that although a nylon stocking and two handkerchiefs were found tied around Miss Samans neck, her death resulted from stabbing. She had been stabbed 22 times.

Oliver Chamberlin, Jr. told police that he had gone to his fiancee's apartment because he was worried about her. Earlier in the evening, he had found a note in his room from Mary Vivien, the organist at the Second Unitarian Church in Boston's Back Bay. "I'm worried about Bev," the note read. "She didn't show up for choir practice this morning or for rehearsal this afternoon." Beverly, an attractive dark-haired Boston University graduate student who looked forward to an operatic career, was to appear in a production of Cosi fan tutti later in the month. Chamberlin and Miss Samans had graduated together from a music conservatory three years before; they had remained close friends since. Miss Samans had worked as a music therapist at the Walter E. Fernald School for Retarded Children in Waverly, and was currently spending two days a week as a rehabilitation counselor at Medfield State Hospital.

Chamberlin, receiving no reply to his knock, opened the door with a key his fiancee had given him. He found Miss Saman's body on the convertible sofa bed in the combination living-bedroom.

Police investigation revealed that Sunday was the last day she had been seen alive. At 8 a.m., her neighbor across the hall heard Miss Samans practicing several arias; later that Sunday morning she sang in the choir of the Second Unitarian Church as usual; in the afternoon, she attended a rehearsal of the opera in nearby Brookline; drove home at 9 p.m., met a girl friend for a late snack in a neighborhood restaurant and parted from her at 11 o'clock. No one had seen her since.

Miss Samans was to receive her master's degree in rehabilitation counseling in June of this year. Then she intended to go to New York for a tryout with the Metropolitan Opera. In the small two-room apartment authorities found many classical records, sheet music and tape recordings. In her portable typewriter, set up on a coffee table a few feet from where her body lay, was page 18 of her master's thesis. It was entitled, "Factors Pertaining to the Etiology of Male Homosexuality."

Miss Samans' death is the eighth to be attributed to the Boston Strangler. Following the discovery of the latest murder, Police Commissioner McNamara met the press in his office. "The responsibility is mine," he said. "If there is any onus attached to an individual because the murders remain unsolved, it should fall on me." It was difficult, he went on, to imagine what else the police could do. He cited statistics. They had checked over 5000 Massachusetts sex offenders, screened every inmate at the Center for the Treatment of

Sexually Dangerous Persons at Bridgewater State Hospital, interviewed thousands of persons, questioned 400 suspects--which meant investigating every detail of their alibis, an almost endless task--they had checked out hundreds of written and telephoned tips, letters and suggestions coming from as far away as Australia.

Governor Peabody has announced a five-thousand-dollar reward for information leading to the apprehension of the murderer or murderers. "If this rampant crime keeps up, the Mayor will fire McNamara as quickly as anyone else," a city counselman told reporters. In the House of Representatives demands have been made for an investigation of the police department as well as its methods of crime detection.

Doggedly, McNamara insisted that everything human intelligence could do is being done. Every man on his force, the eighth largest in the United States, will continue to work around the clock, "using every good, known, and solid law enforcement technique" to discover "the persons responsible for the murders."

APPENDIX F

EMOTIONAL-VIOLENT SELECTION

BOSTON GIRL FOUND STABBED

By late summer, 1963, Boston was a city near panic. At that time there had been a series of murders of single women, most of whom were middle-aged, under circumstances as baffling as any in fiction. Each woman had been strangled in her apartment. There were no signs of forcible entry. Around the necks of the victims were knotted nylon stockings or other articles of their apparel. No clues were found; nothing had been stolen; there was no discernible motive. The victims were, so far as could be determined, modest, inconspicuous, almost anonymous women, leading blameless lives. Beyond the mystery of their deaths, there was something terribly sad and pathetic about these victims who apparently either knew or were unafraid of their murderer, and let him into their apartments and did not even put up a struggle before they were finished off. It was obvious that the murderer--or murderers--was insane. As a result, Boston was a city near panic.

So it rested until 7 p.m. Wednesday night, May 8.

At that hour, 33-year-old Oliver Chamberlin, Jr., hurried into a red brick apartment house at 4 University Road, Cambridge, and knocked sharply on the door of his fiancee, Beverly Samans. He was worried about Beverly, an attractive, dark-haired Boston University graduate student of 23 who looked forward to an operatic career. A few minutes

before, Oliver had found a note in his room from Mary Vivien, the organist at the Second Unitarian Church in Boston's Back Bay. I'm concerned about Bev," the note read. "She didn't show up for choir practice this morning or for rehearsal this afternoon." Beverly was to appear in a production of Cosi fan tutti later in the month. Oliver and Beverly had graduated together from a music conservatory three years before; they had remained close friends since. A warm, outgoing girl, Beverly had worked as a music therapist at the Walter E. Fernald School for Retarded Children in Waverly, and currently spent two days a week as a rehabilitation counselor at Medfield State Hospital.

Now, when there was no reply to his knock, Oliver used a key she had given him to open the door.

He saw her at once. He could not help seeing her. She lay directly within his line of vision, sprawled nude on her back on her convertible sofa in the combination living-bedroom, her legs apart, her right leg on the bed, her left hanging over the edge between bed and wall. Her wrists had been tied behind her with a gaily-colored silk scarf glittering with sequins. A blood-stained nylon stocking and two handkerchiefs tied together were knotted about her neck; there was blood on her chest and neck; a cloth was over her mouth; a lace blouse had been draped about her shoulders.

Almost paralyzed with horror, Oliver managed to walk to the bed and stand over her. Was she dead? He pulled away the cloth over her mouth. A second cloth had been stuffed into her mouth. He pulled that out. Her mouth was open; her eyes closed; her body lifeless.

Though it appeared that Beverly Samans had been strangled, death had come as a result of stabbing--22 times, four in the throat, 18 in

the left breast where the stab wounds described an unmistakable bull's eye design--a large circle enclosing a smaller circle with the final stab wound in the center. The "decoration" about her neck appeared to be precisely that. None of them had been tied tightly enough to cause death. A bloody knife with a four-and-a-half-inch blade was found in the kitchen sink. She had been dead for 48 to 72 hours, Police Captain John Grainger of Cambridge said. Sunday's newspaper, dated May 5, was on a chair. Sunday was the last day she had been seen alive.

The pattern was the same--the nylon stockings, the decorations, the body's position, the victim's background--music and hospital. Only the stabbing was different. Some detectives theorized that Beverly might have developed such powerful throat muscles from singing that the Strangler, unable to render her unconscious at once, had seized a knife and stabbed. Only that was different.

APPENDIX G

INSTRUCTIONS FOR READING TASK

This task involves reading short news stories. The main purpose of the task is to have you both concentrating on the same thing at the same time. But research has also shown that this type of material helps increase ESP. So be sure to concentrate. When you have finished I will ask you to answer some questions about the material. So read carefully. Any questions?

APPENDIX H

QUESTIONS FOR NON-VIOLENT SELECTION

_____ 1. Ralph Woods is superintendent of
   a. the OSU fair
   b. Tulsa World Fair
   c. Oklahoma State Fair

_____ 2. How many assistants does Woods have during the fair?
   a. 10
   b. 75
   c. 150

_____ 3. Woods salary for the year is
   a. $10,000
   b. $6,000
   c. not stated in article

_____ 4. Woods is <u>not</u> responsible for the
   a. barns
   b. buildings
   c. fair finances

_____ 5. True or false: Woods is responsible for finding dormitory space for those who stay on the fairgrounds throughout the fair.

APPENDIX I

QUESTIONS FOR VIOLENT SELECTIONS

_____ 1. Who discovered the body?
a. her mother
b. her fiancee
c. her father

_____ 2. The murderer was believed to be
a. her fiancee
b. Jack the Ripper
c. the Boston Strangler

_____ 3. Beverly Samans was
a. studying for an operatic career
b. a writer
c. a housewife

_____ 4. Beverly Samans was
a. stabbed
b. shot
c. strangled

_____ 5. Beverly Samans lived in
a. New York
b. Philadelphia
c. Boston

APPENDIX J

INSTRUCTIONS FOR POST-TEST

For the last task I would like you to repeat the extrasensory learning experiment to see if your concentrating together has enhanced the ability to perceive the other's thoughts.

Remember that you shock the wrong answers only. The shocks range from #1 mild to #10 strong. Push the signal button when you are thinking of the color on the list. You must go in order. We will again have two practice trials.

VITA

Sandra Lee Shore

Candidate for the Degree of

Master of Science

Thesis: THE EFFECTS OF PRINTED REPORTS OF VIOLENCE ON AGGRESSION

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