

THE PERCEPTION OF VIOLENCE AS A FUNCTION  
OF HISTORICAL AND CURRENT BEHAVIOR

Thesis for the Degree of M. A.  
MICHIGAN STATE UNIVERSITY  
THOMAS F. REIF

1967

THESIS

*LIBRARY*  
Michigan State  
University



## ABSTRACT

# THE PERCEPTION OF VIOLENCE AS A FUNCTION OF HISTORICAL AND CURRENT BEHAVIOR

by Thomas F. Reif

Recent studies in stereoscopic perception have indicated that both familiarity with content, and the intent to become involved with the content, will increase a person's perceptual sensitivity to that content in the stereoscope. Thus in different studies, both people who have histories of involvement with violence, and people who eventually become involved with violence, have readily perceived violent scenes in the stereoscope.

This study was designed to investigate the relationship between these two perceptually sensitizing factors-historical involvement with content, and current partaking of the same content. Subjects were institutionalized juvenile delinquents. The scenes which were stereoscopically presented to them were scenes of violence, simultaneously paired with "neutral" scenes. Six groups of nine delinquents each were divided into varying degrees of historical and current involvement with violence. Historically, delinquents were considered either violent aggressive, non-violent aggressive, or non aggressive. Currently, these same delinquents were

considered either aggressive or non aggressive. Consequently, each group of delinquents had both a historical and a current behavior status, e.g., historically violent aggressive and currently aggressive, historically non-violent aggressive and currently non aggressive, historically non aggressive and currently aggressive, etc.

It was hypothesized that those groups who were either historically familiar with some form of aggression, or who were currently aggressive within the institution, would be perceptually sensitized to violent scenes in the stereoscope. In addition, it was hypothesized that the more a delinquent's historical behavior approached physical violence, the greater his perceptual sensitivity to violence would be.

Results indicated that when both historical and current behavioral variables are included in the same study, an interaction effect occurs. It was found that those delinquents who have historically been violent or nearly violent, and who still maintain their aggressive behavior within the institution, perceive relatively little violence in the stereoscope. However, those whose histories have been violent or nearly violent, and who currently are not aggressive within the institution, perceive relatively large numbers of violent scenes in the stereoscope. In addition, those delinquents who have only recently begun to involve themselves in aggressive behavior perceive relatively many violent scenes in the

stereoscope.

In general, the explanation for these results is offered in terms of two factors which seem to contribute to a delinquent's sensitivity to, or disinterest in, perceiving violence in the stereoscope. The first factor is the phenomenological reality of the individual, i.e., his past patterns of behavior, his current consistencies or inconsistencies with those patterns, and the psychological experience which results. The second factor is intimately tied to the first. It is the degree to which perceiving violence is functionally important to the individual. In cases where it is functionally important, perceptual sensitivities increase; in cases where there is no need to look for violence, perceptual sensitivities decrease.

Approved: Dozier W. Thornton  
Committee Chairman

Thesis Committee:  
Dozier Thornton  
Hans Toch  
Charles Hanley

THE PERCEPTION OF VIOLENCE  
AS A FUNCTION OF  
HISTORICAL AND CURRENT BEHAVIOR

By

Thomas F. Reif

A THESIS

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

MASTER OF ARTS

Department of Psychology

1967

645747  
5/25/67

## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENT.....	11
INTRODUCTION.....	1
STATEMENT OF THE PROBLEM.....	6
Hypotheses.....	9
METHOD.....	10
A. Subjects.....	10
B. Criteria for Selection.....	10
C. Apparatus.....	15
D. Administration Procedure.....	16
E. Scoring Procedure.....	17
RESULTS.....	18
DISCUSSION.....	21
SUMMARY.....	31
BIBLIOGRAPHY.....	33
APPENDIX.....	35

## ACKNOWLEDGEMENT

I would like to thank the members of my committee, chairman, Dozier Thornton, Hans Toch, and Charles Hanley for their helpful suggestions in developing and writing this thesis.

The assistance of Bruce Vogel, clinical psychologist of Lansing Boys Training School was invaluable. Without it this study could not have been accomplished.

I am also grateful to the boys who participated in this study, either as subjects or as helpers. Their willingness to cooperate and to assist was greatly appreciated.

My wife Ellen's spirit and strength gave me my freedom to work quickly and in solitude.



## INTRODUCTION

The present use of the stereoscope as a perceptual instrument rests heavily on the assumption that the time of visual exposure to two different, yet structurally equal scenes (one presented to each eye) is short enough to eliminate binocular rivalry. Thus, when an individual is visually exposed to two scenes for a period of approximately one-half second, he is unable to see one scene and then the other. Ordinarily he perceives one of the two possible scenes. That which he does see may be determined by a variety of factors.

Engel (1956) originally demonstrated that the scene which was more meaningful to the observer would be the one perceived. He simultaneously presented two pictures of a person (one upright, the other upside-down) in the stereoscope. Individuals tended to perceive only that scene which was upright. In another study, Engel (1958) presented different, yet structurally equal faces simultaneously in the stereoscope. He found that individuals tended to "fuse" their perceptions into more attractive faces.

Since Engel's studies there have been a number of experiments in stereoscopic perception which have supported the assumption that the scene which had more meaningful content, in terms of the experience of the individual, was the one which would be more readily perceived. Bagby (1957) showed that more culturally relevant scenes are perceived when paired with scenes of another culture. Hastorf and Myro (1959) presented upright and inverted postage stamps simultaneously and confirmed Engel's findings. Davis (1959) used words with different frequency usage and different emotional content and found that words with low frequency usage and words with strong emotional content tended not to be seen in the stereoscope. Lo Sciuto and Hartley (1963) demonstrated that words pertaining to one's own religion are perceived more often than words relevant to other religions. In addition, there was a significant correlation between open mindedness and the tendency to see words related to a religion other than one's own.

Stereoscopic perception has also been studied in the area of criminology. Toch and Schulte (1961) prepared a series of "violent" vs. "neutral" scenes and presented them to men in their fourth year of police training, as well as to men in their first year of training, and to college sophomores. They found that men in their fourth year of training perceived significantly more violent scenes than either of

the other two groups. These results suggest that perceptual choice may be more than a function of the individual's experience with the content; it may, in fact, reflect a "readiness" to perceive violence in the environment. The tendency to perceive certain content may be related to an important functional readiness to look for the kinds of behavior with which one expects to become involved. Policemen are trained to identify and cope with violence in the environment. Their stereoscopic perceptions seem to function in accord with their expectations.

It was then demonstrated by Shelley and Toch (1962) that the readiness to perceive violence in the stereoscope is positively correlated with a tendency to behave violently in the future. In this study, all inmates of a work camp were presented with the series of violent vs. neutral scenes in the stereoscope. Those inmates who perceived the greatest number of violent scenes subsequently became disciplinary problems and were transferred to prison. Those inmates who saw the least number of violent scenes subsequently made a satisfactory adjustment to camp life.

A further indication of the highly functional relationship between perceptual choice and overt behavioral tendencies is evident in a study done by Berg and Toch (1964). Their results indicate that those prisoners who are characterized as highly impulsive people are perceptually predisposed to perceive "impulsive" scenes (blatant attempts at the gratification of different impulses) as opposed to more social-

ized depictions of need satisfaction. The impulsive prisoners of this study were contrasted with prisoners who exhibited much evidence of intrapsychic conflict. This latter group saw significantly fewer impulsive scenes than the former. The results are explained in terms of an increased perceptual sensitivity towards opportunities for gratification. That is, those people who habitually tend to gratify their impulses in an unsocialized manner have also developed a facility for spotting opportunities for gratification. Their increased perceptual vigilance apparently functions in accord with their behavioral predispositions. In general, it seems that the way in which a person characteristically adapts in life influences the way in which he is predisposed to perceive scenes in the stereoscope. Intuitively, this relationship might be extended to environmental perceptual predispositions.

A study done in a detention home for juvenile delinquents (Collier, 1963) extends the notion of the relationship between perceptual predispositions and characteristic overt behavioral tendencies. In this study, the tendency to perceive violent scenes in the stereoscope is positively correlated with assaultive themes on the Holtzman Inkblots as well as with subsequent recidivism rates. It is shown that one half of the delinquents who perceive the greatest number of violent scenes are detained again within three

months, whereas only one tenth of the low violent perceivers are subsequently detained.

From the above descriptions of previous studies in stereoscopic perception, it is evident that both content (experiential meaningfulness) and behavioral predispositions can play an important part in determining the perceptual choice. Stereoscopic perception might thus be studied as an index of historical relevance to the individual, and/or as an index of contemporaneous behavioral predispositions.

## STATEMENT OF THE PROBLEM

The present study is designed to investigate the relationship between stereoscopic perceptual choice and experiential and behavioral factors in juvenile delinquents. Since Moore (1966) has shown that the readiness to perceive violence in the stereoscope is in part a function of age, sex, and socialization experience, it is questioned whether worthwhile and consistent differences in perceptual predispositions would be found among a group of mid-adolescent offenders. Since experience has been shown to be an important determinant of perceptual choice, it may be that the life styles of younger delinquents are sufficiently undeveloped so as to diminish the discriminating power of the stereoscope. It is assumed, however, that the stereoscope may differentiate high violence perceivers from low violence perceivers in a group of institutionalized mid-adolescent offenders. This assumption is based on the findings that anti-social, aggressive habits have developed in some youth (Bandura and Walters, 1959). Furthermore, it is assumed that these individuals would be perceptually predisposed or sensitized to violent content. The rationale for this, and in no way inconsistent with previous assumptions in stereoscopic studies,

is offered in terms of the "cue" properties of some stimulus events for specific personality patterns (Dollard and Miller, 1950). Thus, the underlying assumption which we sought to confirm was that those delinquents who consistently engage in aggressive, anti-social behavior would be more sensitive to the stimulus cues of aggressive behavior than characteristically non aggressive delinquents. Appropriate differences in perceptual sensitivity may also be reflected by the quality of the stereoscopic perceptual choice.

Since the experiential factor has only proved to be a significant determinant in studies with wide discrepancies in behavioral classifications, e.g., impulsive vs. neurotic, adjusting vs. non-adjusting, high frequency vs. low frequency, etc., the present study attempts to expand its classifications. In terms of understanding the processes involved in perceptual choice, and in terms of understanding the development of delinquent behavior, historical delinquent behavior might be advantageously divided into degrees of aggressiveness. Buss (1961) has defined aggression as "behavior which delivers a noxious stimulus to another organism". Berkowitz (1962) implicitly defines aggression as behavior which intends to harm, and which has a damaging effect on another animate or inanimate object. In dividing aggression into different degrees, this study attempts to consider both the psychological intent, and the effect which the behavior has on another person. Thus, historical delinquent behavior will be considered

either violent aggressive, non-violent aggressive, or non aggressive. The differentiation also suggests a developmental process, which has its origins in non interpersonal forms of transgression, and its ultimate, most direct form in painful physical attacks on other people. The first hypothesis of this study is that there will be an increasing tendency to perceive violence in the stereoscope, as a delinquent's historical behavior pattern approaches physical violence.

In addition to this experiential relationship, the present study also attempts to investigate the relationship between stereoscopic perceptual choice and contemporaneous behavioral predispositions. It is questioned whether delinquents who currently exhibit aggressive behavior will perceive more violence than delinquents who are currently non aggressive, regardless of previous historical behavior patterns. In other words, what will the effect be (on perceptual choice) when both historical, experiential variables, and current behavioral variables are included in the same design? For example, what effect on perceptual choice occurs in a group of boys who historically were violent individuals, but who currently, within the institution, have not engaged in any aggressive behavior? Or, similarly, is the readiness to perceive violent content altered when a delinquent who has historically been non aggressive suddenly becomes aggressive within the institution? Is the determination of the perceptual choice merely a function of the experience of the individual, or of his cur-



rent attitudes, or of both? This is the principal question which we attempt to answer.

### Hypotheses

The hypotheses tested in this study are the following:

1. Delinquents who have historically engaged in aggressive, anti-social behavior will perceive significantly more violent scenes in the stereoscope than delinquents who have not historically engaged in aggressive behavior. Specifically it is hypothesized that the perception of violence is in part a function of the degree of historical aggressive behavior perpetrated, i.e., historically violent aggressive delinquents should perceive more violence than historically non-violent aggressive delinquents, who, in turn, should perceive more violence than historically non aggressive delinquents.
2. Delinquents who currently (within the institution) engage in aggressive behavior will perceive more violence than delinquents who do not currently exhibit aggressive behavior.

## METHOD

### A. Subjects

Fifty-four delinquents were selected from Lansing Boys Training School, Lansing, Michigan, a medium security institution for delinquent boys. The ages of the boys in this institution range from 12-19. Boys actually selected ranged in age from 13-18. Since it was particularly difficult to use subjects from the "closed program" (high truancy risks), all subjects were selected from the open program.\* This program consists of varying combinations of work-study details, all of which take place within the institution.

### B. Criteria for Selection

Since the study was designed to measure differences between and within two variables, historical behavior and current behavior, the following criteria were used for selecting groups of boys: Historically, behavior was divided into three categories; violent aggressive, non-violent aggressive, and non aggressive. Currently, behavior was considered either aggressive or non aggressive. The definitions

---

\*with the exception of one subject

of these kinds of behavior will now be given.

A historically violent aggressive delinquent is defined as one who has at least one mention of assault in his social history. Furthermore, the assaultive behavior described must not have been denied by the boy. In addition, the nature of the assault must have entailed actual physical contact, with obviously physically painful consequences, i.e., shooting, stabbing, fist fighting, etc. Finally, if there is only one mention of assault on record, then it is also required that there be some other mention of fighting behavior in the record. In cases where a boy is charged with more than one assault, no other mention of fighting behavior is required. The objective in this group is to select boys who are habitually violent aggressive individuals, whose personalities might be characterized as aggressive (Buss, 1961, Berkowitz, 1962).

A historically non-violent aggressive delinquent is defined as one who has involved himself in behavior which came very near to being physically assaultive, but which did not actually involve painful, physical contact. In addition, there must be no mention of fighting behavior in the social history; this is required to be more certain that the boy has not historically been violent aggressive. The objective in this group is to obtain a sample of boys who have apparent-

ly begun to express their needs, hostilities, desires, etc., towards other people, but who have not as yet become habitually involved in painful physical attacks on other people. Examples of such historical behavior included in this group were: threatening with a weapon, homosexual molestation (forcing another boy to commit sodomy), heterosexual molestation (touching parts of another person's body) armed robbery, and strong-arming.

A historically non aggressive delinquent is defined as follows: one who has no history of assaultive or fighting behavior, and who has limited his offenses to non-interpersonal forms of transgression. Specific types of historical behavior included in this group were unlawfully driving away an automobile, glue sniffing, indecent exposure, breaking and entering, theft, and truancy.

A currently aggressive delinquent is defined as one who fights within the institution, either with the staff or with other boys. In order for a boy to be considered currently aggressive, he must have been in at least two fights within the last two months. Thus, a boy who has been in many fights within the institution, but not fought for two months, is not considered currently aggressive. In addition, no boy who has not been at the institution for at least two months is

eligible for selection.

Currently non aggressive boys are simply defined as those boys who cannot be considered currently aggressive, and who have been in the institution for at least two months. Thus, these boys have not been in at least two fights over the last two months.

The determination of an individual's current behavior status was achieved through brief interviews with all counselors. Each counselor has charge over approximately 50-60 boys, and is fairly well acquainted with the behavior of each of their boys. The interview consisted of asking the counselor whether or not certain boys met the criteria outlined.

The determination of an individual's current behavior status within the institution is a particularly difficult task, since counselors are often uncertain about specific instances of fighting, their causes, conspirers, etc. In addition, since degrees of permissiveness vary from cottage to cottage, the amount of fighting also varies as a function of different residences.

Because of the inexactness inherent in the procedure for determining current behavior status, an attempt was made to minimize error in the following ways: other staff were questioned (clinical psychologist, social worker); detention lists and intra-institutional notes were checked; in a few cases boys were asked about the behavior of other boys. In cases where discrepant impressions of an individual were

given, the individual was automatically eliminated from the test groups.

It was also noted in the process of determining current behavior status that fighting was itself a behavior in which most boys engaged. There seemed to be few boys in the institution who had never fought with a peer in the cottage or elsewhere. In addition, there seemed to be few boys in the institution (at least in the open program) who might be considered "violent". Those boys who do become violent are sent to the closed program, or to another, more confining institution. Thus, there is some question as to whether the classification of aggressive vs. non aggressive (currently speaking) behavior is representative of aggressive tendencies or experiences to the same degree that the historical variable achieves representation.

Total number of S's used was fifty-four. Based on the two variables discussed above, historical behavior and current behavior, six groups of nine subjects each were classified as follows: 1) historically violent aggressive and currently aggressive, 2) historically violent aggressive and currently non aggressive, 3) historically non-violent aggressive and currently aggressive, 4) historically non-violent aggressive and currently non aggressive, 5) historically non aggressive and currently aggressive, 6) historically non aggressive and currently non aggressive. Table 1 (Appendix) presents a

summary of the group differentiations.

Each group contained six Negro and three white subjects. However, in four of the groups, a Mexican boy was used in place of one of the white subjects. This occurred because of the lack of available white subjects meeting the criteria outlined. Mean ages for each group are indicated in Table 2 (Appendix).

### C. Apparatus

The stereoscope has been described elsewhere (Toch and Schulte, 1961). Six of the original nine violence slides were used as well as one slide from the series used by Berg and Toch (1964). The six from the original series, in the order in which they were presented, were the following:

1. man with knife in back - postman
2. man standing over body - farmer
3. man hanging - man with suitcase
4. man shooting himself - man with microphone
5. two men fighting - man showing pictures
6. man stabbing another - man with drill press

The seventh pair of stereograms consisted of a man and woman dancing, paired with a man struggling to take off a woman's clothing. The time exposure used in this study was consistent with most of the previous studies (0.5 seconds). Light intensity was set at 80 volts for each field (comparable to 0.2 candles/ft.<sup>2</sup>). Each pair of slides was presented





twice, once to each eye. This procedure controlled for possible eye dominance.

#### D. Administration Procedure

All subjects were tested within a period of five days. Subjects were brought to the preliminary waiting room (the office of the clinical psychologist) in groups of three. Each subject was called out randomly. An office boy was sent by the psychologist to bring back three boys. These boys, having arrived, were given the following instructions by the psychologist:

There is a student from Michigan State upstairs who is doing some research on how well people see things. He wants each of you to help him out for a few minutes. He has nothing to do with the school. There's no reason to worry about anything because he won't even know who you are. I'll give you each a number, and I'll introduce you to him as that number.

Each boy was then presented to the experimenter as a subject number. As the experimenter escorted the subject upstairs, he gave the following instructions:

I'm a student at Michigan State, and I'm doing some research on visual acuity. Do you have good eyes? Do you wear glasses? O.K., I'll show you what I'd like you to do...(arriving at the testing room)...this is a stereoscope. It's a machine which flashes a picture on for a very short time. I'm interested in how much of the picture all boys can see, if I flash it for just half a second. I have a number of pictures that I'd like to show you if you'd be willing to cooperate. Would you? O.K., now you should understand that these are pictures of people doing different things, and

that I'm interested in how much you can tell me about what they're doing. The picture comes real fast so you've got to look real quick. First we have to line up your eyes. If you look in the stereoscope you should see a dot and a circle....

Subjects were then asked to set the knob for their individual fusion points.

### E. Scoring Procedure

The following code, created by the author, and in general, consistent with previous means of scoring perceptions in the stereoscope, was used:

O- a non-violent perception, in which either a perception of the neutral picture, or a neutralized perception of the violent picture (e.g., "man shaving himself" instead of "man shooting himself in the head") occurs.

F- a non-violent fusion, in which both pictures are seen, but no evidence of violence is reported (e.g., "man waving his arms").

V- a violent perception, in which either the violent picture alone, or both pictures are seen (e.g., "man with a knife in his back", or "man dancing with a lady and he's trying to take her clothes off").

## RESULTS

Neither of the two hypotheses were confirmed. Specifically, results did not indicate a linear relationship between the degree of historical aggressive behavior and the perception of violent scenes in the stereoscope. Also, results did not suggest that currently aggressive individuals are more predisposed to perceiving violence. The appropriate analysis of variance (Table 3, Appendix) indicates a highly significant interaction between historical and current behavioral variables. That is, it seems clear that both experiential and current motivational states are interacting in some way to influence the tendency to perceive violence in the stereoscope.

An examination of paired comparisons of means of each group was made in an effort to determine the nature of the interactional process. Using Tukey's method (Winer, 1962) t scores were obtained for selected paired comparisons (Table 4, Appendix). A summary of these comparisons is represented below.

1. When equated on historical kinds of aggressive behavior (either violent or non-violent) currently non aggressive delinquents perceive significantly ( $p < .01$ ,  $p < .05$ ) more violent scenes than do currently aggressive delinquents (pairs 1, 2).



2. When equated on historically non aggressive behavior, delinquents who are currently aggressive perceive significantly ( $p < .05$ ) more violent scenes than currently non aggressive delinquents (pair 3).

3. When equated on current non aggressive behavior, delinquents who are historically non aggressive perceive significantly ( $p < .01$ ,  $p < .01$ ) fewer violent scenes than either of the two historically aggressive groups (violent aggressive or non-violent aggressive) (pairs 5, 6).

4. When equated on current aggressive behavior, delinquents who have been historically violent aggressive perceive significantly fewer ( $p < .05$ ,  $p < .05$ ) violent scenes than either historically non-violent aggressive or historically non aggressive delinquents (pairs 7,8).

5. Historical behavior considered exclusively, historically non-violent delinquents perceive significantly more ( $p < .05$ ,  $p < .05$ ) violent scenes than either historically violent aggressive or historically non aggressive delinquents (pairs 10, 11).

6. Current behavior considered exclusively, no significant difference in amount of violence perceived exists between currently aggressive and currently non aggressive delinquents (pair 13).

It should be emphasized that the last two statements should be accepted guardedly because of the highly signif-

icant interaction between the two variables. Obviously, no meaningful statement about the predisposition to perceive violence should be made without a consideration of both historical and current behavioral status.

The number of violent perceptions ranged from 0-10. A total of six boys saw seven (the number expected by chance) or more violent scenes. Two of these subjects were from the historically violent aggressive and currently non aggressive group. The other four were from the historically non-violent aggressive and currently non aggressive group. Mean scores for each group are given in Table 5 (Appendix).

Since the historically non-violent aggressive group unexpectedly perceived the largest number of violent scenes, it may be of interest to the reader to examine this group's individual scores as a function of specific historical and current behavioral experience. Table 6 (Appendix) represents a breakdown of the historically non-violent aggressive group in terms of these variables.

## DISCUSSION

The implicit assumption underlying the original hypotheses was that aggressive behavior is a learned phenomenon, and that those individuals who were habitually violent would be perceptually sensitized to violent content in the stereoscope. In addition, it was thought that those who had begun to develop aggressive styles of behavior would also demonstrate some increase in the tendency to perceive violent content. However, results suggest that perceptual sensitivity to violence (and implicitly a predisposition towards becoming violent) is not a simple matter of previous or current experience with violence. There are obvious factors which interfere with a straightforward experiential, learning interpretation of perceptual predispositions. Our task will be to spell out those factors which seem to be at work in determining whether or not an individual will be sensitive to violent content.

So far the concept of perceptual sensitization has been used without elaboration. It should be stated here that sensitization is used in a relative sense, only in comparing groups which see more or less violent content. Since only a small number of subjects saw more than half the possible number of violent scenes, sensitization must be restricted

to a relative framework. Within this framework certain groups can be considered perceptually sensitive to violent content, namely, the historically violent aggressive and currently non aggressive, the historically non-violent and currently non aggressive, and the historically non aggressive and currently aggressive groups. Each of these three groups perceive significantly more violence than their historical counterparts, i.e., those groups which have the identical historical background and the opposite current behavior status.

The behavioral trends of these three sensitized groups differ. In the case of the historically violent aggressive and the historically non-violent aggressive groups, behavior has changed from some degree of aggression against other people to a current inhibition of aggressive acting out in the institution. In the case of the historically non aggressive group, behavior has evolved from historically non interpersonal forms to present day attacks against other people.

Thus it can neither be said that a delinquent who currently engages in aggressive acts against people will be sensitized towards violent content, nor can it be said that a delinquent who currently does not engage in aggressive behavior will be sensitized to violent content. Sensitivity to violence obviously depends on the kinds of experiences which the delinquent has had prior to institutionalization.





In general it seems that stereoscopic perceptual choice functions in accord with an individual's "need state" (Allport, 1955, Bruner and Postman, 1948). This concept is part of a "directive state" theory of perception. The theory suggests that "...an individual's needs, values, or attitudes influence his perceptual selectivity..." (Brown, 1961).

No profound implications can be accrued from the above theory until the data in question are discussed. In order to do this an additional concept must be introduced, that of "hostility catharsis" (Hendricks, 1948). Buss (1961) defines catharsis as "...the expression of aggression...and the diminution in the tendency to aggress as a consequence of such expression of aggression is called the cathartic effect...". Both Buss (1961) and Berkowitz (1962, 1963) have pointed out the difficulties in making straight generalizations about cathartic effects. In general, both writers agree that under some conditions the expression of aggression does have a cathartic effect. Under other conditions, the expression of aggression may invite more expression, because of the pleasurable and instrumentally rewarding effects. Just when these two effects (cathartic and pleasurable) occur seems dependent upon a number of variables, e.g., the presence or absence of anger, the status of the recipient of the aggression, temporal concerns, etc.

It is our intention to suggest some linkage between the two different effects of the expression of aggression

and consequent effects on perceptual predispositions. Basically it is suggested that those delinquents who have had histories of interpersonal aggression (either violent or non-violent) and who continue to fight in the institution, experience cathartic effects from fighting. This means that the result of fighting for these delinquents is a release of pent up hostilities. It is not necessarily implied that there is any diminution in the tendency to aggress. It is merely suggested that there is a psychological relief involved in the expression of aggression. Concomittant to the relief of hostility may be a decrease in perceptual sensitivity towards violent content. Thus we are suggesting that both the historically violent aggressive and currently aggressive, and the historically non violent aggressive and currently aggressive group perceive little violent content because of the gratification which they experience through fighting in the institution.

On the other hand, those delinquents who have been either historically violent aggressive or historically non-violent aggressive, and who currently do not express their aggression in the institution, may become tense or frustrated. Since these individuals have characteristically gratified their needs with some kind of aggressive actions, current inhibition of aggression actually constitutes a blocking of a preferred way of life. It is sug-

gested that when frustration increases, perceptual sensitivity to violence also increases. That is, when these individuals inhibit their aggressive styles, the stereoscopic perception of violence becomes a functional behavior, in that it serves as a needed outlet for the expression of aggression.

It still remains to be explained why perceptual sensitivity to violence is greater in the historically non aggressive and currently aggressive group than in the historically non aggressive and currently non aggressive group. Unlike the previously discussed groups, these delinquent's expression of aggression seems to have an opposite effect on perceptual sensitivity, i.e., the currently aggressive group perceives more violence than the currently non aggressive group. Obviously, frustration and the relief type cathartic effect do not apply. However, the pleasureable type cathartic effect which was described earlier may be operating. It is suggested that those delinquents who have only begun to express their hostilities towards other people experience pleasureable or instrumentally rewarding type effects from the expression of aggression. Therefore, concomittant with a pleasureable experience with aggression is likely to be an increase in the tendency to aggress. Perhaps also concomittant to a pleasureable experience with aggression is an increase in per-

ceptual sensitivity to violent content. It is probable that the effect of fighting is rewarding for those delinquents who have only recently begun to find aggressive outlets. The rewarding aspects may lie in the status attained for being tough. Perhaps these individuals find themselves in a position to gain satisfaction from fighting for the first time in their lives. There may be smaller boys in the cotage who are easily picked upon. It may also be that group pressures are facilitating the development of aggressive life styles. Whatever the reason, it seems that in the case of historically non aggressive delinquents, current fighting behavior is accompanied by an increased interest in perceiving and in finding opportunities for expressing aggression.

On the other hand, those delinquents who have historically been non aggressive and who currently remain non aggressive obviously have no need or interest in spotting opportunities for expressing aggression. In addition, these boys have had no direct experience with aggression. Therefore, there seems little reason why they should perceive more violence than the normal individual. The data support this reasoning.

In summary, it is suggested that two factors contribute to a delinquent's sensitivity to, or disinterest in, perceiving violence in the stereoscope. The first factor is the phenomenological reality of the individual, i.e., his

past patterns of behavior, his current consistencies or inconsistencies with those patterns, and the psychological experience which results. The second factor is intimately tied to the first. It is the degree to which perceiving violent content is functionally important to the individual. In cases where it is functionally important, perceptual sensitivities increase; in cases where there is no need to look for violence, perceptual sensitivities decrease.

The concept of perceptual defense has so far been omitted from the discussion because it is felt that the absence of perceptual sensitization, or "perceptual desensitization" are far better descriptions. However, since segments of the results have been explained in terms of perceptual sensitization, there is an implicit assumption that perceptual defense can also occur (Eriksen and Browne, 1956). Perceptual defense is defined as the "perceptual filtering of visual stimuli that serves to protect the observer as long as possible from an awareness of objects which have an unpleasant emotional significance for him" (McGinnies, 1949). The exact nature of perceptual defense is still controversial. It is at this point assumed to be either a product of the unconscious, or more likely, "...it depends on nothing more mysterious than the empirically derived laws of effect of punishment or anxiety on behavior..." (Eriksen, 1958).

One explanation for the results of this study is that perceptual defense operates for all groups. All delinquents,

and people in general, may be perceptually defensive towards behavior which is negatively sanctioned. In the groups where frustration has been hypothesized to occur, perceptual defenses are partially lifted. Hence the historically violent aggressive and currently non aggressive group, and the historically non-violent aggressive and currently non aggressive group may become more perceptually sensitive to violence because of their need to find some kind of gratification for their inhibited expression of aggression.

Throughout the discussion little differentiation has been made between the historically violent aggressive and the historically non-violent aggressive groups. It is suggested that the differentiation between these two groups may have been an artificial one. It is altogether possible that delinquents whose record indicates only one mention of a near violent action, and no mention of fighting behavior at all, may have involved themselves in other acts of aggression. In terms of stereoscopic perception, no significant difference exists between these groups when equated on current non aggressiveness. That is, in the groups that are the most highly sensitized to violence (the historically violent aggressive and currently non aggressive, and the historically non-violent aggressive and currently non aggressive group) scores are very similar. Therefore, it is believed that the distinction between these two historical

groups is ultimately an arbitrary one. It is indeed questioned whether these two groups differ psychologically. However, within the historically non-violent aggressive group, those boys who have historically been instigators of forced acts of sodomy, and who currently do not fight, achieved some of the highest scores in the total sample. This further supports the assumption that current frustrations increase a person's perceptual sensitivity towards spotting opportunities for gratification.

The present study has several weaknesses inherent in the design which contribute to the tentativeness of the explanations offered. Since the assumption is made that some delinquents experience one state of emotions as a result of fighting, whereas others experience a different emotion, it would have been preferable to place finer qualifications on the categories of current aggressiveness and current non aggressiveness. Perhaps if current aggression status was based on the past few days or even hours, rather than on the past two months, a clearer understanding of the emotional results of fighting may have accrued. However, it should be emphasized that most boys who were classified as currently aggressive had been in many more than two fights over the last two months; in fact most of these boys were chronic fighters within the institution. Therefore any inferences about the psychological states of these boys may



not be altogether offensive. Perhaps a more efficient experimental procedure for studying the relationship between the expression of aggression and the perception of violence in the stereoscope would involve the use of an "aggression machine". With this instrument the pre-perceptual conditions and experiences could be manipulated.

Another improvement which might be made in subsequent studies involves the creation of more violent slides. It was noted by the author that the second presentation of each pair of slides generally replicated the percepts on the first presentation, since subjects were quick to identify the scenes they had already viewed. In a few cases subjects anticipated the second set of slides, particularly the last pairing (rape scene). It was also noted in this connection that boys sought reinforcement for being "right" in their perceptions. The experimenter responded to these inquiries with "you're doing very well, try to see as much as possible of what's happening in the picture". In addition, it was also noted that some of the slides were quite anxiety provoking for some subjects, although in only one case did a subject exhibit conscious defensiveness. This subject was the one boy who was taken from the closed program for testing. His statement was that "two men were arguing" (after perceiving the fight scene).

## SUMMARY

Recent studies in stereoscopic perception have indicated that both familiarity with content, and the intent to become involved with the content, will increase a person's perceptual sensitivity to that content in the stereoscope. Thus, in different studies, both people who have histories of violence, and people who eventually become violent, have readily perceived violent scenes in the stereoscope.

This study was designed to investigate the relationship between these two perceptually sensitizing factors--historical involvement with the content, and current partaking of the same content. Subjects were institutionalized juvenile delinquents. They were presented with a series of scenes of violence, simultaneously paired with neutral scenes. Six groups of nine delinquents each were divided into varying degrees of historical and current involvement with aggressive behavior. Historically, delinquents were considered either violent aggressive, non-violent aggressive, or non aggressive. Currently these same delinquents were considered either aggressive or non aggressive. Consequently, each group of delinquents had both a historical and a current behavior status, e.g., historically violent aggressive and currently aggressive, historically non-violent aggressive and currently non aggressive, etc.

It was hypothesized that those groups who were either

historically familiar or currently involved with aggressive behavior would be perceptually sensitized to violent content. It was also thought that the closer the delinquent's historical behavior approached physical violence, the more violent scenes he would see in the stereoscope.

Results indicated that when both historical and current behavioral variables are included in the same study, an interaction effect occurs. It was found that those delinquents who have historically been violent or nearly violent, and who currently maintain their aggressive behavior, perceive relatively little violence. However, those with the same backgrounds, but with the opposite current behavior status (non aggressive) perceive relatively large numbers of violent scenes. Also, those delinquents who have only recently begun to aggress against other people perceive relatively large numbers of violent scenes.

It is suggested that perceiving violence in the stereoscope is a process which may be functionally important to the individual. Whether or not it is important seems to depend on a person's particular patterns of behavior and the degree to which his current patterns are consistent with previous ones. Perceiving violence seems to be functionally important when habitually aggressive historical patterns are currently inhibited, or when aggressive life styles are in the beginning stages of development.

## BIBLIOGRAPHY

- Allport, F., Theories of perception and the concept of structure, New York: Wiley, 1955.
- Bagby, J., "A cross-cultural study of perceptual predominance in binocular rivalry", J. abnorm. soc. Psych., 1959, 54, 33-34.
- Bandura, A., and Walters, R.H., Adolescent aggression, New York: Ronald, 1959.
- Berg, S.D., and Toch, H.H., "'Impulsive' and 'neurotic' inmates: a study in personality and perception", J. Crim. Law and Pol. Sci., 1964, 55, 230-234.
- Berkowitz, L., Aggression, New York: McGraw-Hill, 1962.
- Berkowitz, L., Green, J.A., and Macaulay, J.R., "Hostility catharsis as the reduction of emotional tension", Psychiatry, 1962, 25, 23-31.
- Brown, W.P., "Conceptions of perceptual defense", Brit. J. Psych. Monograph Series, Cambridge: Univ. of Cambridge Press, 1961.
- Bruner, J.S., and Postman, L., "An approach to social perception", in Current trends in social Psychology, Pittsburgh: Univ. of Pittsburgh Press, 1948.
- Buss, A.H., The psychology of aggression, New York: Wiley: 1961.
- Collier, R.D., "Binocular perception and the Holtzman Ink-blot technique with juvenile delinquents", Unpublished manuscript, 1963.
- Davis, J.M., "Personality, perceptual defense, and stereoscopic perception", J. abnorm. soc. Psych., 1959, 58, 398-402.
- Engel, E., "Binocular fusion of dissimilar figures", J. Psych., 1958, 46, 53-57.
- Engel, E., "The role of content in binocular resolution", Amer. J. Psych., 1956, 69, 87-91.

- Eriksen, O.W., "Unconscious processes", Nebraska Symposium on Motivation, 1958, Lincoln: Univ. Nebr. Press, 1958, 207.
- Eriksen, O.W., and Browne, O.T., "An experimental and theoretical analysis of perceptual defense", J. abnorm. soc. Psych., 1956, 224-230.
- Hastorf, A.H., and Myro, G., "The effect of meaning on binocular rivalry", Amer. J. Psych., 1959, 72, 393-400.
- Hendricks, I., Facts and theories of psychoanalysis, New York: Knopf, 1948.
- Lo Sciuto, L.A., and Hartley, E.L., "Religious affiliation and open mindedness in binocular resolution", Per. mot. Skills, 1963, 17, 427-430.
- McGinnies, E., "Emotionality and perceptual defense", Psychol. Rev., 1949, 56, 244-251.
- Moore, M., "Aggressive themes in a binocular rivalry situation", J. Pers. Soc. Psych., 1966, 3, 685-688.
- Shelley, L.V., and Toch, H.H., "The perception of violence as an indicator of adjustment in institutionalized offenders", J. Crim. Law and Pol. Sci., 1962, 53, 463-469.
- Toch, H.H., and Schulte, W.H., "Readiness to perceive violence as a result of police training", Brit. J. Psych., 1961, 52, 389-393.
- Winer, B.J., Statistical principals in experimental design New York: McGraw-Hill, 1962.



## **▲APPENDIX**

Table 1

## Behavioral Characteristics of the Groups

---

---

historically violent aggressive and currently aggressive	historically non-violent aggressive and currently aggressive	historically non aggressive and currently aggressive
--	--	--

---

historically violent aggressive and currently non aggressive	historically non-violent aggressive and currently non aggressive	historically non aggressive and currently non aggressive
--	--	--

---



Table 2

## Mean Ages of the Groups

	historically violent aggressive	historically non-violent aggressive	historically non aggressive
currently aggressive	15 yrs. 5 mo.	15 yrs. 4 mo.	14 yrs. 11 mo.
currently non aggressive	16 yrs. 2 mo.	15 yrs. 6 mo.	15 yrs. 2 mo.

Table 3

## Analysis of Variance of Number of Violent Perceptions

Source	SS	df.	MS	F
current	19.0	1	19	7.22*
history	36.0	2	18	6.84**
inter- action	59.0	2	29.5	11.21**
error	126	48	2.63	-
total	240	53	-	-

\* $p < .025$   
 \*\* $p < .01$

Table 4

## Paired Comparisons of Mean Differences

A-historically violent aggressive      a-currently aggressive V-historically non-violent aggressive    n-currently non ag- N-historically non aggressive            gressive				
Pair	Groups	#steps	t	significance (df.48)
1.	Aa x An	6	-6.17	.01
2.	Va x Vn	3	-3.50	.05
3.	Na x Nn	2	2.93	.05
4.	An x Vn	2	-0.78	ns
5.	An x Nn	4	5.35	.01
6.	Vn x Nn	5	6.80	.01
7.	Aa x Va	4	-4.11	.05
8.	Aa x Na	3	-3.91	.05
9.	Va x Na	2	0.20	ns
10.	Aa + An x Va + Vn	2	-3.37	.05
11.	Va + Vn x Na + Nn	3	4.24	.05
12.	Aa + An x Na + Nn	1	-0.87	ns
13.	a x n	-	-1.86	ns

Table 5

Mean Number of Violent Perceptions per Group

	historically violent aggressive	historically non-violent aggressive	historically non aggressive
currently aggressive	2.00	4.22	4.11
currently non aggressive	5.33	6.11	2.44

Table 6

## Delineation of the Historically Non-Violent Aggressive Group

Type of historical behavior	Behavior in institution	Number of S's	Number of violent percepts
1. strong-arming	aggressive	2	4, 6
2. threatening with a weapon	aggressive	2	4, 3
3. armed robbery	aggressive	2	6, 4
4. armed robbery	non aggressive	5	7, 7, 5, 5, 4
5. homosexual molestation	non aggressive	3	9, 7, 6
6. heterosexual molestation	aggressive	4	5, 5, 4, 2

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 03178 3875