

THE USE OF LANGUAGE CONDITIONING PROCEDURES TO
REDUCE AGGRESSIVE BEHAVIORS IN CHILDREN

By

JOHN PAUL MALY

Bachelor of Science

Oklahoma State University

Stillwater, Oklahoma

1974

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
MASTER OF SCIENCE
July, 1977

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Thesis Approved:



Thesis Adviser







Dean of the Graduate College

PREFACE

This study was concerned with the effects of language conditioning on children's aggression. If children's aggression can be reduced in a classroom environment, then teachers, instructors, and administrators would have more time to pursue their pedagogical or administrative duties. This study also examined various psychological instruments that were used to measure the children's aggression.

I wish to thank David W. Perrin, my thesis adviser, for all the time and effort he devoted to this study. In particular, I wish to thank him for his statistical advice, his continued support and guidance as well as his considerable help in the preparation of the final manuscript. I would like to express my appreciation to committee members Bill Elsom and Paul Warden for their patience and helpful ideas in planning this study.

Thanks also go to the students in Applied Behavioral Studies and Psychology, my wife Karen, Mark Keeley, Allen and Shelly Buntman, Marty Anderson, Kingsley Lentz, Dean Kerasotas, Don Austin, Greg McCarty, Trish Zigrang, and Jeff Feuquay for their efforts in this study. Special emphasis must go to Tom Parish for his advice in the design and procedure of this study.

Thanks also go to my parents, Mr. and Mrs. Joe W. Maly, for all the encouragement and financial support they have provided throughout my academic career.

Thanks is given to Mrs. S. K. Phillips for her valuable suggestions concerning style and for her able assistance in typing the manuscript.

Finally, special gratitude is expressed to my wife, Karen, for her understanding, patience, and many sacrifices.

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CHAPTER I

INTRODUCTION

Behavior problems in an academic environment have long caused concern among psychologists and school personnel. The treatment of these behavior problems has taken place in the classroom, clinics, and homes by psychologists, parents, and teachers (Selg, 1971). Various symptoms have been treated, such as verbal aggression (Brown and Elliot, 1965); disruption of lessons (Ward and Baker, 1968); fits of rage (Zimmerman and Zimmerman, 1962); and violent aggression (Bostow and Baily, 1969).

These previous treatment methods involved the use of reinforcement procedures to reduce aggression and enhance cooperative or constructive behavior by the problem child. When psychologists were not used as therapists, teachers and parents were trained to deal with these problem children (Hall, Panyon, Rabon, and Broden, 1968; Williams, 1959). The duration of treatments in these studies ranged from 10 days in the Williams (1959) study, 15 sessions in the Hall, et al. (1968) study, 5 weeks in the Ward and Baker (1968) study, and up to 180 days in the Wolf, Risley, and Mess (1964) study. This constitutes a considerable amount of time for the training of teachers and the treatment of problem behaviors.

Language conditioning procedures have several advantages over operant or reinforcement procedures. One of these advantages is that language conditioning procedures are very easily administered. For example, language conditioning has traditionally been administered to groups, whereas, reinforcement techniques may be administered in a group setting but each aspect of a problem students' behavior must be evaluated and then individually reinforced or punished. Thus, a teacher who is conducting a class must take time out to focus his attention on problem behaviors by either choosing to reinforce, punish or ignore that particular behavior. Operant procedures must also be continuously evaluated as to their appropriate application of reinforcement or punishment to insure that proper contingencies to certain behavior are learned. Reinforcement procedures and language conditioning procedures differ in that reinforcement is a reaction to emitted behaviors, whereas, language conditioning elicits these responses and then associates a preplanned strategy for learning. The experimenter believed that language conditioning procedures would be more effective in reducing the aggression of subjects because these procedures would associate relevant stimuli to specific responses more often than would reinforcement procedures. This was the basic reason language conditioning was chosen to modify the children's aggression in this study.

The purpose of the present study was to reduce children's aggression in a classroom environment without the intervention of parents, teachers, or school administrators using a minimum amount of time. Language conditioning procedures, which have been used to successfully

modify attitudes (Parish, 1974) and school behaviors (Parish, Buntman, and Buntman, 1976; Early, 1966), were used in an attempt to reduce children's aggressive behavior. Successful implementation of these procedures would have allowed teachers more time for pedagogical efforts while treating the problem behaviors exhibited by children.

CHAPTER II

REVIEW OF LITERATURE

A large body of literature has been published on the topic of aggression. A very small portion of this literature deals with the use of language conditioning procedures, while many studies have been conducted using reinforcement procedures. These language conditioning and reinforcement studies of aggression have shown that certain factors, such as modeling effects, sex of the person(s) under consideration, and catharsis of aggression may effect the exhibition of aggression. The purpose of this chapter is to familiarize the reader with the development and principles of language conditioning procedures as well as the various factors which might have effected the outcome of the use of these procedures. The measurement of aggression will also be introduced, specifically, the instruments used to measure aggression in the present study.

Language Conditioning

Language conditioning is a basic learning principle derived from the theory of classical conditioning. The learning principle of classical conditioning was proposed in Russia about 1900 by Ivan Pavlov. At approximately the same time, John Watson, an American psychologist, was applying classical conditioning principles to human

learning. What Pavlov and Watson did was to associate originally neutral objects with stimuli that elicited an observable emotional reaction from the subject. As a result of these associations, there occurred a transference of affect from the emotion evoking stimulus to the originally neutral stimulus. Thus, learning through association laid the ground work for language conditioning procedures.

Some psychologists (Osgood, 1952, 1953; Mowrer, 1954; Staats and Staats, 1957, 1958, 1963) contend that the principles involved in learning the emotional meaning of words appear to be primarily those of classical conditioning. They have proposed that a minimal but distinctive portion of the emotional response originally elicited by an emotionally meaningful object may become attached to the word which refers to the object. In their paradigm, after several pairings of the word and the object, the word is presented without support of the object and should elicit the emotional part of the total reaction which originally accompanied the emotionally meaningful object (Osgood, 1953). An example of this conditioning process is when a child is told "bad" and is spanked for some inappropriate behavior. Thus, Staats and Staats (1963) and Doob (1947) have stated that if the appropriate emotional responses are made when the word "bad" is presented, it can be said that the child has learned the meaning of the word through the transference of the emotional reaction from the originally emotionally meaningful stimulus to the originally neutral word. Therefore, the child ceases the inappropriate behavior when the word "bad" is stated.

Once the emotional or affective meaning of words have been established, then it is possible to transfer these emotional or affective responses to other words (Staats, Staats and Heard, 1960) or behaviors (Early, 1968). This conditioning procedure, referred to as higher-order conditioning, is involved in the formation of attitudes (Staats, et al., 1960) and/or the elicitation of behaviors (Parish, et al., 1976). This higher-order conditioning has also been named language conditioning by Arthur Staats (1974) and his terminology is used in the present study.

Language conditioning may employ, depending on the individual, a counter-conditioning paradigm. For instance, a child may find viewing aggression or acting out aggression as very positive. In fact, Feshbach and Feshbach (1971) have suggested that the reinforcing value of aggressive behavior is probably the single most important factor affecting the learning and performance of aggression. If the child perceived aggression as positive, then counter-conditioning would be necessary to counteract the positive value of aggression by the punishing value of the contiguous negative stimuli. However, if some child already viewed aggressive behavior as negative, then the negative tendency towards aggression would be supported and not counter-conditioned. Therefore, it is very possible that some children in the study experienced counter-conditioning of positive attitudes toward aggression, while others were having their previous negative attitudes about aggression supported.

Several studies using both animals and humans have shown that aggressive behavior is susceptible to conditioning. For instance,

classical conditioning (not language conditioning) procedures have been used to induce aggressive acts in rats. Farris, Gideon and Ulrich (1970) and Vernon and Ulrich (1966) classically conditioned rats to fight when they were presented with previously neutral stimuli. Parich, Maly and Shirazi (1975), on the other hand, used language conditioning procedures to reduce aggressive behavior in children. This was accomplished by pairing negatively evaluated words with pictures of children behaving aggressively. Parish, et al. (1975) found those children who experienced the language conditioning to be less aggressive than their control counterparts.

Early (1968), in her experiment involving fourth and fifth grade children, associated positively evaluated words with the name of a child who was a social isolate. She also paired the name of nonisolate children with neutral or nonevaluative words. Following this language conditioning procedure, Early (1968) reported a significant increase in the number of interactions between the social isolate and school peers. This increased number of personal interactions remained at a constant level following treatment for at least one week. Parish, et al. (1976), using language conditioning procedures, paired positively evaluated words with school related slides. These slides showed children and often times teachers interacting in a cooperative way. Once the conditioning treatments were completed, those children experiencing the conditioning (i.e., positive words and cooperative school scenes) scored significantly higher (scale scores) on the digit-span test of Wechsler's Intelligence Scale for Children. According to Parish, et al. (1976), the text anxiety of

these children was reduced because they had experienced the language conditioning procedures. Parish, et al. (1975), found language conditioning procedures to be effective in reducing children's aggressive behaviors. The present study also focused on reducing the aggression of children using the same type of procedure (language conditioning).

For this study, the basic language conditioning paradigm consisted of pairing a word which has negative emotional/affective meaning with pictures (slides) of children displaying aggressive behavior in a playground setting. The present study used negative words, which, according to Staats (1967), have the qualities of punishers when associated with any contiguous stimuli. It was thought that the association of words having punishing qualities with scenes of aggression would ultimately result in aggression acquiring a negative emotional/attitudinal meaning and thereby reduce aggressive behaviors. This is consistent with Staats (1967), who stated that words which acquire the capacity to elicit emotional or attitudinal responses will also function as reinforcers or punishers in the learning of instrumental behaviors.

The present study used a modified version of the language conditioning procedure used by Parish, et al. (1975). The modification in the procedure was necessary due to the lack of consistency between language conditioning theory and the procedure used by Parish, et al. (1975). For example, in the Parish, et al. (1975) procedure, negative and neutral stimuli were contiguous which would allow for the association of these stimuli. Theoretically, this would make the negative

stimuli become more neutral, thus reducing the effectiveness of the punishing stimuli. In the present study, a blank slide was inserted between the negative word and the neutral word so a nonevaluative stimuli would be associated with the negative/punishing word.

Two other modifications of the Parish, et al. (1975) study were made. One was the use of individual scores rather than the group scores used in the Parish, et al. (1975) study. The other was the use of several psychological instruments to assess aggression in children, whereas the Parish, et al. (1975) study used only a behavioral observation score as the response measure.

Other Factors Influencing Aggression

Several factors have been found to influence the aggression displayed by children. An awareness of these factors is necessary due to the possibility of the confounding of these factors with the language conditioning procedure. The present study used scenes of aggressive behavior which quite possibly could have been modeled or have had a cathartic effect on the subjects. Sex differences in aggression have been demonstrated by previous researchers (Johnson and Medinnus, 1974; Feshbach and Feshbach, 1971) and the present study employed both male and female subjects.

Modeling

As described by Bandura and his associates (e.g., Bandura, Ross and Ross, 1963; and Bandura and Walter, 1963), the imitation of models (modeling) plays a significant role in both inducing and reducing

aggression. For example, the reinforcement of the aggressive acts of models has been shown to induce aggression in observers (Bandura, Ross and Ross, 1963). In these same studies, however, it was shown that the frequency of aggressive acts by observers could be reduced if the models they observed were punished for the aggressive behaviors they performed. Bandura (1965) states that most forms of modeling involve responses in which subjects combine behavioral elements into new compound responses solely by observing the performance of models, without any opportunity to perform the model's behavior at the time of exposure. Thus, modeling may take place without immediate reinforcement. The present study used pictures of children displaying aggressive behaviors and the modeling of these behaviors by subjects may have had an effect on the results of the experiment. However, the children displaying aggression in the slides were neither being reinforced or punished; therefore, the effect of modeling was considered to be at a minimum.

Catharsis

Catharsis, an extension of psychoanalytic theory, holds that a child can "get aggressive impulses out of his system" (Ross, 1974), by either giving these presumed impulses verbal expression or by the vicarious experience of observing aggression depicted in the form of film or television programs. Thus, by simply viewing the pictures (slides) of aggression, a child's own aggressive behavior may be reduced. Previous research (Bandura, Ross and Ross, 1963; Hicks, 1965; Feshbach, 1955), has shown that modeling rather than catharsis tends

to prevail when children are shown films or pictures of aggressive behavior. Therefore, the present experiment employed aggressive scenes, but these scenes are not expected to have any cathartic effect. If, in fact, there is some cathartic effect, then the strength of the present language conditioning procedure would be enhanced.

Sex Effects

The sex of the child has been shown to be related to aggression, according to Johnson and Medinnus (1974), who have stated that boys tend to be more aggressive than girls. In order to control for this relationship, sex was included as a variable in the present study.

Measuring Aggression

The purpose of this section is to familiarize the reader with the various measures of aggression used in the present study. The measures were the standard Rosenzweig Picture-Frustration Study, a revision of the Rosenzweig Picture-Frustration Study, Naylor's Check List and an observation measure.

The Rosenzweigs

The children's form of the standard Rosenzweig Picture-Frustration Study was first published in 1948 (Rosenzweig, Fleming and Rosenzweig, 1948). The standard Rosenzweig is intended for the age range four to thirteen. The standard Rosenzweig consists of 24 cartoon-like pictures, each of which represents a frustrating situation involving two persons in everyday situations. One of the

pictured individuals, on the left of the item, is shown saying something which either frustrates or helps to describe the frustration of the other character; and this other individual is drawn with a caption box above his head which the subject is instructed to fill (Rabin and Haworth, 1960; see Appendix A). He is to do so by writing the very first words that he thinks the character might say in that situation.

The revised Rosenzweig differs from the standard Rosenzweig only in the instructions given to the subject (Appendix B). The revised Rosenzweig specifically asked the student to fill in the answer as if he were the child pictured in the cartoon, while the standard Rosenzweig simply asks the student to describe what the child pictured in the cartoon would say.

According to Rosenzweig, et al. (1948), the test he developed is a projective or semi-projective instrument. That is, children should reflect their own attitudes into the question, thus answering them as if they were the individual in the frustrating situation. It was the contention of the investigator that the instructions for the revised Rosenzweig would reduce the need for the examinee to interpret what the child in the picture would do. Under the standard Rosenzweig instructions the child must assess the pictured situation and the child in the picture. Such an assessment requires that the examinee project (interpret) what another person would do. The revised Rosenzweig instructions asked the examinee to respond as if he were the child in the picture, thus eliminating the need to project the actions of the pictured child. If the projection (interpretation) is considered as error variance, then individual differences should

be more accurately measured by the revised Rosenzweig than by the standard Rosenzweig. This increase in accuracy (removal of error variance) should result in the revised Rosenzweig scores being less variable than the standard Rosenzweig scores. Additionally, the revised Rosenzweig scores should be more valid measures of aggression and, therefore, have higher correlations with other measures of aggression than the standard Rosenzweig scores.

Three scores from both the standard and revised Rosenzweig were used to determine the direction of aggression each child exhibited. Specifically, the extrapunitive (E), intrapunitive (I), and impunitive (M) scores were used to determine the direction of aggression. The E score represents an extrapunitive direction of aggression in which aggression is turned onto the environment and the obstacle in the frustrating situation is insistently pointed out (Pareek, 1959). The I score represents the intrapunitive direction of aggression in which the aggression is turned by the subject onto himself or in some instances the subject emphasizes the extent of his embarrassment being involved in instigating another's frustration (Rosenzweig, et al., 1948). Finally, the M score represents the impunitive direction of aggression in which aggression is evaded in an attempt to gloss over the frustrating situation (Rosenzweig, et al., 1948).

In a study by Linzey and Goldwyn (1954), a significant correlation between extrapunitive and observers rating of behavioral aggression ($r=.42$) was obtained. In a project involving 157 fifth grade pupils, Levitt and Lyle (1955), established relationships between standard Rosenzweig scores and a Problem Situation Test (PST). The

PST required the subjects to check multiple choice responses to a series of hypothetical situations covering typical misbehavior of children. The responses were designed to be scored as punitive or nonpunitive. From the results of this scale, two extreme sub-groups were selected--24 children with the highest and 28 children with the lowest scores (high or low punitiveness). The standard Rosenzweig was administered to these subjects about a year later. Comparisons revealed that the high and low groups on the PST differed significantly in their standard Rosenzweig scores for extrapunitiveness, intrapunitiveness and impunitiveness. The high group had distinctly higher E scores, lower I and M scores (Levitt and Lyle, 1955).

Other studies, too numerous to mention, have also utilized the standard Rosenzweig scores. These were done in experimental, clinical and cultural studies (see Pareek, 1959). Some of these studies have shown the standard Rosenzweig to be a valid instrument, while others have questioned its validity. However, Rabin and Haworth (1960) reported that the standard Rosenzweig has been found to be a useful instrument in a variety of clinical and non-clinical research applications.

Reliability coefficients range from (.26 to .73) for the children's form (Rosenzweig, et al., 1948). Reliability for the three scores used in this study have been reported to be as follows: E=.82; I=.57; and M=.62 using a split-half, odd-even method (Rabin and Haworth, 1960). Retest reliabilities are somewhat lower, except for the I scores and are as follows: E=.69; I=.65; and M=.57 (Rabin and Haworth, 1960).

The scores of both the standard and revised Rosenzweig were abbreviated in this study so the reader could easily discriminate among them. An RRZ prefix was used to denote the revised Rosenzweig scores (i.e., RRZE, RRZI, and RRZM), and an RZ prefix denoted the standard Rosenzweig scores (i.e., RZE, RZI, and RZM). The letter following the prefix represented the direction of aggression (i.e., extra-punitive, intrapunitive, and impunitive).

Naylor's Check List

A portion of Naylor's Check List (Naylor, 1952) was also used to measure the children's aggression (Appendix C). This portion was selected because other portions of the list were better suited for the evaluation of juvenile delinquents rather than normal children. The portion selected could be used for normal as well as delinquent children to evaluate the overall profile of aggressive tendencies. The portion used consisted of five point rating scales ranging from an unfavorable trait such as aggressive to a favorable trait such as nonaggressive or friendly. Megargee (1966) used this portion to reflect higher scores on the unfavorable traits such as aggressive, with juvenile delinquents as subjects. Megargee (1966) did not report reliability coefficients and Naylor's Check List did not appear in the standard test catalogs (e.g., Mental Measurement Yearbook, Buros, 1965; Tests in Print, Buros, 1961). The face validity, however, is apparent and Megargee (1966) provided evidence for the instruments construct validity since the extrapunitive scale effectively discriminated between delinquents labeled as extremely assaultive or

moderately assaultive (labeling was based on the records of criminal offenses). The pre- and post-evaluation of children's aggressive behavior using Naylor's Check List were abbreviated PRENAY and POSTNAY, respectively.

The Observational Instrument

The fourth instrument used in the present study was devised by Parish, et al. (1975). The instrument consists of a list of behaviors rated as aggressive and columns for scoring the number of aggressive behaviors observed during a specific time period (Appendix D). This instrument was used to measure differences in the aggression of three groups of children in a study conducted by Parish, et al. (1975). The average interjudge reliability was found to be .69 and ranged from .13 to 1.0 for nine pairs of judges using a Spearman Rank Order Correlation technique. The total number of aggressive behaviors was used to determine the aggression scores of groups of children used in the Parish et al. (1975) study. The observation score has been abbreviated OBS.

Hypotheses

It was hypothesized that children who receive language conditioning treatment procedures would obtain significantly lower scores on the post-treatment measures of aggression (i.e., RRZE, RZE, OBS, and POSTNAY). These same children would also obtain higher scores (less overt aggression) as shown by the other post-treatment measures (i.e., RZI, RRZI, RZM, and RRZM). Another hypothesis was that females would

score significantly lower on the post-treatment measures RZE, RRZE, OBS, and POSTNAY and higher on RZI, RRZI, RZM, and RRZM.

It was also hypothesized that the revised Rosenzweig RRZE, RRZI, and RRZM scores would be significantly less variable than the respective standard Rosenzweig scores (i.e., RZM, RZI, and RZE). For instance, the variance of the RRZE scores would be significantly less than the variance of the RZE scores. The other combinations are RRZI vs. RZI and RRZM vs. RZM. The revised Rosenzweig scores will also have higher correlations with other response measures (i.e., OBS, PRENAY, and POSTNAY) than the standard Rosenzweig scores.

CHAPTER III

METHOD

The present study was designed to reduce aggressive behavior of children by the use of language conditioning procedures. Subjects were divided into three groups containing males and females. One group received language conditioning procedures (treatment and conditioning, T,C group), a second received a treatment/but/no/conditioning (T,No group) and lastly a group which received neither the conditioning nor treatments (NoNo group).

Aggression exhibited by the children was measured by a behavior observation, two administrations of a semi-projective instrument, and a behavior rating scale. The scores obtained on these instruments were used to determine group differences or equivalently the assessment of the effectiveness of language conditioning procedures.

Subjects

Ninety-five children (54 boys and 41 girls from 108 to 150 months of age) in fourth, fifth, and sixth grade served as subjects in this experiment. These children were predominately Caucasian; however, Blacks and American Indians (n=8) were also represented in the sample. The children attended Perry Elementary School, Perry, Oklahoma and were from any one of four separate homeroom classes in the school.

The teachers of these four classes (two male and two female) volunteered to cooperate with the experimenter during the course of the study. Several students, up to six (four girls and two boys) were excluded from some of the statistical analyses due to missing data on particular variables. Thus, some analyses had no missing data and in other procedures up to 6.3% of the sample was missing. The principal reasons for the missing data were either student absences and/or the subjects' inability to complete a majority of the items using either form of the Rosenzweig Picture-Frustration Study (the semi-projective instrument). Approximately 25% of these children had served in a similar experiment (Parish, et al., 1975) during the previous school year.

The 95 children were randomly assigned to one of three groups, the treatment conditioning group (T,C), the treatment no conditioning group (T,No), or the no treatment no conditioning group (NoNo). The randomization procedure distributed the subjects so that approximately one-third of each class was in each group. The males and females were separately assigned so that each group had approximately the same number of males and females. The resulting procedure assigned 18 males and 14 females to each group with the exception of the T,C group which received one less female.

Procedure

Each subject's respective homeroom teacher was asked to evaluate his students using Naylor's Check List to determine the students' pre-treatment aggression score. Teachers were not knowledgeable of the group assignment of the students.

Six treatment sessions took place over 18 days. Each treatment session was conducted in a classroom available during the treatment times (treatments took place from approximately 8:20 a.m. to 9:00 a.m., on Mondays, Wednesdays, and Fridays). The first session began on a Friday and the last treatment was on a Monday. This time span allowed the experimenter eight opportunities for treatment sessions; however, a Monday and Friday opportunity were not used. This accounted for the last session occurring on a Monday.

A T,C group treatment session consisted of thirty sequences of four slides. Each sequence consisted of a slide of a neutral word, followed by a picture of children behaving aggressively in a playground setting, followed by a negatively evaluated word, followed by a blank slide (see Appendix E for the word lists). Specifically, children in the T,C group viewed a five second slide presentation of a neutral word, a five second presentation of an aggressive scene, a five second presentation of a negatively evaluated word, and finally, a five second presentation of a blank slide. This procedure was repeated 30 times and made up one treatment session using language conditioning procedures.

The T.No group observed exactly the same slide of neutral words, aggressive scenes, negative words, and blank slides. However, this procedure did not contain the language conditioning because of the order of presentation of the slides. The children experienced these slides in five second time periods as did the T,C group, but the order of presentation of the slides was altered. Each category of slides (negative word, neutral word, and aggressive scene) was viewed

consecutively with a blank slide occurring every fourth slide. For example, all thirty negative words were viewed, followed by all thirty aggressive scenes, followed by all thirty neutral words with a blank slide occurring every fourth slide in each category. The ordering of the categories for each T,No group treatment session was random (a category could have been first, second, or third) as well as the ordering within the categories (any word or scene had an equal chance of being first or last). Thus, thirty slides of each category at five second intervals (blank every fourth slide) made up one treatment, no conditioning session.

In order to facilitate attention during treatment sessions, both the T,No and the T,C group were instructed to say each word as it appeared on the movie screen. Children in both groups were told that saying each word would probably aid in their spelling and vocabulary skills (Appendix F).

The NoNo group did not leave their classrooms while treatments were being administered to the other two groups. No special instructional activities were undertaken in the classroom while treatments were being administered in another classroom.

The slides of negative and neutral words as well as the slides of aggressive scenes employed in this experiment were previously used in other research. The negative and neutral words were derived from lists of words compiled by Parish (1969, 1972), Staats and Staats (1958) and Parish, et al. (1975). The slides of aggressive scenes were those used by Parish, et al. (1975).

Following four of the treatment sessions the experimenter visited each of the four classes for one hour and fifteen minutes (total visitation time for the experiment was five hours). This procedure was undertaken to desensitize the children to the presence of observers who would appear in the classes later in the experiment. These visits were in the afternoon so that all three groups of children experienced the desensitization procedure.

Observer Training and Reliability

Prior to the experiment a fifteen minute video tape was made to use in evaluating the congruence of observers' ratings. The video tape pictured four male grade school students play acting aggressive behavior in a classroom environment. The tape was made by listing the aggressive behaviors on a blackboard, then as the experimenter pointed to these behaviors (e.g., hitting, biting, kicking, etc.) one or more of the students displayed that specific behavior. The list of aggressive behaviors exhibited in the video tape was taken from the scoring sheet used for recording aggressive behaviors (Appendix D).

Observer congruency was evaluated using the video tape in conjunction with the scoring sheet for recording aggressive behaviors. Each of the twelve observers (three females and nine males) were graduate students with the exception of one undergraduate male observer. All observers were majoring in the behavioral sciences in psychology, educational psychology, clinical psychology, or human development.

While viewing the video tape each observer tabulated the number of aggressive behaviors of the same target child using the scoring

sheet. The number of aggressive behaviors in each category was then tabulated and rank ordered. Once the rank ordering was completed a Kendall's Coefficient of Concordance (Siegal, 1956, pp. 229-238) was computed. The experimenter felt that the resultant value ($k=.81$) indicated an unacceptable level of congruency among observers. Therefore, the deviation between each observer's ranking of each category and the mean ranking of that category by all the observers was computed. These deviations were then totaled for each observer. Three observers' total deviations were considerably higher than the other nine. These three observers were informed as to the magnitude and direction of these deviations and, following a second observation, rescored the target child's behaviors. Observer congruency was again evaluated with a resulting $k=.89$, which the experimenter accepted as evidence that observers were sufficiently congruent in their ratings.

Post-Treatment Tests and Evaluations

Several measures were taken once the treatments were completed. The measures included first an observation score, a teacher's evaluation of students' aggressive behaviors using Naylor's Check list, and lastly, the administrations of both the revised and standard Rosenzweig Picture-Frustration Study.

Observations

Three observers were randomly assigned to each of the four classrooms to observe the children. The subjects they were to observe had been randomly assigned to them. Two observation sessions

of 45 minutes each were needed to observe each child for a total of 11 minutes. The first observation session began the afternoon following the last treatment session and the second observation session took place the morning of the next day.

During the two observation periods the children were in their own classroom with their own homeroom teachers. Teachers agreed to have their classes participating in an unstructured activity while the observations were taking place (Appendix G). This allowed for more interactions between students than would normally occur during these classes. Nametags were worn by the child so that observers could readily identify the students they were to observe.

The scoring sheet for recording aggressive behaviors (Appendix D) was used to organize the aggression scores obtained by each child. The observation score (OBS) represented the total number of aggressive responses recorded during the 11 minute observation.

Naylor's Check List

Naylor's Check List (Appendix C) was filled out by teachers to evaluate the behavior of children in their class (POSTNAY). Teachers were aware that one-third of their class (NoNo group) had remained in the classroom during treatments. However, the teachers were not informed as to which treatment group (T,No or T,C) experienced the language conditioning.

The recording sheet for the PRENAY and POSTNAY scores (Appendix C) contains five bipolar scales. These bipolar dimensions are counterbalanced and are assigned a score from one to five. The higher

the score, the greater the tendency towards aggression and negative traits. Therefore, the most positive traits would receive a score of one, with the most negative a score of five. These scores were then totaled, yielding a total score ranging from five to twenty-five. Scoring of the pre- and post-treatment Naylor's Check List was exactly the same.

Administration of the Rosenzweigs

Once the observations were completed, the children were administered both the standard and revised form of the Rosenzweig Picture-Frustration Study. The revised form was administered first followed by the standard Rosenzweig. These tests were administered to each class as a group by the appropriate homeroom teacher. The tests and instructions appear in Appendixes A and B.

The scoring blank for the two forms of the Rosenzweig Picture-Frustration Study (Appendix H) was used in conjunction with the scoring procedure suggested by Rosenzweig, et al. (1948). Thus, subject's responses were assigned scores representing either an extrapunitive, intrapunitive, or impunitive direction of aggression.

Data Analysis

Purpose The data obtained by the various response measures were analyzed to determine if language conditioning procedures were effective. These response measures were scores obtained with Naylor's Check List (PRENAY and POSTNAY), scores obtained using the revised Rosenzweig (RRZE=extrapunitive score; RRZI=intrapunitive score; RRZM=impunitive score),

scores obtained using the standard Rosenzweig (RZE-extrapunitive; RZI=intrapunitive; RZM=impunitive), and an observation of aggression score (OBS).

These data were analyzed using eight 2 X 3 factorial analyses of covariance. The two dimensions were the sex of the subject and the three different treatment conditions/groups (T,C; T,No; NoNo). The covariate used was the score obtained prior to treatment using Naylor's Check List (PRENAY). The eight response measures were those listed in the previous paragraph.

A Pearson r correlation matrix was constructed to examine the relationship between each of the response measures. This matrix also included the PRENAY score which was used as the covariate in the analyses of covariance. This matrix was used to evaluate the criterion-related validity of the various instruments.

The next analyses performed compared the correlations of the standard Rosenzweig scores with OBS, PRENAY, and POSTNAY to the correlations of the revised Rosenzweig scores with the same three measures. This test evaluated whether the revised Rosenzweig scores correlated with OBS, PRENAY, and POSTNAY to a greater degree than the standard Rosenzweig scores. This test would answer the question about significant differences in criterion validity between the revised and standard Rosenzweig.

The last analyses performed compared the variances of the revised and standard Rosenzweig scores. The purpose of this test was to determine if one of these instruments was more sensitive to individual differences (variance) than the other.

Summary

Method

Each subject was first evaluated by teachers using Naylor's Check List and then administered treatments depending on his group membership. Following the treatments the subjects were observed using an observational instrument, evaluated again using Naylor's Check List, and finally administered both forms of the Rosenzweig Picture-Frustration Study. Observers were trained prior to observation and a measure of observer congruency was calculated. Three observers received some additional training in an effort to increase observer congruency which the experimenter felt had been inadequate after the initial training. Various statistical procedures were conducted, the results of which are presented in the next chapter. $K = .89$

CHAPTER IV

RESULTS

The results of this study are presented in two sections. The first section reports the results of the eight separate analyses of / convariance. ^{were calculated} Within this section, results are grouped by effect (i.e., treatment effects are presented first, followed by sex, interaction, and covariate effects). The second section reports the results obtained with a Pearson r correlation matrix for all response measures. Next, the results of the test between correlations of the standard and revised Rosenzweig scores with the observation measure are reported. Lastly, the results of the test for equality of variances for the two Rosenzweigs is reported.

Analyses of Covariance

No statistically significant treatment effects were obtained using the various dependent measures. In fact, probabilities associated with the F statistics used to test the effect of the treatments were equal to or greater than .999, with the exception of the analysis for the RRZE scores. The probability associated with the appropriate observed value of F for this analysis was .123. Results of the eight analyses of covariance are presented in Table I.

TABLE I
ANALYSIS OF COVARIANCE SUMMARY TABLES FOR
EIGHT DEPENDENT MEASURES

SCALE	DF	COVARIATE	TREATMENT	SEX	SEX X TMT	WITHIN
OBS	91					
MS		1.710	7.490	78.242	14.482	10.935
F		.156	.685	7.155**	1.324	
POSTNAY	95					
MS		511.528	1.009	11.385	1.482	3.238
F		157.994**	.312	3.517	.458	
RZE	88					
MS		454.378	23.809	15.409	352.600	389.751
F		1.166	.061	.040	.905	
RRZE	89					
MS		870.651	280.077	687.622	118.052	133.359
F		6.529*	2.130	5.156*	.885	
RZI	88					
MS		20.083	42.823	6.601	86.993	49.119
F		.409	.872	.134	1.177	
RRZI	89					
MS		149.549	19.843	59.318	190.025	27.240
F		5.470*	.726	2.170	6.950**	
RZM	88					
MS		6.775	42.818	21.919	9.857	104.266
F		.065	.507	.210	.095	
RRZM	89					
MS		172.874	38.831	.081	61.003	69.177
F		2.499	.561	.001	.882	

*p<.05

**p<.01

Note: Numerator df=1 for sex, numerator df=2 for treatment and treatment X sex.

The observation data (OBS) and the revised Rosenzweig extra-punitive score (RRZE) indicated a statistically significant sex effect (see Table I). For OBS scores, the computed F was 7.15 (df=1/85, $p < .01$) and for the RRZE scores the computed F was 5.55 (df=1/83, $p < .01$). Examination of the adjusted means (Table II) indicated that the female subjects OBS and RRZE scores were lower than those for the males. No statistically significant differences between the sexes were observed for the other six response measures (see Appendix I).

TABLE II
SEX EFFECT ADJUSTED AND UNADJUSTED MEANS
FOR OBS AND RRZE

	UNADJUSTED MEANS		ADJUSTED MEANS	
	OBS	RRZE	OBS	RRZE
MALE	3.38	29.56	3.37	29.29
FEMALE	1.49	23.31	1.50	23.67

The treatment by sex interaction was statistically significant only for the analysis of the revised Rosenzweig intrapunitive scores (RRZI). For this analysis $F=6.96$ (df=2/83), $p < .01$ (Table I). A post hoc comparison of the sex RRZI cell means (Table III) using the Scheffe method (Kerlinger and Pedhauzer, 1973) indicated that female subjects in the T,No group (treatment, no conditioning) were significantly more intrapunitive than males in the same group, $S=6.49$ (df=5/83), $p < .05$ (see Figure 1). No statistically significant

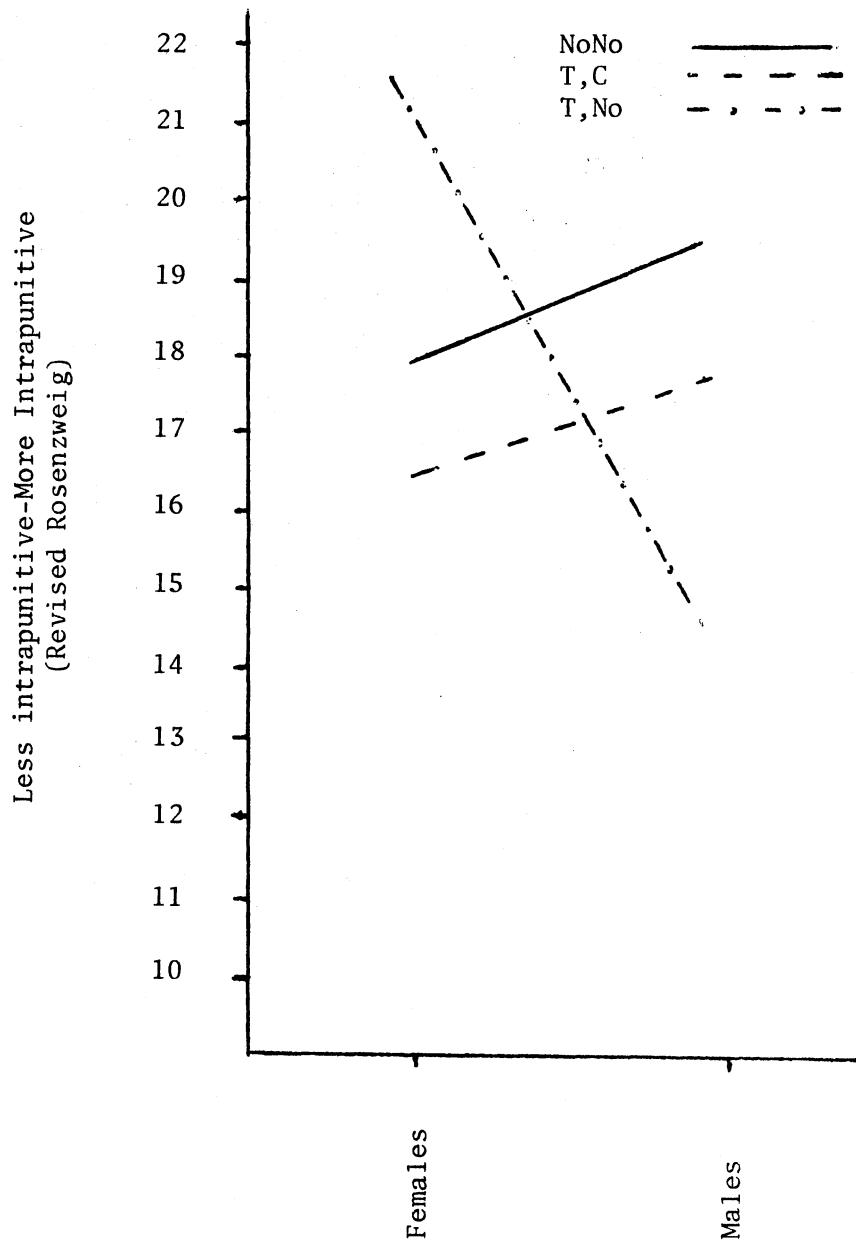


Figure 1. Treatment by Sex Interaction on RRZI

interaction effects were observed for the other response measure. However, the figure in Appendix J indicated that the standard Rosenzweig intrapunitive scores appear very similar.

TABLE III
TREATMENT BY SEX INTERACTION ADJUSTED AND
UNADJUSTED MEANS FOR RRZI

GROUP	N	RRZI UNADJUSTED MEANS	RRZI ADJUSTED MEANS
<u>NoNo</u>			
Females	14	18.000#	17.876
Males	16	19.375	19.457
<u>T,C</u>			
Females	11	16.363#	16.641
Males	18	17.556	17.722
<u>T,No</u>			
Females	13	21.769#	21.504
Males	18	14.167	14.045

Note: Vertical lines indicate pairs of means which were not significantly different. # indicates that means were not tested.

The covariate (PRENAY) was found to be significantly related to the following variables: POSTNAY ($F=147.9$, $df=1/94$, $p<.001$), RRZE ($F=6.5$, $df=1/89$, $p<.01$) and RRZI ($F=5.5$, $df=1/89$, $p<.05$). This indicated that the covariate accounted for a statistically significant amount of the variance in the POSTNAY, RRZE, and RRZI scores.

Correlations, Differences Between Correlations
and Test for Equality of Variances

A Pearson r correlation matrix (Table IV) was constructed using

TABLE IV
 PEARSON CORRELATION COEFFICIENT MATRIX FOR ALL
 DEPENDENT MEASURES AND COVARIATE

	<u>OBS</u>	<u>RZE</u>	<u>RRZE</u>	<u>RZE</u>	<u>RRZI</u>	<u>RZM</u>	<u>RRZM</u>	<u>PRENAY</u>	<u>POSTNAY</u>
<u>OBS</u>									
(N)		-.222	-.005	.124	-.106	.043	.079	.040	.024
(S)		.88	.89	.88	.89	.88	.89	.92	.92
<u>RZE</u>		.019	.482	.125	.161	.345	.232	.352	.410
(N)			.138	-.624	-.083	-.674	.032	.117	.098
(S)			.89	.89	.89	.89	.89	.89	.89
<u>RRZE</u>			.098	.001	.217	.001	.383	.137	.176
(N)				-.092	-.535	-.001	-.415	.254	.193
(S)				.89	.90	.89	.90	.90	.90
<u>RZI</u>				.194	.001	.498	.001	.008	.034
(N)					.140	.324	.055	-.068	-.041
(S)					.89	.89	.89	.89	.89
<u>RRZI</u>					.094	.001	.302	.263	.350
(N)						.048	.125	-.227	-.215
(S)						.89	.90	.90	.90
<u>RZM</u>							.010	-.028	-.016
(N)							.89	.89	.89
(S)							.173	.398	.440
<u>RRZM</u>								-.168	-.082
(N)								.90	.90
(S)								.057	.222
<u>PRENAY</u>									
(N)									.793
(S)									.95
									.001

Note: S = probability of occurrence under the null hypothesis $H_0: P=0$ of a value equal to or greater than the reported correlation.

the eight response measures and the covariate. The correlations were computed to analyze the inter-relationships among these variables.

A statistically significant relationship existed between the observation scores (OBS) and the standard Rosenzweig extrapunitive scores (RZE), ($r = -.22$, $n = 88$, $p < .05$). Thus, the OBS and RZE scores were negatively related. The OBS scores did not significantly relate to any of the other response measures or PRENAY scores.

The standard Rosenzweig scores RZE, RZI, and RZM were related to one another but lacked a statistically significant relationship with the revised Rosenzweig variables RRZE, RRZI, RRZM, as well as PRENAY and POSTNAY. RZE was significantly related to RZI ($r = -.624$, $n = 89$, $p < .01$) and RZM ($r = .674$, $n = 89$, $p < .01$). The relationship between RZI and RZM was also statistically significant ($r = .324$, $n = 89$, $p < .01$). Thus, the standard Rosenzweig variables were significantly related to one another but did not significantly relate to the other measures used in the experiment with the exception of the RZE with OBS relationship reported previously.

The revised Rosenzweig variables RRZE, RRZI, and RRZM were significantly related to one another as well as to both the PRENAY and POSTNAY scores. RRZE was related to the other two revised Rosenzweig subscales RRZI ($r = -.535$, $n = 90$, $p < .01$), RRZM ($r = -.415$, $n = 90$, $p < .01$), and both administrations of Naylor's Check List, PRENAY ($r = .254$, $n = 90$, $p < .01$) and POSTNAY ($r = .193$, $n = 90$, $p < .05$). The relationships between RRZI and PRENAY ($r = -.228$, $n = 90$, $p < .01$) and RRZI and POSTNAY ($r = -.215$, $n = 90$, $p < .05$) were also statistically significant. The PRENAY and POSTNAY scores were also significantly related ($r = .80$, $n = 95$, $p < .01$).

Nine tests of differences between correlations were conducted (Bruning and Kintz, 1968, p. 193). The correlation of each of the standard Rosenzweig scores with OBS, PRENAY and POSTNAY was compared to the correlation of each of the revised Rosenzweig scores with these same three measures. Only one difference between correlations was indicated. The correlation between RZI and OBS was .124 and the correlation between RRZI and OBS was -.106. The difference between these correlations was .230, which, when tested using a t-statistic, was determined to be significant ($t=1.748$, $p<.05$). No other differences between the correlations of the standard and revised Rosenzweig scores with OBS, PRENAY, or POSTNAY were found to be statistically significant (see Appendix K).

The following variances were obtained for the revised and standard Rosenzweig scores. The variances of the RZM and RRZM were 98.9 and 68.0, respectively; the RZI and RRZI variances were 49.0 and 32.6, respectively, and lastly, the variances of RZE and RRZE were 377.0 and 151.7, respectively. An analysis of the equality of variances (Bruning and Kintz, 1968, p. 109) indicated that the variances of the RZE and RRZE scores were not equivalent ($F=2.49$, $df=89/90$, $p<.01$). No other variances between the revised and standard Rosenzweig scores were found to be non-equivalent (Table V).

Summary

No statistically significant results were obtained on the main effects indicating no differences between the group that was administered language conditioning treatments and those that didn't receive language conditioning. Sex effects were found using the OBS and RRZE

TABLE V
 TEST FOR EQUALITY OF VARIANCES BETWEEN SUBSCALES
 OF THE STANDARD AND REVISED ROSENZWEIGS

SUBSCALE	VARIANCE	DF	F
RZE	377.0	89/90	2.49**
RRZE	151.7	---	---
RZI	49.0	89/90	1.50
RRZI	32.6	---	---
RZM	98.9	89/90	1.45
RRZM	68.0	---	---

Note: ** denotes a probability less than the .01.

scores and one treatment by sex interaction was found using the RRZI scores. The interaction showed females to be more intrapunitive than males in the treatment but no conditioning group. The covariate (PRENAY) was significantly related to the PRENAY, RRZE, and RRZI scores.

Various significant correlations were obtained and the RRZI correlation with OBS was significantly different than the RZI correlation with OBS. The RZE scores were significantly more variable than the RRZE scores. *

CHAPTER V

DISCUSSION AND CONCLUSIONS

The primary focus of the present study was to ascertain the effects of language conditioning procedures on children's aggression.

Primary Purpose

The data provided no evidence of the effectiveness of language conditioning procedures for reducing any form of aggression measured in this study. This is contrary to the findings of the Parish, et al. (1975) study, which provided evidence of the effectiveness of language conditioning.

Cond.

Effects of Language Conditioning

The language conditioning procedures of the present study were very similar to those of the Parish, et al. (1975) study and were derived from the same theoretical rationale. Slides of aggression, negative words, and neutral words were either the same or very similar to the ones used in the Parish, et al. (1975) study. The experimenter did notice that subjects apparently became bored during the treatment sessions, especially after the fourth session, which might explain the differences in the findings of the two studies.

Cond

This boredom may have been due in whole or part to some of the subjects' prior participation in the Parish, et al. (1975) study, as well as the use of the blank slide in the treatment sequences. It

and some kids as year before

is also possible that this boredom and the previous experiences of approximately 25% of the present subjects in the Parish, et al. *9 tables* (1975) study may have rendered the language conditioning procedures ineffective in reducing children's aggression.

Modeling effects (Bandura and Walters, 1963) cannot adequately explain why the language conditioning procedures were ineffective. If modeling had been acting on the children, the group which received the treatments without conditioning would have been the most aggressive, but were not. The catharsis hypothesis is also unsuitable as an explanation of the results, since the group which received no treatments should have been the most aggressive. This was not the case.

Two explanations for obtaining no differences between the group which received language conditioning and those which did not are possible. The first of these explanations is dependent upon the rationale of associative learning theory and the second depends upon contingent reinforcement theory. Either or both of the extraneous factors (influences) detailed below could have been responsible for the no differences result. *History*

Boredom could have caused the attention of a substantial number of the subjects to be focused on aspects of the environment other than the treatments. If this were the case then the bored subjects would not have perceived some or all of the stimuli (slides) necessary for language conditioning to be effective. Having failed to perceive some or all of the stimuli, the subjects obviously could not have formed the associative bonds necessary for learning to take place.

As noted by Feshbach and Feshbach (1971), the reinforcing value of aggressive behavior is probably the single most important factor affecting the learning and performance of aggression. Reinforcement of aggression possibly continued outside of the experimental situation during the duration of the study. If language conditioning was ineffective because of the boredom of some subjects in the T,C group and if contingent reinforcement continued outside the experimental situation, then all groups would be comparable on measured aggression. More than likely the subjects in the Parish, et al. (1975) study were not bored and language conditioning was effective. If such were the case, language conditioning would have counteracted the continued external reinforcement, thereby reducing the aggressive behavior of children.

Another focus of the study was to determine if males are more aggressive than females. Males were found to be more aggressive on the OBS and RRZE measures than females. This finding coincides with other research showing this effect (Johnson and Medinnus, 1974; Feshbach and Feshbach, 1971). This was true for both the observed behavior and the extrapunitive dimension of the revised Rosenzweig. This consistency may be attributable to boys being more frequently socially reinforced by adults and peers for the straightforward expression of aggression (Eron, Walder, Toigo, and Lefkowitz, 1963; Feshbach, 1970). Females were also found to be more intrapunitive than males in the treatment/but/no/conditioning group (T,No) on the RRZI score. This finding is also best explained by the differences in sex roles. Females are less likely to be socially reinforced for

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the expression of overt aggression and more likely to be reinforced for lack of overt aggression. Thus, it is probable that the aggression expressed by females would be in an intrapunitive form as indicated by the results of the study. Unfortunately, this simple effect for the treatment no conditioning group only occurred for the revised Rosenzweig intrapunitive measure, thus it was not consistent across all measures or groups. The same pattern was apparent when male and female means of the standard Rosenzweig scores were examined. However, there were no significant differences among these means.

The pre-administration of Naylor's Check List as a covariate accounted for a statistically significant amount of the variance in the POSTNAY, RRZI, and RRZE response measures. It is not surprising that it accounted for a significant amount of the variation in the POSTNAY scores since they are exactly the same measure, only administered at different times. However, it is interesting to note that both the extrapunitive and intrapunitive measures of the revised Rosenzweig were the only other measures that significantly related to the covariate. Since the revised Rosenzweig asked the subject to answer as if he were the individual in the frustrating situation, subjects should have answered in a manner consistent with their own previous experiences. Therefore, those children who showed more extrapunitiveness on the revised Rosenzweig would naturally be rated as more aggressive by their teachers. However, if some subjects had experienced situations with the teacher where their response was intrapunitive, teachers would logically rate them as less aggressive.

instrumentation

teachers' previous experiences of child

The correlations between the various response measures of aggression were also examined. The POSTNAY scores were positively

related to the extrapunitive and negatively related to the intrapunitive scores of the revised Rosenzweig. The scores obtained on Naylor's Check List, however, did not relate to the observed aggression scores of the subject. It is interesting to note that the correlations are higher between the pretreatment administration of Naylor's Check List and other response measures than the Naylor's post-administration on the same response measures. The teachers' preevaluation of students' aggression indicated a greater relationship than the postevaluation when comparing the correlations with the other response measures. Since teachers had knowledge of their students group membership for the post-test, perhaps they had expected that language conditioning would be effective and rated the treatment group children lower in aggression. Their expectations quite possibly were influenced by their knowledge of the findings in the Parish, et al. (1975) study. Therefore, the PRENAY would correlate higher with other post-treatment measures of aggression.

Comparing the Revised and Standard Rosenzweig

In order to draw some conclusions regarding whether the revised Rosenzweig was a better measure of aggression than the standard Rosenzweig, various statistics were computed. They were intra-form correlation data, a test for equality of variances and a test to determine significant differences between correlations.

The correlations of RZE, RZI, and RAM, and RRAE, RRZI, and RRZM within the standard and revised form of the Rosenzweig provide little, if any, evidence of the comparative quality of the two instruments. The fact that all but one of these six correlations is in the direction

expected, but significantly different than zero, perhaps indicates that the sub-scales of both forms measure about the same thing. The one correlation that is not significantly different from zero is that of RRZI with RRZM ($p=.125$).

The variances for the respective subscales of the standard and revised Rosenzweigs were equal with the exception of the RZE and RRZE scores. As hypothesized the RRZE scores were significantly less variable than the RZE scores. However, the explanation that the RRZE error variance is less is somewhat untenable since RZE significantly correlated with OBS and RRZE did not. Although the relationship of RZE to OBS was opposite the direction expected, and if the error variance of the RZE scores had been large, no significant correlation in either direction would have been possible. On the other hand, RRZE correlated significantly (and in the expected direction) with both the PRENAY and POSTNAY and RZE did not. These significant correlations would tend to support the hypothesis that the error variance of the RRZE scores is less than that of the RZE scores. With less variance, the RRZE correlations with PRENAY and POSTNAY appeared to be higher than those of RZE. However, a test of differences between these correlations indicated that the RRZE correlations with OBS, PRENAY, and POSTNAY were not significantly different than the correlations of RZE with OBS, PRENAY, and POSTNAY. Thus, no definite conclusions can be made about the relative quality of the RZE and RRZE subscales.

The RZI and RRZI variances were not significantly different. However, RRZI correlated in the direction expected ($r=-.106$) with

OBS and RZI did not ($r=.124$). Additionally, the difference between these correlations was significant. The correlations of RZI and RRZI with PRENAY and POSTNAY were all negative as expected and the differences between these correlations were not significant. The RRZI correlations, however, were significantly different from zero but the RZI correlations were not. If one is willing to accept that the revised Rosenzweig instructions reduced error variance but also increased true variance by providing a more accurate measure of individual differences, then the above results can be interpreted to indicate that the RRZI is a better measure of intrapunitiveness than the RZI.

All results involving RZM and RRZM and their correlations or differences of their correlations with OBS, PRENAY, and POSTNAY were nonsignificant. Thus, no comparative statements about the quality of RZM and RRZM may be made.

According to Rosenzweig, et al. (1948) the test he developed was a projective instrument. That is, children should reflect their own attitudes into the question, answering them as if they were the individual in the frustrating situation. Based on the findings of the present study, however, this assumption by Rosenzweig, et al. (1948) is somewhat questionable. Specifically, the findings of the present study revealed that the scores on the revised Rosenzweig did not significantly relate to the scores on the standard Rosenzweig on any of the dimensions measured (extrapunitive, intrapunitive, and impunitive). Since the revised Rosenzweig specifically asked the student to fill in the answer as if they were the child pictured in

the cartoon, while the standard Rosenzweig simply asks the student to describe what the child pictured in the cartoon will say, it is easy to see why these two instruments could be answered differently. Megargee (1966) implicitly came to the same conclusion in his study, since he stated that delinquents will fake a response using the standard Rosenzweig, therefore reducing their extrapunitive score. Silverstein (1957), has also demonstrated the susceptibility of the Rosenzweig direction of aggression scores to faking. Therefore, the students in this experiment may have faked some of their responses on the standard Rosenzweig, therefore making it an undesirable test for determining the aggression scores of children. The standard Rosenzweig should be considered carefully before being used in other experiments involving aggression. The revised Rosenzweig appeared to be less susceptible to faking, since significant differences were obtained, at least for males and females.

The above conclusions must be further qualified since the administration of the two forms was not counterbalanced. All subjects were first administered the revised Rosenzweig for which they were asked to answer as if they were the child in the frustrating situation. When administered the standard Rosenzweig and instructed to answer as they thought the child in the frustrating situation would respond, they could have been confused and answered a second time according to revised instruction or failed to project (under standard instructions) as Rosenzweig, et al. (1948) expected. The failure to control for order effects makes comparison of the two forms difficult and the conclusions regarding the quality of the two forms should be accepted with appropriate caution.

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Inter-s

Limitations

This study was conducted on grade school children from Perry, Oklahoma. Since some of the subjects participated in a similar experiment a year earlier, a carryover effect may have existed for some of these subjects. Also, generalization of these results should be done with some caution due to the lack of relationships among the measures of aggression used in this study. The failure to observe relationships between OBS and other measures of aggression might be explained by the small amount of time available to observe the subjects' behavior, as well as the expectations of teachers from knowledge of the previous experiment and the group assignment of students in their respective classes. Finally, order effects may have been created by administering the revised Rosenzweig first to all subjects

Suggestions for Future Research

Future studies should focus on the measurement of aggression rather than finding new methods to reduce it. Since techniques other than language conditioning have been successful in reducing children's aggression, emphasis should be placed on the measurement of aggression. It appears that existing measuring techniques are somewhat suspect, resulting in a lack of consistency between researchers' findings. Language conditioning procedures should be examined again in an attempt to replicate the findings of the Parish, et al. (1975) study or those of the present study.

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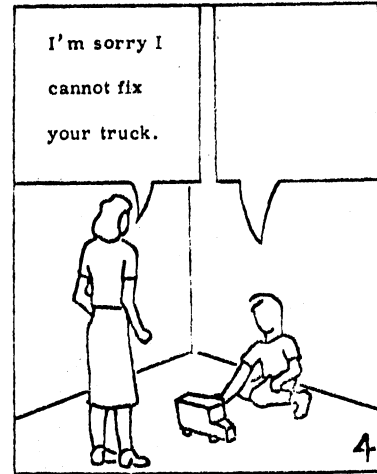
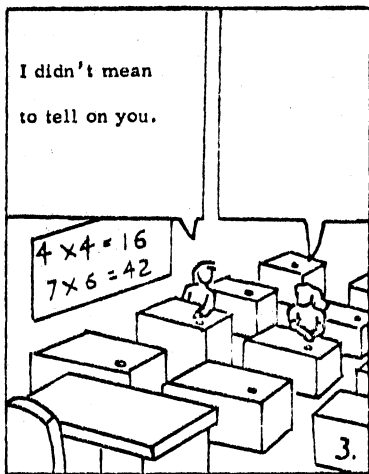
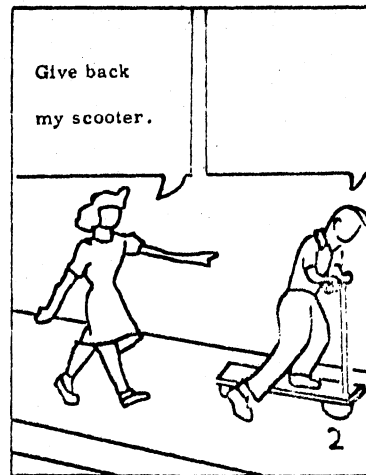
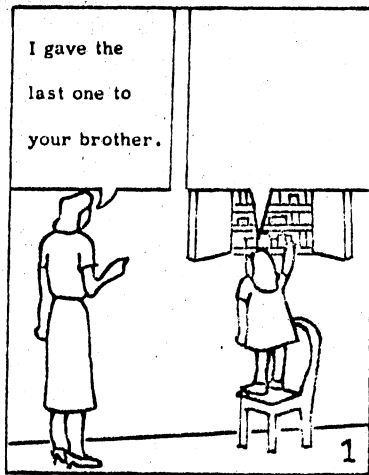
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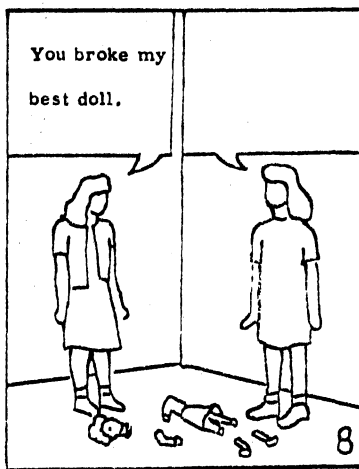
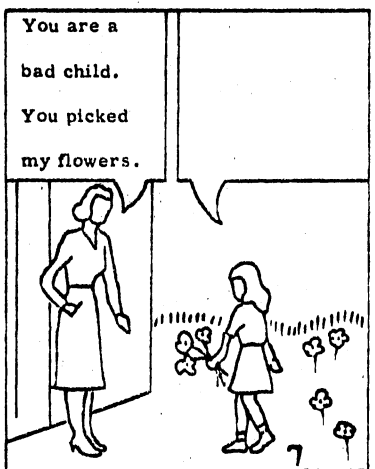
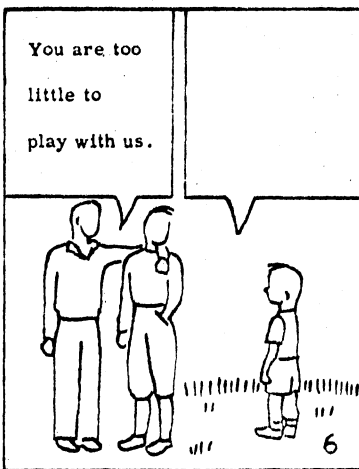
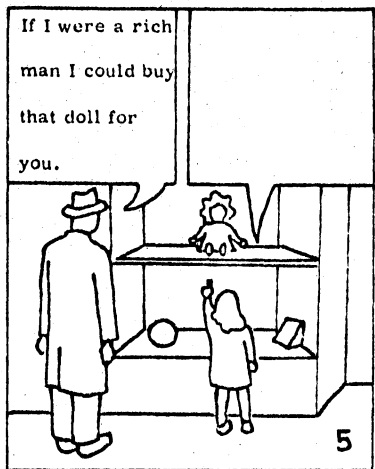
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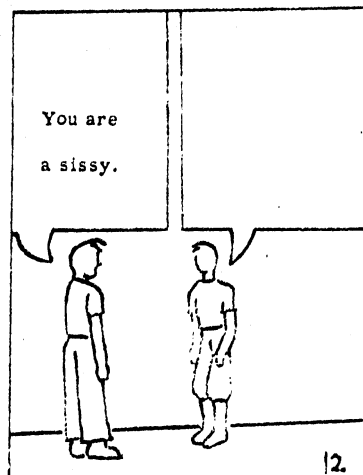
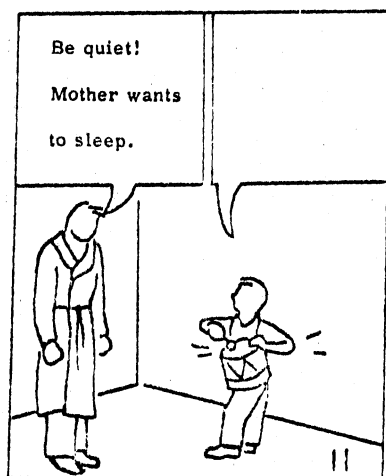
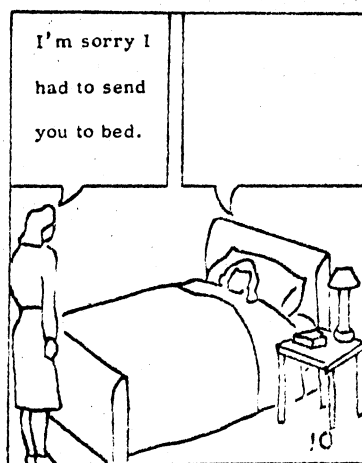
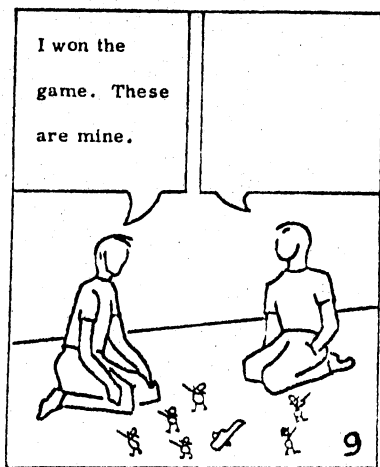
APPENDIXES

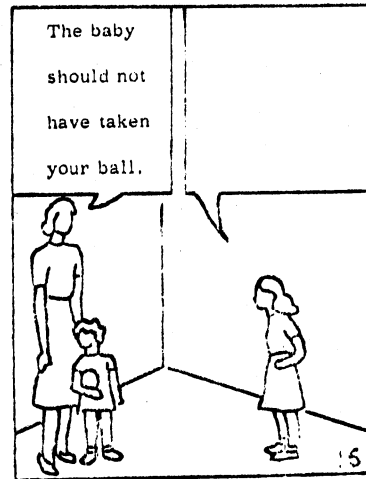
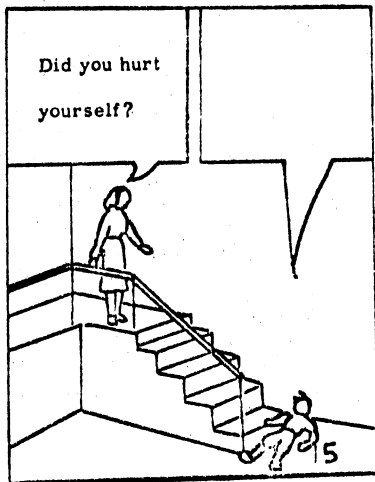
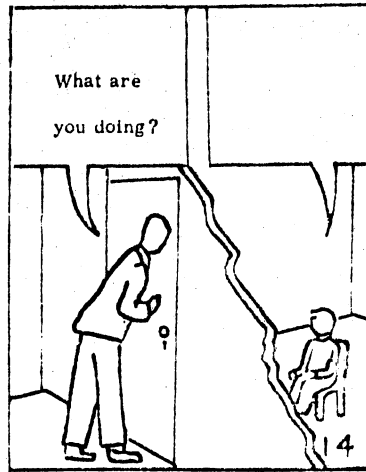
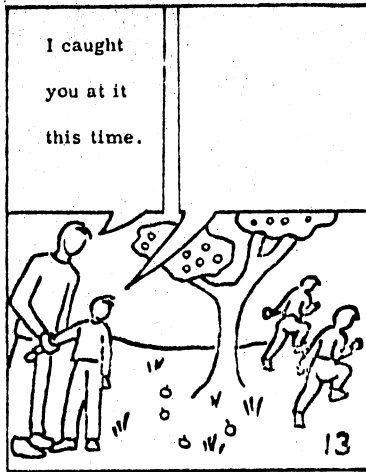
APPENDIX A

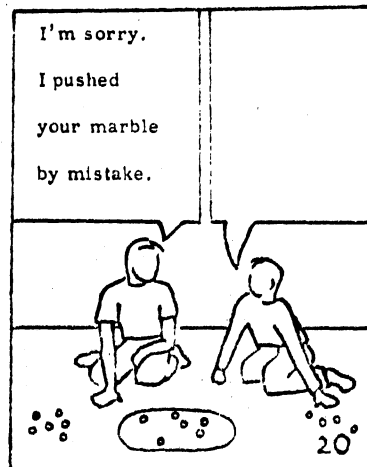
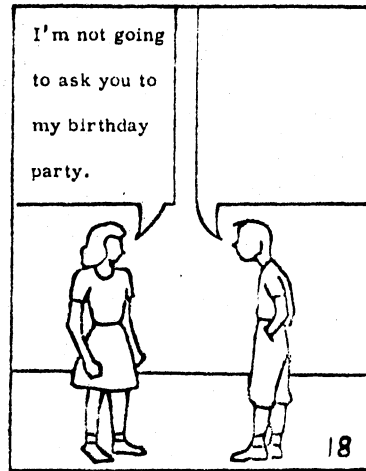
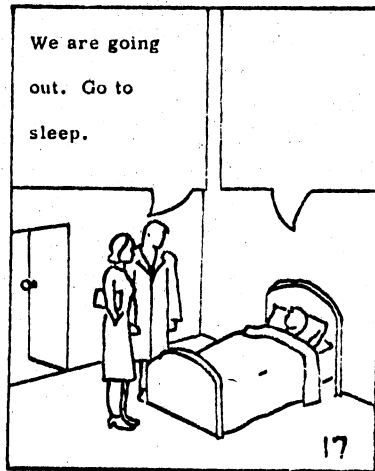
THE ROSENZWEIG PICTURE-FRUSTRATION STUDY

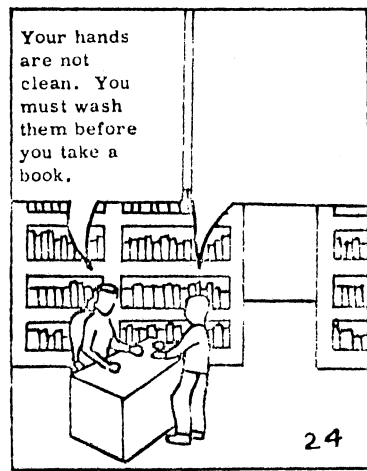
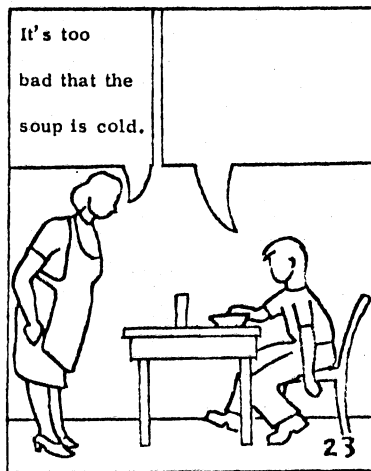
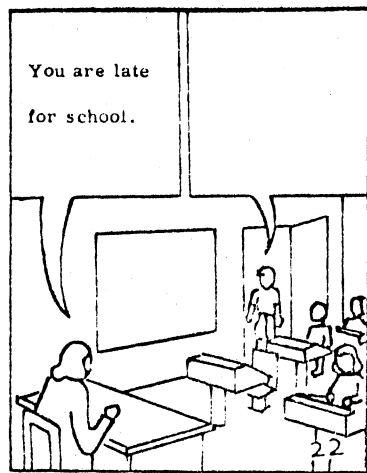
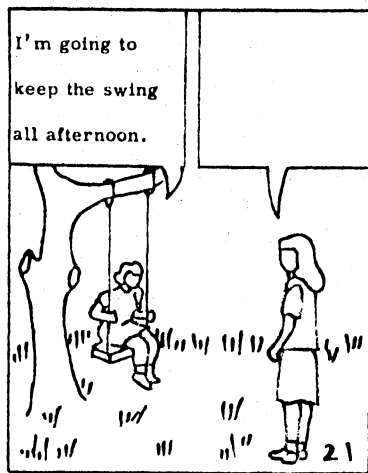












APPENDIX B

INSTRUCTIONS FOR THE REVISED AND
STANDARD ROSENZWEIG

Standard Instructions

We are going to play a game. Here are some pictures of people doing and saying different things. Look at the pictures one at a time. One person is always shown talking. Read what that person is saying. Then write in the empty space what you think the boy or girl in the picture would answer. The answer you give should be the first thing you think of. Work as fast as you can.

Revised Instructions

We are going to play a game. Here are some pictures of people doing and saying different things. Look at the pictures one at a time. One person is always shown talking. Read what that person is saying. Then write in the empty space what you would say if you were the boy or girl in the picture. The answer you give should be the first thing you think of. Work as fast as you can.

APPENDIX C

NAYLOR'S CHECK LIST

STUDENT'S NAME _____

INSTRUCTIONS: Check the point on each scale which in your opinion best describes the behavior of this child during the past week. In making these ratings, try to compare him with all the other children you have known. Judge him with respect to each quality independently; that is, judge objectively and try not to be influenced by your general impression of him.

Scale 1. Uncooperative-Cooperative

1	2	3	4	5
Extremely uncooperative; refuses to follow any suggestions; unwilling, antagonistic.	Uncooperative; replies perfunctorily to questions; indifferent.	Takes situations for granted; responds willingly but volunteers little.	Likes being asked to do things; volunteers occasionally.	Very cooperative. Volunteers help readily, anxious to do anything asked.

Scale 2. Amiable-Quarrelsome

1	2	3	4	5
Actively dislikes quarrels. Acts as peacemaker. Good humored.	Has sunny disposition. Quarrels less than average.	Quarrels under real provocation; occasionally starts quarrel. Generally amiable.	Quarrels more than the average child.	Pronounced tendency to be quarrelsome; has a "chip on the shoulder."

Scale 3. Aggressive-Non-Aggressive

1	2	3	4	5
Threatens others; dominant; reacts to reproof violently; overtly aggressive, starts trouble.	Seldom or reluctantly gives in; reacts to violence with violence. Threatens others.	Complies with normal authority; reacts with violence only when provoked.	Gives in readily; objects to violence with "Stop!" but not with blows.	Complies with all requests; submits to violence without doing anything about it.

Scale 4. Docile-Rebellious

1	2	3	4	5
Passively agrees to everything; no sign of resistance or unwillingness.	Tends to accept suggestion and do what he is told without resistance.	Conforms normally to all reasonable requests and accepts authority as necessary.	Tends to resist authority but will conform if enough pressure is put on him/her.	Hostilely defiant; rejects all suggestions and resists any restraint.

Scale 5. Antagonistic-Friendly

1	2	3	4	5
Marked hostility, suspiciousness or unfriendliness.	Not as marked as 1, but less friendly than the average child.	About like the average. Has both likes and dislikes.	More friendly and outgoing than the average child, but not as marked as 5.	Exceptionally outgoing and friendly. Likes practically everyone and wants them to like him/her.

APPENDIX D

THE OBSERVATION INSTRUMENT

NAME :

TAG COLOR :

DATE :

TEACHER :

TIME :

ROOM :

BITING

GRABBING

HITTING

KICKING

PINCHING

PULLING

PUSHING

RUNNING

THROWING

VERBAL ASSAULT

OTHER

TOTAL

APPENDIX E

NEGATIVE AND NEUTRAL WORD LISTS

NEGATIVE

COWARDLY
WHINY
CRUEL
DISGUSTING
GREEDY
UGLY
SICK
QUITTING
EVIL
HASTY
CARELESS
NAGGING
COMPLAINING
FAILURE
HOSTILE
CRUEL
CONFUSED
SELFISH
GLOOMY
SOUR
DIRTY
STUPID
POISON
WORTHLESS
BITTER
DECEITFUL
ENEMY
STINGY
UNFRIENDLY
AWKWARD

NEUTRAL

FORMAL
SHIRT
INDEPENDENT
STEADY
PRACTICAL
TRUNK
GLASS
GLOVE
CHANGEABLE
CLOCK
STORE
RADIO
CIVILIZED
REALISTIC
LOGICAL
DECK
DETERMINED
UNAFFECTED
AUTOCRATIC
WATER
GARAGE
TRUCK
UNINHIBITED
ORIGINAL
REASONABLE
TWELVE
ELEVEN
UNASSUMING
DRESSER
OPPORTUNISTIC

APPENDIX F

INSTRUCTIONS FOR EACH TREATMENT SESSION

Hello, my name is _____ and I am a graduate student from Oklahoma State University. The reason I am here is to initiate a program to improve your spelling and vocabulary skills. This will be done with the slide projector you see here (point to slide projector). Different slides will be shown on the screen (point) some of the slides will be words, some will be pictures, and some will have nothing on them. When you see a slide that has a word, I would like for you to say that word out loud. I will say the words with you.

All of you will probably see me in your school for the next few weeks. Sometimes I may even be in your classes. If I am in your class, please go about your business just as you would if I weren't there. Now, when I call your name, raise your hand so I can see who you are. (Attendance is now taken.)

Remember to say each word you see. Are there any questions about which you are supposed to do? If not we will begin.

APPENDIX G

INSTRUCTIONS FOR UNSTRUCTURED ACTIVITY

The present research effort needs your cooperation with this unstructured activity. This activity is of extreme importance in the final analysis of the results of this project. These results will be made available to you at a later date.

The purpose of the unstructured activity is to observe the students in your class interacting with their classmates in either a cooperative or sometimes aggressive manner. These behaviors will be recorded to two or three graduate students from Oklahoma State University who will be observing your students during this activity.

The theme of the activity is entirely each individual instructor's choice. Possible themes may be some sort of art project which could be related to their present class work. The specific area is not of great importance and can be in an academic area you wish. We strongly suggest that this be the case so that your students will not likely relate the activity as being purposely contrived for this project.

The activity should be set up so that one hour periods of this activity may occur over a two or three day time span. This time factor depends on the number of students per class and the number of graduate students available during this time. The time needed should not exceed more than three one hour time periods over a three day span. The most important thing to remember is that students will be able to interact as freely as possible during this activity.

The students will be provided with name tags for this activity. It will be necessary for you to distribute these name tags to each of your students. These tags are to be worn on the right arm of each

student about where a sergeant's stripes would appear. These should be worn the entire morning of each of the activities (or afternoon). The name tags will be different colors and students may ask why this is the case. The answer you should give is, "I don't know."

If there are any questions or problems concerning the unstructured activity, I will be more than happy to assist you with them.

Thank you for your cooperation in this project.

John P. Maly

APPENDIX H

SCORING BLANK FOR THE ROSENZWEIG P-F STUDY

SCORING BLANK FOR THE ROSENZWEIG P-F STUDY — ADOLESCENT FORM

Name _____ Date _____
 Sex _____ Duration _____
 Age _____ Examiner _____

	Item Scores			Profile and Deviation Pattern				
	O-D	E-D	N-P	O-D	E-D	N-P	Total	%
1.		M						
2.		I	i	E				
3.	E			I				
4.			m	M				
5.			i	Total				
6.		E		%				
7.			e	S-E Patterns		Trends		
10.		E		E -	-	%	1.	Total Pattern
11.		E, M		I -	-	%	2.	
12.			i	E + I -	-	%	3.	
13.			m	E - E -	-	%	4.	
14.				I - I -	-	%	5.	
15.		M		M + I -	-	%		
16.		E		Comments				
17.								
18.			m					
19.		I						
20.								
21.	I							
22.								
23.		E						
24.	M							

G C R = - %

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APPENDIX I

COVARIATE MEANS, RESPONSE MEANS, AND
ADJUSTED RESPONSE MEANS

SCORE GROUP	(N)	COVARIATE MEAN (SD)	RESPONSE MEAN (SD)	ADJUSTED RESPONSE MEAN
<u>OBS</u>	<u>92</u>			
<u>NoNo</u>	<u>30</u>			
F	13	13.077 (2.431)	1.615 (1.758)	1.625
M	17	13.529 (4.064)	2.529 (3.319)	2.520
<u>T,C</u>	<u>31</u>			
F	13	14.154 (3.625)	1.769 (2.522)	1.735
M	18	14.056 (3.096)	3.000 (3.290)	2.969
<u>T,No</u>	<u>31</u>			
F	13	12.154 (3.508)	1.077 (1.441)	1.124
M	18	12.778 (3.838)	4.556 (5.044)	4.577
<u>POSTNAY</u>	<u>95</u>			
<u>NoNo</u>	<u>32</u>			
F	14	12.786 (2.577)	12.571 (2.065)	12.949
M	18	13.722 (4.026)	14.389 (3.183)	14.025
<u>T,C</u>	<u>31</u>			
F	13	14.154 (3.625)	14.231 (2.279)	13.525
M	18	14.056 (3.096)	14.611 (2.993)	13.982
<u>T,No</u>	<u>32</u>			
F	14	11.929 (3.474)	12.714 (3.384)	13.772
M	18	12.778 (3.383)	13.722 (3.102)	14.107

SCORE GROUP	(N)	COVARIATE MEAN (SD)	RESPONSE MEAN (SD)	ADJUSTED RESPONSE MEAN
<u>RZE</u>	<u>89</u>			
<u>NoNo</u>	<u>30</u>			
F	13	12.615 (2.599)	36.769 (20.503)	36.818
M	16	13.688 (4.143)	37.750 (20.557)	37.096
<u>T,C</u>	<u>29</u>			
F	11	14.545 (3.804)	40.909 (22.197)	40.732
M	18	14.056 (3.096)	34.389 (16.670)	33.367
<u>T,No</u>	<u>31</u>			
F	13	12.154 (3.508)	32.692 (12.711)	32.826
M	18	12.778 (3.828)	40.889 (23.512)	40.950
<u>RRZE</u>	<u>90</u>			
<u>NoNo</u>	<u>30</u>			
F	14	12.786 (2.577)	23.143 (9.694)	23.279
M	16	13.688 (4.143)	26.000 (8.556)	25.907
<u>T,C</u>	<u>29</u>			
F	11	14.545 (3.804)	28.909 (13.034)	28.599
M	18	14.056 (3.096)	33.111 (16.939)	32.925
<u>T,No</u>	<u>31</u>			
F	13	12.154 (3.508)	18.167 (6.845)	19.066
M	18	12.778 (3.838)	29.167 (11.228)	29.305

SCORE GROUP	(N)	COVARIATE MEAN (SD)	RESPONSE MEAN (SD)	ADJUSTED RESPONSE MEAN
<u>RZI</u>	<u>89</u>			
<u>NoNo</u>	<u>29</u>			
F	13	12.615 (22.599)	14.846 (7.140)	14.779
M	16	13.688 (4.143)	16.375 (5.801)	16.401
<u>T,C</u>	<u>29</u>			
F	11	14.545 (3.804)	13.909 (6.655)	13.993
M	18	14.056 (3.096)	15.333 (5.801)	15.384
<u>T,No</u>	<u>31</u>			
F	13	12.154 (3.508)	16.077 (6.614)	15.998
M	18	12.778 (3.838)	11.556 (6.793)	11.520
<u>RRZI</u>	<u>90</u>			
<u>NoNo</u>	<u>30</u>			
F	14	12.786 (2.577)	18.000 (4.915)	17.878
M	16	13.688 (4.143)	19.375 (4.938)	19.457
<u>T,C</u>	<u>29</u>			
F	11	15.545 (3.804)	16.364 (4.781)	16.641
M	18	14.056 (3.096)	17.556 (6.555)	17.722
<u>T,No</u>	<u>31</u>			
F	13	12.154 (3.508)	21.769 (6.085)	21.504
M	18	12.778 (3.838)	14.167 (4.301)	14.045

SCORE GROUP	(N)	COVARIATE MEAN (SD)	RESPONSE MEAN (SD)	ADJUSTED RESPONSE MEAN
<u>RZM</u>	<u>89</u>			
<u>NoNo</u>	<u>29</u>			
F	13	12.615 (2.599)	14.308 (10.177)	14.288
M	16	13.688 (4.143)	14.250 (9.493)	14.260
<u>T,C</u>	<u>29</u>			
<u>F</u>	<u>11</u>			
F	11	14.545 (3.804)	15.000 (11.541)	15.034
M	18	14.056 (3.096)	17.389 (8.493)	17.309
<u>T,No</u>	<u>31</u>			
<u>F</u>	<u>13</u>			
F	13	12.154 (3.508)	16.385 (9.386)	16.353
M	18	12.778 (3.838)	17.056 (11.778)	17.041
<u>RRZM</u>	<u>90</u>			
<u>NoNo</u>	<u>30</u>			
F	14	12.786 (2.577)	14.857 (7.892)	14.767
M	16	13.688 (4.143)	17.375 (9.838)	17.436
<u>T,C</u>	<u>29</u>			
<u>F</u>	<u>11</u>			
F	11	15.545 (3.804)	19.727 (7.471)	19.932
M	18	14.056 (3.096)	17.056 (9.759)	17.179
<u>T,No</u>	<u>31</u>			
<u>F</u>	<u>13</u>			
F	13	12.154 (3.508)	17.769 (6.698)	17.573
M	18	12.778 (3.828)	17.056 (7.612)	16.964

Note: F=female, M=male, SD=standard deviation.

APPENDIX J

FIGURE SHOWING NO EFFECT ON RZI

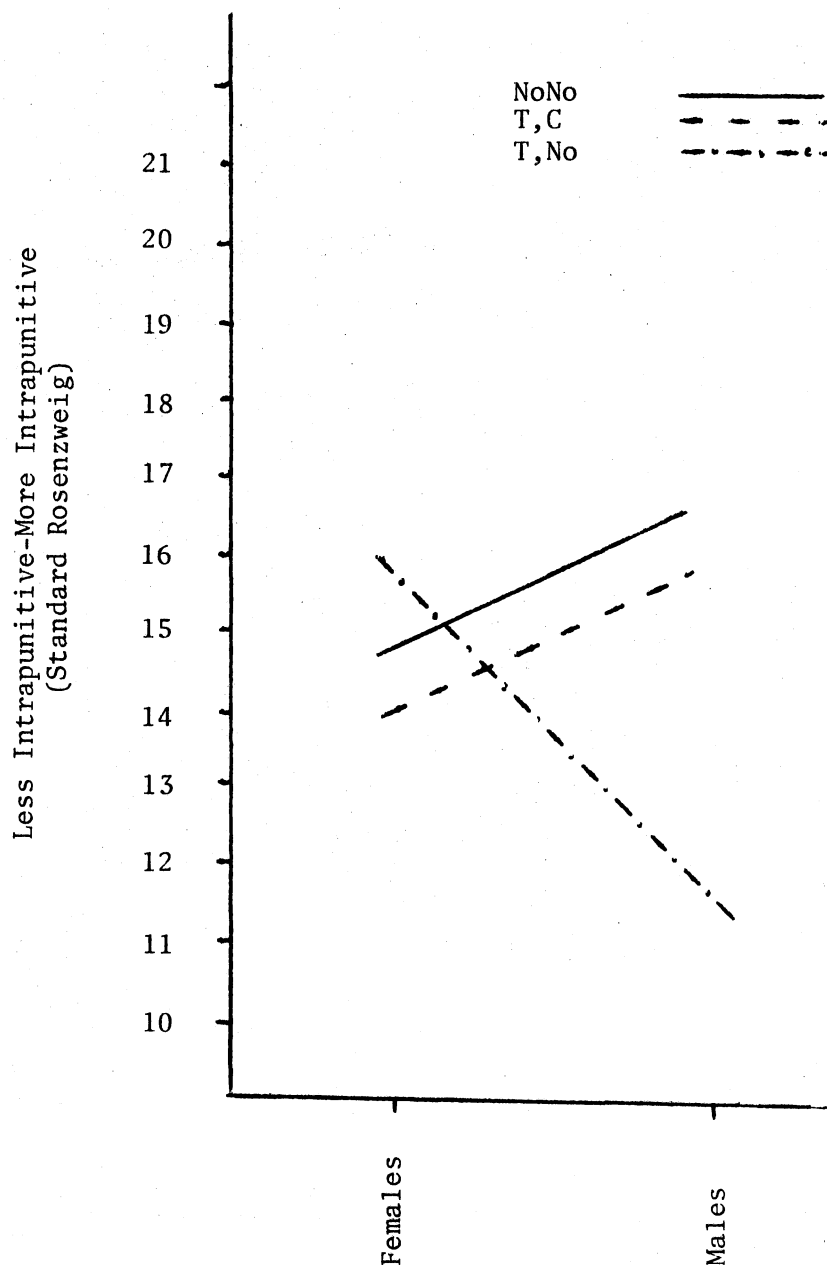


Figure 2. Figure Showing No Effect on Standard Rosenzweig Intrapunitive

APPENDIX K

**STATISTICAL TESTS BETWEEN CORRELATIONS OF THE
STANDARD AND REVISED ROSENZWEIG**

		DIFFERENCE	t
RZE with OBS	r=-.222	.217	1.5638
RRZE with OBS	r=-.005	----	----
RRZE with RZE	r= .138	----	----
RRZI with OBS	r=-.106	.230	1.748*
RZI with OBS	r= .124	----	----
RRZI with RZI	r= .140	----	----
RZM with OBS	r= .043	.036	.2732
RRZM with OBS	r= .079	----	----
RRZM with RZM	r= .010	----	----
RZE with PRENAY	r= .117	.137	.9970
RRZE with PRENAY	r= .254	----	----
RRZE with RZE	r= .138	----	----
RZI with PRENAY	r=-.068	.159	1.1490
RRZI with PRENAY	r=-.227	----	----
RRZI with RZI	r= .140	----	----
RZM with PRENAY	r=-.028	.140	.930
RRZM with PRENAY	r=-.168	----	----
RRZM with RZM	r= .010	----	----
RZE with POSTNAY	r= .098	.095	.6810
RRZE with POSTNAY	r= .193	----	----
RRZE with RZE	r= .138	----	----
RZI with POSTNAY	r=-.041	.174	1.2530
RRZI with POSTNAY	r=-.215	----	----
RRZI with RZI	r= .140	----	----
RZM with POSTNAY	r=-.016	.066	.4340
RRZM with POSTNAY	r=-.082	----	----
RRZM with RZM	r= .010	----	----

Note: * denotes a probability greater than .05 using a one-tailed test.

VITA

John Paul Maly

Candidate for the Degree of

Master of Science

Thesis: THE USE OF LANGUAGE CONDITIONING PROCEDURES TO
REDUCE AGGRESSIVE BEHAVIORS IN CHILDREN

Major Field: Educational Psychology

Biographical:

Personal Data: Born in Oklahoma City, Oklahoma, July 15, 1950,
the son of Mr. and Mrs. Joe W. Maly.

Education: Attended Preston High School, Preston, Oklahoma;
received Bachelor of Science degree with a major in
Psychology from Oklahoma State University in 1974; completed
requirements for the Master of Science degree with a
major in Educational Psychology at Oklahoma State
University in July, 1977.

Professional Experience: Graduate teaching assistant, Depart-
ment of Applied Behavioral Studies, Oklahoma State Uni-
versity, 1974-1976.