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THE MEASUREMENT OF ANGER

IN CHILDREN:

A MULTI-MODAL APPROACH

Edward Shirrell Eastman, Jr.

A Thesis Presented to the Faculty

of

The Department of Psychology

of

Virginia Commonwealth University

in Partial Fulfillment of the Requirement for

The Degree of Master of Science

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DEDICATION

To my loving wife, Christine, for her support and friendship throughout this endeavor.

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ABSTRACT

The objective of this study was to utilize self-report, peer-report and teacher-report techniques in measuring (reporting) anger in children; and to determine the intercorrelation between these three approaches in order to determine their relationship to one another and in turn, to assess these reporting tools.

Subjects were 38 male and female emotionally disturbed children from the Virginia Treatment Center for Children, a short-term residential psychiatric facility in Richmond, Virginia. There were 28 boys and 10 girls, with a mean age of approximately 11 years.

Each student was given the Children's Inventory of Anger (CIA) and the Peer-Report of Anger (PR). The teachers were given the Teacher's Rating Scale of Student's Anger (TR) to complete for each of their students and again approximately 6 weeks later for test-retest information. Each instrument was explained in detail in the present paper.

Means and standard deviations for all scales were reported as were the Pearson Product-Moment Correlations among the 3 scales and race, sex and age.

A significant negative correlation between the CIA and age was found. The CIA was also significantly negatively correlated with the PR non-anger expression; while the CIA was significantly positively correlated with the PR anger problems. Other significant correlations were: a positive one between the TR and the PR anger problems; and, a negative one between the PR anger problems and the PR non-anger expression.

The various relationships and their possible explanations were discussed in depth. It was noted that although the significant correlations obtained in this study were relatively low and were not consistent with the predictions under the hypothesis, the data and the relationships between report forms were in the direction predicted. In this case, the magnitude of each correlation may not be of prime importance because each form may have measured a different aspect of anger as per Ullman's (1957) findings. Thus, combining the three techniques gives a broad picture of each individual's degree of anger problems.

Problems and suggestions for future investigations in this area were briefly mentioned.

CHAPTER I

INTRODUCTION

Interpersonal aggression and societal violence have captured the increasing attention of behavioral scientists during the last fifteen years (Novaco, 1975). Interestingly, a closely related synonym, anger, has had little experimental and clinical attention in the literature. Research has dealt with anger in the context of anger-arousal as a means of inducing aggression, since the experimental interest was usually in the resultant aggressive behavior. A few studies have investigated the role of anger in determining whether a decrease in aggressive behavior results from the opportunity to express aggression (Feshback, 1961; Hokanson and Shetler, 1961; Berkowitz, 1971; Kahn, 1966); other research has made contributions in the area of the physiological components of anger (Ax, 1953; Funkenstein, King and Drolette, 1954); yet, these studies have not focused on anger arousal, measurement, nor treatment of chronic anger problems.

There has been little clinical or experimental work in the area of anger measurement and control in children. Recognizing

the paucity of knowledge in these areas, the present study is intended to shed some light on the problem of the measurement of anger. The objective of this study is to utilize self-report, peer-report and teacher-report techniques in measuring (reporting) anger in children in a residential treatment facility; and to determine the intercorrelation between these three approaches in order to determine their relationship to one another and in turn, to assess these reporting tools. In view of the dearth of information referred to above, this study hopes to lay the groundwork for further investigations in this area.

CHAPTER II

Literature Review

One reason for the small amount of research in the area of anger measurement and control is that anger is a more difficult variable to measure than aggression. "The study of aggression, as standardly conducted, entails the investigation of discrete, observable events. However, anger is an internal process assessed by inference from behavioral reactions and physiological indices" (Novaco, 1975, p. 2).

Novaco points to the problem of poor intercorrelation between self-report, behavioral and physiological measures of emotional states like anxiety and anger. Thus, he concludes that these measurement techniques have met with discouraging results. Measurement techniques/approaches will be discussed in more depth later.

Anger has been defined in Webster's Collegiate Dictionary as "a strong feeling of displeasure and usually of antagonism. It is the general term for the emotional reaction of extreme displeasure and suggests neither a definite degree of intensity

nor a necessarily outward manifestation." Novaco (1975,p.3) describes anger as the "strong emotional response to provocation that not only has identifiable autonomic and CNS components, but also, cognitive determinants. Anger may or may not lead to aggressive behavior, depending on the nature of the provocation, situational constraints, and the person's preferred style of coping."

The Phenomenological Experience and Expression of Anger

Anger may be perceived by others and experienced by the person who is angry as: a tendency to fight, strike and tear, and it may not be necessarily an irrational response; there is a sensation of muscular tension and fullness; a feeling of power, a sense of courage or confidence (Arnold, Vol. II, 1960).

There are a wide range of verbal and nonverbal expressions: a raised voice; the cry of anger has been described as loud, sharp, and generally sustained, although some people reported snarling, growling or grunting; facial grimaces which may frighten the perceiver, the muscles of the brow move inward and downward creating a frown and a foreboding appearance about the eyes,

which seems to be fixed in a hard stare toward the object of anger; the eyes are almost always bright, they are sometimes bloodshot, and are said to protrude from their sockets (Darwin, 1972); the nostrils dilate and the wings of the nose flare out; the lips are opened and drawn back in a rectangle-like shape or may be compressed or quivering, revealing clenched teeth; often the face flushes red or becomes purple; the veins of the forehead and neck may become distended; and the fists may be clenched (Arnold, Vol. II, 1960; Plutchik, 1962; Bach & Wyden, 1969; Izard, 1977). Walter B. Cannon (1929, p. 243) made a relevant comment when considering nonverbal communication - in discussing emotions, specifically rage, he remarked that, "It is a constant and uniform type of behavior, having features in common in widely scattered races of men and even in lower animals so that the nature of the attitude is at once understood without the necessity for words." This would support the rationale for behavioral observations, for example, teacher and peer-reports; since anger is usually communicated without the necessity for words.

Anger: Its Physiological Experience and Expression

In their classic study of a man who had a chronic stomach fistula, Wolf and Wolff (1942) reported observations of Tom's stomach lining as well as the activity of his stomach in various situations. They found that fear regularly reduced the gastric activity and blood flow; when annoyed, angry or resentful - Tom's stomach reddened and stomach contractions and acidity increased. Wolf and Wolff's 1948 findings seem to indicate that anger and resentment result in cholinergic excitation, while fear and anxiety seem to excite adrenergic pathways.

Anger and Fear

According to Cannon's Emergency Theory (Cannon, 1929), anger as well as fear induces sympathetic excitation and adrenaline secretion. Yet Arnold (Vol. II, 1960), in reviewing the literature, notes that Hall (1941) found that emotional defecation is abundant during fear and ceases during anger. Fleetwood and Diethelm (1951) mention bowel movements as one of the symptoms of marked anxiety and do not list it

as a symptom of anger or resentment. Tears are abundant during temper tantrums; are completely inhibited during fear—the secretion of tears being an effect of parasympathetic excitation (Lund, 1930). Anger appears to be associated with noradrenaline secretion, increased blood pressure, and cholinergic vasodilation. It was also noted that the heart develops slower, stronger and larger contractions when one is experiencing anger as opposed to fear, and thus, it sustains a greater volume of blood at high pressure in order to support the somatic compulsion to destroy the cause of anger (Plutchik, 1962).

Ax (1953), in exploring the physiological differentiation between fear and anger, examined Arnold's hypothesis that fear is a strong arousal state of the sympathetic branch of the autonomic system, whereas anger is a strong arousal state of both the sympathetic and parasympathetic branches of the autonomic nervous system. These differences could be attributable to different intensities of arousal or merely to unique response patterns of the individual. In his study of humans in fear producing and anger producing conditions, Ax (1953) found that the following changes in bodily functions were

greater for anger than for fear: diastolic blood pressure rises, heart rate falls, the number of rises (spikes) in skin conductance is greater, and the actual value of the increase in muscle potential is greater. The following changes were greater for fear than for anger: skin conductance increases, the number of muscle potential spikes increases, and the respiration rate increases. Ax concluded that these patterns did not support Arnold's proposal that anger is a strong reaction of both the sympathetic and parasympathetic branches of the autonomic nervous system whereas, fear is but a sympathetic reaction. Ax's investigation suggests a greater physiological integration during anger.

Anger and Aggression

Evans and Strangeland (1971, p. 412) proposed, "the relationship between anger and aggression is analogous to the relationship between fear and anxiety. Thus anger may be considered to occur in response to specific stimuli, and aggression may be considered as a behavior enacted to reduce anger." Findings by Geen and Berkowitz (1966 & 1967) and Geen (1968)

suggest that while anger may be a concomitant of aggression, it may not be a necessary antecedent condition.

Jackson (1954, p. 14) in a review of the literature on aggression comments, "its source appears to be the emotion of anger, and its aim, the destruction of the object which arouses this emotion." An earlier writer in a similar vein proposed, "A living being develops a destructive impulse when it wants to destroy a source of danger . . . and is an attempt to avoid anxiety and to preserve the ego in its totality. (We) destroy in a dangerous situation because (we) want to live and do not want to have any anxiety." (Reich, 1942, p. 155). Reich adds that although the aim of destruction is not pleasure, yet the release from the painful (or frustrating) situation producing the anger is a pleasurable experience. From this point of view, it is possible to think of anger when expressed successfully as a pleasurable tension release. Sullivan (1956, pp. 95-96) points out that "anger is one of the ways of handling anxiety that we learn early . . . its purpose presumably is not to enable us to escape threatening or injurious situations, but to destroy them or drive them away."

Goodenough's (1931) study of anger in young children depicts anger as usually taking the form of some sort of motor or verbal attack upon the offender, although it sometimes has the appearance of an explosive form of outlet. Anger responses, wrote Valentine and Wickers (1941, p. 246), "occur when an individual is somehow blocked in the activity he is engaged in or about to become engaged in, and is identified by such acts as kicking, stamping, striking, screaming, etc." Iverson (1955, p. 13) in a factor analytic study of anger ratings assigned to various types of situations, concluded that, "anger is most likely to occur in connection with descriptions of situations which contain insurmountable barriers to the reaching of goals, and least likely to arise in connection with references to sensory or physiological stimulation."

Causes of Anger

The literature discussed various causes of anger. From these, the ~~common~~ causes of anger include: 1.) "the feeling of being either physically or psychologically restrained from doing what one intensely desires to do" (Izard, 1977, p. 330).

A restraint may be in the form of a physical barrier, rules, regulations, or one's own incapability. An individual's immediate response may not be that of anger if the restraints are insidious or disguised. However, if a barrier actually frustrates the realization of a highly desirable goal or some aspect of self-expression, then the eventual outcome will most probably be anger. Low levels of anger may be restrained for a long time, at some expense to the person's health and a risk of an ultimate explosion of rage. 2.) personal offense; 3.) ordinary frustrations; and, 4.) interference with ones interest or joy. (Izard, 1977; Plutchik, 1962) Furthermore, "since most causes of anger are a function of personal experiences, cultural conditioning and learning, there are not many stimuli (or situations) that cause anger and anger alone" (Izard, 1977, p. 330).

In discussing the causes and precursors of anger, Tomkins summarized his theory (Tomkins, 1963, p. 64), ". . . anger may be learned as a substitute affect. Since we believe that anger - rage is an affect which is innately activated by the same type of stimulation as is distress - anguish, except that

it is a somewhat higher level of density of neural stimulation which is involved, it easily happens that distress itself, experienced unrelieved for some time, can produce a sufficient increment of stimulation to innately activate anger." Tomkins theorized anger to be a density-level emotion which is activated in the neural centers by a moderately high and steady level of neural activation. He explained that distress is also activated by a steady, but lower level of neural stimulation, and with prolonged distress the likelihood of anger activation increases. That is, the probability of the density of neural firing going above the anger threshold becomes greater with any increases in the levels of stimulation experienced in distress. Zillman and Bryant's (1974) findings are consistent with Tomkins theory; they found that prior stimulation ("excitatory residues") facilitated both anger and aggressive action. A person experiencing a high level of excitation, which may be entirely unrelated to anger, can be more readily provoked to aggression than someone experiencing a lower level of arousal.

Bandura differs from the other authors in his approach to the causes of anger in his social learning analysis.

"As a result of paired, direct, symbolic, or vicarious experiences, formerly neutral stimuli begin to acquire motivating and response-directive properties. Environmental stimuli gain the capacity to activate physiological reactions and emotional behavior through association with the evocative events. Such learning often occurs on the basis of direct experience. People come to fear and to avoid individuals who are commonly associated in their experience with pain, or distress. Through a similar learning process they become easily angered by the sight or thought of individuals with whom they have had hostile encounters. And they can work themselves up into a state of anger by ruminating about mistreatment from offensive provocateurs," (Bandura, 1973, p. 45). "In social learning theory, rather than frustration generating an aggressive drive, aversive treatment produces a general state of emotional arousal that can facilitate a variety of behaviors, depending on the types of responses the person has learned for coping with stress and their relative effectiveness" (Bandura, 1973, p. 53).

"It appears from the available evidence that fear and anger have similar physiological correlates. Looking at the physiological records alone, one could not distinguish whether the individuals had been frightened or angered. The varied array of emotions experienced phenomenologically apparently stem from a common diffuse state of emotional arousal rather than from distinct drive states. It seems unlikely that small differences in the otherwise identical pattern of physiological arousal are sufficiently distinguishable, if at all, to serve as cues for differentiating among diverse emotional states. Whether people experience their emotional arousal as fear, anger, euphoria, or some other state depends not on the particular somatic cues, but on a number of external defining influences. People judge their emotions partly from the nature of the instigating conditions" (Bandura, 1973, p. 55).

An individual may be aware of the source of his/her arousal but uncertain regarding how to respond to this state. Schachter

and Singer (1962, p. 380) suggested that, "one labels, interprets and identifies this stirred-up state in terms of the characteristics of the precipitating situation and one's apperceptive mass. The cognition in a sense serves a steering function. Cognitions arising from the immediate situation as interpreted by past experience provide the framework within which one understands and labels his feelings."

"In short, people do not have to be angered or emotionally aroused to behave aggressively. A culture can produce a highly aggressive people, while keeping frustration at a low level, by valuing aggressive accomplishments, furnishing successful aggressive models, and ensuring that aggressive actions secure rewarding effects. Since aggression does not originate internally and its social determinants are alterable, social learning theory holds a more optimistic view of man's capacity to reduce the level of human destructiveness" (Bandura, 1973, p. 59).

According to Berkowitz's motivational analysis, ". . . anger arousal as well as past learning to be aggressive only create a readiness to act in a hostile manner. Suitable cues, stimuli associated with the present or previous anger instigators, presumably must be present if the aggressive responses are actually to occur" (Berkowitz, 1966, p. 131). Anger arousal "readies" the organism for hostile actions; the stimuli triggers them off. At low levels of anger arousal, a powerful releaser is considered necessary to elude an aggressive response, but

a relatively weak external stimulus will suffice under high instigation. Berkowitz's theory differs from the traditional frustration-aggression theory mainly in the role assigned to the external cues. The traditional version depicts aggression as largely impelled by internal excitation, whereas Berkowitz considers frustration-produced arousal as simply a potential to aggress which requires an appropriate external releaser before the result is aggression.

CHAPTER III

Problems in the Measurement of Anger in Children

As already stated, there has been little experimental/clinical work dealing with the measurement of anger and the treatment of anger problems. And, when looking specifically at the measurement of anger in children, the literature is particularly scarce. What work does exist is very general, for example, behavioral problem checklists for the identification of emotionally disturbed children (Lovick Miller; Quay and Peterson, 1967) which includes items dealing with a wide range of behaviors which are not narrow enough in scope to deal strictly with anger.

Other problems confronting the experimenter who is attempting to measure anger in emotionally disturbed children is population specific. For the most part, emotionally disturbed children have very short attention spans, making any kind of measurement or testing (whether physiological or self-report) a difficult task. Also, due to their generally high level of impulsivity, it is important to have a trained experimenter

to administer the self-report or peer-report forms in order to preclude a haphazard approach; and in the event of physiological measurement, to prevent tampering with the equipment, i.e., to keep the children on task. Children may be afraid or anxious when being tested or around physiological equipment and therefore, resistant to the procedures. An additional problem related to short attention spans and impulsiveness would be to get the children to cooperate for a long enough period of time to administer the entire self-report or to obtain a base rate of physiological measures and then to proceed through the various experimental conditions. One alternative would be to provide a number of shorter testing sessions.

Novaco (1975, p. 2) has pointed out that, "the inter-correlation of self-report, behavioral and physiological measures of emotional states like anxiety and anger tends to be poor, and that there has no doubt been discouragement with regard to measurement techniques." Taking this point into consideration, it seems that in order to proceed and progress in the area of anger measurement and treatment, researchers must utilize the best available report and physiological

techniques, and to improve upon them by further research and development. The interest in the present study is in the assessment of teacher-report, peer-report and self-report methods. The following discussion is limited to these three techniques.

Report Techniques

According to Digman (1965), the effectiveness of behavior ratings has been in question for some time. He gives two primary reasons for this:

- 1.) behavior ratings reflect numerous biases on the part of the raters.
- 2.) the widespread belief that ratings give little beyond "general overall impressions" which might result in either:
 - a.) halo effect - teachers (or peers) at VTCC knowing that the children here are disturbed would then rate them as more disturbed, or
 - b.) habituation effect - teachers (or peers) in this facility are accustomed to disturbed behavior and therefore would rate children as less disturbed than they are in reality (Behar & Stringfield, 1974)

The above types of effects are examples of the fallacies inherent in all rating or report techniques (procedures), and unfortunately there are no ways to insure that any single one or all of these influences are not operating and influencing

the results to an unknown degree (Behar & Stringfield, 1974).

However, there are steps that may be taken in order to minimize the above effects:

- 1.) choosing the appropriate scaling or report method aids in reducing biases.
- 2.) Guilford (1954) indicates that the use of well-trained raters can do much to reduce the subjectivity of ratings.
- 3.) halo and habituation effects may be minimized by separating judgments in time, by judging all persons on one scale at a time and by providing sufficient opportunity for the scorers to observe (Digman, 1965).

Yet, the validity of behavior ratings may be considered and logically supported by two approaches. First, behavior ratings may be regarded as constituting a criterion domain, and the researcher then attempts to discover relationships with antecedents. The other approach would regard ratings as a rather good first approximation to behavior measurement, which will gradually give way to more objective instruments (Digman, 1965).

Martin (1961) found that the correlations among physiological, self-report and behavioral measures were typically poor and insignificant. Martin also found that measures of closely related functions (systolic and diastolic blood pressure) had sizeable correlations, whereas, the inter-

correlations between different autonomic systems (blood pressure and GSR) were very low. Correlations between self-report measures in Novaco's (1975) study were variable, but a number of them (16 of 84) were of a magnitude greater than 0.60, which is again consistent with Martin's review of anxiety measures, for which correlations tended to be strongest for self-report indices (Novaco, 1975). Thus, from this information, it appears that behavior and self-report ratings do have some semblance of accuracy.

Teacher Report

Realistically, the persons in a child's environment whom one would assume to be the most informed judges would be the parents of the child. However, low parental agreement has frequently been reported (Sarason, Davidson, Lighthall, et al., 1960; Dreger, Lewis, Rich, et al., 1964) which suggests that parents are not able to objectively describe the maladaptive behavior of their own children (Ross, Lacey & Parton, 1965). Another interpretation of this phenomenon is that children behave differently around their parents than around

other adults. Quay and Sprague (1966, p. 45) found that the "agreement between parents is greater than between parents and teachers, and agreement is greater for the conduct dimension than for the personality dimension. Only in the case of the teacher's rating of conduct are the dimensions themselves significantly correlated."

From a literature review regarding behavior symptoms in elementary school children, Werry and Quay (1971) concluded that behavior symptom checklists have a surprisingly satisfactory interrater reliability (especially between parents and among teachers) and test-retest reliability. Behavior symptom checklists can discriminate between normal and emotionally disturbed children with a considerable degree of validity.

"Teachers are . . . in a position to observe regularly the behavior of children. While it is recognized that school represents only one of several settings in which a child is expected to function, it is probably the most uniform setting with relatively standardized demands" that are placed upon the child and the one where children are most likely to encounter difficulty. (Ross, et al., 1965, p. 1014).

Ullman (1957) in a study of 9th graders in a public school system, sought to discover the degree of reliability of teacher judgments in the identification of children who needed psychological assistance. Ullman also looked at the relationship between teacher and student judgments regarding which students were perceived as maladjusted. The conclusion drawn from this study indicated that teacher ratings, self-descriptive data, and peer ratings when combined gave the most lucid, complete and economical picture of the adjustment status of children. Teacher ratings were found to be better predictors of maladjusted children when the resultant behavior was manifested overtly or acted out, while self-descriptive data appeared to be better for evaluating that aspect of maladjustment which had to do with feelings, attitudes and inner tensions. Ullman found that self-descriptive ratings had the poorest predictive ratings of adjustment when compared to teacher and peer ratings, but did add a necessary substance to the total appraisal. Bower (1969) notes that next to teacher judgment, research findings point to the perceptions of a child's peers as the most valid and reliable indicator of pupil adjustment. Therefore, the approach of this study is to utilize all three types of measuring

techniques (teacher, peer and self-report) in order to obtain a total appraisal of each subject's state of anger and anger control, and in order to assess each technique.

Peer Report

Ullman's (1957) study as noted in the preceding discussion points to the importance of the peer-report method. According to Mayo (1956, p. 317), the popularity of peer-report techniques has been derived from the facts that: "1.) this type of data is easy to obtain in almost any organized group; 2.) the reliability is usually satisfactory and is often high; 3.) peer-report data usually correlates higher than test scores and other variables with most criteria." In their article describing the development of a peer-report measure of aggression for elementary school children, Walder, Abelson, Eron, Banta and Laulicht (1961) found that not only did peers agree on which items or descriptions fit their classmates, but also that teachers and peers agree. "The self-ratings did not enter into this agreement net, but rather, seemed to be more influenced by social desirability. This was suggested by the relation between self-ratings and role anticipation" (Walder, et al., 1961, p. 534). Furthermore,

their results indicated that while the children may not have been able to tell one aggression item from another, they could certainly distinguish between an aggression item and a non-aggression item (and a socially desirable item from a non-socially desirable item) (Walder, et al., 1961). In this study, it was assumed that emotionally disturbed children are aware of their peers' behaviors and anger on the unit and are able to report this accurately to an experimenter. Children are with their peers all day and therefore see and know of behaviors and feelings of which teachers and other staff may not be aware.

Self-Report

Reiterating Ullman's (1957) findings, self-descriptive, teacher and peer ratings when considered together give the clearest, most complete, and parsimonious picture of the adjustment status of children. Although self-descriptive ratings had the poorest predictive ratings of adjustment when compared to teacher and peer ratings, they did add a necessary substance to the total appraisal. Herjanic, et al., (1975) found with children and mothers who had been receiving psychiatric services, that when their answers to psychiatric interviews were compared,

there was an average of 80% agreement between mothers and their children on all questions. Agreement between parent and child was highest on factual information (84%). This would tend to support the thesis that children are reliable reporters of their own behaviors.

Research Problem

From the research cited regarding teacher-report, self-report and peer-report techniques of behavioral measurement, it seems that this is a valuable avenue for approaching the measurement of anger despite the questions raised by some authors. The existing literature has dealt with behavioral measurement (Spivak & Spotts, 1965; Quay & Quay, 1965; Quay & Sprague, 1966; Bower, 1969; Werry & Quay, 1971; Behar, 1974; Toulitos & Lindholm, 1975) in diagnosing specific or general behavior problems (ex., emotional disturbance). Some authors have investigated closely related areas. Walder, et al., (1961) developed a peer-rating measure of aggression and Buss and Durkee (1957) described an inventory for hostility. The only specific means of measuring anger mentioned in the literature were the Reaction Inventory to Measure Anger developed by Evans and Strangeland

(1971) and The Anger Self-Report by Zelin, Adler and Myerson (1972). However, in all the literature reviewed, there were no scales or report techniques that had been developed expressly for the purpose of measuring anger in children.

Therefore, to date, no known study has focused upon measuring anger in emotionally disturbed children by using teacher-report, self-report, and peer-report methods. Specifically, the present study will utilize these three methods to measure anger in emotionally disturbed children and to assess the adequacy of these techniques.

Hypothesis

The general hypothesis of this thesis is that teacher-report, self-report and peer-report are valid and reliable techniques for measuring anger in emotionally disturbed children.

In terms of the design of the present study, the predictions under the hypothesis are:

- 1.) Teacher-report and peer-report measures will be significantly correlated.
- 2.) Self-report will be significantly correlated with the other measures, but to a lesser degree.

CHAPTER IV

MethodSubjects

Subjects were 38 male and female emotionally disturbed children from the Virginia Treatment Center for Children, a short-term residential psychiatric facility in Richmond, Virginia. There were 28 boys and 10 girls, with a mean age of approximately eleven years. Ages ranged from 7 to 15 years. The diagnoses for these children were primarily one of the behavior disorders of childhood or one of the neurotic disorders. (Montgomery, Nelson, and Finch, 1979). A parental or guardian consent form and a student consent form were acquired for all children who participated in the study, and all children were free to discontinue at their request. (See Appendices E & F).

Instruments

Each student was given the Children's Inventory of Anger (CIA) and the Peer-Report of Anger (PR). The teachers were given the Teacher's Rating Scale of Student's Anger (TR) to complete for each of their students.

The Children's Inventory of Anger (VTCC, 1978) is a paper and pencil measure of the student's self-perceived anger. It has 71 items, with each item having a possible 1-4 rating. In order to aid the children in deciding which ratings to use, four stick figures with varying facial expressions were on the front of the test booklet along with a brief description of what each expression represented. Also, at the top of each page containing the items the faces of these figures appeared. A rating of 1 meant, "I don't care. That situation doesn't even bother me. I don't know why that would make anyone mad, (angry). A rating of 2 meant, "That bothers me but I'm not too angry (mad) about it. I'll just forget it." Rating an item with a 3 was interpreted as, "I'm really mad (angry) but I think I can control myself." And rating an item with a 4 was interpreted as, "I can't stand that! I'm furious! I feel like really hurting or killing that person; or destroying that thing!" (see Appendix A). Subjects were told that they would be read some general situations that sometimes make boys and girls mad. They were asked to listen to each statement carefully and to imagine that it was actually happening to them. Then they were asked to decide how angry they would get in that particular

setting by rating their degree of anger on a 1 to 4 scale.

The Children's Inventory of Anger is scored by summing the item ratings, the minimum being 71 points and the maximum 284 points. This inventory was developed at VTCC in 1978 by Montgomery, Nelson, and Finch (Ibid, 1979). They reported a test-retest reliability of .823, $p < .01$.

The Peer-Report of Anger is a 40 item paper and pencil questionnaire also developed at VTCC in 1978. (see Appendix B) It is a peer-nomination task and for this administration the boys and girls were asked to listen to the statements read by the examiner and to answer each statement by giving the name of the student on their unit the statement best described (there are four separate living units housed at VTCC each having a capacity of 11). The questionnaire is scored by summing the total number of times a student was nominated for each question by all peers on his/her unit and converting it into a proportion. This was repeated for each item and for each student. The forty items were divided, during the statistical procedures, according to whether they represented anger problems or non-anger expression, and a separate analysis was performed for each. There is no information regarding the reliability or the validity of this instrument at this time.

The Teacher Rating Scale of Student's Anger was constructed at VTCC utilizing parts of three existing behavior checklists:

- 1.) the items loaded on the conduct problem factor of the Quay-Peterson Behavior Problem Checklist (indicating unsocialized aggression and psychopathy);
- 2.) items loading on the emotional overresponsiveness factor of the Devereux Child Behavior Scale; and,
- 3.) items on the aggression scale of the School Behavior Checklist by Lovick Miller (Appendix D).

These items were presented to six professionals at VTCC (including one psychiatrist, two psychologists and three psychology interns). These judges were asked to choose items which described, reflected or indicated anger. Those items that received a minimum of four out of a possible six votes were retained for the Teacher Rating Scale of Student's Anger (Appendix C). This procedure resulted in a list of 29 items.

This scale utilized a 1-4 rating scale for each item. Scoring is accomplished by summing the item ratings. The minimum is 29 points and the maximum is 116 points. Test-retest reliability was .72, $p < .01$ for the 27 out of the original 38 students who were still at VTCC after 6 weeks.

Procedure

For every student assigned to their class, teachers were asked to complete a Teacher's Rating Scale of Student's Anger based upon their knowledge of each student's behavior. Approximately 6 weeks later they were asked to repeat this procedure. This was done in order to obtain data on the reliability of the teachers' reports. Students were administered individually the Children's Inventory of Anger. The questions were read to all of the students and their answers were recorded. The Peer-Report of Anger was administered in a similar manner. The information the children reported on the Peer-report was limited to data pertaining to how their peers dealt with anger - the peers that each student reported on were limited to those who were on their own units (this number ranged from 9 to 10 peers per unit).

CHAPTER V

Results

Table 1 presents the means and standard deviations for the Children's Inventory of Anger (CIA), the Teacher's Rating Scale of Student's Anger (TR), and the Peer-Report of Anger (both Part 1 - anger problems, and Part 2 - non-anger expression) for the entire sample.

Table 2 presents the Pearson Product Moment correlations among the Children's Inventory of Anger (CIA), the Teacher's Rating Scale of Student's Anger (TR), the Peer-Report of Anger (both Part 1 - anger problems, and Part 2 - non-anger expression), and race, sex, and age. There were no significant sexual or racial differences in the reporting of anger. There was a significant negative correlation between the CIA and age, ($r = -.41, p < .01$), meaning that the older students had lower scores on the CIA. The Peer-Report - non-anger was significantly negatively correlated with the CIA ($r = -.36, p < .05$), and the Peer-Report - anger problems ($r = -.52, p < .01$). Thus, as would be expected, students who scored high on the PR-non-anger tended to have lower CIA scores and also lower PR-anger scores. This

TABLE 1

Means and standard deviations for the Children's Inventory of Anger (CIA), the Teacher's Rating Scale of Student's Anger (TR), and the Peer-Report of Anger (PR) (both Part 1 - Anger problems; and Part 2 - Non-anger expression).

Report Forms	\bar{X}	SD
CIA	196.95	41.56
TR	63.75	20.20
*PR Part 1	2.68	2.16
*PR Part 2	1.13	.75

*transformed scores

TABLE 2

Correlation coefficients between Sex, Age, Race, Children's Inventory of Anger (CIA), Teacher's Rating Scale of student's Anger (TR), and the Peer-Report of Anger (Part 1 - Anger problems; and Part 2 - Non-anger expression).

	Age	Race	CIA	TR	PR Part 1	PR Part 2
Sex	-.12	-.22	-.18	-.09	.08	.07
Age		-.05	-.41**	-.14	-.02	.02
Race			.06	.23	-.15	.01
CIA				.26	.36*	-.36*
TR					.34*	-.21
PR Part 1						-.52**

* $p < .05$

** $p < .01$

high negative correlation between PR-anger problems and PR-non-anger expression adds confidence to the two constructs being measured by the peer-report method. Thus, as a child is rated high on the anger expression dimension, the child is given a low score on what might be considered the obverse construct, i.e. non-anger expression items. The PR-anger problems was significantly positively correlated with the Teacher Rating Scale of Student's Anger (TR), TR, ($r = .34$, $p < .05$), and the Children's Inventory of Anger (CIA), CIA, ($r = .36$, $p < .05$). Thus, when subjects were reporting on their peers' problem behaviors (PR-anger problems), their judgments tended to agree with the teachers' ratings and the peers' self-evaluations at a significant level.

It is also of interest to consider the relationship between the TR and the PR non-anger. The TR was constructed in such a way that high scores would be indicative of anger problems and low scores would reflect an absence or relatively low value of anger problems (same as the CIA & PR #1) as observed by the teacher. For the PR non-anger expression, high scores were the equivalent to little or an absence of anger problems. Therefore, a strong negative correlation might be expected.

A correlation coefficient of $-.21$, $p < .22$ was obtained. It was not significant although a trend was indicated. Another relationship of importance was that between the CIA and the TR. For both scales high scores reflected anger problems. No significant correlation was found between what the teachers observed regarding their students' anger and what the students reported about their own anger. However, a correlation coefficient of $.26$, $p < .12$ was found, which points to a trend.

CHAPTER VI

Discussion

The primary purpose of this study was to investigate the feasibility of measuring anger in children and specifically to examine three means of obtaining information about a child's problems with anger. The relationship between peer-report, self-report and teacher-report was of prime interest in order to determine their effectiveness as reporting techniques.

The first prediction under the hypothesis stated that the Teacher's Rating Scale of Student's Anger (TR) and the Peer-Report of Anger (Part 1 - Anger problems; and Part 2 - Non-anger expression) would be significantly correlated. The present study found a significant (although low) positive correlation between the TR and the Peer-Report Part 1 - Anger problems. The TR was not significantly correlated with the Part 2 - Non-anger expression of the Peer-Report of Anger. This was a surprise due to the fact that a negative correlation would be a realistic expectation; since the TR was measuring anger problems and the PR Part 2 Non-anger expression. A trend ($r = -.21$, $p < .22$) in the expected direction was found. However,

the results indicate that there is a relationship between the two techniques when looking at anger problems (excluding Part 2 - Non-anger expression of the Peer-Report of Anger). This finding suggests that these two scales were measuring similar constructs which appear to best described as anger. The fact that Part 2 Non-anger expression of the PR and the TR were not significantly (negatively) correlated may be due to the fact that the TR includes items very narrow in scope which deal exclusively with anger, whereas Part 2 of the PR is a broader construct and thus no strong relationship exists. There are two particular limitations of the TR that should be considered. They are the teacher specific restraints which may affect the student's anger scores. These restraints may be in the form of the limited time that the teachers are with the children (approximately 4 hours per day) and the fact that the classroom structure may influence the student in some manner. However, the PR Part 1 anger problems and the PR Part 2 non-anger expression were correlated negatively and the PR Part 2 non-anger expression was negatively correlated with the CIA.

The second prediction under the hypothesis stated that the self-report (CIA) would be significantly correlated with

the other measures, but to a lesser degree. The results did not support this hypothesis in its entirety. The CIA was not significantly correlated with the TR, although a trend TR, ($r = .26, p < .12$) was obtained. This outcome may be explained by Ullman's (1957) study in which he found that teacher ratings were found to be better predictors of maladjusted children when the resultant behavior was manifested overtly or acted out, while self-descriptive data appeared to be better for evaluating that aspect of maladjustment which had to do with feelings, attitudes and inner tensions. The CIA was significantly positively correlated with Part 1 Anger problems and Part 2 Non-anger expression of the PR. These results indicate a relationship between the CIA and the PR measure.

The CIA was also significantly negatively correlated with age. This indicated a tendency for those older children to score themselves lower on the CIA which may reflect social desirability or the development of better controls. Also, the younger children at VTCC may have more serious problems since they were diagnosed as having problems at an early age. That is, the significant negative correlation between the CIA and age may be due entirely to the fact that the younger children

in this study have greater degree of adjustment problems than older children. As Walder, et al., (1961) found, self-ratings seem to be more influenced by social desirability. This is consonant with the present findings. A possible explanation would be that the older children are more aware of social expectations than the younger children and respond accordingly.

Although it may be argued that the significant correlations obtained in this study were relatively low and were not consistent with the predictions under the hypothesis, the data and the relationships between report forms were in the direction predicted. In this case, the magnitude of each correlation may not be of prime importance because each form may have measured a different aspect of anger as per Ullman's (1957) findings. Thus, combining the three techniques gives a broad picture of each individual's degree of anger problems.

Due to the limitations of this study, there are other points which have a bearing on this study and which should be considered in future studies. Various theorists have considered the relationship between anger and depression and have noted that a depressed individual may be experiencing relatively high levels of anger although this may not be behaviorally apparent (no acting-

out behaviors). Therefore, in constructing anger rating scales, this point should be remembered. One problem especially in the TR rating scale is the limited scope of behavioral acts which reflect anger (the majority are aimed at acting-out behaviors). This leads to a critical question - can anger be adequately conceptualized? Of course, anger is a more intricate construct than what may be tapped by the TR or in fact by the other two rating scales. However, in combination they are believed to have given a close approximation of each child's level of anger.

Continued work is needed in refining each report form as this study was an initial investigation. Also, training the teachers in rating anger before the actual task would be of benefit. In addition, agreement among observers as to the appearance or non-appearance of certain agreed upon symptoms as indicative of anger would also be important. Another possible course for future investigations would be to use physiological measures and correlate them with the more subjective reports used in the present study.

In the meantime, it is hoped that the present study has helped delineate the problem and to suggest some possibilities for future research.

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APPENDICES

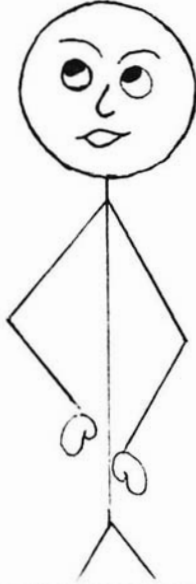
APPENDIX A



These are some general situations that sometimes make boys and girls angry (mad). Read (listen to) each statement carefully. Try to imagine that it's actually happening to you. Then decide how angry (mad) you would get in that particular setting.

1.

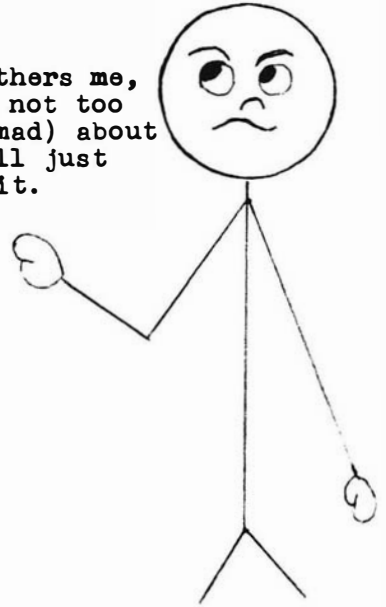
I don't care. That situation doesn't even bother me. I don't know why that would make anyone mad (angry).



2.

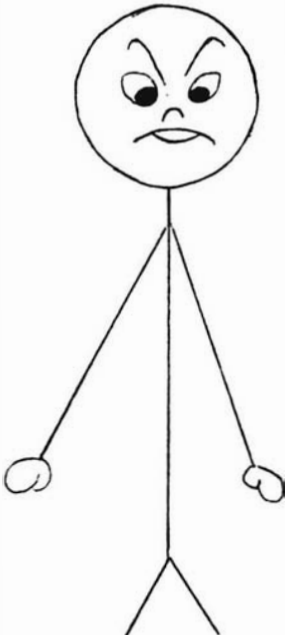
50

That bothers me, but I'm not too angry (mad) about it. I'll just forget it.



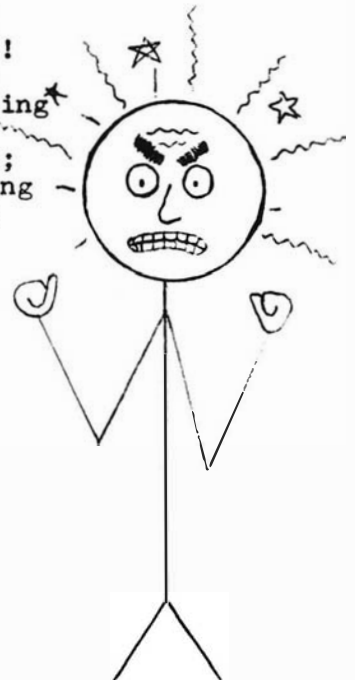
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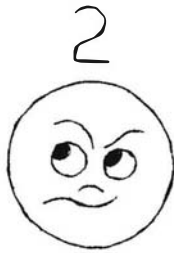
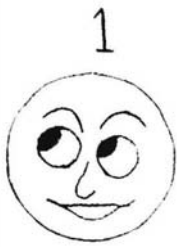
I'm really mad (angry), but I think I can control myself.



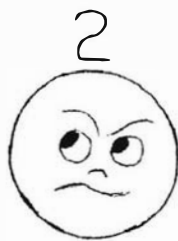
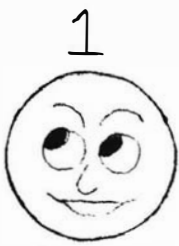
4.

I can't stand that! I'm furious! I feel like really hurting* or killing* that person; or destroying* that thing!

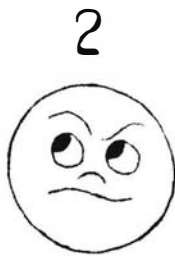
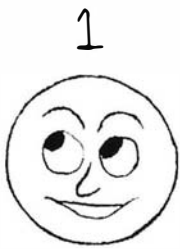




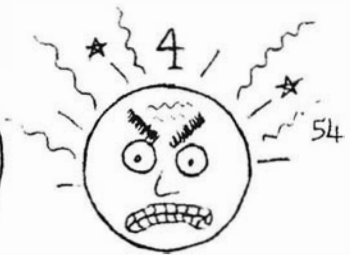
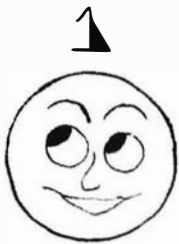
- 1 2 3 4 (1) On the playground a boy (girl) younger than you pushes you down.
- 1 2 3 4 (2) You are right in the middle of your favorite television program and your mother calls you to dinner.
- 1 2 3 4 (3) You convince your mother to let you ride your bike and then you find that it has a flat tire.
- 1 2 3 4 (4) You clean up your room on Saturday and want to go out to play, but your mom says you have to clean out your drawers and closet, too.
- 1 2 3 4 (5) You know you are right about something, but your mom insists that you are wrong.
- 1 2 3 4 (6) Your friends are making fun of you.
- 1 2 3 4 (7) You are talking to your brother or sister or friend but he ignores you.
- 1 2 3 4 (8) Being blamed for something that was not your fault.
- 1 2 3 4 (9) You are going to show someone your new trick on your bike and you can't do it again.
- 1 2 3 4 (10) Somebody calls you a "chicken".
- 1 2 3 4 (11) You put your only quarter in the Coke machine and it takes your money.
- 1 2 3 4 (12) Someone in your classroom acts up, so the whole class has to stay after school.
- 1 2 3 4 (13) Someone cuts in front of you in the lunch line.
- 1 2 3 4 (14) You brought your favorite candy bar in your lunch today but when you go to get it out, it's all melted.
- 1 2 3 4 (15) Your mom makes you do a job that was really a job your brother or sister failed to do.
- 1 2 3 4 (16) Your mom refuses to buy your favorite cereal at the grocery store.
- 1 2 3 4 (17) Your friends say that they are going to come over Saturday and they do not come.
- 1 2 3 4 (18) On your bike you come to a steep hill and you have to get off and walk all the way up it.



- 1 2 3 4 (19) You want to go somewhere with a friend but your mom says no without any reason.
- 1 2 3 4 (20) Someone calls you a liar.
- 1 2 3 4 (21) Teachers who give out a lot of homework on the weekend.
- 1 2 3 4 (22) You have to do your homework and your brother or sister is getting to watch T.V.
- 1 2 3 4 (23) While it is raining, you are walking down the street and a car splashes you with mud and water as it drives by.
- 1 2 3 4 (24) While playing a game, someone on the other side tries to rough you up on purpose.
- 1 2 3 4 (25) Being told you are not old enough to do something.
- 1 2 3 4 (26) The teacher's pet gets to do all of the special errands in class.
- 1 2 3 4 (27) It snows, and your parents make you go to school anyway.
- 1 2 3 4 (28) You tell someone a real secret and they blab it to everyone.
- 1 2 3 4 (29) Someone calls your mother a name.
- 1 2 3 4 (30) You are playing a game and someone on the other side tries to cheat.
- 1 2 3 4 (31) You are trying to do your work in school and someone bumps your desk on purpose and you mess up.
- 1 2 3 4 (32) You ask your brother (sister) to do something for you and they say "no".
- 1 2 3 4 (33) You are watching T.V. and someone turns it to another station.
- 1 2 3 4 (34) Your brother or sister wears your clothes that you told them not to.
- 1 2 3 4 (35) You see your brother or sister riding your bike when they know they're not supposed to.
- 1 2 3 4 (36) Your mom or dad promises you something and you don't get it.
- 1 2 3 4 (37) Your friends are playing a game but won't let you play too.
- 1 2 3 4 (38) Somebody you don't like punches you.
- 1 2 3 4 (39) Being told "I warned you not to do it" once something goes wrong.



- 1 2 3 4 (40) Your mom says she doesn't want you to see certain friends.
- 1 2 3 4 (41) Your mom yells at you, "balls you out", embarrasses you in front of other people.
- 1 2 3 4 (42) You do something special for a friend and later they won't do something for you.
- 1 2 3 4 (43) You tell the truth about something but your parents don't believe you.
- 1 2 3 4 (44) The teacher marks X's all over your homework.
- 1 2 3 4 (45) Your friends pick you last to be on a baseball team.
- 1 2 3 4 (46) Your sister breaks your favorite toy after you have asked her not to play with it.
- 1 2 3 4 (47) Your parents won't give you a "yes" or "no" answer but say "we'll see" when you want to plan on doing something.
- 1 2 3 4 (48) Your parents make you eat something you hate (e.g., spinach) in order to "clean your plate".
- 1 2 3 4 (49) You tell your mom that you don't have any homework but she makes you study anyway.
- 1 2 3 4 (50) The bus driver takes your name for acting up on the bus, but everybody else was acting up too.
- 1 2 3 4 (51) You have to go to bed at 9:30 even in the summertime and your friends get to stay up until 10:30 or 11:00.
- 1 2 3 4 (52) Your mom says that you have to do your homework as soon as you get home before you can go out to play.
- 1 2 3 4 (53) You get lost at the shopping center and when you finally find your parents your dad is mad and screams at you.
- 1 2 3 4 (54) At lunch, you select a piece of pie and the kid behind you knocks it out of your hand.
- 1 2 3 4 (55) At school, two bigger kids come and take your basketball and play "keep away" from you.
- 1 2 3 4 (56) You didn't notice that someone put gum on your seat on the bus and you sit on it.
- 1 2 3 4 (57) You run to catch the bus to go home but just as you get there, it drives away.



- 1 2 3 4 (58) You want to go to sleep, but your brother keeps making noise.
- 1 2 3 4 (59) Every Sunday, the minister talks 20 minutes overtime.
- 1 2 3 4 (60) You accidentally bump into a stranger on the bus and he threatens to beat you up if you get near him again.
- 1 2 3 4 (61) You find a pair of baby kittens or puppies without a mother and your mom says you can't keep them.
- 1 2 3 4 (62) Seeing your mom and dad fight or have a big argument.
- 1 2 3 4 (63) Your friend gets what he wants for Christmas, but you don't.
- 1 2 3 4 (64) Your mother whips you.
- 1 2 3 4 (65) People won't be quiet when you are trying to watch your favorite T.V. show.
- 1 2 3 4 (66) You are playing football or jump rope and the football or rope breaks.
- 1 2 3 4 (67) You drop and break one of your favorite toys.
- 1 2 3 4 (68) You go to your desk in the morning and find out that someone has stolen some of your school supplies.
- 1 2 3 4 (69) Someone in your class tells the teacher on you for something.
- 1 2 3 4 (70) Someone spits at you.
- 1 2 3 4 (71) Someone tries to trip you on purpose.

APPENDIX B

Peer-Report

Directions: Below you will find statements which describe students' behavior. Answer each statement by giving the name of the student on your unit the statement best described.

1. Gets angry easily.
2. Spends most of the time being angry.
3. Spends the least amount of time being angry.
4. Student would least like to work with because of his anger.
5. Student would most like to work with because he does not get angry.
6. Student most likely to be unable to complete work due to anger.
7. Student who cusses the most.
8. Student who slams the door the most.
9. Student who spends the most time in the Quiet Room.
10. Student most likely to start fighting over nothing.
11. Student most likely to do things to get others angry.
12. Student who teases others the most.
13. Student least likely to respect the belongings and property of others.
14. Student most likely to respect the belongings and property of others.
15. The most cooperative student.
16. The least cooperative student.
17. The easiest student to get along with.
18. Does not forget things which anger him/her.
19. The easiest student to work with.

20. The most difficult student to work with.
21. Student most infuriated by any form of discipline.
22. Has to have everything his own way.
23. When angry, refuses to speak to anyone.
24. Fights back if another student has been asking for it.
25. Argues with the teacher.
26. Boasts of own toughness.
27. Fights with smaller children.
28. Never speaks up even when there is cause to be angry.
29. Is interested in school work.
30. Tries to get other children into trouble.
31. Does things just to attract attention.
32. Never fights back, even if someone hits or pushes first.
33. Is popular with classmates.
34. Never sticks up for self when picked on by other children.
35. Threatens to hurt other children when angry.
36. Finds fault with instructions given by adults.
37. Seems unconcerned when misbehaving.
38. Cries easily.
39. When angry, will do things like slamming the door or banging the desk.
40. Acts in a "dare-devil", fearless manner.

Student's Name _____ 57
Teacher _____
Date _____

APPENDIX C

Teacher Report

Please rate the behavior of the above student according to your knowledge of his/her behavior.*

- 1 2 3 4 (1) Disruptiveness; tendency to annoy and bother others.
- 1 2 3 4 (2) Jealousy over attention paid to other children.
- 1 2 3 4 (3) Fighting.
- 1 2 3 4 (4) Temper Tantrums.
- 1 2 3 4 (5) Disobedience, difficulty in disciplinary control.
- 1 2 3 4 (6) Destructiveness in regard to his/her own and/or other's property.
- 1 2 3 4 (7) Negativism, tendency to do the opposite of what is requested.
- 1 2 3 4 (8) Profane language, swearing and cursing.
- 1 2 3 4 (9) Irritability: hot tempered, easily aroused to anger.
- 1 2 3 4 (10) Bursts into tears or rage.
- 1 2 3 4 (11) Gets very upset or overemotional.
- 1 2 3 4 (12) Expresses anger in a poorly controlled way.
- 1 2 3 4 (13) Reacts with immediate anger or upset.
- 1 2 3 4 (14) Expresses anger.
- 1 2 3 4 (15) Teases or bullies other children.
- 1 2 3 4 (16) Starts fighting over nothing.
- 1 2 3 4 (17) Hits and pushes other children.
- 1 2 3 4 (18) Does things to get others angry.
- 1 2 3 4 (19) Will put up an argument when told not to do something.
- 1 2 3 4 (20) Uses abusive language towards other children.
- 1 2 3 4 (21) Is infuriated by any form of discipline.

*Ratings: 1) Not a problem
2) Occasionally a problem (acting this way from time-time)
3) Frequently a problem (common, usual, persistent)
4) Always a problem

Appendix C

- 1 2 3 4 (22) When angry, will refuse to speak to anyone.
- 1 2 3 4 (23) Fights back if another child has been asking for it.
- 1 2 3 4 (24) Sulks when things go wrong.
- 1 2 3 4 (25) Fights with other children.
- 1 2 3 4 (26) When angry, threatens to hurt other children.
- 1 2 3 4 (27) Gives other children dirty looks.
- 1 2 3 4 (28) Finds fault with instructions given by adults.
- 1 2 3 4 (29) Has a "chip" on shoulder.

- Ratings: 1) Not a problem
2) Occasionally a problem (acting this way from
time -time)
3) Frequently a problem (common, usual, persistent)
4) Always a problem

APPENDIX D

Please choose and check those items which describe, reflect or indicate anger. Use all lists included.

Items loading on the Conduct Problem Factor of the Quay-Peterson Behavior Problem Checklist

- 2. Restlessness, inability to sit down.
- 3. Attention seeking, "show off" behavior.
- * 8. Disruptiveness; tendency to annoy and bother others.
- 11. Boisterous, rowdiness.
- 16. Dislike for school.
- *17. Jealousy over attention paid other children.
- *25. Fighting.
- *27. Temper Tantrums.
- 33. Irresponsibility, undependability.
- *38. Disobedience, difficulty in disciplinary control.
- 40. Uncooperativeness in group situations.
- 44. Hyperactivity: "always on the go."
- *46. Destructiveness in regard to his/her own and/or other's property.
- *47. Negativism, tendency to do the opposite of what is requested.
- 48. Impertinence; sauciness.
- *51. Profane language, swearing and cursing.
- *53. Irritability: hot tempered, easily aroused to anger.

Items loading on the Emotional Overresponsiveness Factor of the Devereux Child Behavior Scale, American Journal of Mental deficiency, Vol. 69, 1976.

- 51. Often easily upset by peers.
- *59. Occasionally bursts into tears or rage.
- *69. Often gets very upset or overemotional.
- *13. Very often expresses anger in poorly controlled way.
- 42. Often complains of being picked on.
- *35. Often expresses anger.
- *28. Often reacts with immediate anger or upset.
- 50. Occasionally says others don't like him/her or are against him/her.

Items loading on the Aggression Scale of the School Behavior Checklist by Lovick Miller.

- 3. Interrupts whomever is speaking.
- * 5. Starts fighting over nothing.
- 11. Acts up when adults not watching.
- *13. Hits and pushes other children.
- 15. Finds fault with what other children do.
- 17. Is inconsiderate of others.
- *20. Does things to get others angry.

Appendix D

- *21. Will put up an argument when told not to do something.
- 23. Teases other children.
- 25. Is bossy with other children.
- *28. Uses abusive language toward other children.
- 29. Has changeable moods.
- *34. Is infuriated by any form of discipline.
- 35. Likes an audience all the time.
- 37. Has to have everything his own way.
- *39. When angry, will refuse to speak to anyone.
- *45. Fights back if another child has been asking for it.
- 46. Never seems to be still for a moment.
- 47. Argues with me.
- 49. Boasts of own toughness.
- 51. Tries to be the center of attention.
- *54. Sulks when things go wrong.
- 56. Resents even the most gentle criticism of work.
- *59. Fights with smaller children.
- 62. Is stubborn.
- 65. Tries to get other children into trouble.
- 66. Does things just to attract attention.
- *72. When angry, threatens to hurt other children.
- *77. Gives other children dirty looks.
- 78. Deliberately interrupts what is going on by asking silly questions.
- *81. Finds fault with instructions given by adults.
- 82. Seems unconcerned when misbehaving.
- 87. Acts in a "dare-devil", fearless manner.
- *89. Has a "chip" on shoulder.
- 92. Disturbs other children with boisterous humor.

Items loading on the Social Aggression Factor of the Devereux Child Behavior (DCB) Rating Scale, George Spivack, Ph.D., and Jules Spotts, Ph.D., Devereux Foundation, Devon, Penn., 1966.

- 23. Act bossy or domineering with other children.
- *27. Tease or bully other children.
- 38. Annoy or provoke peers into hitting or in other ways attacking him.

* Denotes items chosen by four of six judges which described, etc., anger. These items are those used to compose the teacher-report questionnaire.



COMMONWEALTH of VIRGINIA

*Department of
Mental Health and Mental Retardation
Virginia Treatment Center for Children*

LOCATION ADDRESS:
15 NORTH 10TH STREET
TELEPHONE 786-3129

MAILING ADDRESS
PO BOX 1-L
RICHMOND, VIRGINIA 23201

Dear Parents,

We are conducting a research study aimed at discovering more about anger in children. We would like your permission for your son/daughter, or _____,

_____ relationship, _____ name
to participate in this study.

The children will be asked simple questions about what makes them angry, how they feel in different situations, and how their peers react in similar situations. The names of all the children participating in this study and their responses to the various questions will be kept strictly confidential.

Serving as a subject will involve no risk and will most likely be interesting and meaningful to your child. When we are finished, we will explain to the child what we have been doing. If for any reason a child does not wish to participate, he/she will allowed to stop.

We will be glad to answer any questions that you may have about the study. If you like, we will send a copy of the final paper to you when the study is over.

If you consent to your child's participating in this study, please sign at the bottom of this page. Thank you for your help.

Sincerely,

Edward S. Eastman
Graduate Psychology, VCU

Dr. A. J. Finch, Jr.
Senior Psychologist, VTCC

Parent's or
Guardian's
Signature

Date

Witness



COMMONWEALTH of VIRGINIA

*Department of
Mental Health and Mental Retardation
Virginia Treatment Center for Children*

LOCATION ADDRESS
115 NORTH 10TH STREET
TELEPHONE: 786-3129

MAILING ADDRESS
PO BOX 11L
RICHMOND, VIRGINIA 23201

Dear Student,

Please read the following consent form. If you have any questions about what this form means, please ask the person reading this to you.

I agree to take part in Mr. Eastman's study on anger. I understand that I will be asked questions about what makes my classmates and myself angry. My answers will be kept confidential.

After having completed all questions, I will receive a reward. Also, I understand that I may withdraw from the study. At the end of the study, if I have any questions they will be answered then.

By signing below, I agree to take part in this study.

Sincerely,

Edward S. Eastman

Student's _____ Date _____
Signature _____

Witness _____

VITA

