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Reducing boys' aggression :: a basic human needs and skill training approach.

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REDUCING BOYS' AGGRESSION:

A BASIC HUMAN NEEDS AND SKILL TRAINING APPROACH

A Thesis Presented

by

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ABSTRACT

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Aggressive children tend to have distinct cognitive and social skills. They tend to hold beliefs and process social information in ways different from their nonaggressive peers. This study attempted to reduce aggressive behavior in aggressive 7th grade boys by adjusting their cognitive and social skills, addressing their beliefs, and making them aware of their basic needs and the methods that they use to fulfill them. Boys in the treatment group participated in skit-creation, role-playing, video-taping, and structured discussion. Two measures of behavior (teacher evaluations and disciplinary records), two cognitive measures (social role-taking ability, hostile attribution bias) and a value measure (prosocial value orientation) were assessed. "Aggressive" and "nonaggressive" groups differed on the preintervention assessment of prosocial value orientation. "Aggressive" control and treatment groups differed on postintervention assessment of hostile attribution bias, and on some analyses of disciplinary records.

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CHAPTER I

INTRODUCTION

In the past decade, violence by youth has increased dramatically in the United States. Compared to a decade ago, youth commit far more violent crimes. They commit violent crimes of greater severity and commit them at a younger age (National Institute of Justice Journal, 1995). While this increase is greater in some subgroups of society, it has affected every segment of society (Eron et. al, 1994; National Institute of Justice Journal, 1995). Youth violence has become a serious social problem. Understanding it has become an increasingly compelling project.

Some researchers point to neurological, hormonal, and other physiological characteristics stemming from genetic, perinatal, traumatic and other causes to help explain differences between "aggressive" and "nonaggressive" individuals. Evidence (of varying degrees of ambiguity, depending on the examined factor) suggests that physiological factors, in some cases, contribute to differences in aggressive behavior (Geen, 1990; Raine et al., 1990a; Plomin, 1990). However, environmental, familial and cognitive factors appear to account for the greatest portion of variation in aggressive behavior (Huessman, 1988; Weiss et al., 1992). Furthermore, physiological arguments hold little ability to explain great changes in rates of violence within a society (factors such as altered diet or physical activity leading to physiological changes present theoretically possible, but improbable explanations). Great changes in rates of violence require cultural-societal explanations.

Difficult life conditions, produced largely by great, rapid social change in the United States, creating general societal as well as family disorganization comprise one

probable cause of rising youth violence. Such change, even when "positive," creates psychological dislocation and frustration (Staub, 1996a). It is important to note that "difficult life conditions" do not describe deviation from an objective standard of living. One might argue that physical conditions are better now for the majority of the population than they have been in the past. Rather, they describe a relative change that produces psychological difficulties such as stress and anxiety, along with any associated material difficulties. Arguably, the United States has experienced moderate difficult life conditions since the early 1960s. A string of important political leaders were assassinated. We fought the Vietnam war, at home and abroad, creating a national divide. We lost economic power and prestige. The civil rights movement and feminism created major changes in social and work life. Gender relations and mores have changed. Divorce and single-parent rates have skyrocketed. The illegal drug business has boomed (Staub, 1996a). Community support networks have eroded (McLoyd, 1990). The value of middle class, lower-middle class and working class wages has been declining, along with the share of the nation's wealth controlled by these segments of the population, for the last two decades (Stroebel, 1993). The wealthiest one percent of the nation has come to control nearly 40% of the nation's wealth (Stroebel, 1993).

Difficult life conditions are assumed to exert a large portion of their influence on children through effects on parenting (McLoyd, 1990; Staub, 1996c). McLoyd (1990) found that psychological distress, created by negative life events, undesirable chronic conditions, and the absence and disruption of marital bonds, diminishes the capacity for supportive, consistent, and involved parenting. Punitive, coercive, unresponsive and inconsistent parenting behavior arise in its stead. Supportive parental social networks can

ease psychological distress, lessen the likelihood of such child-rearing tendencies, and provide additional childcare resources. But, as indicated above, such networks are declining.

Further evidence demonstrating the link between difficult life conditions and harsh, inconsistent parenting comes from Elder's (1979; Elder, Nguyen, & Caspi, 1985) work on white families during the Great Depression. He found that fathers who sustained large financial loss became more irritable, tense and explosive, and, thereby, more punitive and arbitrary towards their children. Recent work (Galambos & Silbereisen, 1987a; Lempers, Clark-Lempers, & Simons, 1989) has revealed the same pattern in contemporary white families. Patterson's (1986; Patterson, DeBarsyhe, & Ramsey, 1989; Patterson & Dishion, 1988) studies show that stressful experiences increase mothers' psychological distress and lead to insensitivity, unresponsiveness and greater use of inconsistent, abusive, aversive, coercive discipline. He finds maternal depression and emotional distress to produce similar patterns.

A host of other researchers have found such relations between difficult life events, psychological distress and parenting. Crnic & Greenberg (1987) and Daniel et al. (1983) found maternal depression and emotional distress to be associated with physical abuse, use of aversive, coercive discipline, and diminished maternal sensitivity and satisfaction with parenting. Conger et al. (1984) found that, across racial and socioeconomic lines, mothers reporting high emotional distress, compared to those reporting low emotional distress, exhibited fewer positive behaviors and more negative behaviors toward their children. Hetherington et al., (1989) found that during and after divorce, custodial mothers frequently become uncommunicative, nonsupportive, and inconsistently punitive

toward their children. The above is a sampling from a mountain of research demonstrating that psychological distress, frequently brought on by difficult life events, affects parenting behaviors.

Evidence convincingly points to a strong link between the parenting practices described above and antisocial and aggressive behavior in children. Patterson's (1986, 1988; et al., 1989) studies all indicate that the parenting characteristic of distressed mothers contributes to antisocial behavior in children. Mcloyd's and Elder's work reviewed above draw the same conclusions. Weiss et al. (1992) and Dodge (1993) both found that early harsh discipline is positively correlated with child aggressive behavior, even when SES, child temperament and marital violence are held constant. Huessman et al., (1984) found, not only that early coercive, harsh parenting styles contribute to aggression in children, but that the level of aggression established in childhood tends to remain constant -- relative to the aggression of the population -- across time and situations into adulthood.

To sum up, family experiences that are found to contribute to aggressive behavior include: harsh physical and verbal abuse (Egeland & Sroufe, 1981), heavy use of physical punitiveness and heavy punitiveness in general (Eron, Walder, & Lefkowitz, 1971), parental permissiveness (Olweus, 1979), inconsistent discipline, unresponsiveness, (McLoyd, 1990), high levels of marital violence and discord (Rosenberg & Rossman, 1990), and high levels of coercive family interaction (Patterson, 1982). High familial approval and encouragement of the use of aggression outside of the home also contribute to aggressive behavior (Bandura & Walters, 1959).

While parenting practices and family interaction style contribute greatly to childhood (and adolescent and adult) aggression, aggression is not singly or simply determined. It is the totality of the child's experiences in the home and the outside world that form the child and shape aggressiveness. Difficult life conditions which affect children through their parents can also affect children through any relevant adult authority (e.g. teachers, relatives, neighbors etc.) and directly. Evidence indicates that economic hardship, unstable housing (McLoyd, 1990), neighborhood violence (due both to observation and traumatization) (Durant et al., 1994; Garbarino et al., 1992), and high intake of media violence (Huessman et al, 1984) all contribute to aggressive behavior in youth above and beyond the affects of parenting and family interaction. School environment can also contribute. The imposition of strict behavioral routines and conformity often produce feelings of anger, resentment, and rejection and, thereby, contribute to aggression. Similar to parenting patterns, the heavy and inflexible use of school rules in the classroom, hostility between teachers, hostility of teachers towards students, and inconsistent discipline have all been associated with aggression (Pratt, 1973). When a child enters such an environment with a predisposition for aggression, a destructive cycle of confrontation between student and teachers and administrators can develop which may escalate and spiral into the future (Kupersmidt & Coie, 1990). The constellation of problems involved in this cycle often contributes to academic difficulties, which create further problems for the student (Dodge et al., 1982). Similar problems arise within the peer context. Children entering school (or other close peer group interaction) who have established some aggressive tendencies (or precursors, such as poor social skills, to be discussed later) are more likely to be rejected by peers, which can

lead to more negative behavior, which leads to further peer rejection and, often, to association with an accepting group of similarly aggressive, coercive peers (Patterson, 1992; Cairns et al., 1988).

The preceding section does not provide a comprehensive overview of the etiology of aggression. Rather, it gives the reader some idea of the background of aggressive behavior, which should build a reasonable framework from which to understand the hypothesized characteristics of aggressive individuals to be discussed below. This should allow for a deeper understanding of the rationale behind intervention work.

The familial interaction, and other important socializing factors described, contribute to aggressive behavior in several ways. Such socialization frustrates children's basic human needs and shapes the specific goals and methods they use to fulfill them (Staub, 1996a). Children's basic needs considered here are: security, the need to feel one is and will continue to be free from physical and psychological attack and harm; positive identity, the need for a well developed and positive conception of who one is; positive connection, the need to have relations in which one feels positively connected to other people; effectiveness/control, the need to feel one can accomplish things, can stop bad things from happening and make good things happen; satisfaction, the need for gratification from actions and interactions; and useful life understanding, the need to have some way of understanding how people and the world operate (Staub, 1989, 1992, 1996b). The pattern of parenting described above, along with other aversive conditions, frustrates these needs by creating an environment in which it is virtually impossible to feel secure (due to, for example, threat and insecure attachment style), exercise control

(due to, for example, inconsistent discipline), experience positive connection (children in such families tend to be avoidantly and insecurely attached and have trouble gaining acceptance from peers) (Egeland & Sroufe, 1981), and to have a positive identity (these children tend to view themselves negatively, blame themselves for their parents' abuse and have low self-esteem) (Aber & Ciccheti, 1984). The children develop an understanding of reality in which aggression is normal and expected (Huessman, 1988). Needs frustrated must be met. Staub's (1989, 1992, 1996b) theory suggests that, due to factors described below, aggressive children fulfill their needs in aggressive, destructive ways.

Concomitant with need frustration, aggressive children develop cognitive features believed to mediate aggressive behavior. These include: deficiencies in the social skills and cognitive problem solving skills that underlie social interaction (Spivak & Shure, 1974; Dodge 1982; Pepler, Byrd, & King, 1991), hostile processing "biases," (Dodge, 1980; Dodge & Frame, 1982; Weiss et al., 1992), beliefs that support aggression (Slaby & Guerra, 1988; Huessman & Eron, 1989), and "cognitive-scripts" for aggression (Huessman, 1988; Huessman & Eron, 1984, 1989).

Poor social role-taking ability is one of the most important of the cognitive deficiencies identified in aggressive children, (Chandler, 1973; Selman, 1976; Pepler, Byrd & King, 1991). Aggressive children are substantially worse than their "nonaggressive" peers at understanding the internal thougths and feelings of others and appreciating the privileged nature of their own thoughts and feelings in social interaction. They appear to pay less attention to relevant social cues (Dodge & Frame, 1982; Weiss et al., 1992). They also generate less, and less subtle solutions to social problems; tend to

underestimate obstacles to meeting social goals, are less likely to consider the pros and cons of possible actions before acting and fail to anticipate the consequences of their actions (Spivak & Shure, 1974; Sarason & Sarason, 1981; Rubin & Krasnor, 1986). Such deficiencies, and the clumsy social skills (ineffective, insensitive, insulting communication, inability to promote positive interactions) (Gaffney & McFall, 1981) to which they contribute are believed to partially mediate aggressive behavior (Chandler, 1973; Dodge, 1986; Dodge, 1993; Sarason & Sarason, 1981; Spivak & Shure, 1974; Weiss et al., 1992). The infrequent sustained positive interaction and negotiation of problem situations typical of the familial interaction of aggressive children provide fewer opportunities to learn the verbal and instrumental strategies that help produce positive interactions and play a large role in the development of these deficiencies (McLoyd, 1990).

Such deficiencies, when combined with hostile processing tendencies, strongly determine aggressive behavior (Weiss et al., 1992). Aggressive children tend to have what is called a "hostile attribution bias." That is, an aggressive child is more likely than a nonaggressive child to attribute hostile intent to a person whose actions produce a negative outcome for the child. This is true whether the person's intention was ambiguous or prosocial. These attributions tend to directly precede aggressive behavior (Dodge, 1980, 1984; Dodge et al., 1990; Weiss et al. 1992). Aggressive children also attend to hostile social cues to the exclusion of other cues, generate aggressive responses to interpersonal problems and positively evaluate the likely outcomes of aggressive solutions (Weiss et al., 1992; Dodge 1993). Weiss et al., (1992) and Dodge (1993) view harsh, neglectful parenting practices as a primary, direct contributor to this pattern of

hostile information processing. Exposure to neighborhood and media violence also contribute by creating a hostile view of others and the world (Garbarino et al., 1992; Gerbner et al, 1978).

Huessman's (1988; Huessman & Eron, 1984) cognitive-script model provides another important insight into the information processing which leads to aggression. According to this model, aggressive children have acquired aggressive scripts to guide behavior early in life. These are acquired and maintained through observational and enactive learning processes. These processes interact, as behaving aggressively creates situations where observation of aggression is more likely and where aggression is provoked (and can, in this way, remain stable across childhood into adulthood) (Huessman, 1984). The scripts are also maintained through fantasizing. The result is a network of scripts for social behavior emphasizing aggression. These scripts are programs for behavior which are stored in a person's memory and used as guides for behavior and social problem solving. They are retrieved from memory and activated in response to related environmental cues. After retrieving a script, the child must decide whether or not it is appropriate for the situation. This process relies on the child's beliefs about what is normative. Aggressive children tend to have an understanding of reality in which aggression is normal, expected, accepted, appropriate and, perhaps, inevitable (Huessman & Eron, 1984; Slaby & Guerra, 1988). This, along with aggressive expectations and attitudes towards specific situations, makes aggressive children more likely to approve of the aggressive scripts which they retrieve. Early interaction with parents and other significant adults, as well as exposure to neighborhood and media

violence begin the process of aggressive-script-formation (Hammond & Yung, 1994; Huessman, 1988).

Interventions

Researchers and interventionists have devised many methods to reduce youth aggression and antisocial behavior. Although most produce limited results, interventions that prove successful are those which attempt to address the specific problem areas described above. Four treatment approaches appear most promising: problem-solving skills training, parent management training, family therapy, and school and community based treatments (Kazdin, 1987a).

At the individual level, problem-solving skills training seems to have had the largest impact on youth behavior (Guerra et al., 1994; Kazdin, 1987a; Kazdin et al., 1992). These programs directly address the cognitive and behavioral processes which appear to lead to aggression. The most successful attempt to promote social role-taking ability, alternative solution production, peer negotiation skills, to aid students in learning violence avoiding behavior and solve problems in effective, nonaggressive ways (Guerra et al., 1994; Shure 1992). Further useful elements have included reducing hostile perceptions and attributions, challenging normative beliefs which favor aggression (e.g. Guerra & Slaby 1990; Pepler, Byrd, & King, 1991; Pepler & Slaby, 1994) and attempting to "raise" "moral reasoning" (Arbuthnot & Gordon, 1986; Goldstein, 1988).

Some skill training interventions have attempted to reduce aggression and antisocial behavior by addressing single skill deficiencies. Chandler (1973) attempted to reduce the antisocial behavior of delinquent boys (ages 11-13) by improving their social-

perspective taking ability. Participants in the treatment condition developed, acted out, videotaped, and critiqued several skits about real-life situations experienced by themselves and their peers (not necessarily conflict situations). The participants rotated through the parts in the skits until each person had a chance to play each role. They met in small groups for three hours, once a week, for ten weeks. Compared with participants in a placebo-control group and a no-contact control group, the boys in the treatment condition improved in social perspective taking skills and showed significant reductions in recidivism for up to 18 months following treatment.

While Chandler's is a successful intervention, social-perspective taking appears a necessary, but not sufficient condition for prosocial behavior (Arbuthnot & Gordon, 1987). Single skill interventions, though successful in changing behavior and useful for pinpointing and understanding specific skill deficiencies, are inadequate. The complexity of the problem requires training in a broad range of cognitive and behavioral skills (Guerra et al. 1994; Goldstein, 1986; Kazdin, 1987a). Current problem-solving skill interventions include: an emphasis on how to approach a situation, a step-by-step approach to solve social problems in which participants make self-statements directing attention to certain aspects of the problem that lead to effective solutions, structured tasks, such as games and stories, modeling, role-playing, practice and rehearsal. The facilitator plays an active role, guiding the participants and modeling cognitive processes. Several studies point to the success of these methods in producing improvement -- relative to control and placebo-control groups -- on a battery of cognitive measures as well as behavior as measured by teacher, parent, and peer evaluations, school disciplinary and police records, recidivism rates and behavioral observations (e.g. Durlak, Fuhrman,

& Lampman, 1991; Kendall 1991; Pepler & Rubin, 1991; Sarason & Sarason, 1981; Shure, 1992). Further useful factors of such programs include addressing subjects' hostile perceptions and attributions (Pepler, Byrd, & King, 1991) and their normative beliefs about aggression (Guerra & Panizzon; Guerra & Slaby, 1990).

Such a combination of elements in a social-skills training program addresses many of the factors that contribute to aggressive behavior. This represents one form of complexity that has been touted as crucial to intervention success. (Kazdin, 1987b; Guerra et al. 1994; Goldstein, 1986). However, the current theoretical perspective suggests a potentially useful focus which has not been directly addressed in interventions to date.

Here, aggressive behavior is regarded as driven by the motivation to meet needs frustrated through other experiences -- or simply to meet needs -- through destructive means. Need fulfillment is considered destructive if it harms the self through frustrating further need fulfillment or elicits retaliation from others, or if it harms others. The experiences which lead to need frustration and/or the tendency to meet needs destructively result in the cognitive, belief and behavioral tendencies described above. It seems reasonable that making youth aware of the basic needs which their behaviors meet, and which inspire the motives they carry with them and which arise in specific situations (e.g. the *motive* to humiliate another person to meet the *need* for positive identity), might contribute to changing behavior. Providing such awareness, together with providing youth with the skills required to meet these needs in more constructive ways, should be an effective approach to reducing aggression.

As part of this intervention, it is expected that youth will become aware that: 1) their behaviors meet certain basic needs, which all people share, 2) these needs can be met in different ways. 3) the manner in which they meet their needs frustrates further need fulfillment (and others' need fulfillment). This awareness, along with other factors, may motivate them to fulfill their needs in more constructive ways and to learn the skills to do it.

In light of this theoretical ground, and the empirical evidence available on aggressive youth, the current intervention attempted to reduce the aggressive behavior of 7th grade boys by: 1) improving social-perspective taking ability, 2) improving social problem solving skills (e.g. alternative solution production, peer negotiation), 3) reducing hostile perceptions and attributions, 4) addressing normative beliefs about aggression, 5) producing awareness of basic human needs and the specific motives which they develop from them, 6) producing awareness of the methods they use to fulfill their needs and the consequences of those methods on themselves and others. In sum, the aim of the intervention is to produce knowledge, skills, and preferences for constructive, prosocial modes of need satisfaction.

Hypotheses

The current research explores two sets of measurable hypotheses. One set predicts differences between "nonaggressive" (NAP) and "aggressive" (AP) participants. The other set predicts post-treatment differences between control-group and treatment-group aggressive participants.

AP versus NAP hypotheses. 1. a) AP will make more hostile attributions in response to hypothetical situations than NAP. b) AP will produce more stated aggressive

responses to the hypothetical situations than NAP as a direct result of their higher rate of hostile attributions. 2. AP will demonstrate poorer social role-taking ability than NAP. 3. AP will score lower on a measure of "prosocial value orientation" than NAP.

Control versus treatment AP hypotheses. Relative to control AP, 1. a) Hostile attributions of treatment AP will decline. b) Stated aggressive responses of treatment AP will decline as a direct result of the decline in hostile attributions. 2. The social-role taking ability of treatment AP will improve. 3. The "prosocial value orientation" score of treatment AP will rise. 4. The aggressive behavior of post-treatment AP will decline. 5. All effects are expected to remain stable into the following school year.

The Multi-level Intervention

An important issue remains unmentioned. While the current intervention is complex in its approach, addressing several cognitive factors and a motivational element, it works mainly on the individual level (although, it does work with a small group of peers). It does not address many of the sources and sustainers of problem behavior detailed above. A burgeoning body of literature suggests that, for interventions to be most meaningful, they must work on both the individual and systems level (Eron, Gentry, & Schlegel, 1994; Goldstein, 1988; Goldstein & Glick, 1994; Kazdin et al., 1992; Satterfield, Satterfield, & Schell, 1987). Ideally, this means working with family, peer group, school and community, as well as with the individual. Goldstein's (Goldstein, 1988; Goldstein & Glick, 1994) Aggression Replacement Therapy is an example of a successful intervention in this direction. The intervention combines skill-training, anger control training, and moral education on the individual level, along with a family training component (including parents and siblings). Such interventions have larger, and more

enduring effects than single level interventions (Eron, Gentry, & Schlegel, 1994; Goldstein, 1988; Goldstein & Glick, 1994; Kazdin et al., 1992; Satterfield, Satterfield, & Schell, 1987).

However, researchers test the individual components of multi-level interventions before implementing them as a unit. The current research tests an approach to reducing boys' aggression that is intended to become a component of a comprehensive system, the Caring Schools Project (Staub, 1995). This project would work with teachers and parents, as well as with entire peer-groups within the school. It would attempt to create a prosocial community environment. This project would meet the demand for multi-level interventions, breaking many of the central cycles of aggression and promoting prosocial, caring behavior.

CHAPTER II

METHOD

Participants

The 47 participants ranged in age from 11 to 14 (μ=12.67 yrs., SD=.66). All were male 7th grade students divided evenly (23 and 24) between two urban middle schools (school "A" and school "B"). School "A" provided 15 "aggressive" and 8 "nonaggressive" participants. School "B" provided 10 "aggressive" and 14 "nonaggressive" participants. One treatment group of 6 boys was formed at each school, for a total of two treatment groups and 12 treatment boys. The remaining "aggressive" boys formed a no-contact control group[1].

Letters and consent forms were sent to the homes of all males in the 7th grade class at the beginning of the school year. The letters offered a field trip, a small cash or gift certificate reward, and an award ceremony to all respondents chosen for the "after-school program." At the same time the letters went home, 6th grade teachers were asked to evaluate each of their homeroom students from the previous year (current 7th graders). Despite the presence of two teachers in each home room, school "A" returned only one evaluation form for each home room; school "B" returned two identical evaluation forms for each home room. So, each student received a single evaluation.

The evaluation form asked teachers to express (on a five point scale from 1-strongly disagree to 5- strongly agree) how well they thought each of the following five statements described each student: 1) This student is physically aggressive with peers.

2) This student is verbally aggressive with peers. 3) This student is aggressive with teachers. 4) This student is a general discipline problem. 5) This student has generally negative relations with peers. Students receiving an average score of 3 or greater were placed in the "aggressive" group ($\mu = 3.60$, SD = .685). Students receiving only 1s and/or 2s were placed in the "nonaggressive group" ($\mu = 1.30$, SD = .443). All other students who returned permission slips were informed that they would not be part of the study.

Though selecting "aggressive" and "nonaggressive" participants from teacher ratings alone is not ideal, the method has proven accurate in the past (Arbuthnot & Gordon, 1986). Initial plans included the use of disciplinary records, along with teacher ratings, to establish groups. But, disciplinary information was not made available in time to be used in the process.

However, post-hoc analysis demonstrated that disciplinary records from school "B" were consistant with teacher ratings[2]. A 2 (group: aggressive or nonaggressive) by 2 (1/96 to 6/96 record: in-house suspended or not) chi-square proved significant, X^2 (1, n = 24) = 8.06, $p < .005$. Eighty percent of aggressive participants, as selected through teacher evaluations, received in-house suspensions in the second half of their sixth grade year. Only 21.4 percent of nonaggressive participants received such suspensions (Note: in-house suspension is a punishment in which students are suspended, but must attend school. They sit in a single room all day without talking. In-house suspensions records

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[1]Original plans inlcuded a placebo-control group. Due to low enrollment, it was impossible to form one. Ramifications are addressed in the discussion section.

[2]School "A" never provided in-house suspension records for the period between 1/96 and 6/96, the second half of participants' 6th grade year. The records have been destroyed. Therefore, this analysis was conducted exclusively on records from school "B".

were selected for analysis because records are maintained comparably across schools and provide higher frequencies than out-of-school suspension records).

"Aggressive" participants were put into matched pairs on the basis of teacher ratings and randomly placed into the control group ($\mu = 3.63$, SD=.742) or treatment group ($\mu = 3.57$, SD = .656) ($t_{22} = .23$, $p < .85$), within the constraint that boys from different schools could not be in the same treatment crew. Each school provided 1 treatment crew consisting of 6 boys. The initial treatment group diminished as some participants transfered schools or developed conflicting schedules. For each treatment partcipant who left, a matched control participant was eliminated from the study. One randomly selected member of the control group was offered the opportunity to join the program (i.e. the treatment group). He accepted the offer. The treatment and control group remained equivalent, with teacher-rating means of 3.31 (SD = .649) and 3.54 (SD = .728) respectively. The slight difference between the teacher ratings did not approach significance, ($t_{14} = .67$, $p < .55$) and did not correspond to a difference in disciplinary records, $t_5 = .806$, $p < .8$ (Suspension means for control and treatment groups respectively, $\mu = 2.67$, S.D = 1.53 and $\mu = 2.00$, S.D. = .957. For school "B" only, school "A" records were not available).

Measures

Five different measures were collected. 1) The teacher evaluation form. 2) A record of in-house suspensions. During an individual interview, each participant completed: 3) Chandler's (1973) social role-taking measure[3]. 4) A written vignette

[3]Due to a ceiling effect, a different social role-taking task was used as a postmeasure.

version of Dodge's hostile attribution bias measure[4] (e.g. Dodge, 1980; Dodge & Frame, 1982). 5) Staub's prosocial value orientation measure.

Teacher evaluation form

The form was developed specifically for this project. As described above, 6th grade home room teachers completed the form for all of their students from the previous year. Current 7th grade home room teachers completed evaluation forms one month after termination of the intervention and 8th grade home room teachers will hopefully complete evaluations in the following school year.

Disciplinary records

Counts were made of the number of times students received in-house suspensions. Students are suspended for behaviors beyond average "trouble," such as fighting or serious verbal confrontations. Records were obtained for school "B" participants for the second half of the previous school year, and for all participants for the entire current year. Pre- and post- intervention numbers were compared. These records also provided an opportunity to examine the validity of teacher evaluations.

The following three measures were collected twice in individual interviews with the participants. Interviews took place 2-4 weeks before the intervention began, and 4-6 weeks after the intervention ended.

Social role-taking

"Aggressive" children tend to have poor social role-taking ability relative to "nonaggressive" children (Chandler, 1973; Selman, 1976; Dodge et al., 1984). To determine if this was true of the participants, Chandler's (1973) measure of social role-

[4]An updated, more age-appropriate version of the task was used as a postmeasure.

taking was administered. Chandler's measure is regarded as highly reliable. Past studies have produced Spearman-Brown split-half reliablities of .91 and .92, a test-retest Pearson product moment correlation coefficient of .84, and interrater reliability Pearson coefficients of .94 (Enright & Lapsley, 1980). (However, since the measure produced a near-perfect ceiling effect, a different task was used as a postmeasure to determine if participation in the intervention improved social role-taking ability. This new task, the first two steps of Schultz, Yeates and Selman's Interpersonal Negotiation Strategies Inventory (1989) is described below, after the description of Chandler's premeasure.)

Participants were presented four cartoon sequences, one sequence at a time. Order of presentation was rotated. Each sequence depicts a central character involved in a chain of events such that her or his subsequent behavior was shaped by, and fully understandable only in terms of, the preceding events. For example, in one sequence, a boy runs home after accidentally smashing a car window with a baseball. The boy reacts with fear when he hears a knock at the door. In each sequence, a second character appears after the preceding events and observes the protagonist's resultant behavior. For example, in the broken-window sequence, the boy's father observes his son's fearful reaction to the knock at the door, but has no clear way to understand this reaction.

The participant was asked to tell each story from his own perspective and then from the perspective of the late-arriving character. The subject has privileged information relative to the late-arriving character. By knowing what information is available to whom, it is possible to determine the degree to which each subject is able to set aside information known only to himself and adopt a perspective different from his own.

Responses are typically scored on a five point scale, reflecting different levels of "egocentric" information intrusion. A score of 4 is assigned to responses in which the subject explicitly attributes knowledge to the late-arriver which could only be available to himself. A score of 3 is assigned to similar responses, which are qualified with conditional or probabilistic language (e.g., The father would probably think that he broke the window). A score of 2 is assigned to responses which attribute privileged information to the late-arriver in a series of non-egocentric alternatives (e.g., The father would think that somebody was chasing him, or that he broke the window, or something). A score of 1 is assigned when subjects make egocentric responses but spontaneously correct them, and 0s are assigned to responses in which no information is inappropriately leaked.

Unfortunately, virtually all participants produced "0" repsonses for all vingettes. Enright & Lapsley (1980) warn that the measure is given to ceiling effects with adolescents. Instead of concluding that all participants were of equal and high social role-taking ability, the researchers presumed that the task may have been innapropriate for the age group under study. Thus, for the postmeasure, they replaced Chandler's measure withthe first two steps of Schultz, Yeates and Selman's (1989) Interpersonal Negotiations Strategies Interview.

In the postmeasure administration of Schultz, Yeates and Selman's task, participants were read four vignettes, each depicting a different social dilemma. Each dilemma presented the opportunity to appreciate multiple perspectives. For example, dilemma 2 reads

"One day a new kid in class named "A" says he's cold and asks "B" to lend him a sweater that "B" has but isn't wearing. The next day when "A" returns the sweater there is a hole in it that "B" is sure wasn't there the day before."

After each dilemma, participants answered two sets of questions. The first set of questions asked 1) "What is the problem here?" and 2) "Why is that a problem?" The second set of questions asked 1) "How do you think the protagonist feels?" 2) "Why does he feel that way?" 3) "How do you think the other person feels?" and 4) "Why does he feel that way?"

Each set of questions recieved one score. There are two scores per dilemma. Responses were first analyzed by averaging the two units into 1 "social role-taking" score. Score 1 and score 2 were then analyzed separately. Both analyses aggregated scores across dilemmas.

The role-taking levels range from 0 to 3. At level 0, "Egocentric and Undifferentiated," the physical and psychological features of persons are not clearly differentiated (i.e. persons are unable to distinguish between actions and feelings). At level 1, "Subjective and Unilateral," each person is acknowledged to have a unique, subjective, and covert psychological life. The relating of perspectives is accomplished in a one-way, unilateral fashion. At level 2, "Self Reflective and Reciprocal," persons are able to step outside themselves mentally and take a second-person perspective on their thoughts and actions, along with the realization that others can do so as well. The perspectives of self and other are both appreciated, but not in relationship to one another. At level 3, "Third-Person and Mutual," individuals are able to step outside not only their

own immediate perspective, but outside the self as a system. They are able to take a truly third person perspective.

For example, in response to the dilemma presented above, answers to questions 1 and 2 (respectively) such as "that the new kid should be destroyed" and "I don't know, " would receive a 0. Answers to questions 1 and 2 such as "Don lets Jeff borrow a sweater and then he ripped it and Don didn't want it to be ripped" and "His mother might get mad at him," would receive a 1. Answers to questions 1 and 2 such as "Jeff thinks that Don made a hole in his sweater, but Don thinks that the hole was already there," and "Nobody listens to anybody. Jeff doesn't listen to Don because Jeff thinks that Don made a hole and Don thinks that the hole was already there" would receive a 2. Answers such as "The problem is that John returned the sweater with a hole in it and Rob can't be sure whether John knows he ripped it and is too embarrassed to say something or just wants to get away with it or whether John didn't know he ripped it or even whether there could have been a rip in it when Rob lent it that he didn't realize was there, and "Because Rob doesn't know John very well and doesn't want to accuse her unfairly or risk their future frienship. On the other hand, Rob doesn't want to be taken advantage of," would receive a score of 3.

Hostile attribution bias

Aggressive children tend to attribute hostile intentions to people in ambiguous situations more frequently than nonaggressive children. These attributions tend to directly precede aggressive acts (Dodge, 1980, 1986). To determine if this was true of the participants and if participation in the intervention decreased the tendency to make hostile attributions and, thus, the tendency to state aggressive responses to hypothetical

situations, a written vignette version of Dodge's hostile attribution measure was administered. Between the administration of the premeasures and the postmeasures, an updated, more age-appropriate and generally superior version of Dodge's measure was obtained. Due to the superior quality of the updated measure, and the failure of the old measure to identify any differences between groups, the updated version was used as a postmeasure.

In premeasure administration, participants were presented with 8 short vignettes. The participants were asked to imagine that they were in the event described. Each vignette described an event in which the actions of a character produce a negative outcome for the participant (e.g., Pretend that you are standing on the playground playing catch with a kid named Rob. You throw the ball to Rob and he catches it. You turn around and the next thing you realize is that Rob has thrown the ball and hit you in the middle of your back. The ball hits you hard, and it hurts a lot). After hearing the vignette, participants were asked: 1) Why they think the other character did what he did. 2) What they would do about the other character. Answers to question 1 were scored on a 2 point scale as either an accidental, non-hostile (1) or intentional, hostile (2) attribution. Answers to question 2 were scored on a 6 point scale from 0 to 5. Answers such as "I don't know" or which did not fit into other categories received a score of 0. Any response the child gave that was not directed toward the other character or that described exclusively prosocial behavior (e.g. helping, friendship-making) was scored as a 1. Responses in which the child suggested making a comment to the other character or asking a question, but did not ask the child to do something specific received a score of 2 (e.g. "I'd ask him why he did it," "I'd say I didn't like that). Responses that requested or

demanded that the other child do something specific were scored as a 3 (e.g. "Don't do that again"). Responses in which the child threatened the other character (e.g. If you don't let me play, I'll hit you."), or suggested seeking an adult to punish the other character (e.g. "I'd tell the teacher to make him stay after school") were scored as a 4. Responses which include direct physical or verbal aggressive retaliation toward the other character received a score of 5 (e.g. "I'd punch him," "I'd call him a jerk"). Responses were aggregated across the 8 vignettes.

The postmeasure version of the measure was similar to that described above. Again, eight vignettes were read to the participants, who were asked to imagine that they were in the event described. Each description included a character acting with ambiguous intention towards the participant. After each vingette, participants were asked 5 questions: 1) What do you think was going on in the mind of _____ when this happened? Responses to this open-ended question were scored on a 3-point scale as hostile (1), ambiguous (2), or nonhostile (3). Participants were then asked 2 closed-ended questions. 2) Do you think that _____ did _____ because she/he/they were being mean to you? 3) Do you think that ____ did ____ for some other reason? Respondants indicated their answers on a card which presented a 5-point scale, ranging from 1-not possible to 5-very likely. The last 2 questions asked, 4) what would you do or say if this happened to you? and 5) what could you do in this situation to meet your goal? These questions were open-ended and recieved 2 scores, 1 for "content" and 1 for level of "effectiveness".

Content was coded into 1 of 4 categories. Responses which included verbal or physical attacks, retaliation, and real or implied threats were regarded as "aggressive" and received a score of 1. Responses which included asking for or telling what was wanted,

requests for clarification, sharing (taking turns, cooperation, trading, bargaining), and being generally nice but moving towards the goal were regarded as "competent" and scored as a 2. Responses which included authority intervention (without punishment), ineffective strategies, outcomes without plans, being generally nice but not moving towards the goal and passive and irrelevant responses were considered "inept" and received a score of 3. Responses which recommended punishment from an authority source were labled as "authority punishment" and received a score of 4.

Effectiveness was rated on a 3-point scale. Responses were scored as 1-weak if they did not solve the problem, were not at all effective, or solved the problem partialy but with notably negative side effects. Responses were scored as 2-average if they solved the problem and 3-creative if they solved the problem in a highly effective manner and turned the situation in a positive direction.

Prosocial value orientation (PVO)

Helping behavior (e.g. helping others in physical distress, psychological distress, donating blood, donating money, volunteering for a charity or help-providing organization) has been highly positively associated with "prosocial value orientation," as assessed by Staub's PVO measure (Staub, 1995). PVO has three dimensions: 1) A positive evaluation of humans. 2) A concern for the welfare of others. 3) A feeling of responsibility for the welfare of others. Staub's PVO measure has been highly predictive of helping behavior both in laboratory settings and large scale self-report studies. It has been found to predict helping more highly, and independently from, other proposed predictors of helping (e.g. empathy, prosocial rule orientation) (Staub, 1995). Panner (1996) finds the same dimensions to predict helping behavior.

Behavior that harms others should be negatively associated with prosocial value orientation. If this is so, "aggressive" participants should score higher on a measure of PVO than "nonaggressive" participants, and the PVO scores of treatment participants should decrease (lower scores indicate greater prosocial value orientation). Research described above indicating that aggressive children tend to view people and the world in a negative, "mean" way (e.g. Stromquist & Strauman, 1992) lends weight to this hypothesis.

Participants completed a 34 item adolescent-version of Staub's PVO measure. They read statements and indicated how much they agreed or disagreed with them on a five point scale from 1-strongly agree to 5-strongly disagree. They were encouraged to ask questions if they did not understand words or sentences. Examples of an "evaluation of humans" item, a "concern for others" item and a "responsibility for others" item respectively are: "Most people are basically good." "I am concerned about people's well being everywhere in the world." "I believe in helping a person who needs help, even if he has not shown appreciation for favors I did for him before."

Intervention

Treatment participants met after school, one day per week for one hour, for fourteen weeks. The first 7 sessions were run by a graduate student and a trained undergraduate assistant. The last 7 sessions were run by the graduate student alone. At the opening of the first session it was explained that "We're going to think up short scripts about different social situations. The kind of situations that could turn into a conflict, where a problem might develop, or it might not. Then, you guys are going to act

them out and film them. Then, we'll watch the tapes and talk about them and see what we think. The idea is to learn about different ways to interact with people, destructive, negative ways and more positive ways. Helpful ways and harmful ways. But, that's not all we'll be doing. We're also learning about acting and making good films. Hopefully, you'll really improve and the movies will get better and better with practice."

In the first session, the participants acted out the following scene which the facilitators planed ahead of time.

> A boy gets to the lunch room early. He sits at a table where some of his friends usually sit and puts his stuff down. Then, he realizes he left his jacket in a classroom. He leaves to get the jacket. Meanwhile, a group of kids comes and sits at the table. One of the newcomers sits in his seat. When the boy returns, his stuff has been shoved to the side and he has no place to sit.

The graduate facilitator explained the scene to the participants. The participants then thought of a way to act out the scene that would create "a problem." They were encouraged to make the scene as life-like as possible (dialogue was not written down, but was generated spontaneously within the parameters of the scene) . They then named the characters, chose roles, including cameraman, and acted out the scene. They acted out the scene several times, switching roles each time. The participants and the facilitators then watched the video. The graduate facilitator led the group through a discussion of the scenario. The discussion challenged the participants to understand why the characters behaved as they did, what the characters were feeling, and what purposes their behaviors

served. Two "basic human needs" were introduced (positive connection and positive identity) and suggested as motivators of some of the action in the scene.

Participants then figured out a way to satisfy the needs underlying the situation that did not cause a problem or result in a fight. Again, they were encouraged to make the scene as life-like as possible, "to do it in a way that could really happen." They spent time, with the facilitators help if necessary, generating alternative solutions to the situation. They then acted out and filmed the scene, rotating through different roles. The participants and facilitators watched the new film and went through another discussion. The second discussion addressed the same questions as the first one. It was noted that the same needs which motivated behavior in the first scene motivated totally different behavior in the second scene.

Each session followed the general format of the first week: produce a conflict, film "negative" scene, discuss, film "positive" scene, discuss. However, given the session length, a full cycle was not completed every week. Yet, sessions did not end after acting the "negative" scene without some discussion of and thought about "positive" possibilities. Also, as the project evolved, the facilitators and participants decided that it was not always necessary to act and film the negative versions of the scenarios.

After the first session, a new "need" was introduced each week until all "needs" had been introduced. Participants invented their own scenes (but the facilitators always came with back-up scenes prepared). As the sessions progressed, the scenes became more complex. The facilitator suggested taking more factors into account (e.g. history between people or groups of people, gradual conflict generation). The focus of the sessions varied. Some sessions focused more on "basic needs," some more on

understanding the position of others in a situation, some more on the important details of alternative strategies and behaviors necessary for "positive" behavior.

An example of a scene created by the participants goes as follows. Students are sitting in class. The teacher is handing back a test. The teacher says "I'm quite pleased with how most people did" (hands back an "A" test to Student 1). Then the teacher says, "with other people, I'm not so pleased. The teacher gives Student 2 a direct look and hands him an "F". Student 2 is upset (and publicly embarrased, given the teacher's blunt nonverbal behavior). The teacher dismisses class (school is dismissed). Student 1 and Student 2 go separate ways. Student 2 is walking and steps into mud with his new sneakers. He is upset. He says outloud something about how bad his day is going. Then, he and Student 1 are heading towards each other on the sidewalk. Student 1 says something and Student 2 thinks it is an insult of some kind. He yells harshly at Student 1, etc. In the positive version of the scene, everything is the same except 1) Student 2 says something a little different to himself when he steps in the mud. He notes how mad he is getting because of all the bad things happening. 2) When he passes student 1, he starts to get mad in the same way as before. Then, he checks himself. He appologizes to Student 1, explaining that he is mad because of the test and stepping in the mud.

CHAPTER III

RESULTS

Two behavioral measures (teacher evaluations and disciplinary records) and two cognitive measures (hostile attribution bias, and social role-taking ability) and a value measure (prosocial value orientation) were collected. The researchers predicted preintervention differences between "aggressive" and "nonaggressive" groups on cognitive and attitude measures and postintervention differences between "aggressive" control and treatment groups on cognitive, attitude and behavioral measures.

Premeasures

Prosocial value orientation (PVO)

A Cronbach's Alpha reliability coefficient of .763 was obtained for this measure.

Staub's PVO measure has been highly predictive of helping behavior both in laboratory settings and large scale self-report studies. It has been found to predict helping more highly than other proposed predictors of helping (e.g. empathy, prosocial rule orientation) (Staub, 1995). The current study predicted that aggression would be negatively associated with prosocial value orientation. Thus, it was predicted that "aggressive" participants would score higher on a measure of PVO than "nonaggressive" participants (lower scores indicate greater prosocial CHAPTER III value orientation). Results followed this prediction. "Aggressive" participants produced significantly higher PVO scores ($\mu = 2.74$, SD = .275) than "nonaggressive" participants ($\mu = 2.49$, SD = .219), $t_{44} = -3.32$, $p = .002$ (Difference = -.2444. 95% C.I. -.393 -- -.096)

No significant differences were found between "aggressive" control ($\mu = 2.73$, SD = .209) and treatment ($\mu = 2.75$, SD = .337) groups, $t_{14} = -.20$, $p < .9$. No significant

differences were found between school "A" ($\mu = 2.65$, SD = .315) and school "B" ($\mu = 2.59$, SD = .231), $t44 = .85$, $p = .40$.

Hostile attribution bias

Reliability: Cronbach's Alpha reliability coefficients of .6631 and .4869 were obtained for questions 1 and 2 of this measure, respectively.

Aggressive children tend to attribute hostile intentions to people in ambiguous situations more frequently than nonaggressive children. These attributions tend to directly precede aggressive acts (Dodge, 1980, 1986). To determine if this was true of the participants, a written vignette version of Dodge's hostile attribution measure was administered. Analysis of question 1 (why the participant thinks the other character did what he did, scored as 1-nonhostile or 2-hostile) revealed no significant differences between "aggressive" ($\mu = 1.594$, SD = .248) and "nonaggressive" ($\mu = 1.547$, SD = .198) participants, $t44 = -.71$, $p = .483$. Analysis of question 2 (what the participant would do about the other character, scored on a 6 point scale, from 0 to 5, with higher numbers indicating more aggressive responses) also failed to reveal significant differences between groups, with "aggressive" and "nonaggressive" means of 2.173 (SD = .589) and 2.140 (SD = .589) respectively, $t44 = -.21$, $p = .839$. No significant differences were found between schools, nor between "aggressive" control and treatment groups.

To examine the mediating role of attributions of intention on stated behavioral responses, a 2 (attribution: nonhostile or hostile) x 6 (stated behavioral response: don't know/unscoreable, nothing, ask why or ask again, command, adult punish or threat, retaliate) chi-square analysis was conducted, revealing a significant effect, $X^2(5, n =$

378) = 20.646, $p < .001$. Nineteen percent of hostile attributions, and only 8 percent of nonhostile attributions, preceded retaliatory responses. Another 16.7 percent of hostile attributions preceded responses coded in the second and third most aggressive categories. Nonhostile attributions led to no responses coded in the second most aggressive category and 10.5 percent in the third category (See Table 1).

Table 1. Percentages (%) of response types following Nonhostile and Hostile Attributions

	Attribution Type	
	Nonhostile	Hostile
Coding Category		
0-Don't Know	0	0
1-Nothing	38.9	38.9
2-ask why/ask again	42.6	26.5
3-command	10.5	12.5
4-punish/threaten	0	3.2
5-retaliate	8.0	18.9

Social role-taking

"Aggressive" children tend to have poor social role-taking ability relative to "nonaggressive" children (Chandler, 1973; Selman, 1976; Dodge et al., 1984). To determine if this was true of the participants, Chandler's (1973) measure of social role-taking was administered.

Unfortunately, the measure produced a near-perfect ceiling effect and did not bare analysis. The researchers presume, and Enright and Lapsley (1980) concur, that the measure is too simple for early adolescents[5].

Postmeasures[6]

Prosocial value orientation

Reliability: A Cronbach's Alpha reliability coefficient of .7208 was obtained for the postmeasure administration of this measure.

It was predicted that the PVO scores of treatment participants would decrease relative to the scores of aggressive control participants. A 2 (pre vs. posttest) X 2 (treatment vs. control) ANOVA identified no such effect. The Group by Test interaction was not significant, $F_{1,14} = 1.19$, $p < .3$ (Main effects for Group and Test were $F_{1,14} = .01$, $p < 1$ and $F_{1,14} = 1.10$, $p < .315$, respectively).

Hostile attribution bias

Reliability: One hundred percent of the data were coded by a graduate student. Each of three undergraduate research assistants recoded a separate third of the data, together coding 100%. The data coded by the undergraduates was treated as the work of a single rater. One of the undergraduate raters demonstrated a lack of attention to or comprehension of the task. He erroneously coded unambiguous responses which were near-verbatim replicas of examples from the coding manual[7]. Therefore, his data were

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[5]However, Chandler originally used the measure with 11 and 13 year-olds.

[6]All analyses included a school factor (school: "A" vs. "B"). It is only discussed where differences were found.

[7]For example, in story 9 the protagonist approaches a group of other students and says hello. The others do not reply. In repsonse to question 1 (what do you think was going on in the mind of ____ when this happened, scored as hostile-1, ambiguous-2, or nonhostile-3), one subject said "Probably did not hear me."

dropped from interater reliability analysis. With this correction, raters produced 91.05% agreement to question 1 (85.6% before correction), $K = .7611$. Content codings of responses to questions 4 and 5 resulted in 89.1% interater agreement, $K = .6202$. Effectiveness ratings for questions 4 and 5 produced interater correlation coefficients of .693 and .501.

Questions 1,2, and 3 produced Cronbach's alphas of .5900, .5799, and .5614, respectively. Question 4 produced low alphas for "content" and "effectiveness" ratings, .2763 and .1379, respectively. Question 5 produced similar reliabilities, with a "content" rating alpha of .3497 and an "effectiveness" alpha of .1316[8].

It was hypothesized that, as a result of the intervention, aggressive treatment participants would produce lower HAB scores than aggressive control participants. Though the postmeasure of HAB is not comparable with the premeasure, it still has the ability to meaningfully differentiate between aggressive treatment and control groups. Participants were randomly assigned to condition. After random assignment, the groups had equivalent teacher ratings, disciplinary records, and prosocial value orientation scores. Each of these measures significantly distinguished between aggressive and nonaggressive participants (of course, groups were formed on the basis of teacher ratings, so this particular distinction is not informative). Random assignment alone justifies postmeasure comparisons (Campbell & Stanley, 1963). Equivalence on measures demonstrated to differentiate along the relevant domain strengthens the justification.

Despite the coding manual example "They didn't hear me: 3-nonhostile," the research assistant coded the response as 1-hostile. This is a typical, not an exceptional, example.

[8]The cause for the low alphas is unclear. The vignettes depict very different types of situations. It is possible that the situations elicit different types of stated behavioral responeses. Thus, one would not expect consistancy across situations.

Given these considerations, significant differences between treatment and control groups may fairly be attributed to the effect of the intervention, and not to coincidentally preexisting differences. An initial ANOVA comparing nonaggressive, aggressive control, and treatment group responses to question 1 (what do you think was going on in the mind of ____ when this happened, scored as 1-hostile, 2-ambiguous, or 3-nonhostile) proved significant, $F_{2,35} = 4.24$, $p = .023$. A planned contrast revealed significant differences between "aggressive" control and treatment participants, with group means of 1.372 (S.D. = .324) and 1.847 (S.D. = .450) respectively, $t_{14} = -2.82$, $p = .012$ (Difference = .475. 95% C.I. .132 -- .818). A marginally significant difference was also found between treatment and "nonaggressive" ($\mu = 1.574$, S.D. = .359) groups, $t_{28} = 1.87$, $p < .07$ (Difference = .202. 95% C.I. -.120 -- .524). Both "aggressive" control and "nonaggressive" participants attributed more hostile intentions to ambiguously acting characters than treatment participants. A contrast between "nonaggressive" and "aggressive" control participants was not significant, $t_{28} = 1.53$, $p < .15$.

An ANOVA comparing group responses to closed-ended question 3 (do you think that ____ did ____ for some reason other than she/he/they was/were being mean to you, scored on a 5 point scale from 1-not possible to 5-very likely) was significant $F_{2,35} = 4.00$, $p = .028$. Contrasts revealed a significant difference between aggressive control ($\mu = 3.175$, SD = .338) and treatment ($\mu = 3.667$, SD = .364) participants, $t_{14} = 2.69$, $p = .011$ (Difference = .492. 95% C.I. .120 -- .864). A significant difference was also found between nonaggressive ($\mu = 3.59$, SD = .311) and aggressive control participants, $t_{28} = 2.56$, $p = .015$ (Difference = .415. 95% C.I. .085 -- .747). The contrast between nonaggressive and treatment participants did not approach significance, $t_{28} = .583$, $p <$

.6. Treatment and nonaggressive participants responded similarly, and were more likely than control participants to believe that the character/s in the stories may have been acting with nonhostile intentions.

The same ANOVA, computed for closed-ended question 2 (do you think that _____ did _____ because she/he/they were being mean to you?), revealed no effect for group, $F_{2,35} = 1.49$ $p = .24$. The contrast between aggressive control ($\mu = 3.525$, $SD = .686$) and treatment participants ($\mu = 3.208$, $SD = .866$) did not approach significance, $t_{14} = .93$, $p = .36$. Nonaggressive ($\mu = 3.625$, $SD = .458$) and aggressive control participants returned similar responses, $t_{28} = .33$, $p < .8$. Nonaggressive and treatment participants looked slightly different, $t_{28} = 1.73$, $p = .092$. The three groups expressed roughly equivalent beliefs that the character/s in the stories may have been acting with hostile intent.

No differences were found in content or effectiveness of group members' responses to questions 4 (what would you do or say if this happened to you?) and 5 (what could you do in this situation to meet your goal?). Responses were equivalent in both content (scored in 1 of 4 categories: aggressive, competent, inept, and authority punish) and effectiveness. Mean effectiveness scores (scored on a 3-point scale, from 1-weak to 3-creative) for aggressive control, treatment, and nonaggressive groups were 1.925, 1.917, and 2.03 respectively for question 4, $F_{2,35} = .9$, $p < .5$, and 1.75, 1.78, and 1.82 for question 5, $F_{2,35} = .23$, $p < .8$. Three (group: aggressive control, aggressive treatment, nonaggressive) by 4 (response content: aggressive, competent, inept, authority punish) chi-squares found response content to be independent of group membership for

question 4, X^2 (6, n = 330) = 6.74, p < .5 and question 5, X^2 (6, n = 336) = 5.80, p < .5 (See Tables 2 and 3 for response patterns).

Table 2. Percentages (%) of response types produced by nonaggressive, aggressive treatment, and aggressive control participants: Question 4 of HAB measure, "What would you do or say if this happened to you?"

	Group		
	Nonaggressive	Treatment	Control
Response Type			
Aggressive	5.7	6.9	10.3
Competent	90.3	91.7	85.2
Inept	4.0	1.4	3.4
Authority	0.0	0.0	1.1

Table 3. Percentages (%) of response types produced by nonaggressive, aggressive treatment, and aggressive control participants: Question 5 of HAB measure, "What could you do in this situation to meet your goal?"

	Group		
	Nonaggressive	Treatment	Control
Response Type			
Aggressive	8.0	6.9	8.0
Competent	82.4	83.4	72.7
Inept	8.5	9.7	18.2
Authority	1.1	0.0	1.1

Chi-square analysis of responses to question 1 (what do you think was going on in the mind of ____ when this happened) by question 4 (what would you do or say if this happened to you) demonstrated the mediating role of attribution on stated behavioral

response. A 3 (attribution type: 1-hostile, 2-ambiguous, 3-nonhostile) by 4 (response content: 1-aggressive, 2-competent, 3-inept, 4-authority punish) chi-square proved significant, X^2 (4, n = 333) = 20.167, p < .002 (Note: since no responses were coded as "authority punish," the category was eliminated from the analysis. A 3 by 3 chi-square was actually calculated. Omitting the category changes neither the value nor the observable significance of the statistic). One hundred percent of responses following ambiguous and nonhostile attributions were coded as "competent." Following hostile attributions, 11.7% of responses were coded as "aggressive," 83.8% as "competent," and 4.5% as "inept" (see Table 4).

Table 4. Percentages (%) of response types following Hostile, Ambiguous and Nonhostile Attributions

	Attribution Type		
	Hostile	Ambiguous	Nonhostile
Response Type			
Aggressive	11.7	0.0	0.0
Competent	83.8	100	100
Inept	4.5	0.0	0.0
(Authority)	(0.0)	(0.0)	(0.0)

Social role-taking

Reliability: A Cronbach's alpha of .4392 was obtained for the average of scores 1 and 2. Alphas of .3153 and .6910 were obtained for scores 1 and 2, respectively. Interater agreement for all scores was 78.2%, $K = .5001$. Agreement for score 1 was 79.5%, $K = .5273$, for score 2, 76.8%, $K = .3290$.

The social role-taking measure consisted of 6 questions and 2 scoreable units: 1) "what is the problem here?" and "why is that a problem?" and 2) "how do you think the protagonist feels?", "why does he feel that way?", "how do you think the other person feels?" and "why does he feel that way?" Both units were scored on a 4-point scale from 0-egocentric and undifferentiated to 3-third-person and mutual. Responses were first analyzed by averaging the two units into 1 "social role-taking" score. Score 1 and score 2 were then analyzed separately.

It was hypothesized that, as a result of the intervention, aggressive treatment participants would produce higher social role-taking scores than aggressive control participants. Nonaggressive participants were also expected to outscore aggressive control participants. Results did not meet these expectations. An ANOVA comparing the averaged social role-taking scores of aggressive control, treatment, and nonaggressive participants revealed no effect for group, $F_{2,35} = .06$, $p < 1$. Analyses examining score 1 and 2 separately bore similar results, $F_{2,35} = .74$, $p < .5$ and $F_{2,35} = .18$, $p < .9$, respectively.

Teacher evaluation form

Changes in behavior were assessed, in part, by teachers' evaluations of students. The evaluation form asked teachers to express (on a five point scale from 1-strongly

disagree to 5-strongly agree) how well they thought each of the following five statements described each student: 1) This student is physically aggressive with peers. 2) This student is verbally aggressive with peers. 3) This student is aggressive with teachers. 4) This student is a general discipline problem. 5) This student has generally negative relations with peers. "Teacher-scores" were created by averaging the values of the five items into a single number (range 1-5).

It was predicted that the teacher-scores of treatment participants would decrease relative to the scores of aggressive control participants. A 2 (pre vs. posttest) X 2 (treatment vs. control) ANOVA identified no such effect. The Test X Group interaction was not significant, $F_{1,14} = .13$, $p < .8$. The analysis revealed a main effect for Test, $F_{1,14} = 25.26$, $p < .0001$. Scores declined significantly across groups between the first evaluation, conducted by last year's 6th grade teachers, and the second evaluation, conducted by current 7th grade teachers. There was no main effect for Group, $F_{1,14} = .26$, $p < .65$ (see Table 5 for a list of means).

Table 5. Mean pre- and postmeasure teacher-scores for aggressive control and treatment groups

	Teacher Evaluation	
	Premeasure	Postmeasure
Group		
Control	3.54	2.80

Disciplinary records

Changes in behavior were also measured through disciplinary records. The researchers intended to assess differences between control and treatment "aggressive" groups by comparing in-house suspension counts from the second half of the 6th grade year (the semester before the intervention) with in-house suspension counts from the second half of the 7th grade year (the semester after the intervention)[9]. However, only school "B" provided 6th grade information. Despite the small sample (n = 7), an analysis of change scores between control and treatment participants from school "B" was conducted. It revealed a significant intervention effect, $t_5 = 3.18$, $p < .05$. Control participants' in-house suspensions rose ($\mu = 1.33$, SD = 1.29) while treatment participants' declined ($\mu = -1.25$, SD = 1.16).

However, both schools provided 7th grade records, allowing for intended group comparisons. The researchers replaced the intended analysis with a 2 (Time: the 2 months before the intervention[10] vs. the 2 months after the intervention) X 2 (Condition: treatment vs. control) X 2 (School: A vs. B) repeated measures ANOVA (see Tables 6 and 7 for means). The hoped for Time X Condition interaction reached significance $F1,12 = 5.01$, $p = .045$. Collapsed over school, the treatment group improved relative to the control group (Δ treatment group = -.800, S.D. = 1.014, Δ control group = 1.083, S.D. = .976. Difference = 1.883. 95% C.I. .050 -- 3.716). Contrasts revealed a significant difference between school "B" treatment ($\mu\Delta = .000$, S.D. = .000) and control ($\mu\Delta =$ 1.333, S.D. = .577) groups, $t_{12} = 2.11$, $p = .057$ (Difference = 1.333, 95% C.I. -.044 --

[9]The intervention continued into the beginning of the second semester of 7th grade. So, this analysis would have compared the last 3 months of 6th grade with the last 3 months of seventh grade. All analyses

2.710). However, school "A" revealed no such effect, $t_{12} = .991$, $p = .341$ ($\mu\Delta$ treatment = -.800, S.D. = 1.304, $\mu\Delta$ control = -.250, S.D. = .500. Difference = .55. 95% C.I. -.115 -- 1.215). The difference between the schools lies largely in the control groups. While the treatment groups performed similarly, with school "A" improving slightly (μ = -.800) and school "B" remaining stable (μ = .000), $t_{12} = -1.441$, $p = .175$, the control groups diverged. School "A" control-group suspensions fell (μ = -.250) while the school "B" control-group suspensions rose (μ=1.333), $t_{12} = -2.505$, $p = .028$ (Difference = 1.583. 95% C.I. .206 -- 2.960).

The School X Time interaction was also significant, $F_{1,12} = 8.03$, $p = .015$. Collapsed across condition, school "A" improved relative to school "B" ($\mu\Delta$ school "A" = -1.05., S.D. 1.014, $\mu\Delta$ school "B" = 1.333, S.D. = .787. Difference = 2.383. 95% C.I. .550 -- 4.216) . However, the three way Time X Condition X School interaction was not significant, $F < 1$.

Table 6. Mean changes in suspension counts between the 2 months before and the 2 months after the intervention for aggressive control and treatment groups from schools "A" and "B"

	School		
	A	B	
Group			(weighted μ)
Control	-.250	1.330	.429
Treatment	-.800	0.000	-.444

described as "semester after the intervention" or "second semester" actually refer to the last three months of the school year.

[10]The intervention began 2 months into the school year.

Table 7. Mean suspension counts for the 2 months before and the 2 months after the intervention for aggressive control and treatment groups from schools "A" and "B"[11]

	School A		School B	
	Before	After	Before	After
Group				
Control	0.5	.25	.33	1.67

A comparison of second-semester suspension counts was also conducted. A 2 (condition: treatment vs. control) X 2 (school: "A" vs. "B") ANOVA revealed no main effects for condition $F_{1,12} = 1.837$, $p = .2$ or school $F < 1$ (see Table 8 for means). However, there was a significant Condition X School interaction, $F_{1,12} = 7.350$, $p = .019$. Consistent with the ANOVA results, a significant difference was found between school "B" control and treatment groups. The control group ($\mu = 4.0$, S.D. = 1) received more in-house suspensions than the treatment group ($\mu = .25$, S.D. = .5) in the second half of the school year, $t_{12} = 2.706$, $p = .019$ (Difference = 3.75. 95% C.I. .398 -- 7.103). The same contrast headed nonsignificantly in the wrong direction for school "A," $t_{12} = -1.027$, $p = .325$ (Difference = -1.25. 95% C.I. -.152 -- 3.90). Again consistent with the ANOVA results, there was no significant difference between school "A" and school "B" treatment groups, but the control groups significantly differed. School "A" control participants ($\mu = .75$, S.D. = .957) received fewer suspensions than school "B"

[11]For the 2nd half of 6th grade, school "B" treatment participants received $\mu = 1.75$ in-house suspensions. School "B" control participants received $\mu = 2.66$ suspensions, $t_7 = .899$, $p < .45$. Analysis of records from the 2 months before the intervention revealed no significant differences between school "A" and "B" aggressive participants, nor between the subsets of treatment participants, or control participants. Furthermore, no significant differences were found within school "A" nor within school "B" between treatment and control participants.

control participants ($\mu = 4.0$, S.D. = 1) in the second half of the school year, $t_{12} = 2.345$, $p = .037$ (Difference = 3.25. 95% C.I. .231 -- 6.269).

Table 8. Mean second-semester suspension counts for aggressive control and treatment groups from schools "A" and "B"

	School		
	A	B	
Group			(weighted μ)
Control	0.750	4.000	2.143
Treatment	2.000	0.250	1.222

CHAPTER IV

DISCUSSION

The intervention produced ambiguous results. Some findings suggest it reduced the number of suspensions received by the boys who participated. But, it did not reduce the boys' aggressive behavior as evaluated by homeroom teachers. It appears to have reduced the boys' tendency to attribute hostile intentions to others. But, it did not measurably improve their social role-taking ability, nor increase the prosocial content of their values.

Improvement in the disciplinary record, beyond any other available assessment, can indicate improvement in the boys' behavior. However, such a finding may not indicate improvement in behavior outside of school, or in school when unsupervised. The latter argument means little, since staff constantly supervise students during school hours. The former argument means more. Behavior could improve in school without improving elsewhere. However, aggressive behavior in and out of school tends to be highly associated (Goldstein, 1992; Patterson et al., 1992). Certainly, behavior is more likely to improve given in- school improvement, than given no in-school improvement or in-school decline. Furthermore, less trouble with the authorities and lowered aggression at school tends to predict improved academic performance and improved orientation towards school. These, in turn, predict the pursuit of "mainstream" institutions and constructive activities (Cairns et al., 1988; Kupersmidt & Coie, 1990; Patterson, 1992). Disciplinary records matter.

In the current research, the disciplinary records of the boys in the treatment group improved relative to the records of the boys in the control group. However, the result is

hard to interpret. The effect lies mainly in school "B." In school "B," control-group suspensions increased and treatment-group suspensions did not change. In school "A," both groups' suspensions decreased slightly.

There may be a meaningful difference between the schools. Collapsed across group, school "B" suspensions increased and school "A" suspensions declined, $F_{1,12} = 8.03$, $p = .015$. Furthermore, analysis of second-semester records produced a significant School by Group interaction. In the second-semester, school "B" treatment participants received fewer suspensions than school "B" controls, while school "A" treatment participants received roughly the same number of suspensions as school "A" controls.

Two tentative trends appear in the disciplinary records: 1) The school "B" treatment group behaved better than the school "B" control group. 2) School "A" improved relative to school "B." The two trends are related.

The environment of school "B" may exacerbate the behavior of aggressive students. The results suggest this by showing that student behavior in school "B" declined, and declined relative to school "A." If this is so, than the stability of the school "B" treatment group may be interpreted as a positive effect of the intervention. The intervention prevented the behavior of the treatment boys from declining in the manner of the other aggressive boys. The general improvement in school "A" suggests a more constructive environment, where students' aggressive behavior tends to improve. The intervention did not have the power to significantly improve the behavior of the treatment boys beyond the mean improvement of the school "A" control boys.

The above is a tentative interpretation based on small numbers and imperfect results. Chance alone may account for the findings[12]. However, the facilitators noted the difference between school environments before analyzing the data. It is not purely a post hoc explanation. The primary facilitator recorded events and observations of both schools in a weekly project log. Here, he noted the difference between the environments.

While these are the unsystematic observations of a single researcher, they are relevant and may help interpretation. According to the observations, school "B" provided a harsher and more variable environment than school "A." It was more common to hear teachers or administrators from school "B" bullying, insulting, threatening and shouting at the students. The teachers were often sarcastic and disrespectful. The research assistants who collected premeasure data noted the tendency of school "B" teachers to communicate bad things about individual students in the students' presence.

School "A" teachers and administrators interacted with students in a more effective manner. They were strict, but rarely observably arbitrary or belligerent. Harsh, variable and arbitrary authority, such as that observed at school "B," is likely to contribute to aggressive behavior and other behavior problems. Researchers implicate such discipline in the downward spiral of the behavior of problem students in schools (Dodge, 1982; Kupersmidt & Coie, 1990; Pratt, 1973).

The students' impressions of the teachers support the facilitator's observations. The issue of student/teacher interactions consumed two intervention sessions. As part of the exercise, the boys described teacher behaviors that they did not like or thought were

[12]In the two months before the intervention, school "A" aggressive participants received more suspensions than school "B" aggressive participants. Although the difference was not significant ($t_{14} = -1.318$, $p = .212$), regression to the mean might explain the reduction in school "A" suspensions.

unfair. School "B" boys responded quickly with a list of complaints. A few excerpts follow:

> "They feel that all kids are bad and they yell at them for no reason."
> "They don't like their jobs, but they have nothing better to do. They're sick of us"
> "We get mad because they yell at us and embarrass us in front of our friends."
> "Last year I got in trouble a lot. I was really bad. So this year, if I do one little thing bad, they get on my case. They expect me to be bad."
> "They threaten you. That doesn't help you. It makes you worried."
> "If I break a rule, they have every right to yell at me. But, if it's just some little thing, like not sitting down the second they say, that's wrong."

In contrast, an excerpt from the facilitator's school "A" log (11/14/96) appears below:

> "We acted out the teacher problem scene. Not as smooth as school 'B.' They had some trouble coming up with a good scene, with specific situation and behaviors of the teacher. . . They said 'none of the teachers are that mean, they're not so bad.' (Big difference from school 'B')."

> To be fair, the following week one of the school "A" students came up with this: "They puttin' you down so we think, 'why can't we put them down?' That's how it starts. They say, 'treat others how you would want to be treated.' Then they treat you bad and you figure . . .(note: he trails off)."

These observations and materials do not provide systematic support for a hypothesis. But, the information is relevant and deserves discussion.

On whole, the available disciplinary information does not allow firm conclusions, but points to the possibility that the intervention worked.

The teacher evaluations provide another measure of the impact of the intervention. Analysis revealed no main effect for group, no main effect for school, and no group by school interaction. The evaluations yielded one highly significant result. Collapsing across groups and schools, teachers rated the boys as less aggressive on the

postmeasure than on the premeasure. Because different teachers completed pre and postmeasure evaluations, the result is hard to interpret. However, the effect is highly significant and is consistent across schools. At face value, the behavior of control and treatment boys improved in the eyes of homeroom teachers. But, there is an alternative explanation. The aggressive boys were selected for their high scores on the premeasure. On average, postmeasure scores declined relative to premeasure scores. Without a group of boys who scored highly on the premeasure and did not decline on the postmeasure, it is impossible to rule out regression to the mean as the cause of the result.

Assessment of the cognitive impact of the intervention also produced mixed results. The premeasure of hostile attribution bias failed to reveal differences between aggressive and nonaggressive subjects. In retrospect, the measure may not have been age appropriate for 7th grade students (Schwartz, personal communication). The researchers obtained an updated, age-appropriate version of the measure for postintervention assessment. Demonstrating its value, the new measure revealed differences between nonaggressive and aggressive control groups, $t_{14} = 2.69$, $p = .015$ (for closed-ended question 2).

Postmeasure comparison revealed that the boys in the treatment group were less likely than the boys in the control group to attribute hostile intentions to ambiguously acting others. The treatment group was also less likely than the nonaggressive group to attribute hostile intent. This effect was consistent across schools. The intervention appears to have reduced participants' hostile attribution bias.

However, treatment participants may have been searching for the "good" or "right" answer. They may have done this, beyond participants in the other groups,

because of a sense of duty to the project or facilitators. This explanation, though, is tenuous. First, such behavior would be highly inconsistent with the treatment boys' behavior throughout the intervention. More importantly, the postmeasure sessions were only vaguely related to the intervention. Research assistants who collected the postmeasures had not previously been in the schools. They claimed no association to the facilitators. It is unlikely that the treatment boys drew a tight connection between the postmeasures and the intervention. It is also unlikely that they felt a duty to the facilitator to perform a certain way on the tasks[13]. It is less likely that they transferred this duty to research assistants whom they had never met.

Rather, it seems the result testifies to the strength of the effect of the intervention on hostile attribution bias. However, the researchers do not know how stable the change may be or how much it will generalize to the real world. Hostile attribution bias tends to be exacerbated under conditions of threat to the self (Dodge & Somberg, 1987). Certainly, the self is threatened more in life than on paper. However, the effects measured with the written vignette version of the measure have been equivalent to those found with video-stimulus and behavior-involving measures (Dodge & Frame, 1982; Schwartz, personal communication). The intervention focused on understanding and questioning the motives behind the actions of others. It focused on pausing and thinking before reacting. It seems reasonable to conclude that the intervention reduced the tendency of aggressive boys to attribute hostile intentions to other people.

An extensive line of research has documented the importance of hostile attribution bias in reactive aggressive behavior. Hostile attributions tend to directly precede

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[13]The primary facilitator never discussed the postmeaures with the particpants. Participants did not tend to

aggressive acts (e.g. Dodge, 1980, 1984; Dodge et al., 1990; Weiss et al. 1992). The current study adds to the evidence that hostile attributions mediate reactively aggressive responses. Despite this finding, the postmeasure yielded no differences between groups in content or effectiveness of suggested responses to negative-outcome vignettes. The questions assessing these responses produced little variability. The variability measured moved closely with attribution type, but did not provide a wide enough range to identify group differences. Researchers rated close to 90% of responses as "competent." Perhaps, desirable responses were obvious to most participants. Perhaps, the measure did not engage the participants adequately to activate real differences in response tendencies. Or, perhaps the coding procedure was not accurate enough to reveal differences in responses.

The social role-taking task provides another measure of the cognitive impact of the intervention. Unfortunately, Chandler's (1973) social role-taking premeasure did not work. Virtually all participants produced "perfect" responses for all vignettes. Enright & Lapsley (1980) warn that the measure is given to ceiling effects with adolescents. Instead of concluding that all participants were of equal and high social role-taking ability, the researchers presumed that the task may have been inappropriate for 7th grade students.

Thus, for the postmeasure, they replaced Chandler's task with the first two steps of Schultz, Yeates and Selman's (1989) Interpersonal Negotiations Strategies Interview. This measure also failed to produce measurable differences between groups. The measure produced little variability. For this measure to be effective, participants must not feel rushed and must take time to produce answers (Schultz, Yeates & Selman, 1989).

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perform tasks out of concern for the facilitators.

Otherwise, responses fall to a common point. Under rushed conditions, it is unlikely subjects would provide higher-category responses. In the current research, almost all participants produced short answers. Few answers were more than two sentences. The postmeasure session was long and research assistants, despite directions to the contrary, may have felt rushed to complete the assessments. Given these circumstances, it is likely that the students felt rushed or fatigued and, therefore, produced a narrow range of answers.

The final measure assessed participants prosocial value orientation. Staub's Prosocial Value Orientation (PVO) measure (Staub, 1985) has been highly predictive of helping behavior both in laboratory settings and large scale self-report studies. It has been found to predict helping more highly than other proposed predictors of helping (e.g. empathy, prosocial rule orientation) (Staub, 1995). Three dimensions comprise PVO: 1) A positive evaluation of humans. 2) A concern for the welfare of others. 3) A feeling of responsibility for the welfare of others. Panner (1996) finds the same dimensions to predict helping behavior.

The researchers reasoned that aggressive and harmful behavior should be negatively associated with prosocial value orientation. Thus, they predicted that aggressive participants would score higher on a measure of PVO than nonaggressive participants. Results followed this prediction. "Aggressive" participants produced significantly higher PVO scores than "nonaggressive" participants. The result supports the notion that the three dimensions of PVO (a positive evaluation of humans, concern for others, and a feeling of responsibility for others) are important predictors of people's

behavior. Now, PVO has not only been positively associated with helping behavior, but negatively associated with aggression.

However, the intervention did not affect PVO scores. Researchers anticipated that the PVO of aggressive treatment participants would decline relative to the aggressive control group. Analysis revealed no such effect.

While the theoretical and empirical underpinnings of the current research still seem sound, several practical problems jeopardized the collection and interpretation of meaningful quantitative information.

The identification of aggressive and nonaggressive students presented the first important problem. The researchers were not able to collect disciplinary records and multiple teacher ratings for each student. Neither school produced disciplinary records in time to be used in the identification process. School "A" never produced 6th grade records. The schools provided only single teacher ratings of each student. So, identification was based on ratings from single teachers. (Although, analysis of 6th grade disciplinary records from school "B" provided some evidence that the teacher ratings, and the groups formed from them, were meaningful.)

Given the potential weakness of this method, strict criteria were initially set for inclusion in the aggressive and nonaggressive groups. The researchers assumed that large differences in scores would reflect behavioral differences. Criteria for inclusion in the nonaggressive group were maintained, but the small number of students who returned consent forms forced a loosening of the criteria for inclusion in the aggressive group (as the proportion of seriously aggressive students in both schools is far lower than the proportion of nonaggressive students).

Reliance on a single measure made differences less certain. The dilution of the aggressive group with moderate individuals made real differences between the aggressive and nonaggressive groups less extreme. This made it more difficult to identify preintervention differences between aggressive and nonaggressive groups on cognitive measures and postintervention differences between aggressive control and treatment groups on all measures. At the same time, it provided a conservative test of all hypotheses and does not undermine the internal validity of findings.

The small number of aggressive students who agreed to participate in the study produced several related problems. First, there were only enough subjects to run 2 treatment groups, for a total of 12 treatment participants. This reduced the ability to quantitatively identify change due to the intervention. Further, the small number of aggressive participants did not allow for the formation of mixed treatment groups, comprised of 3 aggressive and 3 nonaggressive students. Such groups tend to produce better results when compared to homogeneous groups participating in the same types of interventions (Feldman et al., 1993).

The small number of aggressive participants also made it impossible to form a placebo-control group. Without such a group, it is impossible to determine that results are due to the specific features of the intervention. Participation in a creative activity, in a small group, with positive and productive peer interaction, personal positive attention from an adult, and potential change in teacher expectations due to participation, may all contribute to change. If equal change occurred in placebo-control groups and treatment groups, it would bring the importance (and/or the implementation) of the specific elements of the intervention into question. Greater change in treatment groups than

placebo-control groups would indicate the importance of the unique features of the intervention, as well as provide an estimate of how much change is due to these factors as opposed to any other potential participation effects. A better design to identify the contribution of different elements of the intervention would have 4 contact levels: a no-contact control group, a placebo-control group, an all-but-basic-human-needs-content group, and a full-treatment group.

While the lack of a placebo-control group is unfortunate, it should be noted that aggressive behavior and cognitive tendencies are hard to change. Only the strongest interventions produce measurable effects. So, it is unlikely that "mere contact" would substantially affect children's behavior (Eron, Gentry, & Schlegel, 1994; Goldstein, 1988; Goldstein & Glick, 1994; Kazdin, 1987; Kazdin et al., 1992; Satterfield, Satterfield, & Schell, 1987).

The third important problem was treatment group disintegration. The treatment group from school "B" dwindled to 4 participants. The school placed one member of the group in an External Alternative Placement program. He no longer attends classes in the building and is not involved in most regular school activities. A second member of the group disappeared after attending one session. However, the remaining four participants attend sessions regularly.

Members of the treatment group from school "A" attended irregularly. Teachers and administrators frequently suspended and detained participants, who then could not attend treatment sessions. Sometimes, participants left school in the middle of the day and never returned. One of the few participants who had attended every session then disappeared from school for over a month. Apparently, he was ill. He resurfaced for the

last 4 sessions. A member of the aggressive control group was brought into the treatment group when attendance was very low. He missed the first 5 sessions.

Inconsistent attendance created great difficulties in the intervention. Frequently, a session-plan called for the completion of activities begun the week before. Also, it was difficult to cooperatively establish and use a shared body of information.

The intervention had several other weaknesses driven by practical, and not theoretical, considerations. Ideally, sessions would have been longer. They lasted 1 hour, allowing participants to catch the late bus. A full hour of meeting would have been sufficient. However, the allotted hour began as soon as the school bell wrung. Within that hour, the students had to arrive, settle down, help set up the room and then clean up and go outside to catch the bus. For this reason, activities that would have been better completed in 1 session were frequently divided between 2 sessions. This cost even more time, as the students had to reacquaint themselves with last week's activities before completing them. Thus, the groups completed less work than the facilitators had hoped. The limited, 14 week duration of the intervention posed a related problem.

Fourteen weeks is a meaningful length of time and change produced by an intervention of this length indicates the usefulness of the employed techniques (Kazdin, 1987a). However, stable change is more likely to occur with longer term interventions and interventions that have follow-up training (Guerra et al., 1994). The general strength of the intervention would have been enhanced with more contact time. The inexperience of the facilitators also decreased the strength of the intervention. Research indicates, not surprisingly, that interventions run by more experienced facilitators tend to be more successful, across type of intervention (Feldman, et al., 1993).

A final weakness of the current intervention, mentioned in the introduction, is that it focused mainly on the individual level. It did not address many of the sources and sustainers of problem behavior. A burgeoning body of literature suggests that, for interventions to be most meaningful, they must work on both the individual and systems level (Eron, Gentry, & Schlegel, 1994; Goldstein, 1988; Goldstein & Glick, 1994; Kazdin et al., 1992). Ideally, this means working with some combination of family, peer group, school or community, as well as with the individual. Interventions which address several of these levels have larger and more enduring effects than single level interventions (Eron, Gentry, & Schlegel, 1994; Goldstein, 1988; Goldstein & Glick, 1994; Kazdin et al., 1992; Satterfield, Satterfield, & Schell, 1987).

However, researchers test the individual components of multi-level interventions before implementing them as a unit. The current research tested an approach to reducing boys' aggression that is intended to become a component of the Caring Schools Project (Staub, 1995b). This project would involve teachers and parents, as well as entire peer-groups within the school. It would attempt to create a prosocial community environment. This project would meet the demand for multi-level interventions, addressing many of the central cycles of aggression and promoting prosocial, caring behavior.

The current method requires further testing before it can be included in the Caring Schools Project. The results are ambiguous, and the many logistical problems preclude clear conclusions.

APPENDIX A

PROSOCIAL VALUE ORIENTATION QUESTIONNAIRE

Name_____

Please read each sentence below and show how much you agree or disagree with it. There are five possible choices. Strongly Agree (1), Agree (2), Neutral (3), Disagree (4), Strongly Disagree (5). Show what you think by circling the number that best describes how you feel about each sentence. There are no right or wrong answers here. We are just interested in finding out what you think about these things.

People usually get what they deserve, good or bad.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

We all have the right to do, first of all, what we need to do for ourselves, instead of worrying about other people's problems.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I try to obey the rule, "help people who need help."

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I don't usually think about other people's feelings when I make decisions.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I get angry when I see someone treated badly.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I believe in helping a person who needs help, even if he has not shown appreciation for favors I did for him before.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Some people can be trusted completely.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Sometimes, people try to hurt me for no reason.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I often get annoyed when I see someone crying.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

People can do little to help other people who suffer.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

People from different countries, religions, or races are different from each other in basic ways.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Most people have a mean, cruel side that will come out if it has a chance.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

It makes me sad to see a lonely stranger in a group.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

It is important to me to understand what other people are feeling.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Most people are basically good.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

There is never a good reason to lie.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Most people who are poor are not trying or just can't do anything.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

All of us should spend some time helping other people or helping the community.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

If my friend wanted to hurt an enemy of his, I would feel I should try to stop him.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

When I am helpful, it is only to get people to like me.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

People are often hostile to me.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I am concerned about people's well-being everywhere in the world.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Most people who are successful in life are good, honest people.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

People should always help themselves instead of expecting help from others.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

The best way to deal with people is to tell them what they want to hear.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

When people have big problems it is usually their own fault.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I feel bad for people who suffer.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

God expects us to help others.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

All people need the same basic things.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I can do things to help other people.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

The biggest difference between most criminals and other people is, criminals get caught.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

People should be ready to stop their own fun, if it is really getting in the way of others.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

A lot of times, people get into other people's private business when they try to help them.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

I feel responsible to help people who suffer.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Often, people who are suffering are not to blame. Things beyond their control caused their problems.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

APPENDIX B

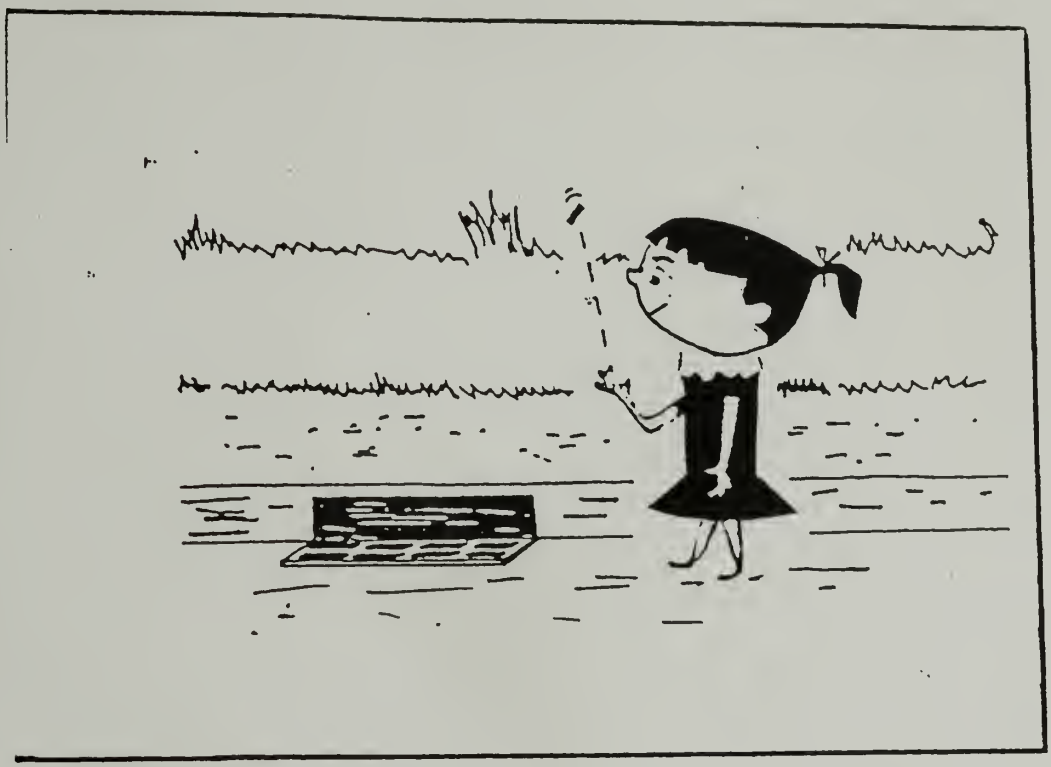
SOCIAL ROLE-TAKING: PRE AND POSTMEASURE

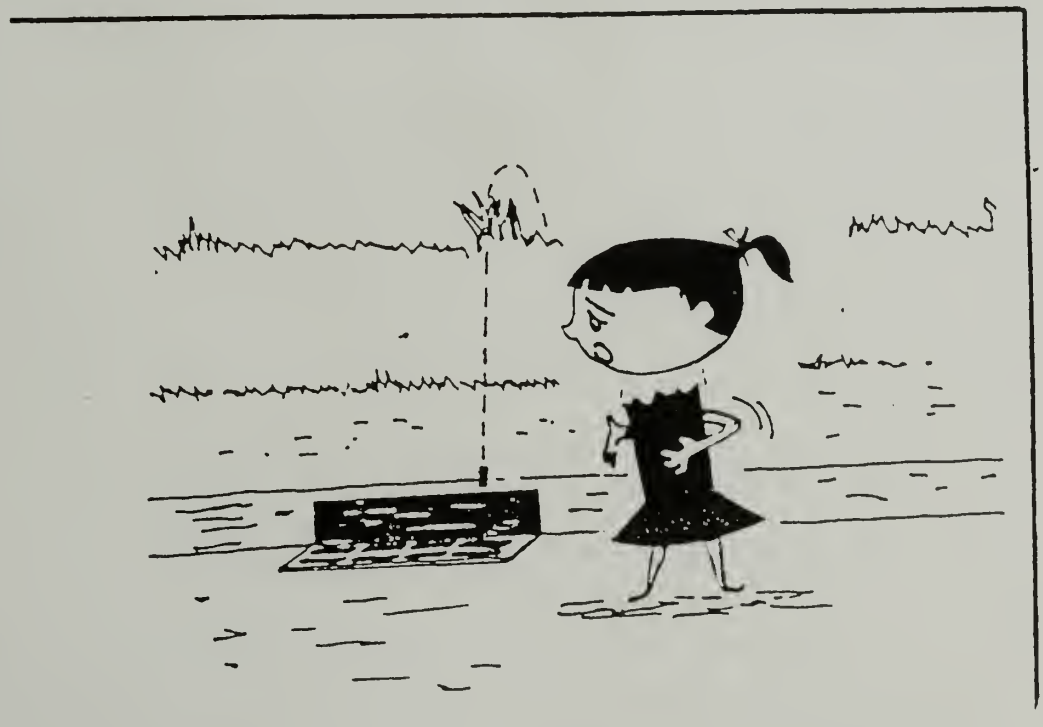
Premeasure

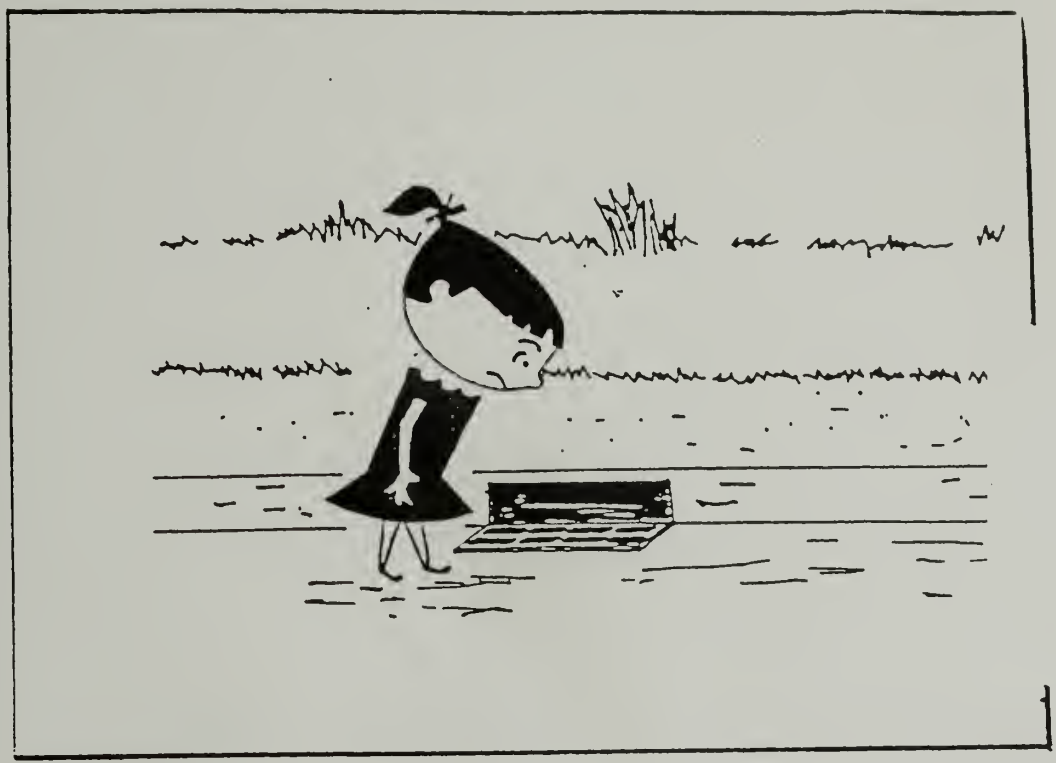
Coin

Spontaneous Story: An understanding of the causal chain of psychological events implied in this sequence is indexed by statements which indicate that the S realizes 1) that the girl's sadness is in response to the loss of her coin, and 2) that her refusal to join her friend is a function of her general dispondency. If not spontaneously mentioned, inquiry should be made into the S's understanding of these relationships.

Bystander's Report: Egocentrism is indexed in this sequence by any comment by the S which suggests that the bystander in the story is aware of the specific basis of the girl's sadness. Establish what the witness presumes the girl is feeling and what she is presumed to be sad about.





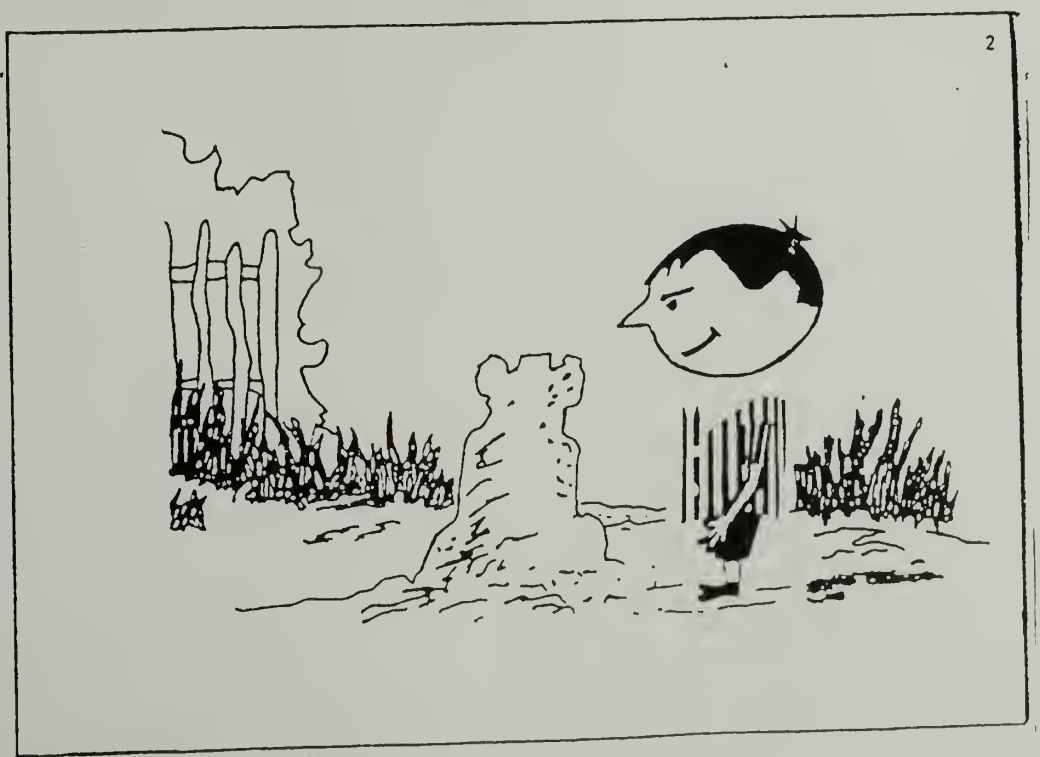


Sand Castle

Spontaneous Story: The S's understanding of the causal links in the chain of psychological events running through this sequence is reflected in his understanding that destruction of card house as an example of the displacement of hostile feelings. The bystander's inquiry should be directed toward establishing the S's level of awareness of this relationship.

Bystander's Report: Egocentric thinking is apparent whenever stories offered as descriptive of this sequence include the suggestion that the bystander would in some way understand the specific circumstances behind older boy's angry attach on his card house. Inquiry should be directed toward determining what the bystander thinks the hero feels and what the bystander thinks the hero is angry about.


1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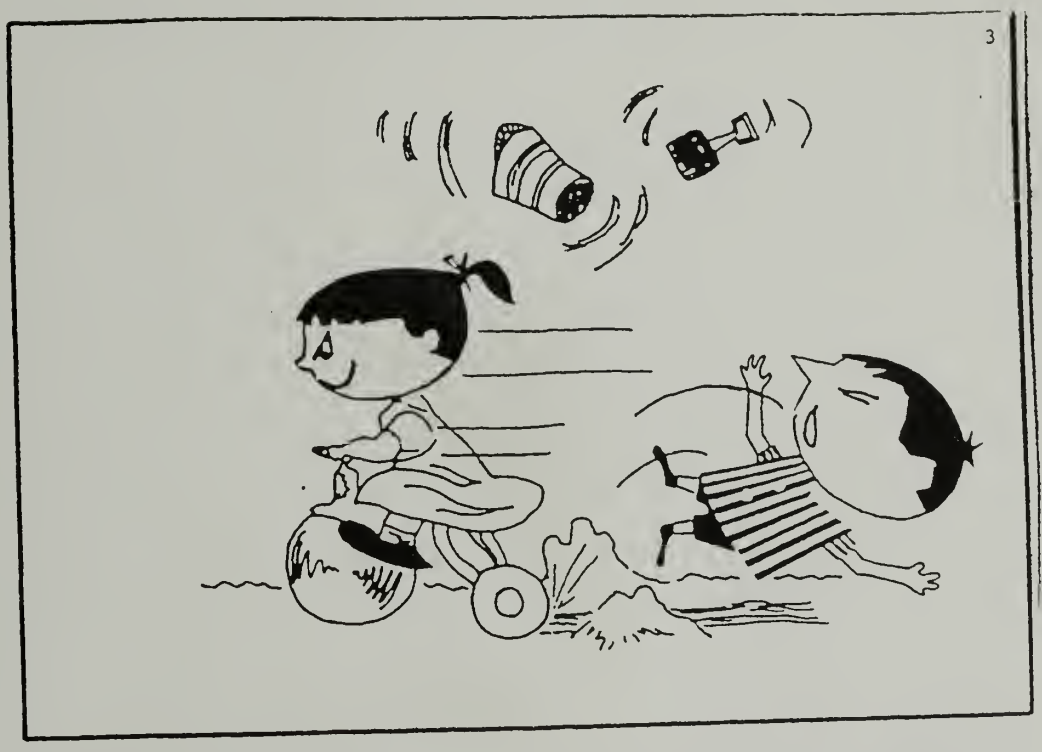
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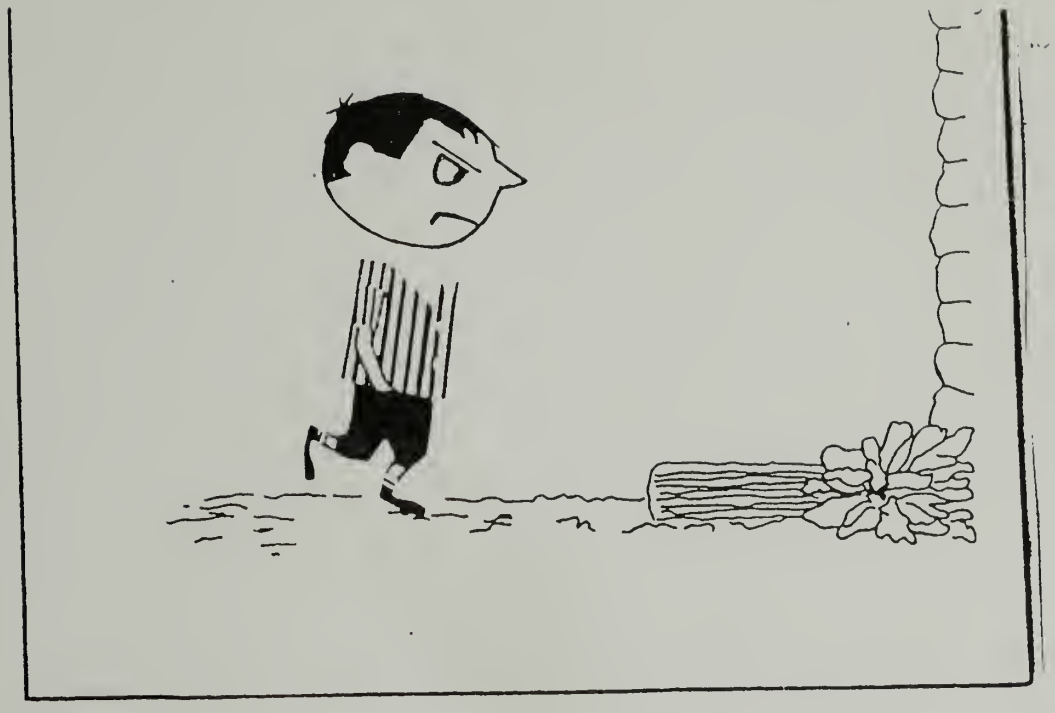

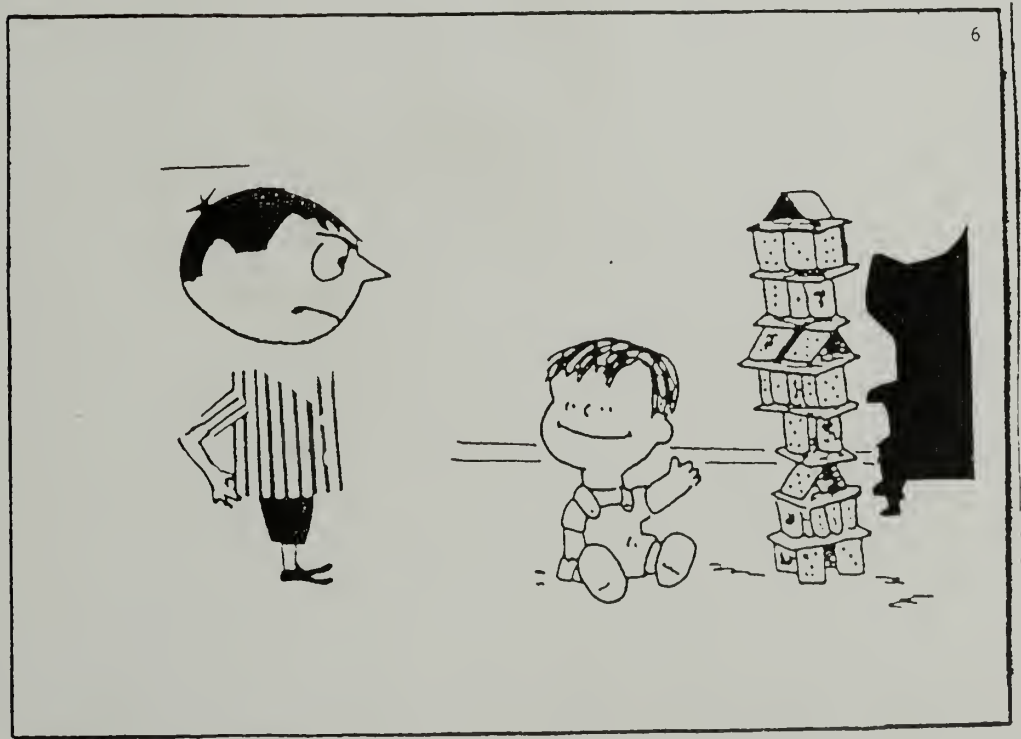
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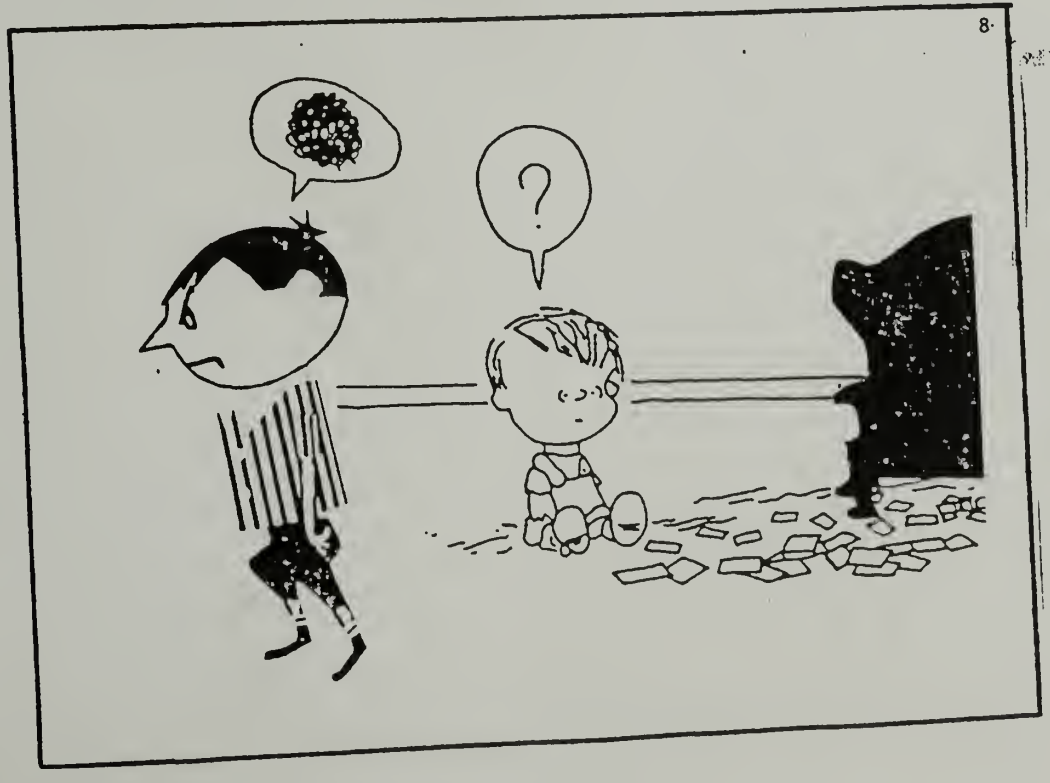
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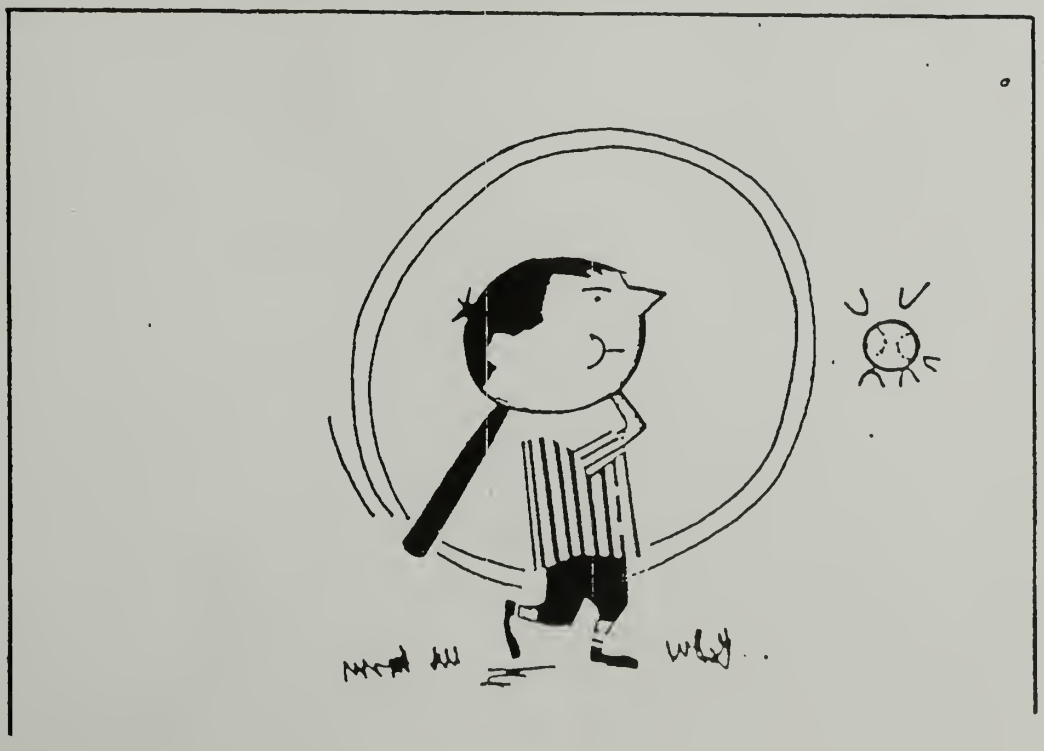
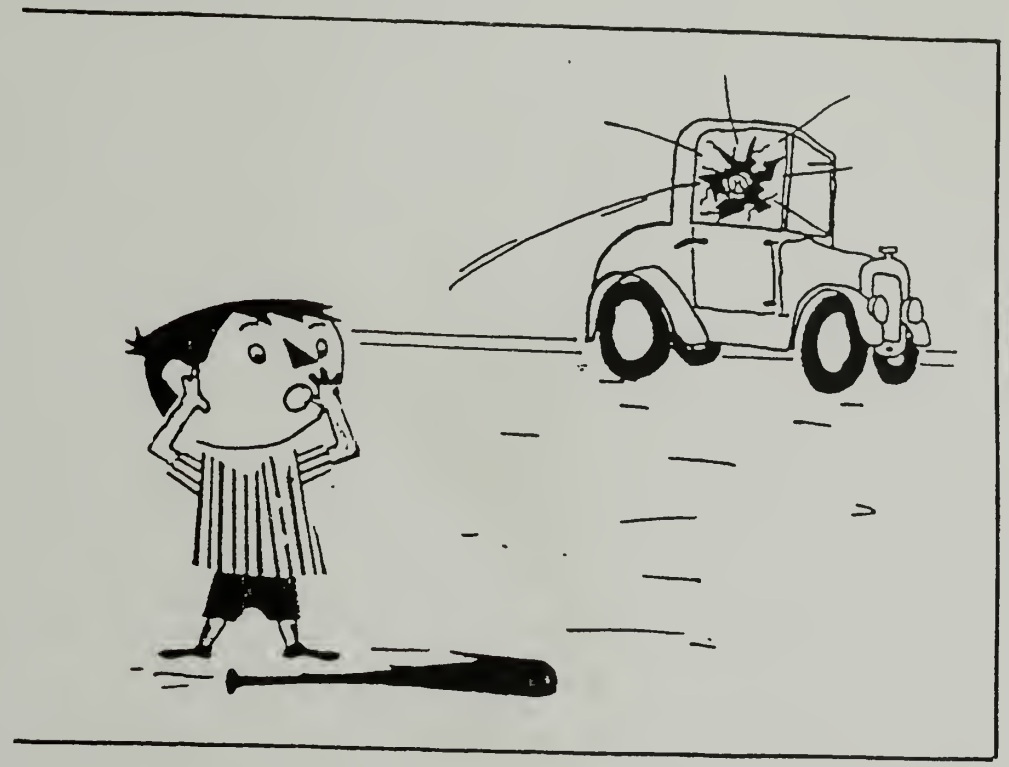
?

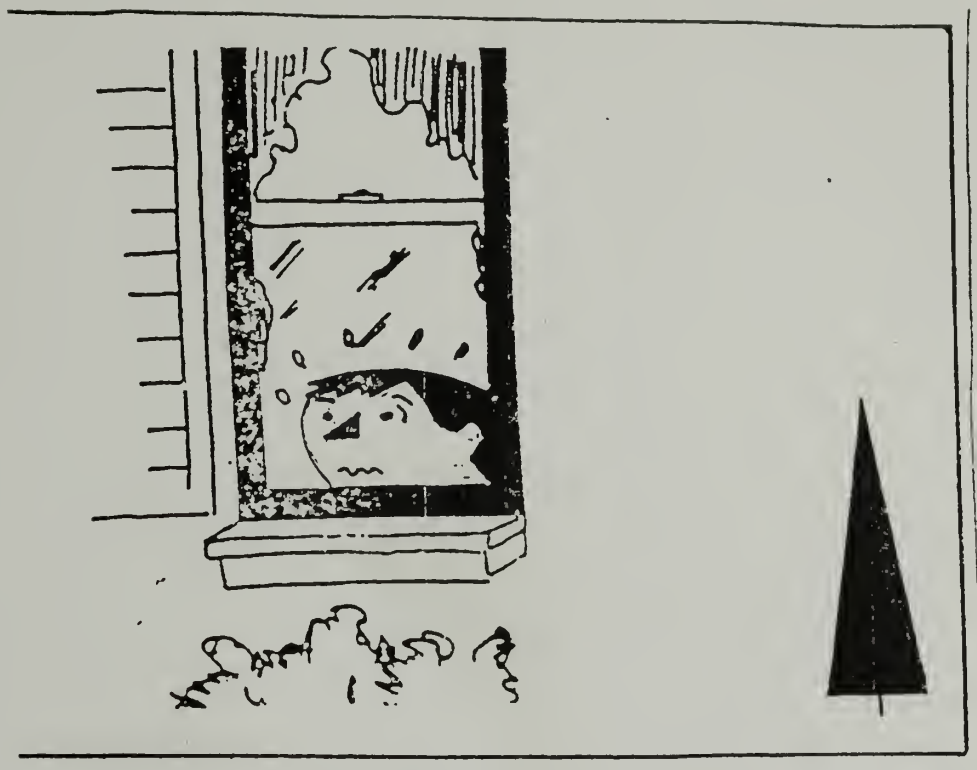
Broken Window

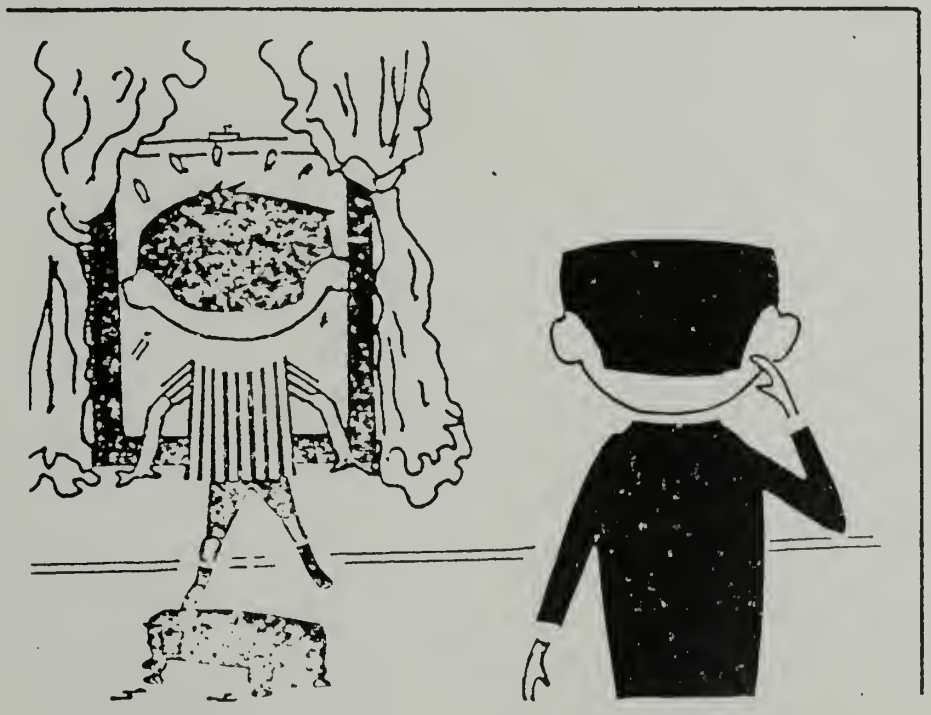
Spontaneous Story: The S's understanding of the causal chain of psychological events operating in this sequence as indexed by statements which explicate the following points: 1) that the boy is frightened by the possible consequences of his having broken the window, 2) that he runs to his home to escape the consequence of his act, and 3) that his fear is magnified by his assumption that the knock at the door is related to his having broken the window. Inquiry should be made into any of these relationships not touched on spontaneously.

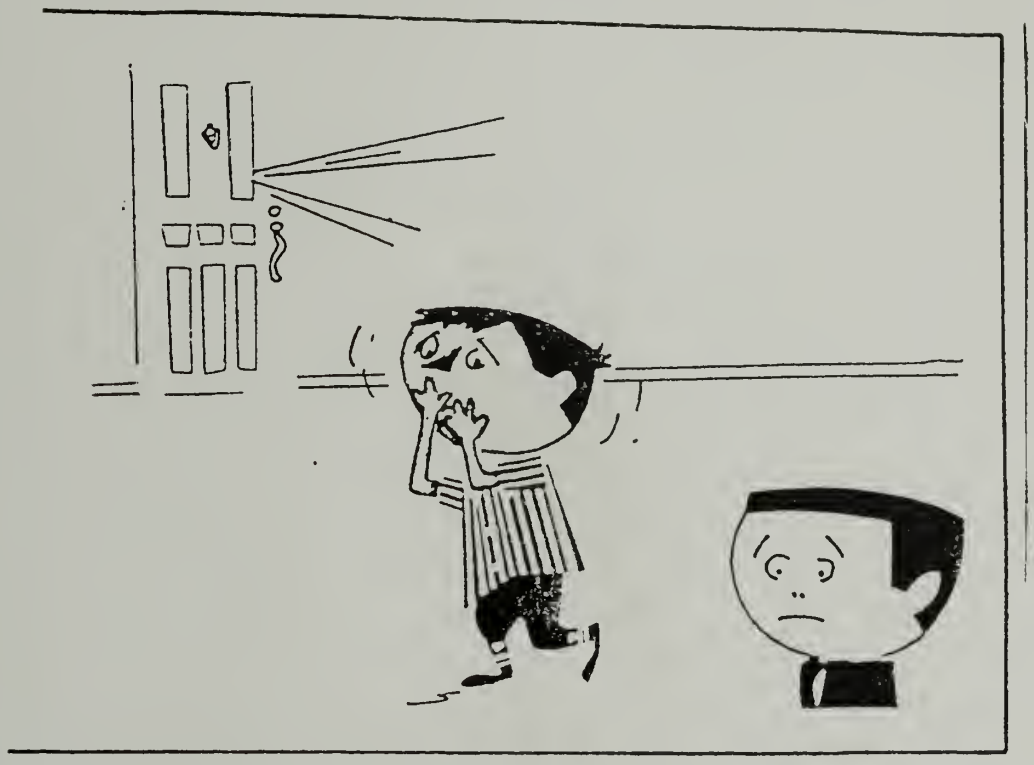
Bystander's Report: Evidence of egocentric thinking in this sequence is provided by remarks which indicate: 1) that the boy's father knows the specific basis of his fear, 2) that he appreciates the reason for his exaggerated reaction to the knock at the door, and 3) that he knows precisely who is at the door and for what reason. Inquiry should be made into any of these relationships not touched on by the S.

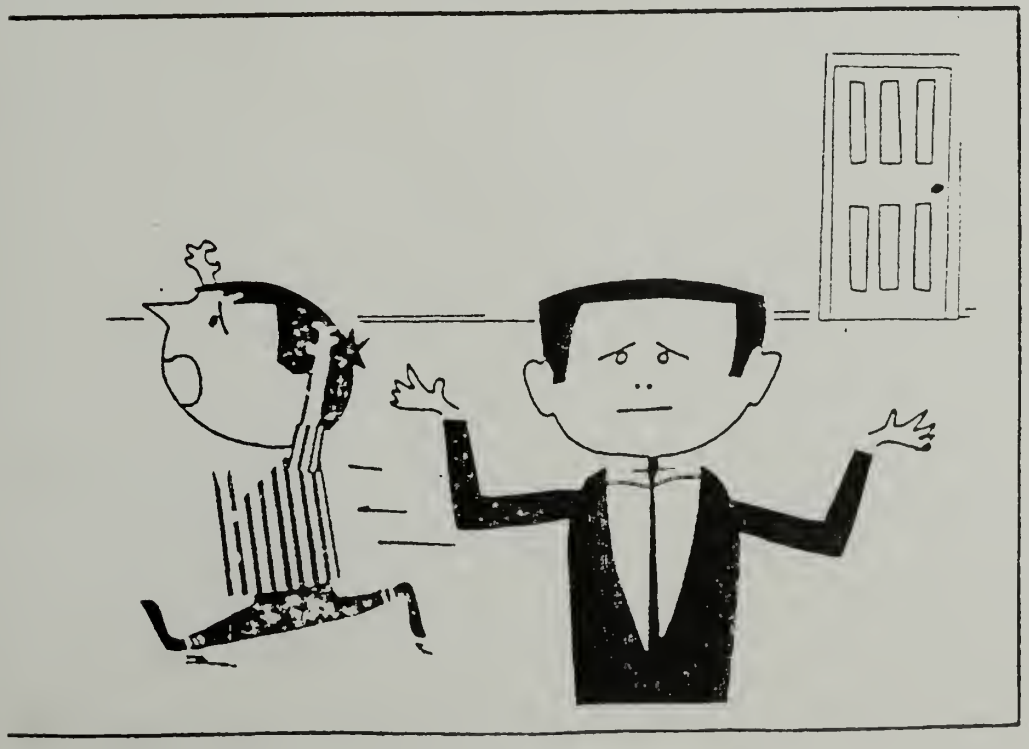








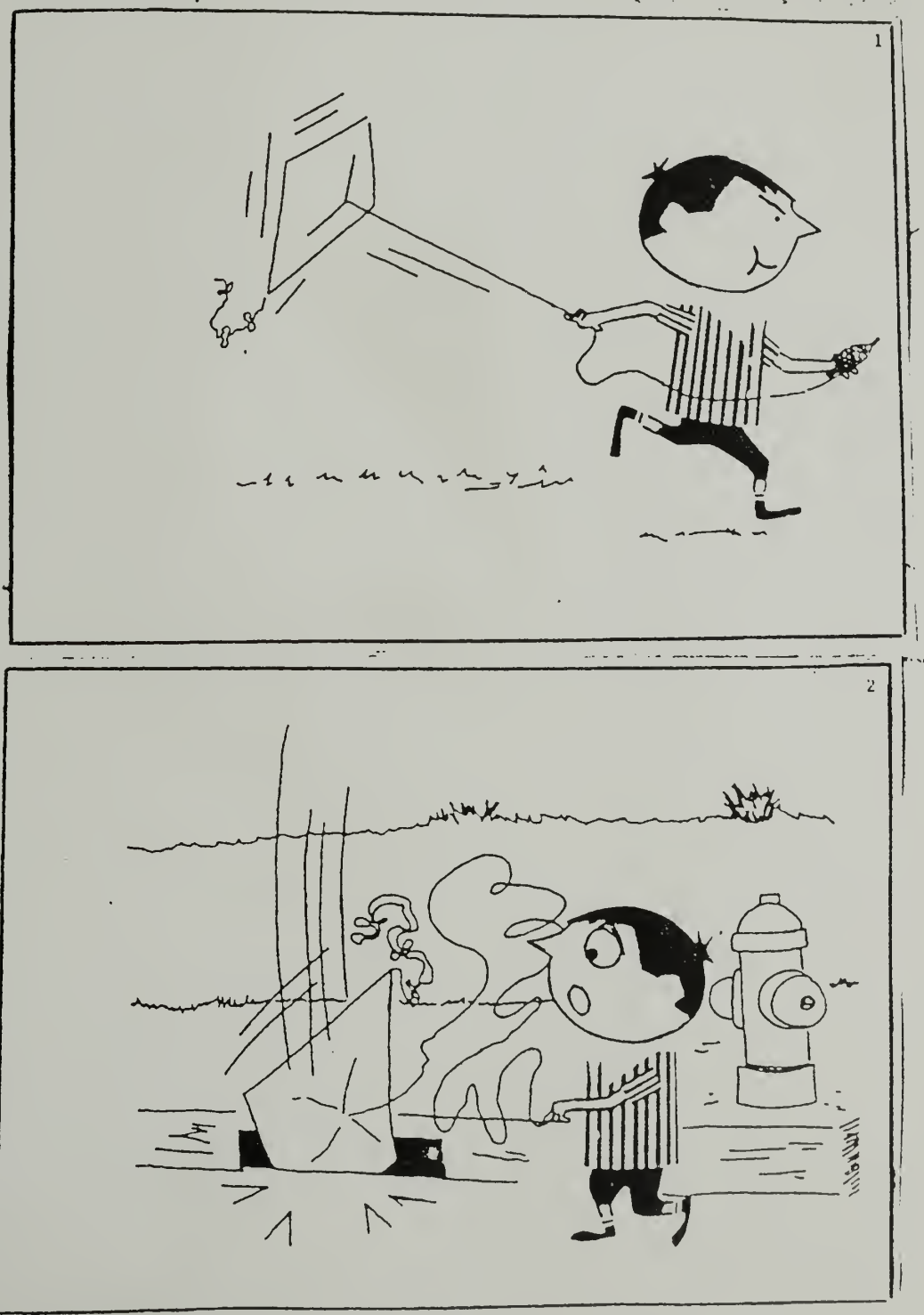




Kite

Spontaneous Story: If not spontaneously included, inquiry should be directed toward determining whether S: 1) appreciates the H's angry; 2) links this anger to the accident with the kite; 3) sees the destruction of the kite as an expression of this anger; and 4) understands that kicking the chair is a form of displaced aggression.

Bystander's Report: Egocentric thinking is revealed in this story if the S fails to differentiate between his specific and detailed knowledge of why the hero is angry and the inavailability of this information to the hero's mother. Any story which suggests that the mother knows precisely what happened to the kite and where provides evidence of egocentric thought. If not spontaneously included inquire: 1) how does the boy's mother think he feels?; and 2) what does the mother think he is so angry about?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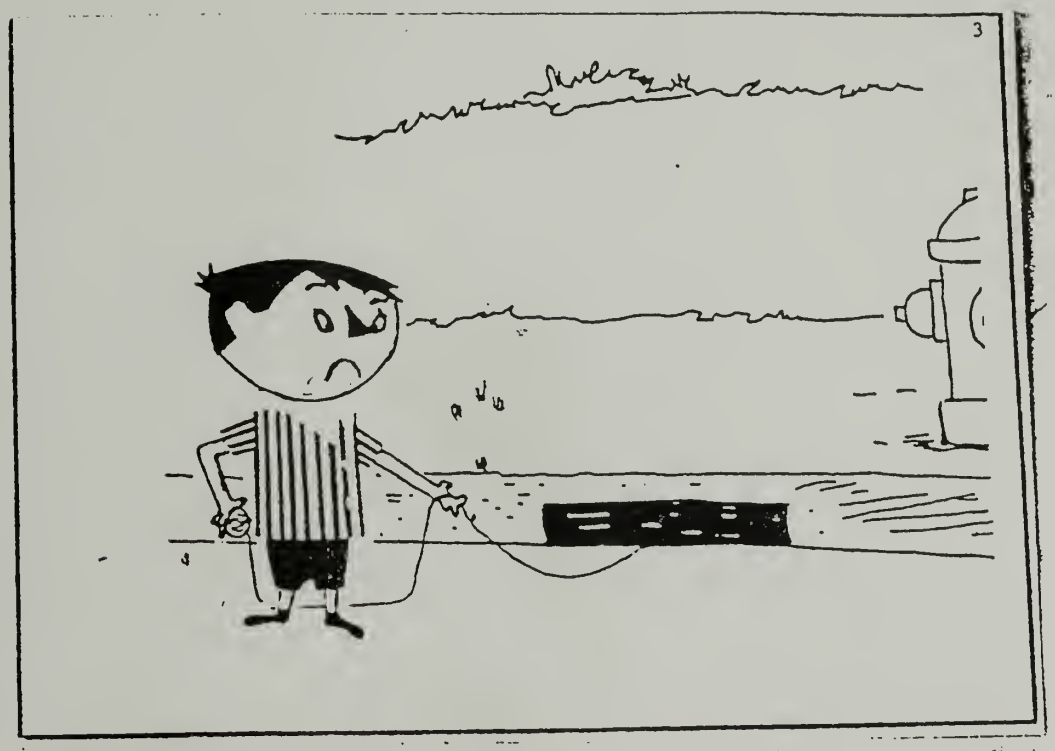
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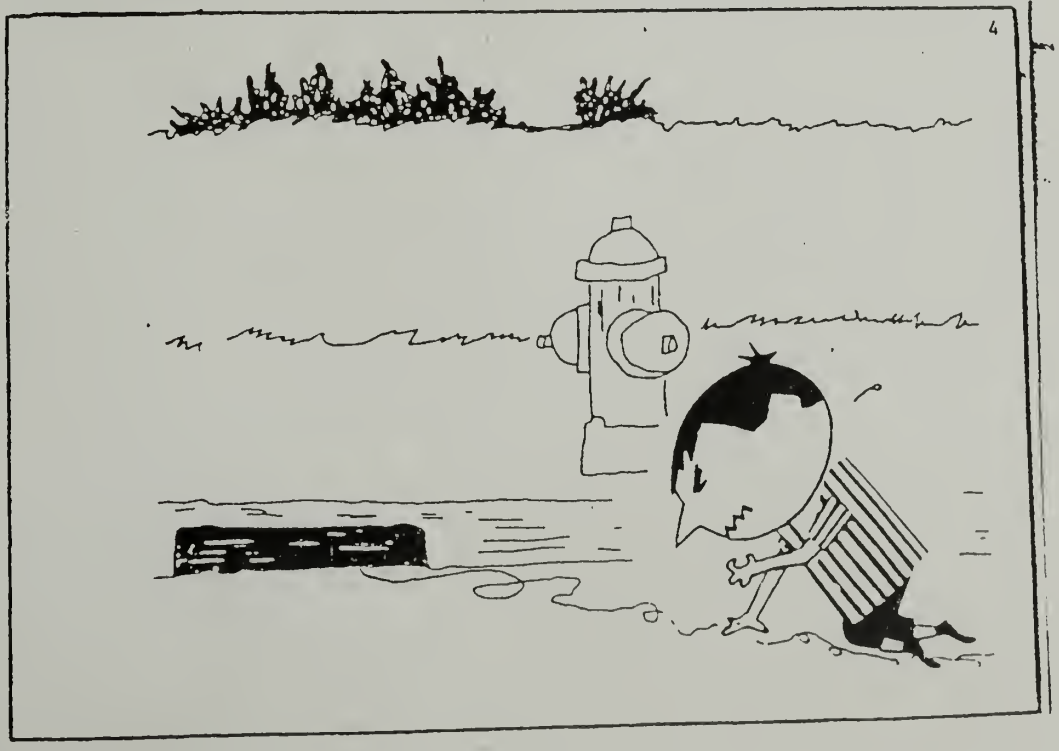
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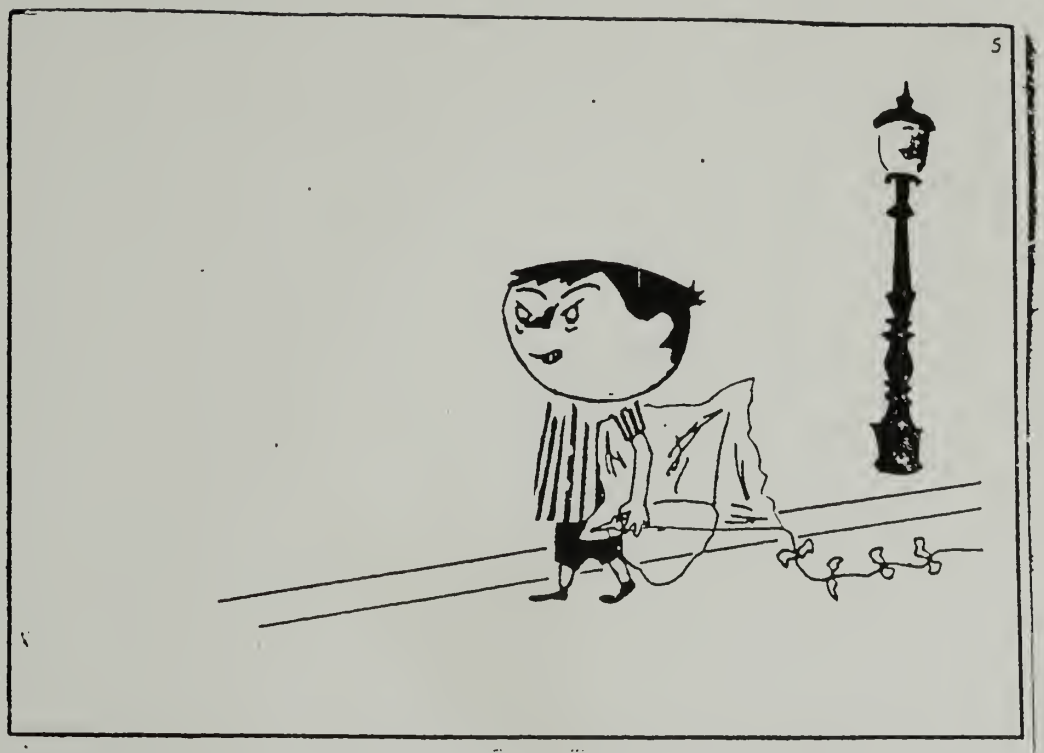
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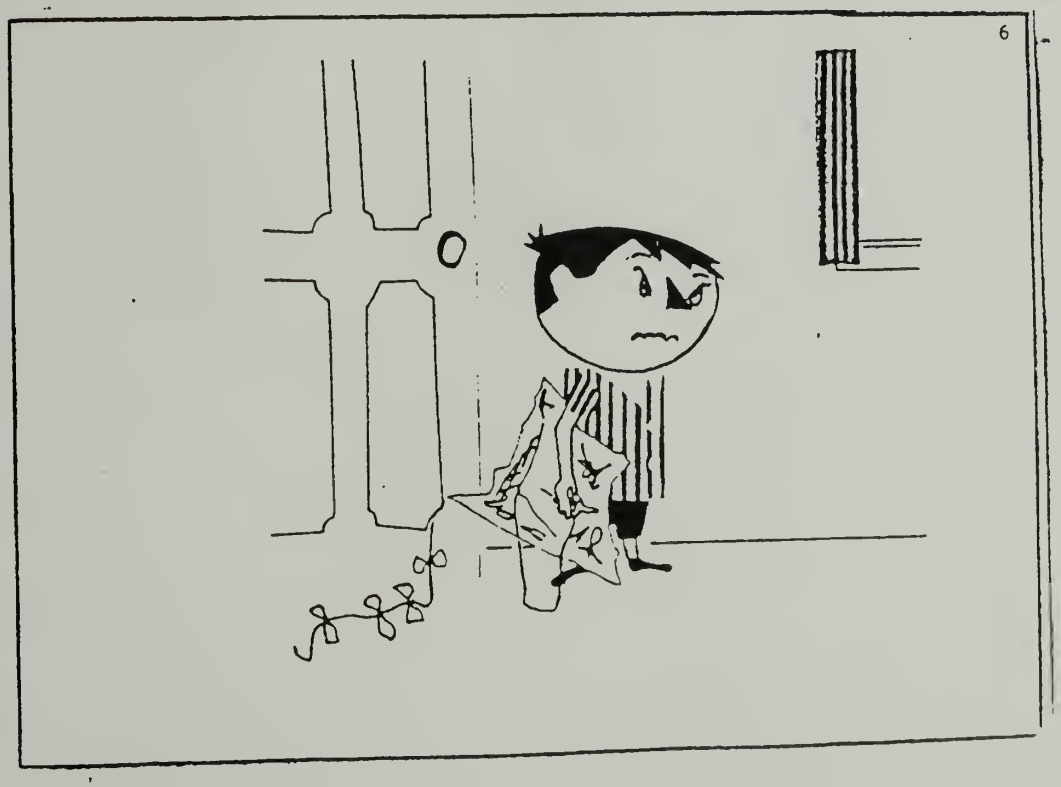
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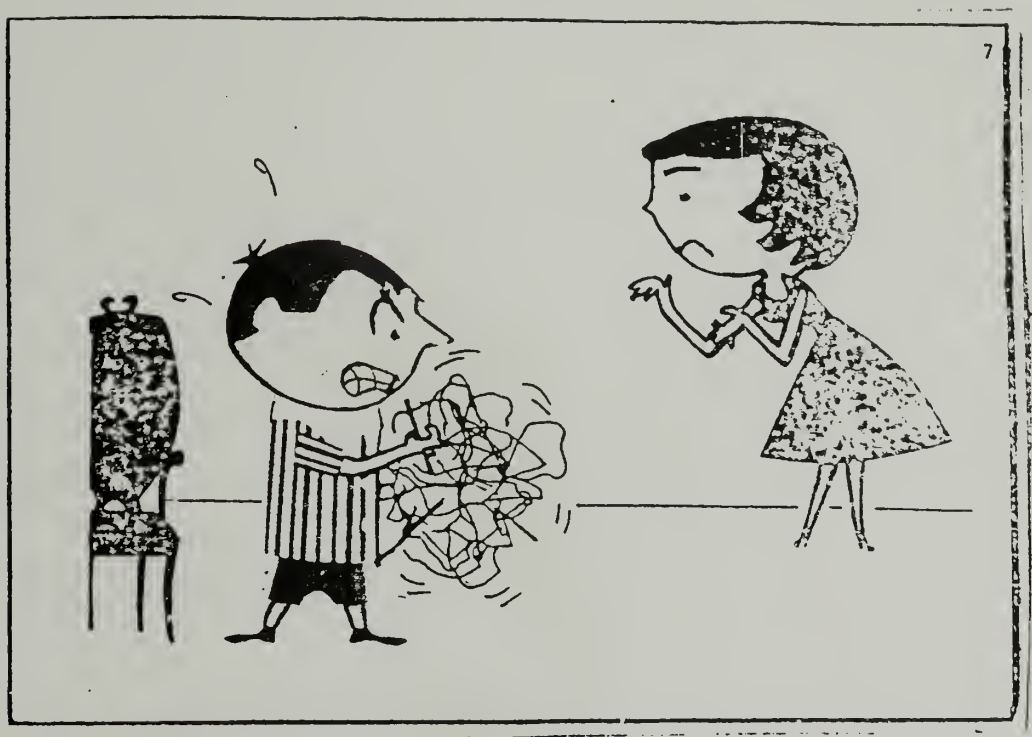
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8

Postmeasure

Dilemma 1

1 and 2 are friends. They have been assigned to work together on a science project in school and only have two days to finish the project. They meet after school and 1 says he (she) wants to start working on the project right away, but 2 wants to play softball first.

What is the problem here? _____

_____

_____

_____

_____

Why is that a problem? _____

_____

_____

_____

_____

How do you think (first person) feels? _____

_____

_____

_____

_____

Why does he feel that way? _____

_____

_____

_____

_____

How do you think (other person) feels? _____

_____

_____

_____

_____

Why does he feel that way? _____

_____

_____

_____

_____

Dilemma 10

One day a new kid in class named 1 says he's (she's) cold and asks 2 to lend him (her) a sweater that 2 has but isn't wearing. The next day when 1 returns the sweater there is a hole in it that 2 is sure wasn't there the day before.

What is the problem here? _____

_____

_____

_____

_____

Why is that a problem? _____

_____

_____

_____

_____

How do you think (first person) feels? _____

_____

_____

_____

_____

Why does he feel that way? _____

_____

_____

_____

_____

How do you think (other person) feels? _____

_____

_____

_____

_____

Why does he feel that way? _____

_____

_____

_____

_____

Dilemma 11

: is looking forward to recess because he (she) and his (her) friends are going to practice for the school competition in soccer that's taking place the next day. During class 's) teacher says that he's (she's) behind in math and she wants him (her) to stay in at recess to work on extra math problems.

What is the problem here? _____

Why is that a problem? _____

How do you think (first person) feels? _____

Why does he feel that way? _____

How do you think (other person) feels? _____

Why does he feel that way? _____

Dilemma 12

One day, 1 's) class has a substitute teacher. 1 remembers that he (she) is supposed to leave school early for an important doctor's appointment, but he (she) forgot to bring the note from his (her) mother. When 1 asks if he (she) can leave, the substitute teacher says that he (she) can't go without a note.

What is the problem here? _____

Why is that a problem? _____

How do you think (first person) feels? _____

Why does he feel that way? _____

How do you think (other person) feels? _____

Why does he feel that way? _____

APPENDIX C

HOSTILE ATTRIBUTION BIAS: PRE AND POSTMEASURE

Premeasure

Date_____ Initials_____ ID_____ Page 1

Home Interview With Child

1. Pretend that you are standing on the playground playing catch with a kid named Rob. You throw the ball to Rob and he/she catches it. You turn around, and the next thing you realize is that Todd/Jessica has thrown the ball and hit you in the middle of your back. The ball hits you hard, and it hurts a lot.

a) Why do you think Rob hit you in the back?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about Rob after he/she hit you?

_____

_____ ____

0	1	2	3	4	5
DON'T KNOW	NOTHING	ASK WHY, ASK AGAIN	COMMAND	ADULT PUNISH	RETALIATE

2. Pretend that you see some kids playing on the playground. You would really like to play with them, so you go over and ask one of them, a kid named "Mike", if you can play. Mike says no.

a) Why do you think Mike said no?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about Mike after he/she said no?

_____

_____ ____

0	1	2	3	4	5
DON'T KNOW	NOTHING	ASK WHY, ASK AGAIN	COMMAND	ADULT PUNISH	RETALIATE

Date_____ Initials_____ ID_____ Page 2

3. Pretend that you are walking to school and you're wearing brand new sneakers. You really like your new sneakers and this is the first day you have worn them. Suddenly, you are bumped from behind by a kid named John. You stumble into a mud puddle and your new sneakers get muddy.

a) Why do you think John bumped you?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about John after he/she bumped you?

_____

_____ ____

0 DON'T KNOW | 1 NOTHING | 2 ASK WHY, ASK AGAIN | 3 COMMAND | 4 ADULT PUNISH | 5 RETALIATE

4. Pretend that you are a new kid in school and you would really like to make friends. At lunch time you see some kids you would like to sit with and you go over to their table. You ask if you can sit with them and a kid named Chris says no.

a) Why do you think Chris said no?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about Chris after he/she said no?

_____

_____ ____

0 DON'T KNOW | 1 NOTHING | 2 ASK WHY, ASK AGAIN | 3 COMMAND | 4 ADULT PUNISH | 5 RETALIATE

Date_____ Initials_____ ID_____ Page 3

5. Pretend that you go to the first meeting of a club you want to join. You would like to make friends with the other kids in the club. You walk up to some of the other kids and say "Hi!", but they don't say anything back.

a) Why do you think the other kids didn't answer you?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about the other kids after they didn't answer you?

_____

_____ ____

0	1	2	3	4	5
DON'T KNOW	NOTHING	ASK WHY, ASK AGAIN	COMMAND	ADULT PUNISH	RETALIATE

6. Pretend that you are walking down the hallway in school. You're carrying your books in your arm and talking to a friend. Suddenly, a kid named Matt bumps you from behind. You stumble and fall and your books go flying across the floor. The other kids in the hall start laughing.

a) Why do you think Matt bumped into you?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about Matt after he/she bumped into you?

_____

_____ ____

0	1	2	3	4	5
DON'T KNOW	NOTHING	ASK WHY, ASK AGAIN	COMMAND	ADULT PUNISH	RETALIATE

Date_____ Initials_____ ID_____ Page 4

7. Pretend that it is your first day on the track team. You don't know a lot of the other kids and you would like to make friends with them. During practice, you walk up to a group of kids on the team and say "Hi!", but no one answers you.

a) Why do you think the other kids didn't answer you?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about the other kids after they didn't answer you?

_____

_____ ____

0 DON'T KNOW | 1 NOTHING | 2 ASK WHY, ASK AGAIN | 3 COMMAND | 4 ADULT PUNISH | 5 RETALIATE

8. Pretend that you and your class went on a field trip to the zoo. You stop to buy a coke. Suddenly, a kid named David/Allison bumps your arm and spills your coke all over your shirt. The coke is cold, and your shirt is all wet.

a) Why do you think David/Allison bumped into you?

_____

_____ ____

1 ACC 2 HOS

b) What would you do about David/Allison after he/she bumped into you?

_____

_____ ____

0 DON'T KNOW | 1 NOTHING | 2 ASK WHY, ASK AGAIN | 3 COMMAND | 4 ADULT PUNISH | 5 RETALIATE

Postmeasure

5.2 TCID _____

Story B

2. [Refer to gender opposite TC's.] Let's imagine that you are talking with a boy/girl in the hallway at school. You kind of like this person and seem to be getting along well with him/her. You are just about to ask him/her to get together after school when another kid yells, "Fire!" and laughs. Everybody runs outside. It turns out to be a false alarm. But, you lose sight of the boy/girl and don't get to ask him/her to get together.

2A. So you don't get to ask the boy/girl to get together. What do you think was going on in the mind of the kid who yelled "Fire!" when this happened?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

2B. Do you think that this happened to you because the kid who yelled "Fire!" was being mean to you or was playing a joke specifically on you so you wouldn't get to talk to the boy/girl?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

2C. Do you think that this happened to you for some reason other than the other kid being mean to you?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

2D. What would you do or say to the kid who yelled "Fire!" if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

2E. If you wanted the other kid to help you get back together with the boy/girl, what could you do or say? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

TCID _____

5.3

Story C

[Begin taking TC's BP & HR.]

3. Imagine that you are walking down the street in a hurry to get to a friend's house, and a police car slowly pulls up next to you. The policeman gets out of the car and says, "Hey, you. We just got a report from a gas station owner nearby who says that his store has been robbed. I want to talk with you about it."

[Record TC's BP & HR.]

_____ Systolic (80-140)
_____ Diastolic (45-90)
_____ Heart Rate (55-105)

3A. So the policeman stops you and you don't get to your friend's house. What do you think was going on in the mind of the policeman?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

3B. Do you think that the policeman questioned you because the policeman is being mean to you or is thinking that you robbed the store?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

3C. Do you think that the policeman stopped you because he thought you could help out with important information about the robbery?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

3D. What would you do or say to the policeman if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

3E. If you really wanted to get to your friend's house as soon as possible, what could you do or say that would help you? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

TCID _____

8.1

Adolescent Stories Part 2

Story D

[Take & record TC's BP & HR.]

_____ Systolic (80-145)
_____ Diastolic (45-95)
_____ Heart Rate (50-105)

4. [Refer to gender opposite TC's.] Imagine that you go up to a boy/girl that you like and would like to get to know him/her better. You ask him/her to come over to your house after school. The boy/girl says, "No, sorry, I'm in a hurry and I can't talk now."

4A. So she doesn't come over to your house today. What do you think was going on in the mind of the boy/girl when he/she said this to you?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

4B. Do you think that this happened to you because the boy/girl doesn't like you and was being mean to you?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

4C. Do you think that the boy/girl couldn't come over to your house because of some other reason that is not related to whether he/she likes you?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

4D. What would you do or say to the boy/girl if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

4E. If you really wanted to get the boy/girl to come over to your house today, what could you do or say that would help you? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

8.2

TCID _____

Story E

5. [Use same gender as TC.] Imagine that you are walking down the hallway at your school with two other kids on the way to lunch when you see another boy/girl coming toward the three of you from the other end of the hallway. There are lots of kids in the hallway. This other kid yells out, "Hey, geek. Yeah, I mean you, nerd." Some other kids start laughing.

5A. So some kids are laughing. What do you think was going on in the mind of the boy/girl when he/she said this?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

5B. Do you think that this happened to you because the boy/girl doesn't like you and was being mean to you?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

5C. Do you think that the boy/girl was playing a joke and really does like you or at least was yelling at someone else?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

5D. What would you do or say to the boy/girl if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

5E. What could you do or say to the other boy/girl that would stop the other kids from laughing? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

TCID _____

8.3

Story F

[Begin taking TC's BP & HR.]

6. Imagine that you are given a huge homework assignment by a particularly tough teacher. You work hard on it, complete it, and bring it to school in a book bag. When it comes time to turn it in, you look in the book bag, and it's not there! You say to the teacher, "My homework is missing." The teacher yells out in an angry voice, "Your homework is missing? Where is your homework?"

[Record TC's BP & HR.]

_____ Systolic (80-140)
_____ Diastolic (45-90)
_____ Heart Rate (55-105)

6A. So the teacher is upset. What do you think was going on in the mind of the teacher when she said this?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

6B. Do you think that the teacher said this to you because she doesn't trust you and was being mean to you?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

6c. Do you think that the teacher thought someone else had taken your homework and that in fact you had completed the assignment?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

6D. What would you do or say to the teacher if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

6E. If you found out that the teacher thought you had not completed the homework, what could you do or say that would help convince her? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

TCID _____

12.1

Adolescent Stories Part 3

Story G

[Replacement, begin taking TC's BP & HR.]

7. Imagine that you are sitting at your desk at school before class starts and another kid runs down the aisle past your desk. Your books get knocked off the desk onto the floor, making a mess.

[Replacement, record TC's BP & HR.]

_____ Systolic (80-140)
_____ Diastolic (45-90)
_____ Heart Rate (55-105)

7A. So your books are all over the floor, in a mess. What do you think was going on in the mind of the other kid when this happened?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

7B. Do you think that the other kid knocked over your books on purpose to be mean to you?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

7C. Do you think that the other kid did not see your books and knocked them over by accident?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

7D. What would you do or say to the other kid if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

7E. What could you do or say that would get that kid to help pick them up? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

TCID _____

12.2

Story H

8. [Substitute title of primary care-giver if not mother.] Imagine that some illegal drugs are found at your school, but you know absolutely nothing about it. The school principal sends a letter home to all the parents in the entire school, telling them that there is a drug problem at your school. That night at your home, just as you are about to go out, your mother reads the letter and yells out to you, "[TC] get in here. I have something to talk about with you."

8A. So you are delayed in going out. What do you think was going on in the mind of your mother when this happened?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

8B. Do you think that your mother believes that you are involved in the drug problem at school?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

8C. Do you think that your mother believes that you are <u>not</u> involved in this drug problem and just wants to talk with you to learn more about what's going on at school?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

8D. What would you do or say to your mother if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

8E. You really want to go out, immediately. What could you do or say to your mother to get her to go along with this? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

TCID _____

12.3

Story I

9. Imagine that you are at a park near your house, and you see a bunch of kids talking in a circle about 15 feet away. You yell out, "Hey, Everybody!" The kids keep on talking and don't say anything to you.

9A. So the other kids don't answer you. What do you think was going on in the minds of the other kids when this happened?

_____

_____

_____ a. Intention (1=Hostile 2=Ambiguous 3=Nonhostile 4=Not mentioned)

9B. Do you think that the other kids failed to answer you because they don't like you and were being mean to you?

_____ b. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

9C. Do you think that the other kids did not hear you or did not answer for some other acceptable reason?

_____ c. 1=Not possible 2=Unlikely 3=Unsure 4=Possible 5=Very likely

9D. What would you do or say to the kids if this happened to you?

_____

_____

_____ d.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ d.2. Effectiveness (1=Weak 2=Average 3=Creative)

9E. If you found out that the other kids heard you but did not answer you, what could you do or say that would help them let you in the group? [Prompt if response is not an action and for clarification of authority references.]

_____

_____

_____ e.1. Content (1=Aggressive 2=Competent 3=Inept 4=Authority 5=Other)

_____ e.2. Effectiveness (1=Weak 2=Average 3=Creative)

APPENDIX D
TEACHER EVALUATION FORM

Student Evaluation Form

Please write a number in every box to indicate how well you think each sentence describes each student. Use the scale below. As much as possible, focus on students' behavior in the second half of the school year.

Strongly Disagree **Strongly Agree**
1---------2---------3---------4---------5

A) This student is **physically aggressive** with peers.
B) This student is **verbally aggressive** with peers.
C) This student is **aggressive with teachers.**
D) This student is a **general discipline** problem.
E) This student has generally **negative relations** with peers.

Name	Physically Aggressive	Verbally Aggressive	Aggressive w/ teachers	General Discipline	Negative Relations

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