

ASSERTIVENESS IN BOYS:  
EVALUATING THE CONSTRUCT  
USING TEMPLATE MATCHING PROCEDURES

by

Mark D. Weist

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APPROVED:

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T. H. Ollendick, Chairman

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J. W. Finney

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R. T. Jones

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Mark D. Weist

Committee Chairperson: Thomas H. Ollendick, Ph.D.

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(Abstract)

The present investigation expanded on the template matching approach (Cone, 1980) to empirically evaluate whether assertiveness is associated with interpersonal success among a group of fourth grade boys. Using popular sociometric status as an index of success in interaction, the performances of 15 popular boys were compared with those of 15 rejected boys in a role-play measure of social behavior. An observation code containing behaviors traditionally associated with assertiveness was compared to a code containing inductively generated behaviors. Popular boys demonstrated significantly higher levels of

traditional and inductive behaviors. Total scores on the inductive behavioral code correlated significantly with self-reported assertiveness, while total scores on the traditional code did not. On an evaluative measure of assertive, aggressive and submissive response alternatives, the two groups showed no significant differences. The utility of the template matching method in empirical target selection and validation was underscored.

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Assertiveness in Boys: Evaluating the Construct  
Using Template Matching Procedures

One of the most frequently studied social skills in children is assertiveness. Broadly defined, assertiveness refers to a class of behaviors displayed to get what one wants without infringing upon the rights of others. The training of assertiveness in children can be traced historically to an initial investigation by Eisler, Miller and Hersen (1973). Using a role-play measure termed the Behavioral Assertiveness Test (BAT), these investigators assessed molecular response components (e.g., eye contact, latency of speech) and verbal content (e.g., requesting new behavior) in a group of adult psychiatric patients. Subjects were then differentiated into high and low assertive categories (on the basis of a self-report measure) and their behavioral responses on the BAT were examined. High assertive subjects were found to evidence shorter response latencies, louder speech, longer duration of response, less verbal compliance and more requests for new behavior than low assertive subjects.

This study has had a significant impact on subsequent social skills investigations, and on the development of the construct of assertiveness. While Eisler and his colleagues (e.g. Eisler, Hersen, Miller & Blanchard, 1975; Hersen, Eisler, & Miller, 1974) continued this vein of

research with adults, studies soon followed which replicated their methodology and the very same behavioral targets for children. For example, Bornstein, Bellack and Hersen (1977), using a measure adapted from the BAT - The Behavioral Assertiveness Test for Children (BAT-C), trained four unassertive children to improve eye contact, lengthen speech, increase loudness and increase the number of requests for new behavior; behaviors exactly derived from Eisler et al (1973). Reardon, Hersen, Bellack and Foley (1979), expanded on the BAT-C with the development of the Behavioral Assertiveness Test for Boys (BAT-B), which incorporated scenes evoking "positive assertion". Using this measure, high assertive boys in comparison to those self-reporting low levels of assertiveness, evinced shorter response latencies, lengthier replies, more appropriate affect, and more offers of spontaneous behavior in positive scenes and more requests for behavior change in negative scenes. Michelson, DiLorenzo, Calpin and Ollendick (1982) further expanded the BAT-C to include situations related to accepting help, giving compliments and accepting compliments. Subjects were shown to evince differential levels of assertive behavior in negative versus positive scenes (e.g., more eye contact, longer replies in negative) and with male as compared to female

role-play prompts (e.g, more voice intonation with males).

Despite these differences and the seeming validity of this approach with children, there is some evidence that assertive behaviors in children are of questionable value and that they may not always help the child get what he or she wants. For example, Deluty (1983) had children rate assertive, submissive and aggressive response alternatives from the Children's Action Tendency Scale (Deluty, 1979) - a self-report measure of assertiveness, along evaluative and potency Likert rating scales. Boys were found to rate aggressive response alternatives as significantly more "good", "strong", "kind", "wise", "successful" and "brave" than the girls. In contrast, boys rated assertive response alternatives significantly lower on evaluative and potency dimensions than girls. Ollendick, Hart and Francis (1985) had children rate the videotaped performances of other children on the Revised Behavioral Assertiveness Test for Children (Ollendick, 1981), an adaptation of the BAT-C (Bornstein et al., 1977), and compared behavioral patterns in the children with ratings of assertiveness by adult judges, and ratings of "likeability" by child judges. Adult ratings of assertiveness and child likeability ratings were not consistently related to behavioral



patterns in the children, and there was negligible correspondence between the adult and child ratings. Similarly, other studies suggest that nonassertive behaviors, in some situations, may be more socially skillful than assertive responses. For example, Charlesworth and Hartup (1967) found that submissive rather than assertive behavior yielded higher rates of positive reinforcement from peers. Feidler and Beach (1977) stress that assertiveness in certain situations is contraindicated, e.g., complying to a mildly unreasonable request by a peer may be a socially skilled behavior which functions to strengthen the friendship. An additional concern is the indiscriminate expansion of what constitutes the construct of "assertiveness". Chittenden (1942) defined assertiveness in terms of the behavioral influence of one child on another. Barrett and Yarrow (1977) refined this definition to behaviors which direct or terminate the activity of another person. Slaby (cited in Combs & Slaby, 1977) defined assertiveness by a group of behaviors in response to negative (e.g., asserting a personal course of action, ignoring) and/or positive (e.g., asking for permission, making friendly suggestions) situations. With the adoption of the molecular components of assertiveness from Eisler et al. (1973, 1975),

Bornstein et al. (1977) cued the rapid expansion of the construct to include levels of eye contact, speech duration, loudness of speech, number of words and requests for new behavior. Reardon et al. (1979) expanded on these behaviors by introducing offers of spontaneous positive behavior and appropriate affect. Michelson et al. (1982) added giving and receiving compliments to the assertive response class. At present the concept of assertiveness is synonymous with general social skill.

A prominent theme in the development of the assertiveness construct as applied to children is the impact of adult conceptualizations on what comprises assertive behavior. The seminal studies of assertiveness with children used adult Likert ratings; behaviors correlating with these ratings were assumed to represent assertiveness. Unfortunately the basis of these ratings was simply the judgement of the rater, or a vague, subjective standard. For example, Bornstein et al. (1977) had raters read Wolpe's (1969) description of assertive behavior prior to providing ratings. In this article Wolpe defined assertiveness as "...applied to the outward expression of practically all feelings other than anxiety....Assertiveness usually involves more or less aggressive behavior, but it may express friendly,

affectionate and other non-anxious feeling" (p. 61). Although the potentially insidious effects of adult influences on social-skills interventions with children have been recognized by behavioral investigators (e.g., Achenbach, 1978; Ollendick et al., 1985, Strain, Odom & McConnell, 1984), these influences continue to be strong into the present.

Clinical studies which question the utility of assertive behaviors, the indiscriminate growth of the construct of assertiveness as applied to children, the strong "adult" influence on this growth, and the frequently subjective nature of assertive target selection, all combine to call into question the social importance of training children in these traditionally-defined assertive behaviors. Social importance is a sub-component of social validity and concerns the impact of a training program on the individual's standing in his/her social group (Gresham, 1986). Social importance is contrasted with social significance, which concerns the congruence of behavioral targets with societal standards (Wolf, 1978). Based on these criteria, the training of assertiveness skills in children may be seen as socially significant; generally assertiveness is viewed as a valued skill according to broad societal standards. However the

social importance of assertive behaviors in children has not been established, with trained "assertive" behaviors receiving minimal validation support (Van Hasselt, Hersen, Whitehill & Bellack, 1979).

The failure of many investigators to validate the appropriateness of assertive behavioral targets in advance of training may have contributed to these problems in social validity. In lieu of this pre-validation, it is common to cite the training of a behavioral target by another investigator as justification in target selection, or alternatively, to validate behaviors after training. Unfortunately this post hoc validation is often based on subjective ratings by adult judges, a population far removed from the environmental stimuli and contingencies of children who receive mental health treatment.

A related issue is the frequent neglect of the appropriate performance criteria for behavioral targets (Van Houten, 1979). Thus for each behavior we train there is an optimal range of efficacy. Training children to emit behaviors below this level results in a minimal impact on others; training excessively high performance may result in negative reactions in peers or even social rejection. For example a child may be ignored by her peers if she lacks the skill to initiate positive social interaction,

but if, after training she initiates excessively, social rejection may result, an outcome which is (arguably) worse than being ignored. Consideration of this issue forces the clinician to carefully demonstrate that a particular behavior is in fact a problem, before implementing a treatment which has inherent, albeit subtle risks to the client.

Additionally, the above themes highlight the questionable treatment utility of the assessment of assertiveness in children. Hayes, Nelson and Jarrett (in press) define treatment utility as the degree to which assessment efforts contribute to beneficial treatment outcomes in the client. An important component of treatment utility concerns the impact of the particular behaviors targeted for change, on the overall functioning of the client. Efforts to directly evaluate the range of behaviors associated with assertiveness in children for treatment utility appear nonexistent, congruent with the general lack of such evaluation in behavioral assessment. Although some studies have explored issues related to the treatment utility of child assertiveness (e.g, Ollendick et al., 1985), these investigations are unfortunately rare.

Cone and Hoier (1986) have highlighted the limitations

of the traditional approach to the selection and training of behavioral targets in children. Specifically, traditional assessment approaches are criticized for perpetuating constructs only vaguely tied to stimulus referents; being heavily reliant on normative data, which frequently have limited applicability to the individual client; and deducing specific behavioral targets from broad constructs, which are often theoretically rather than empirically developed. Alternatively, Cone and Hoier (1986) propose that behavior itself should be viewed as the subject matter, rather than as a representation of some underlying process (trait logic). Analysis should focus on the individual as norms may not be applicable due to the situational specificity of behavior (c.f., Kazdin, 1979). Additionally this analysis should proceed inductively as behaviors may be organized in ways which bear no structural or functional relationship to the a priori constraining influence of constructs. Finally, behaviors should be analyzed in reference to a criterion of effective performance specific to the settings of interest for individual clients.

These considerations are incorporated in a procedure termed "template matching". Template matching was developed by Cone (1980), based on initial work by

Bem and his colleagues (Bem & Funder, 1978; Bem & Lord, 1979), and consists of the delineation of behavioral targets relevant to the situations of individual client children. Using template matching the investigator first determines the behavioral requirements important to the particular child (or group of children) in the specific social context of interest. Exemplary performers in the context are then identified and the behaviors they engage in to meet the particular environmental demands are analyzed. The result is the development of a set of validated behaviors and performance criteria, termed a template, which is associated with successful performance in the relevant context. Client children are then trained to meet template behaviors. As a consequence, a more precise match between intervention efforts and the behavioral deficits and/or excesses of the individual child is achieved.

The primary purpose of the present project was to expand the use of the template matching method to empirically validate whether assertiveness is associated with social skillfulness among a sample of public school boys in a middle class, academically oriented community. Using popular sociometric status as a metric of interpersonal success, the performances of popular boys

were compared to those of rejected boys using a role-play measure of social behavior in situations traditionally calling for assertiveness.

A second goal of the project was to compare the outcomes of a traditional, nomothetically oriented method of assessing assertiveness (i.e., examining behaviors commonly associated with assertiveness in the literature) versus an inductive method of assessment not constrained by previous conceptualizations of assertiveness. If the construct of assertiveness as applied to children is in need of reformulation, inductive methods may be of some assistance.

The choice of sociometric status as the method to differentiate successful from unsuccessful boys followed considerable conceptual discussion on the appropriate method to identify template children. We considered comparing the performances of high and low assertive children (determined through use of a validated self-report measure), but determined that this approach would bias our analyses in favor of traditional methods of assessing assertiveness. For example, the traditional behavior of refusing unreasonable requests is scored as an assertive response in the Children's Action Tendency Scale (Deluty, 1979) and in The Children's Assertiveness



Inventory (Ollendick, 1983), two of the most common measures of assertiveness in children. Hence, children reporting high assertiveness on these measures are necessarily endorsing behavioral alternatives traditionally associated with assertiveness.

Alternatively, the use of sociometric status in the determination of successful children can be criticized on the grounds of having questionable relevance to the performance of assertive behaviors, e.g., acting assertively may be highly functional and effective for rejected children. Although this issue is not easily resolved, we chose to use sociometric status as a measure of successful and unsuccessful performance due to demonstrated concurrent validity with a variety of measures of interpersonal functioning including behavioral observations (Dodge, Coie & Brakke, 1982) and self-reported assertiveness (Deluty, 1983).

A final goal of the project was to examine how interpersonally successful and unsuccessful boys actually evaluate response alternatives (e.g., assertive, aggressive, submissive styles) in situations calling for assertiveness, and to determine the relationship between self-reported assertiveness, sociometric status and the demonstration of traditionally derived and inductively derived behaviors.

## Method

### Subjects

Eighteen boys were selected from a sample of 175 fourth grade children, and twelve from a sample of 160 fifth grade children, from a public elementary school in Southwestern Virginia. Subjects were of normal intelligence and enrolled in regular classrooms. One subject received special instruction for a reading deficit.

### Instruments

In order to identify a group of popular and a group of socially rejected boys, a procedure combining positive nominations and a rating-scale sociometric (Asher & Dodge, 1986) was used. The sociometric involves having the children indicate how much they like to play with each peer by circling a number from 1 to 5 next to each name, with a 1 indicating "I don't like to" and a 5 indicating "I like to alot". The positive nomination measure involves circling the names of the three children in the classroom they like the most.

To assess level of assertiveness in the popular and rejected boys, the Children's Action Tendency Scale - CATS (Deluty, 1979) was used. This instrument has been shown to accurately identify assertive, submissive and aggressive children and to have sound psychometric properties.

To assess behavioral responses of identified subjects, in situations traditionally associated with assertive behavior, the Behavioral Assertiveness Test for Children Revised (BAT-CR) originally developed by Bornstein et al. (1977) and revised by Ollendick (1981) was used. The BAT-CR is a measure of role-play assertiveness in positive and negative situations which allows an extended, naturalistic interchange between the child and his/her role-play partner to occur. The measure contains twelve scenes; six scenes call for positive assertion (i.e., giving and receiving compliments) and six scenes require negative assertion (i.e., denying inappropriate requests, standing up for one's rights). The instrument requires a male role-play prompter for one half of the scenes and a female prompter for the other half.

To assess whether interpersonally successful boys evaluate assertive, aggressive and submissive response alternatives differently than unsuccessful (i.e., rejected) boys, a procedure developed by Deluty (1983) was used. Subjects were asked to rate the assertive, aggressive and submissive response alternatives for nine randomly selected CATS situations. Seven point semantic differential scales were examined for four evaluative ("good-bad", "wise-foolish", "successful-unsuccessful",

and "kind-cruel") and three potency ("strong-weak", "brave-cowardly", and "masculine-feminine") dimensions.

### Procedure

Paper and pencil assessments were administered in all classrooms in the fourth and fifth grades of the school. Children were encouraged to respond honestly and to not look at their classmates' responses. For all measures a project assistant read instructions and read each response in a measured pace. The children were instructed to try to keep pace with the assistant as responses were read.

Socially popular and rejected boys in each classroom were identified through the following means: A social preference score was calculated by adding the number of positive nominations and subtracting the number of 1-ratings from the rating scale for each boy. Boys with a social preference score higher than 1.0, receiving at least one positive nomination and receiving no 1-ratings were classified as popular. Boys receiving a social preference score less than -1.0, receiving zero positive nominations and at least one 1-rating were classified as rejected. Consents were sent to parents of 25 popular and 22 rejected boys. The first consenting 15 boys from each classification participated in role-play assessment.

Two fourth grade children (a boy and a girl) were recruited from a local private elementary school to serve as role-play prompters. These children were nominated by their school administrator as being popular with their classmates, doing well in school, and having the ability to role-play. Prior to actual assessment the prompters underwent role-play training, during which they practiced response sequences contained in the BAT-CR. A graduate student assistant rated the prompters on response realism on a five point scale (from 1 - very unrealistic to 5 - very realistic). Prompters continued training until ratings were at 4 or above for all scenes of the BAT-CR. Total training time of prompters was approximately four hours.

Subjects were individually assessed in a small room located in the school. Assessment was conducted by classroom with the order of subject assessment determined randomly. A standard verbal statement was made to each subject on the nature of the assessment and the need to respond realistically. Subjects then practiced one mock scene before beginning assessment. Actual assessment proceeded as follows: BAT-CR scenes were presented counterbalanced for valence and sex of the role-play prompter. The experimenter operated video equipment and

read background narration before each role-play scene. The prompter then delivered a cue line and the subject responded. As suggested by Curran (1978), prompters followed the subjects' responses with two counter responses to allow for a more natural interchange than typically occurs during role-play assessment. After every two scenes subjects were issued a standard praise statement (e.g., "you're doing well"). All assessments followed the same format as above, occurred in the same room in the school, and occurred between 1 and 3 pm Monday through Thursday.

The experimenters reviewed all videotapes and coded the occurrence of traditionally measured behaviors (e.g., eye contact, requests for new behavior), and noted novel behaviors displayed by the subjects. The tapes were reviewed again and novel behaviors were developed into behavioral definitions. From this initial list of novel, inductively defined behaviors, seven were chosen based on at least moderate frequency of occurrence, and were incorporated into an observation code. Additionally seven traditionally assessed behaviors were adapted from Michelson et al. (1982), and added to the code. Subsequently one traditional and one inductive behavior were eliminated from the code due to low frequency of

occurrence. Definitions of inductive and traditional behaviors contained in the observation code are presented in Table 1.

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Insert Table 1 about here  
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The observation code was fine tuned through 15 hours of direct observation by a graduate student assistant in consultation with the experimenter; definitions of behaviors on which agreement was low (under 80%) were clarified through the formulation of additional inclusion and exclusion examples. The experimenter served as primary observer. An advanced undergraduate major in psychology was recruited to serve as reliability observer. This observer was kept naive on the purposes of the study and was given no information on the subjects, other than their age. Following memorization of behavioral definitions, the reliability observer reviewed two videotapes with the experimenter, during which inclusion and exclusion examples of behavior definitions were discussed. Total training time was approximately three hours and agreement on coded behaviors averaged around 90%. Eight tapes (23.3% of the total) were then randomly selected for reliability observation from a sample already completed by the primary

observer (not including the two tapes used for training). These tapes were selected to include equal numbers of popular and rejected subjects and to sample subject tapes scored by the primary observer in the early, middle and end phases of observation to assess the primary observer's consistency in scoring across time.

Nine of the twelve behaviors in the code were scored on an occurrence/nonoccurrence basis. For these behaviors interobserver agreement was calculated by dividing the number of agreements by scene prompt, by the number of agreements plus disagreements and multiplying by 100. Mean percentage agreement for occurrence behaviors was 90.2 % (range 62.5 - 99.1). Three of the behaviors were scored on a continuous basis. For these behaviors agreement was calculated by correlating summed values across scene type (e.g., negative male, positive female) of the primary observer with those of the reliability observer. Pearson Product-Moment correlation coefficient values for these behaviors were .89, .96, and .99. Interobserver agreement values are presented in Table 2.

Prior to data analysis scores for all traditional and inductive behaviors were summed across the four scene types of the BAT-CR (negative male, negative female, positive male, and positive female) and standardized.



These standard scores were then summed by traditional and inductive class, to enable summative comparisons between these behavioral categories.

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Insert Table 2 about here  
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## Results

### Group Differences

A mixed factorial analysis of variance design was used to examine the impact of sociometric classification on the presentation of behaviors during role-play assessment. A 2-Groups (Popular, Rejected) x 2-Behavioral Types (Traditional, Inductive) ANOVA revealed a significant main effect for Group ( $F [1,28] = 5.08, p < .05$ ). Within subjects no significant effect for Behavioral Type was shown ( $F [1,28] = 0.0, p = 1.00$ ). A Group x Behavioral Type interaction was found which approached significance ( $F [1,28] = 4.05, p < .06$ ). Between groups, a significant difference in the presentation of traditional behaviors was shown ( $F [1,28] = 7.26, p < .02$ ). The groups did not differ significantly in the presentation of inductive behaviors ( $F [1,28] = 2.21, p > .14$ ). Mean standardized scores for popular and rejected children on the traditional behavior index were 1.44

and - 1.44, respectively. Mean standardized scores on the inductive behavioral index were .73 and -.73.

A series of univariate ANOVAs were then conducted on the individual component behavior scores comprising the traditional and inductive classes. Significant between group differences were demonstrated for two of the six traditional behaviors and for five of the six inductive behaviors. Popular children evinced higher levels of the traditional behaviors of intonation ( $F [1,28] = 9.18, p < .006$ ) and smiles ( $F [1,28] = 5.80, p < .03$ ), and higher levels of the inductive behaviors of body orientation ( $F [1,28] = 12.44, p < .002$ ), energy level ( $F [1,28] = 22.81, p < .0002$ ) and statements of consequences ( $F [1,28] = 4.69, p < .04$ ). In addition, rejected children showed higher levels of the inductive behaviors of grammatical speech errors ( $F [1,28] = 16.68, p < .0004$ ) and context-inappropriate behavior ( $F [1,28] = 11.38, p < .003$ ). Table 3 presents means and standard deviations of the component behavior scores for the traditional and inductive classes, and the direction of the differences between popular and rejected boys.

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Insert Table 3 about here  
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Univariate ANOVAs were then computed for self-reported assertiveness, aggressiveness and submissiveness scores on the CATS. A significant between group difference for self-reported assertiveness was shown ( $F [1,25] = 10.49$ ,  $p < .005$ ). Mean assertiveness scores for the popular and rejected boys were 23.5 and 20.1, respectively. No significant between group differences in self-reported aggressiveness or submissiveness were demonstrated.

#### Correlational Analyses

A series of Pearson Product-Moment correlations were computed between self-report scores on the CATS and inductive and traditional role-play behaviors. On the traditional measure correlations between individual behaviors and self-reported assertiveness ranged from .09 to .23, with none reaching significance. Similarly, total scores on the traditional measure did not correlate with assertiveness ( $r = .17$ ,  $p > .36$ ). On the inductive measure correlations between individual behaviors and assertiveness score ranged from .01 to .41, with two of these correlations (body orientation and energy level) reaching or approaching significance ( $p < .05$  and  $p < .06$ , respectively). Total scores on the inductive measure did correlate significantly ( $r = .39$ ,  $p < .05$ ) with self-reported assertiveness. Comparing the correlations of

total inductive and total traditional scores with assertiveness using Fisher's Z Test disclosed a nonsignificant difference between them ( $Z = .83, p > .20$ ). No individual behavior or summative behavioral index correlated with self-reported aggressiveness or submissiveness on the CATS. Table 4 presents correlations between individual behaviors (by traditional and inductive category) and self-reported assertiveness.

#### Likert Evaluation

A mixed factorial analysis of variance design was used to examine the contribution of sociometric status on the cognitive evaluation of assertive, aggressive, and submissive response alternatives from the CATS. A 2-Groups (Popular, Rejected) x 3-Response Style (Assertive, Aggressive, Submissive) ANOVA revealed no significant differences between groups on the evaluative or potency dimensions of CATS behavioral alternatives. The two groups did differ marginally, however, in the potency evaluation of submissive behavior; although nonsignificantly ( $F [1,24] = 3.74, p > .07$ ).

## Discussion

In this study we sought to empirically test whether behaviors traditionally associated with assertiveness are related to interpersonal success in a group of fourth and fifth grade boys. Using popular sociometric status as a metric of effectiveness in social interaction, the performances of popular boys were compared with those of rejected boys on a role-play measure of social behavior. Thus, we extended the template matching approach (see Cone, 1980) to include two new functions: The empirical evaluation of common behavioral targets and the inductive (also empirical) generation of alternative targets.

On the BAT-CR, our popular and rejected boys evinced significantly different levels of behaviors which have been associated traditionally with assertiveness. In contrast to their socially rejected peers, popular boys showed significantly higher levels of voice intonation and smiles. Behaviors of eye contact, speech duration, and praise also occurred at higher levels in the popular boys, but not significantly so. Thus, empirical validation of behaviors derived from the adult assertiveness literature (e.g., Eisler et al., 1973) and applied to children in subsequent treatment (e.g., Bornstein et al., 1977) and assessment (e.g., Michelson et al., 1982; Reardon et al., 1979) studies is provided by the present study.

Our popular and rejected boys did not show a significant between-group difference in the overall presentation of inductive behaviors. However, comparison of the two groups through univariate analyses revealed that the popular boys showed significantly higher levels of body orientation, energy level and statements of consequences, while the rejected boys showed significantly higher levels of grammatical speech errors and context-inappropriate behavior. Thus, the lack of between-group difference may have occurred due to these directional differences, with the rejected boys evincing significantly higher levels of two negative behaviors while the popular boys showed significantly higher levels of three positive behaviors.

In speculating on the contribution of inductively derived behaviors to effective social interaction, we are led to the summative variable of the effort put into the interchange. Thus the popular boys attended to the prompters at high levels (e.g., by orienting their bodies to them), issued effortful responses (e.g., speaking soon and loud enough, using rationales) and monitored their behavior to ensure correct execution (e.g., in speech), and the absence of other distracting, confusing or offending behavior.

Interestingly, of the 12 behaviors assessed in this study, popular boys showed higher levels of "adaptive" behaviors and lower levels of "maladaptive" behaviors for every one except adaptive noncompliance - the behavior most closely aligned with traditional assertiveness. The somewhat higher level of refusal of unreasonable requests by the rejected subjects may reflect the more inflexible behavioral style we observed in them; in contrast to the popular boys they repeated their speech more frequently and less frequently agreed to an unreasonable request after initial denial. Thus an important component of effective social interaction may be fluidly adjusting one's behavior to changing situational stimuli.

Alternatively, we informally observed that some of the popular boys with less generalized social skill would uniformly accede to the prompters' unreasonable requests. It is thus plausible that without the requisite compliment of basic social skills (e.g., eye contact, full voice intonation/duration, body posturing), the response costs of relatively risky behaviors, such as firmly denying a request, override any implicit benefit. As such, giving in to unreasonable requests may serve important functions in the maintenance of social relationships for children who are not otherwise interpersonally reinforcing.

Thus, in addition to evincing more discriminated use of assertive behaviors, two other behaviors: effort and fluidity, appeared to underpin the performances of the popular boys in this study. Effort and fluidity can be seen as foundation behaviors which have a generalized impact on the execution of molecular response components. For example, eye contact, body orientation, loudness of speech and the provision of elaborated rationales (e.g., stating consequences) would all be directly influenced by the amount of effort put into the interchange. Smiling at key times, altering voice intonation, and acceding to an unreasonable request after initial denial are influenced by the reading of (subtle) social cues and fluidly adjusting behavioral execution to match them. The treatment implications of targeting intervention efforts at foundation social behaviors (variables) are intriguing. Hence, training a child to try harder in social interaction and to read social cues may have a more generalized and efficacious impact than training him to increase eye contact or requests for new behavior. Such an approach would address criticisms of the molecular focus of many social skills training programs (see McFall, 1982) and may lead to important increments in treatment utility (Hayes et al., in press).



An intriguing interrelationship between sociometric status, self-reported assertiveness, and the presentation of traditional and inductive behaviors was shown in the present study. First, we found a significant difference in self-reported assertiveness on the CATS favoring the popular subjects. This result is congruent with previous literature (e.g., Deluty, 1983), and supports the relationship between popularity and assertiveness. Second, we found a significant correlation between self-reported assertiveness and scores on the inductive behavioral index, but not scores on the traditional behavioral index. Considering that our popular boys were also more assertive, this finding could plausibly represent greater sensitivity of the inductive behavioral index in identifying behaviors related to assertiveness. In contrast to the traditional behaviors which were distilled from the assertiveness literature, our inductive behaviors were chosen based on their ability to differentiate the two subject groups. Although one could argue that this process sets up the traditional behaviors as "straw men", our results underscore the problem of behavioral assessment based on previous literature: Specifically, behaviors that are developed nomothetically and not empirically validated in later study may become less

representative of the phenomenon of interest (e.g., a construct such as assertiveness). While we would speculate a similar pattern of results if we had constituted subject groups based on high and low assertiveness (given the relationship between assertiveness and popularity), future studies are needed to determine the impact of template metric on the specific behaviors presented.

The fact that the popular and rejected boys demonstrated no differences in their evaluation of assertive, submissive and aggressive response alternatives may suggest that the critical focus of analysis should be on behavior rather than cognition. Simple recognition of the "correct" or "strongest" way to act does not appear to occasion subsequent execution of effective action. Deluty (1983), however did find significant differences between boys and girls of a similar age in the evaluation of aggressive, assertive and submissive response alternatives. Similarly, in the same study, Deluty found children to generally endorse response alternatives matching their classification, e.g., aggressive children endorsed aggressive alternatives, etc. Thus, our failure to find such differences is not easily explained. It is possible that findings from the present study reflect low relevance of the assertiveness construct to popular versus

rejected sociometric status in boys. However, inasmuch as aggressive behavior is frequently related to rejected peer status, (Dodge, Pettit, McClaskey, & Brown, 1986; Deluty, 1982), such a possibility seems unlikely. Future studies to clarify the relationship between the cognitive evaluation of response alternatives and sociometric status are indicated.

Most significantly, the current study supported the viability of template matching procedures in the empirical evaluation of behaviors we standardly train children to engage in. Unfortunately, it is common for behaviors, once introduced into the treatment literature, to be subsequently applied across varying types of children in varying situations; infrequently are efforts made to empirically validate the appropriateness of these targets. This state of affairs undoubtedly reflects the contingencies on investigators. For example the development of observation codes is generally a laborious process; hence rather than redeveloping a code, subsequent research is conducted on behaviors contained within the code. Similarly, translation of adult methodologies and targets is more expeditious than inductively beginning anew with a child population. Choosing targets nomothetically is more expedient than empirically inducing

them. These processes combine to limit the scope of our behavior analyses; we learn more about what we already know.

The consequences of training children in poorly validated targets have been well explicated, and include minimal maintenance of behavioral change, extinction of social reinforcement, and even social rejection (see Gottman, 1976; Gresham & Lemanek, 1983; Strain et al., 1985). These impacts underscore the need for increased evaluative efforts of the targets we choose to increase or decrease in children. In addition to the validation of some traditional behavioral targets, and the uncovering of potentially important behaviors accomplished in the present study, template matching appears to offer other advantages in this evaluative process. Template matching is a relatively straightforward assessment process, and is highly generalizable across clients and types of problems; all that is required are means to identify and analyze the behaviors of exemplary performers in the context of interest. Additionally, template matching procedures provide the vehicle for the production of local norm templates (see Cone & Hoier, 1986), or, descriptions of groups of successful behaviors relevant to children in a certain context. Once developed, these templates can offer

target selection guidelines of more direct applicability than traditional normative data, which are often too general to provide any significant benefit in intervention with an individual child. For example, assessments on how successful youth behave in a third grade, rural gym class offer more information to the investigator with a client in a similar setting than norms from the Presidential Fitness Committee. The development of templates of successful performance across the major domains of child functioning (e.g., school, home, peer relations) and across socioeconomic and cultural realms, may provide an assessment format that retains the advantages of idiographic assessment (i.e., individual relevance), but which also incorporates the nomothetic advantage of assessment generality.

While the utility of the template matching method to behavioral assessment has been demonstrated in the present study, the approach is not without limitations. Most notably, the inductive observational methods we used were highly time consuming, from training child prompters, to videotaping, to viewing and re-viewing tapes and formally scoring them. Additionally, some of our inductively generated behaviors presented problems in reliability (e.g., context-inappropriate behavior) and others

necessitated global ratings (e.g., energy level) to capture the phenomenon of interest. From a conceptual standpoint our procedures were only inductive to a degree; the boys were assessed in situations traditionally associated with assertiveness, and completed paper and pencil assessment tapping this traditional construct. Our use of these methods highlighted the necessity to not abandon traditional approaches, but rather to use them as stepping off points for more inductive analyses. The use of truly inductive assessment methods would have left us without a starting point for analysis and would have required the abandonment of standard research practices. For example, we considered the inductive generation of a role-play measure, but became entangled in questions regarding the appropriate situations to tap, the settings of these situations, what types of children to include, etc.. In answering these questions we, of necessity, invoked traditional constructs (e.g., of assertiveness) to begin analysis, and used common research practices (e.g., use of the BAT-CR) to promote comparability with other research.

Future research to extend the uses of template matching in target selection and validation appears to be a needed, and likely fruitful, direction for behavioral

assessors. As part of this research, efforts should be undertaken to determine the appropriate merge between inductive methods and nomothetic assessment practices, and to develop inductively driven assessments which offer practical benefits in ease of administration and analyses, commonly found in traditional assessment methods.

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Table 1

Behavioral Definitions of Traditional and Inductive Behaviors

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Noncontent Behaviors

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1. Eye Contact - scored if subject looked at the prompter while speaking.
2. Voice Intonation - scored on a five point scale from 1 - flat monotone with no inflection to 5 - full and lively intonation with multiple points of inflection.
3. Response Duration - scored as the number of words the subject emitted.
4. Smiles - scored when lip corners were drawn back and up, with or without teeth showing. Scored from the time the prompter finished speaking to two seconds after the subject's verbal reply.
5. \*Body Orientation - scored when subject sat facing the prompter with a forward body lean.
6. \*Energy Level - scored across prompts on a five point scale from 1 - apathetic, listless, low effort responses to 5 - energetic and effortful responses.

Key dimensions: speech latency, speech loudness, forward body lean (or movements indicating interest -

Table 1 - Behavioral Definitions (cont.)

e.g., head nods), speech duration and intonation. One point awarded for each dimension, if in the good range.

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Content Behaviors

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1. \*Grammatical Speech Errors - scored as the number of grammatical errors in speech, such as unaccepted slang (e.g., "aint"); incorrect past, present or future tense; double negatives, deleting large parts of sentences, etc.
2. Praise - scored when the subject expressed approval or admiration, or provided a compliment of the partner's behavior.
3. Adaptive Noncompliance - in negative scenes, scored when the subject indicated resistance to the unreasonable request of the partner.
4. \*Statement of Consequences - in negative scenes, scored when subject referred to a negative internal (e.g., hunger) or external consequence (e.g., trouble with parents) which would result from compliance to the unreasonable request.
5. \*Context-Inappropriate Behavior - scored when the subject's behavior did not match the context of the scene. Examples include bizarre movements, unusual facial

Table 1 - Behavioral Definitions (cont.)

gestures and language that did not match the scene.

6. \*Verbal Repertoire - scored across prompts when two statements (each of at least three words) of divergent verbal content (e.g., containing varying nouns, verbs, adjectives) were emitted. In addition, scored in positive scenes when at least one 5-word sentence was emitted.

---

Note: \* indicates inductive behaviors.



Table 2

Interobserver Agreement Percentages and Pearson  
Product-Moment Correlations for Traditionally and  
Inductively Coded Behaviors

Behavior	Agreement Type	
	Percentage	Correlation
Traditional		
Eye Contact	84.3	
Smiles	85.7	
Praise	82.7	
Adaptive Noncompliance	91.3	
Voice Intonation		.966
Response Duration		.998
Inductive		
Body Orientation	99.1	
Grammatical Speech Errors	72.7	
Statements of Consequence	83.3	
Context-Inappropriate Beh.	62.5	
Verbal Repertoire	96.2	
Energy Level		.892

Table 3

Means, Standard Deviations, and Significant Univariate  
Effects Between Groups For Role-Played Behaviors

Behaviors	Sociometric Status		Significant Differences
	Popular	Rejected	
<b>Traditional</b>			
Eye Contact	16.7 (9.2)	11.6 (11.7)	
Smiles	4.1 (4.8)	.8 (1.6)	p>r
Praise	3.0 (1.4)	2.7 (1.1)	
Noncompliance	11.5 (3.3)	12.2 (2.7)	
Intonation	112.9 (18.5)	91.3 (20.4)	p>r
Duration	198.1 (72.7)	154.1 (64.1)	
<b>Inductive</b>			
Orientation	23.6 (15.1)	5.6 (12.6)	p>r
Grammar Errors	.3 (.4)	2.5 (2.1)	r>p
SOC	1.8 (1.6)	.8 (.5)	p>r
CIB	.7 (1.1)	4.0 (3.6)	r>p
VR	8.8 (2.6)	7.2 (3.0)	
Energy Level	42.8 (9.6)	28.2 (6.9)	p>r

Note: Standard deviations are in parentheses.

SOC: Statement of consequences. CIB: Context-inappropriate behavior. VR: Verbal Repertoire. p r: Significant difference favoring the popular subjects. r p: Significant difference favoring the rejected subjects.

Table 4

Pearson Product-Moment Correlations Between Self-Reported  
Assertiveness and Traditional or Inductive Behaviors

---

Behavior	Correlation
<hr/>	
Traditional	
Eye Contact	.234
Smiles	.092
Praise	-.182
Adaptive Noncompliance	-.144
Voice Intonation	.223
Response Duration	.123
Inductive	
Body Orientation	.409*
Grammatical Speech Errors	-.037
Statements of Consequence	.003
Context-Inappropriate Beh.	-.265
Verbal Repertoire	-.045
Energy Level	.375**

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\* p .05

\*\* p .06

Appendix A

Appendix A1  
Parent Letter



## VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

*Blacksburg, Virginia 24061-0436*DEPARTMENT OF PSYCHOLOGY  
(703) 961-6581

March 28, 1988

Dear Parent(s):

Approximately three weeks ago you consented to allow your son to participate in a project involving the assessment of social behavior at Christiansburg Elementary School. We have now completed the assessment of boys involved in the project and would like to sincerely thank you for allowing your son to participate. Based on this project, we should learn important information on the social adjustment of children in school. We will be providing Christiansburg Elementary School with a brief overview of these findings.

We would be glad to share results of this social assessment with you and your son, including recommendations. We should be ready to provide this information, upon your request, toward the end of this school year. If you are interested in talking with us about your son's social behavior, please contact our office and we will arrange a time to further discuss his assessment (961-6451).

Again, we would like to extend our appreciation to you and your son for the valuable information provided to our project.

Sincerely,

Thomas H. Ollendick, Ph.D.

Mark D. Weist, M.A.

clk  
xc: J. C. Callahan  
D. Morgan

Appendix A2  
Consent Form

**Christiansburg Elementary School**

Betty Drive

Christiansburg, Virginia 24073

Primary Building 382-5175

Elementary Building 382-5172

February 29, 1988

Dear Parent(s):

Over the past several years, we have collaborated with Dr. Ollendick and the Department of Psychology at Virginia Tech in the study of children's social behavior and academic performance. We have been interested in determining the relationship between how children get along with one another and the kinds of grades they receive in school. Dr. Ollendick and his group, in collaboration with us, are about to undertake an additional project to determine key behaviors in the school adjustment of children.

Based on the administration of a sociometric measure in the classroom a few weeks ago (in which children were asked how much they liked to play with one another), we have selected your son, \_\_\_\_\_, as eligible for participation in this project. Your son has been identified as demonstrating social behaviors we are interested in assessing further. Participation will involve an assessment session held in a private room here at school. This assessment will take about 15 minutes and will involve videotaping your son's behavior in role-play social situations. These situations will involve a child actor simulating actual interaction patterns in children. Based on this assessment, we will provide to you and your son an evaluation of his social strengths, and make recommendations on areas he could improve on.

Your son's videotaped assessment will be analyzed to determine common behaviors occurring in these situations. All tapes will be erased after analysis.

**YOUR CONSENT IS REQUIRED FOR YOUR CHILD TO PARTICIPATE IN THIS PROJECT.** In addition to the above assessments, we are asking your permission to record standardized test scores and grades of your son. All test scores and assessment results will be kept strictly confidential. Data will be stored by subject number on computer, and names will not be used in any reports describing the program.

**YOUR CHILD'S PARTICIPATION IN THIS PROJECT IS OPTIONAL.** If you decide to withhold permission for participation in this project, you will not be jeopardizing your child's opportunity to participate in any other school-related services.



If you have any questions regarding any aspect of the project, please contact me at 382-5172. The project directors, Mark D. Weist, M.A., and Thomas H. Ollendick, Ph.D., can be reached at 961-6451. Please complete the section at the bottom of this letter to indicate your decision regarding your son's participation in the program. Then return the form to my office within the next few days. Thank you for your help.

Sincerely,

J. C. Callahan  
Principal

-----  
Assessment of Boys' Social Behavior

\_\_\_\_\_ I give my permission for my son to participate in the Assessment of Boys' Social Behavior project.

\_\_\_\_\_ I do not give permission for my son to participate in this project.

Son's name \_\_\_\_\_ Date \_\_\_\_\_

Parent or Guardian Signature \_\_\_\_\_

Appendix A3  
Assertiveness Scale

Name \_\_\_\_\_

Grade \_\_\_\_\_

## QUESTIONNAIRE

1. You're playing a game with your friends. You try your very best but you keep making mistakes. Your friends start teasing you and calling you names. What would you do?
  - a. Quit the game and come home. or
  - b. Punch the kid who's teasing me the most.
  - a. Tell them to stop because they wouldn't like it if I did it to them. or
  - b. Quit the game and come home.
  - a. Punch the kid who's teasing me the most. or
  - b. Tell them to stop because they wouldn't like it if I did it to them.
  
2. You and a friend are playing in your house. Your friend makes a big mess, but your parents blame you and punish you. What would you do?
  - a. Clean up the mess. or
  - b. Ask my friend to help me clean up the mess.
  - a. Refuse to talk to or listen to my parents the next day. or
  - b. Clean up the mess.
  - a. Ask my friend to help me clean up the mess. or
  - b. Refuse to talk to or listen to my parents the next day.
  
3. One morning before class, a friend comes over to you and asks if he can copy your homework. He tells you that if you don't give him your answers, he'll tell everyone that you're really mean. What would you do?
  - a. Give him the answers. or
  - b. Tell him to do his own work.
  - a. Tell him that I'll tell everyone he's a cheater. or
  - b. Give him the answers.
  - a. Tell him to do his own work. or
  - b. Tell him that I'll tell everyone he's a cheater.
  
4. You're standing in line for a drink of water. A kid your age and size walks over and just shoves you out of line. What would you do?
  - a. Push the kid back out of line. or
  - b. Tell him, "You've no right to do that."
  - a. I'd go to the end of the line. or
  - b. Push the kid back out of line.
  - a. Tell him, "You've no right to do that." or
  - b. I'd go to the end of the line.

5. You lend your favorite book to a friend. A few days later it is returned, but some of the pages are torn and the cover is dirty and bent out of shape. What would you do?
- a. Ask my friend, "How did it happen?" or
  - b. Ignore it.
- a. Call the kid names. or
- b. Ask my friend, "How did it happen?"
- a. Ignore it. or
- b. Call the kid names.
6. You're coming out of school. A kid who is smaller and younger than you are throws a snowball right at your head. What would you do?
- a. Beat the kid up. or
  - b. Ignore it.
- a. Tell the kid that throwing at someone's head is very dangerous. or
- b. Beat the kid up.
- a. Ignore it. or
- b. Tell the kid that throwing at someone's head is very dangerous.
7. You see some kids playing a game. You walk over and ask if you can join. They tell you that you can't play with them because you're not good enough. What would you do?
- a. Walk away, feeling hurt. or
  - b. Interfere with their game so that they won't be able to play.
- a. Ask them to give me a chance. or
- b. Walk away, feeling hurt.
- a. Interfere with their game so that they won't be able to play. or
- b. Ask them to give me a chance.
8. You're watching a really terrific show on television. In the middle of the show, your parents tell you that it's time for bed and turn off the television. What would you do?
- a. Scream at them, "I don't want to!" or
  - b. Promise to go to bed early tomorrow night if they let me stay up late tonight.
- a. Start crying. or
- b. Scream at them, "I don't want to!"
- a. Promise to go to bed early tomorrow night if they let me stay up late tonight. or
- b. Start crying.

9. You're having lunch in the cafeteria. Your friend has a big bag of delicious chocolates for dessert. You ask if you can have just one, but your friend says "No." What would you do?
- a. Offer to trade something of mine for the chocolate. or
  - b. Call the kid mean and selfish.
- a. Forget about it and continue eating my lunch. or
  - b. Offer to trade something of mine for the chocolate.
- a. Call the kid mean and selfish. or
  - b. Forget about it and continue eating my lunch.
10. A kid in your class brags that she's much smarter than you. However, you know for sure that the kid is wrong and that really you're smarter. What would you do?
- a. Tell the kid to shut up. or
  - b. Suggest that we ask each other questions to find out who is smarter.
- a. Ignore the kid and just walk away. or
  - b. Tell the kid to shut up.
- a. Suggest that we ask each other questions to find out who is smarter. or
  - b. Ignore the kid and just walk away.
11. You and another kid are playing a game. The winner of the game will win a nice prize. You try really hard, but lose by just one point. What would you do?
- a. Tell the kid that she cheated. or
  - b. Practice so I'll win the next time.
- a. Go home and cry. or
  - b. Tell the kid that she cheated.
- a. Practice so I'll win the next time. or
  - b. Go home and cry.
12. One of your parents does something which really bugs you. They know that it bugs you, but they just ignore how you feel and keep doing it anyway. What would you do?
- a. Try to ignore it. or
  - b. Tell them that they're bugging me.
- a. Get back at them by doing something that bugs them. or
  - b. Try to ignore it.
- a. Tell them that they're bugging me. or
  - b. Get back at them by doing something that bugs them.

13. You're playing with a friend in your house and you're making a lot of noise. Your parents get really angry and start yelling at you for making so much noise. What would you do?
- a. Tell them, "I'm sorry, but I can't play the game without making noise."  
or
  - b. Ignore their yelling and continue to make noise.
- 
- a. Find something else to do. or
  - b. Tell them, "I'm sorry, but I can't play the game without making noise."
- 
- a. Ignore their yelling and continue to make noise. or
  - b. Find something else to do.

Appendix A4  
Cognitive Evaluation 1

Name \_\_\_\_\_ Grade \_\_\_\_\_

## QUESTIONNAIRE

1. You're playing a game with your friends. You try your very best but you keep making mistakes. Your friends start teasing you and calling you names. What do you think of the following actions?

- a. Quit the game and come home.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

- b. Tell them to stop because they wouldn't like it if I did it to them.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

- c. Punch the kid who's teasing me the most.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

2. You and a friend are playing in your house. Your friends makes a big mess, but your parents blame you and punish you. What do you think of the following actions?

- a. Clean up the mess.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

- b. Refuse to talk to or listen to my parents the next day.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

- c. Ask my friend to help me clean up the mess.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind



3. You're standing in line for a drink of water. A kid your age and size walks over and just shoves you out of line. What do you think of the following actions?

a. Push the kid back out of line.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

b. I'd go to the end of the line.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

c. Tell them, "You've no right to do that."

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

4. You lend your favorite book to a friend. A few days later it is returned, but some of the pages are torn and the cover is dirty and bent out of shape. What do you think of the following actions?

a. Ask my friend, "How did it happen?"

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

b. Call the kid names.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

c. Ignore it.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

5. You're coming out of school. A kid who is smaller and younger than you are throws a snowball right at your head. What do you think of the following actions?

a. Beat the kid up.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

b. Tell the kid that throwing at someone's head is very dangerous.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

c. Ignore it.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

6. You're watching a really terrific show on television. In the middle of the show, your parents tell you that it's time for bed and turn off the television. What do you think of the following actions?

a. Scream at them, "I don't want to!"

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

b. Start crying.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

c. Promise to go to bed early tomorrow night if they let me stay up late tonight.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

7. A kid in your class brags that she's much smarter than you. However, you know for sure that the kid is wrong and that really you're smarter. What do you think of the following actions?

a. Tell the kid to shut up.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

b. Ignore the kid and just walk away.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

c. Suggest that we ask each other questions to find out who is smarter.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

You and another kid are playing a game. The winner of the game will win a nice prize. You try really hard, but lose by only one point. What do you think of the following actions?

a. Tell the kid that she cheated.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

b. Go home and cry.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

c. Practice so I'll win the next time.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

9. You're playing with a friend in your house and you're making a lot of noise. Your parents get really angry and start yelling at you for making so much noise. What do you think of the following actions?

a. Tell them, I'm sorry, but I can't play the game without making noise.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

b. Find something else to do.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

c. Ignore their yelling and continue to make noise.

Bad	1	2	3	4	5	6	7	Good
Foolish	1	2	3	4	5	6	7	Wise
Unsuccessful	1	2	3	4	5	6	7	Successful
Cruel	1	2	3	4	5	6	7	Kind

Appendix A5  
Cognitive Evaluation 2

Name \_\_\_\_\_

Grade \_\_\_\_\_

## QUESTIONNAIRE

1. You're playing a game with your friends. You try your very best but you keep making mistakes. Your friends start teasing you and calling you names. What do you think of the following actions?
- a. Quit the game and come home.
- |          |   |   |   |   |   |   |   |           |
|----------|---|---|---|---|---|---|---|-----------|
| Weak     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strong    |
| Cowardly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Brave     |
| Feminine | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Masculine |
- b. Tell them to stop because they wouldn't like it if I did it to them.
- |          |   |   |   |   |   |   |   |           |
|----------|---|---|---|---|---|---|---|-----------|
| Weak     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strong    |
| Cowardly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Brave     |
| Feminine | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Masculine |
- c. Punch the kid who's teasing me the most.
- |          |   |   |   |   |   |   |   |           |
|----------|---|---|---|---|---|---|---|-----------|
| Weak     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strong    |
| Cowardly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Brave     |
| Feminine | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Masculine |
2. You and a friend are playing in your house. Your friends makes a big mess, but your parents blame you and punish you.. What do you think of the following actions?
- a. Clean up the mess.
- |          |   |   |   |   |   |   |   |           |
|----------|---|---|---|---|---|---|---|-----------|
| Weak     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strong    |
| Cowardly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Brave     |
| Feminine | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Masculine |
- b. Refuse to talk to or listen to my parents the next day.
- |          |   |   |   |   |   |   |   |           |
|----------|---|---|---|---|---|---|---|-----------|
| Weak     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strong    |
| Cowardly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Brave     |
| Feminine | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Masculine |
- c. Ask my friend to help me clean up the mess.
- |          |   |   |   |   |   |   |   |           |
|----------|---|---|---|---|---|---|---|-----------|
| Weak     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strong    |
| Cowardly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Brave     |
| Feminine | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Masculine |

3. You're standing in line for a drink of water. A kid your age and size walks over and just shoves you out of line. What do you think of the following actions?

a. Push the kid back out of line.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

b. I'd go to the end of the line.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

c. Tell him, "You've no right to do that."

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

4. You lend your favorite book to a friend. A few days later it is returned, but some of the pages are torn and the cover is dirty and bent out of shape. What do you think of the following actions?

a. Ask my friend, "How did it happen?"

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

b. Call the kid names.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

c. Ignore it.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

5. You're coming out of school. A kid who is smaller and younger than you are throws a snowball right at your head. What do you think of the following actions?

a. Beat the kid up.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

b. Tell the kid that throwing at someone's head is very dangerous.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

c. Ignore it.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Strong
Feminine	1	2	3	4	5	6	7	Strong

6. You're watching a really terrific show on television. In the middle of the show; your parents tell you that it's time for bed and turn off the television. What do you think of the following actions?

a. Scream at them, "I don't want to!"

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

b. Start crying.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

c. Promise to go to bed early tomorrow night if they let me stay up late tonight.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

7. A kid in your class brags that she's much smarter than you. However, you know for sure that the kid is wrong and that really you're smarter. What do you think of the following actions?

a. Tell the kid to shut up.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

b. Ignore the kid and just walk away.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine

c. Suggest that we ask each other questions to find out who is smarter.

Weak	1	2	3	4	5	6	7	Strong
Cowardly	1	2	3	4	5	6	7	Brave
Feminine	1	2	3	4	5	6	7	Masculine



8. You and another kid are playing a game. The winner of the game will win a nice prize. You try really hard, but lose by only one point. What do you think of the following actions?

a. Tell the kid that she cheated.

Weak	1	2	3	4	5	6	7 Strong
Cowardly	1	2	3	4	5	6	7 Brave
Feminine	1	2	3	4	5	6	7 Masculine

b. Go home and cry.

Weak	1	2	3	4	5	6	7 Strong
Cowardly	1	2	3	4	5	6	7 Brave
Feminine	1	2	3	4	5	6	7 Masculine

c. Practice so I'll win the next time.

Weak	1	2	3	4	5	6	7 Strong
Cowardly	1	2	3	4	5	6	7 Brave
Feminine	1	2	3	4	5	6	7 Masculine

9. You're playing with a friend in your house and you're making a lot of noise. Your parents get really angry and start yelling at you for making so much noise. What do you think of the following actions?

a. Tell them, "I'm sorry, but I can't play the game without making noise."

Weak	1	2	3	4	5	6	7 Strong
Cowardly	1	2	3	4	5	6	7 Brave
Feminine	1	2	3	4	5	6	7 Masculine

b. Find something else to do.

Weak	1	2	3	4	5	6	7 Strong
Cowardly	1	2	3	4	5	6	7 Brave
Feminine	1	2	3	4	5	6	7 Masculine

c. Ignore their yelling and continue to make noise.

Weak	1	2	3	4	5	6	7 Strong
Cowardly	1	2	3	4	5	6	7 Brave
Feminine	1	2	3	4	5	6	7 Masculine

Appendix A6  
Behavioral Assertiveness Test

## The Behavioral Assertiveness Test for Children - Revised

In a few minutes I'm going to ask you to pretend some things. I'm going to describe some situations and I'd like you to pretend that you are really there. I'm going to ask you to imagine that you are with people you know and you will be doing different kinds of things with them, like playing outside, or doing work in school. When I describe each scene to you, I want you to pretend that it is happening right now.

At times (male assistant's name) and at other times (female assistant's name) will help us by pretending that they are with you in these situations. We might pretend that he is a boy in your class or that she is your best friend at home. After I describe a situation, (male assistant's name) or (female assistant's name) will say something to you. Then, I want you to say what you really would say if you really were in that situation with that person. Do you know what I mean?

OK, let's try a situation. Remember to pretend that it is really happening now and say whatever you would say in that situation. In some of these you might feel angry or irritated at the other person. Now here's one:

(The practice negative assertion scene is presented and counter-responses delivered by the assistant. If the subject appears to understand and gave an appropriate response, the next part is presented.)

In other scenes, you might feel happy and friendly towards the other person. Listen to this one:

(The practice positive assertion scene is presented and counter-responses delivered by the assistant.)

Now remember to say what you would really say in these situations, whatever would be on your mind. Now, we'll do some more. Ready?

## Behavioral Assertiveness Test for Children - Revised (BAT-CR)

I. Scenes for Negative Assertion: Male Model

1. N: Imagine that you are standing in line for lunch. A boy comes over and wants you to let him and his friends cut in line in front of you. You are real hungry and if you let them you might not have time to eat.

P: "Let us cut in front of you."

(Subjects's Response)

Assertive Sequence

Initial Counter Response:

- Ia. But we don't want to have to wait on the end of this long line.

(Subject's Response)

Counter Response Options:

- Ib. Look how long the line is. What difference will it make if we cut in here?

or

- Ic. I'm sure you'll have plenty of time to eat lunch.

Unassertive Sequence

Initial Counter Response:

- IIa. So it's okay if we cut in line here?

(Subject's Response)

- IIb. I'm sure you'll have plenty of time to eat lunch.

or

- IIc. Look how long the line is. What difference will it make if we cut in here?

2. N: A boy in your class always borrows money from you but he never pays you back. After school he comes up to you and says:

P: "Let me have a dollar, I'll pay you back tomorrow."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. I promise, I'll pay you back first thing tomorrow.

(Subject's Response)

Counter Response Options:

Ib. But I really need it and I'll pay you back first thing tomorrow.

or

Ic. I'll pay you back tomorrow then.

Unassertive Sequence

Initial Counter Response:

IIa. Then you don't mind if I borrow the money and pay you back tomorrow sometime?

(Subject's Response)

IIb. I'll pay you back tomorrow then.

or

IIc. But I really need it and I'll pay you back first thing tomorrow.

3. N: Your boyfriend borrowed your bike and said that he would bring it right back. He comes back with it several hours later and you want to use it. He says:

P: "I want to keep your bike until tomorrow, OK?"

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. But I need it to run some errands and to do some other things.

(Subject's Response)

Counter Response Options:

Ib. How about if I bring it back in about two or three hours instead of tomorrow?

or

Ic. I'll bring it back first thing in the morning.

Unassertive Sequence

Initial Counter Response:

IIa. Then you don't mind if I borrow it until tomorrow?

(Subject's Response)

IIb. I'll bring it back first thing in the morning.

or

IIc. How about if I bring it back in about two or three hours instead of tomorrow?

4. Scenes for Negative Assertion: Female Model

4. N: Pretend that a girl in your class has borrowed your book but now you need it and you want it back. She comes over to you and says:

P: "I want to keep your book until next week."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. How about if I get the book back to you in 4 or 5 days?

(Subject's Response)

Counter Response Options:

Ib. But I really need the book and I'll get it back to you as soon as I can.

or

Ic. I'll try to get the book back to you as soon as I can.

Unassertive Sequence

Initial Counter Response:

IIa. You don't mind then if I keep it until next week?

(Subject's Response)

IIb. I'll try to get the book back to you as soon as I can.

or

IIc. But I really need the book and I'll get it back to you as soon as I can.

5. N: You are out playing with your friends and having a good time, but you know that your mother wants you to be home now and you don't want to make her angry. You want to tell your friends that you have to go home. They say:

P: "C'mon, let's play another game; don't leave now."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. Oh, she won't mind if you're a little bit late.

(Subject's Response)

Counter Response Options:

Ib. We can just play a quick game and then you can go home.

or

Ic. We'll make this game a quick one and you won't be very late.

Unassertive Sequence

Initial Counter Response:

IIa. Then you'll stay and play another game with us?

(Subject's Response)

IIb. We'll make this game a quick one and you won't be very late.

or

IIc. We can just play a quick game and then you can go home.

6. N: You are at the movies and it's a really good show but some girl in the seat behind you is making a lot of noise and is bothering you. You turn around and she says:

P: "Boy, this movie stinks."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. What's the big deal, it's a crummy movie anyway!

(Subject's Response)

Ib. But it's no fun if you don't fool around in the movies.

or

Ic. It's fun yelling out and fooling around at the movies.

Unassertive Sequence

Initial Counter Response:

IIa. So it's not bothering you too much if we fool around back here?

(Subject's Response)

IIb. It's fun yelling out and fooling around in the movies.

or

IIc. But it's no fun if you don't fool around in the movies.

III. Scenes for Positive Assertion: Male Model

7. N: You are on the playground and you fall down. A boy comes over and gives you his hand. He says:

P: "Here, let me help you."

(Subject's Response)

Counter Response Set

Ia. Are you sure you're okay?

(Subject's Response)

Ib. It really looked like you took a hard fall.

8. N: It's your birthday and your friend gives you a really neat gift. He knew that it was something that you wanted for a long time. He says:

P: "Here, I hope you like it."

(Subject's Response)

Counter Response Set

Ia. You mentioned that this was something you've wanted for a long time.

(Subject's Resonse)

Ib. I hope you have a lot of fun with it.

9. N: You are playing kickball with some of your classmates from school. One of the boys makes a terrific kick and scores a home run. He's on your team and he says:

P: "How did you like that one?"



(Subject's Response)

Counter Response Set

Ia. I've been practicing hard for a week now.

(Subject's Response)

Ib. I really want to play well for the team.

17. Scenes for Positive Assertion: Female Model

10. N: Imagine that you got a new sweater for your birthday.  
You like it very much. Your friend says:

P: "Gee, I really like your sweater. It really looks  
good on you."

(Subject's Response)

Counter Response Set

Ia. You said you always wished you had one like this.

(Subject's Response)

Ib. I hope you really like it.

11. N: A girl in your class drew a picture and she thinks it's  
really good. You think so too. She says:

P: "How do you like my picture?"

(Subject's Response)

Counter Response Set

Ia. It took me a whole week to get it finished.

(Subject's Response)

Ib. I wonder if I should try to do another one?

12. N: You painted a picture in art class and the girl next to you says:

P: "Wow, that's really great!"

(Subject's Response)

Counter Response Set

Ia. It sure looks like you put a lot of work into it.

(Subject's Response)

Ib. You should really do more painting, you're very good at it.

Appendix B  
Literature Review

## Literature Review

Social skill deficiencies in children have been shown to attenuate childhood adjustment and to seriously impact developmental sequelae. Socially unskilled children are more likely to have decreased academic performance (Cartledge & Milburn, 1978), be overtly rejected or ignored by their peers (Asher & Hymel, 1981), and develop mental health problems as adults (Cowen, Pederson, Babigan, Izzo & Trust, 1973).

In an attempt to remediate social skill deficits in children, a proliferation of treatment studies have been conducted. Moreover, a wide range of behaviors have been subsumed under the rubric of social competence and targeted for improvement. They include such behaviors as giving and receiving positive reinforcers (Keller & Carlson, 1974), helping (Yarrow, Scott & Waxler, 1973), discussing feelings and generating solutions to interpersonal problems (Spivak & Shure, 1974), smiling, sharing, touching and complimenting (Cooke & Apolloni, 1976), accepting help, accepting praise, giving praise and refusing unreasonable requests (Calpin & Cinciripini, 1978), initiating and responding to social initiations (Walker, Greenwood, Hops & Todd, 1979) and improving conversational skill (La Greca & Santagrossi, 1980).

One of the most frequently studied social skill deficits in children is assertiveness. Broadly defined, assertiveness refers to a class of behaviors displayed to get what one wants without infringing upon the rights of others. Assertiveness training with children essentially began in the mid 1970s with investigations which translated behaviors thought to represent assertiveness in adults to interventions with children. Subsequently the construct of assertiveness as applied to children underwent rapid expansion to include a variety of behaviors associated with a range of situations. Investigators have commented (e.g., Achenbach, 1978) that the modification of adult behavioral targets for use with children may be inherently inappropriate as behaviors functional for adults may not be functional for children. An additional problem is many studies fail to validate the appropriateness and relevance of behavioral targets for children in advance of training (Gottman, 1976). It is proposed that the training of assertiveness in children exemplifies a more wide spread problem in clinical child psychology, i.e., failing to match intervention targets and efforts with the situational contingencies children come in contact with.

Cone (1980) has described a procedure termed "template matching". Template matching is based on initial work by

Bem and his colleagues (Bem & Funder, 1978; Bem & Lord, 1979) and consists of the delineation of behavioral targets relevant to the situations of individual client children. Using template matching the investigator first determines the behavioral requirements important to the particular child (or group of children) in the specific social context of interest. Exemplary performers in that context are then identified and the behaviors they engage in to meet the particular environmental demands are analyzed. The result is the development of a set of validated behaviors and performance criteria, termed a template, which is associated with successful performance in the relevant context. Client children are then trained to emit template behaviors. As a consequence, a more precise match between intervention efforts and the behavioral deficits and/or excesses of the individual child is achieved.

In the following sections the evolution of the construct of assertiveness from the adult literature to the child literature, with a particular focus on the parameters of assertiveness in boys, will be reviewed. Thereafter, issues relating to the development and expansion of the construct of assertiveness as applied to children, the social validity of treatment targets, and the

template matching approach will be discussed in more detail.

A paradigmatic and extremely influential investigation of assertiveness in adults was conducted by Eisler, Miller and Hersen (1973). These investigators determined the behavioral components of assertiveness in 30 male psychiatric patients. Following paper and pencil assessment on assertiveness, subjects were assessed on a role-play measure entitled the Behavioral Assertiveness Test (BAT). This measure included 14 role-play scenes using a female to simulate real life situations requiring assertive behavior and was designed specifically to tap behaviors of interest in the population. Subjects were instructed to respond realistically to the scenes in response to a verbal cue by the prompter during individual assessment sessions. All responses were videotaped and scored subsequently on nonverbal behaviors (duration of looking and smiling), speech characteristics (duration of reply, latency of response, loudness and fluency), verbal content (indicating compliance, requesting new behavior); in addition, overall assertiveness was rated on a 1 (very unpleasant) to 5 (very assertive) Likert scale. Subjects were then differentiated into high and low assertive categories (on the basis of the self-report measure) and behavioral correlates on the BAT

were examined. High assertive subjects were found to evidence shorter response latencies, louder speech, longer duration of response, less verbal compliance and more requests for new behavior than low assertive subjects.

While Eisler and his colleagues (e.g., Eisler, Hersen, Miller & Blanchard, 1975; Hersen, Eisler, & Miller, 1974) continued to use refinements of the above methodology with adults (primarily psychiatric patients), Bornstein, Bellack and Hersen introduced a variant of the methodology with children in 1977. Four unassertive children, ages eight to eleven were trained on behavioral targets chosen based on deficiencies reported by Eisler et al. (1973) with adults. These children were first assessed on the Behavioral Assertiveness Test for Children (BAT-C), a modification of the BAT, and subsequently trained to improve eye contact, lengthen speech, increase loudness and increase the number of requests for new behavior in a multiple-baseline-across-behaviors design. Role-play prompting procedures were similar to Eisler et al. (1973), but included male as well as female prompters. Improvements in individual behaviors occurred in a stepwise fashion with the introduction of treatment. The authors concluded that the specific components of assertiveness deficits in children could be identified reliably and trained effectively.



Using this framework established for adults by Eisler et al. (1973) and refined for application with children by Bornstein et al. (1977), a variety of assessment studies followed which explored the components of assertiveness as well as the factors influencing its presentation. Reardon, Hersen, Bellack and Foley (1979) examined the relationship between level of self-reported assertiveness and the presence of role-played assertive behaviors, ratings of assertiveness and a measure of cognitive ability in a group of 60 middle aged boys. The Behavioral Assertiveness for Boys (BAT-B) was developed for use in the study. This measure was a modification of the BAT-C (Bornstein et al., 1977) and was designed to evoke "positive assertion" (i.e., assertive responding to positive social prompts) in addition to the more traditionally conceived "negative assertion". On this measure, compared to the low assertive group, high assertive boys evinced shorter response latencies, lengthier replies, more appropriate affect, and more offers of spontaneous positive behavior in positive scenes and more requests for new behavior in negative scenes. Overall, boys, across assertion levels, were found to speak longer with greater affect in negative contexts. In addition, older boys were found to make more requests for behavior change and to offer more spontaneous positive

behavior than younger boys.

Michelson, DiLorenzo, Calpin and Ollendick (1982) evaluated the behavioral components of assertiveness in a group of 27 boys receiving psychiatric treatment. Expanding on the BAT-C (Bornstein et al., 1977), 46 scenes involving interpersonal situations related to negative assertion, accepting help, giving compliments and accepting compliments were developed. Through retrospective analyses of subjects' videotaped performances, different patterns of behavior were shown for the negatively valenced scenes. Specifically, in negative scenes, subjects evidenced more eye contact, longer replies, more affective statements, and less overall assertiveness. Responses were also found to covary with sex of the role-play prompter. During male scenes subjects spoke longer, used more appropriate voice intonation and were rated as more assertive in negative situations. Female prompters, on the other hand, evoked more assertive responding in scenes involving giving and receiving compliments.

Other studies have been conducted which have found boys to evince a different pattern of assertiveness than girls. Deluty (1983) measured the responses of 231 middle aged children on the Children's Action Tendency Scale - CATS (Deluty, 1979), a self-report measure providing scores

of assertiveness, aggressiveness and submissiveness. Also, the children completed a cognitive rating of randomly selected assertive, aggressive and submissive response alternatives on evaluative (e.g., good versus bad) and potency (e.g., strong versus weak) dimensions. In addition the children rated which mode of response in conflictual situations would make them feel best and which would make the other person feel best. Highly significant sex differences across CATS scores and peer ratings of assertiveness, aggressiveness and submissiveness were found. Boys rated aggressive responses as significantly more "good", "strong", "kind", "wise", "successful" and "brave" than girls. Conversely, boys consistently rated assertive and submissive responses as less "good", "strong" and "brave" than girls. Children of both sexes more frequently rated assertive behaviors as making oneself feel best and submissive alternatives as making others feel best. Of note, boys rated aggressive behavior as significantly higher and assertive behavior as significantly lower on the "feel best" scale than girls. Children classified as aggressive tended to endorse aggressive responding while children rated as assertive tended to rate assertive responding as better. Submissive children did not consistently endorse assertive, aggressive

or submissive patterns of responding.

In a related study, Deluty (1981) assessed the relationship among assertiveness, aggressiveness and submissiveness on the CATS and other measures of adjustment. For 223 boys and girls, scores on the CATS were correlated with a peer report of behavioral adjustment, a popularity index, and scores on a children's self concept scale. Consistent sex differences were found in correlations between these measures. While assertiveness did not significantly correlate with any of the adjustment measures for girls, they were significantly associated with each of the measures for boys. In boys, self esteem, popularity and peer ratings of adjustment were all correlated positively with assertiveness scores. However the magnitude of each of these correlations was fairly small. Highly aggressive children were found to be significantly less popular than assertive or submissive children.

Ollendick, Hart and Francis (1985) more intensively studied the relationship between assertiveness and its social impact. In phase one of the study, 38 elementary aged children (half boys and half girls) were videotaped during assessment on the Revised Behavioral Assertiveness Test for Children, or BAT-CR (Ollendick, 1981), an

adaptation of the BAT-C (Bornstein et al., 1977), which contains scenes calling for positive and negative assertion and allows an extended, natural interchange between the child and his/her role-play partner. The children's performances were then scored for nonverbal behaviors (e.g., eye contact) and verbal content (e.g., denial, praise) and rated on overall level of assertiveness by expert (adult) judges. In phase two of the study, 64 elementary aged children (equal numbers of boys and girls) who had previously been rated to be of low or high sociometric status were recruited to review videotapes of phase one children. These participants then rated segments of the subjects video performances by category (e.g., positive, male prompter) on a five point scale of likeability. Across the various scene categories there was considerable variation in responding; however boys were not found to differ significantly from girls in their response patterns. Adult ratings of assertiveness were inconsistently related to behavioral patterns in the subjects and negligibly related to child ratings of likeability; only on negative female scenes were these ratings found to be related. Similarly, across the scene categories, few behaviors were found to correlate with child likeability ratings. For boys, eye contact was

related to likeability on negative scenes, and interestingly, a negative relationship was found between likeability and the demonstration of praise or appreciation in positive scenes. For girls, likeability was only significantly related to response length on negative scenes.

Few studies have examined assertiveness in interpersonal situations in behavior disordered children. In one notable exception, Cox, Gunn and Cox (1976) assessed the performance of behavior problem (n =16) and nonproblem (n = 16) middle aged boys on a role-play test of social skills including situations calling for assertive responding. Problem boys who had been expelled from school for "acting out" evidenced less eye contact, poorer speech fluency and poorer body posture than nonproblem boys. In interpersonal conflict situations, problem boys had significantly higher levels of emphatically requesting behavior change in the other person and using argument/denial than nonproblem children. Nonproblem boys showed higher levels of stating reasons for their actions, threatening non physical contingencies (e.g., telling the teacher) and expressing appreciation than problem boys. Interestingly, behavior problem boys evidenced significantly higher compliance to interpersonal demands

than nonproblem boys. Such differences may well be important ones.

In summarizing the previous assessment literature, assertiveness in children has been shown to be a highly variable and diversely demonstrated phenomenon. Behaviors subsumed under the response class of assertiveness have varied as a function of assessment characteristics, such as scene valence (Michelson et al., 1982) and sex of the role-play prompter (Ollendick et al., 1985), and subject characteristics such as assertive classification (Reardon et al., 1979), presence of behavior disorder (Cox et al., 1976) and age (Reardon et al., 1979). The judgement of the appropriateness of assertive behavior varies across boys and girls (Deluty, 1982), as well as child vs. adult raters (Ollendick et al., 1985). Adjustment measures (e.g., self esteem) have shown some relationship with assertiveness for boys but not girls (Deluty, 1981). Finally, adult ratings of assertiveness and child ratings of likeability do not systematically covary with behaviors assumed to represent assertiveness (Ollendick et al., 1985).

The current review, although not exhaustive, describes the components and parameters of assertiveness in children. However one crucial question remains unanswered: Is assertiveness a meaningful interpersonal behavior for

children to engage in? Conclusions from the previous review are equivocal in answering this question. For example, Deluty (1981) found that boys categorized as assertive had higher levels of popularity and self esteem than nonassertive boys. However, in a follow-up study, Deluty (1982) found that a large sample of boys evaluated assertive behavior as significantly less "good", "strong" and "brave" than aggressive behavior. Further, Ollendick et al. (1985) found very few behaviors that are assumed to represent assertiveness to be related to perceived likeability in observing children. Similarly, other investigators (Charlesworth & Hartup, 1967) have found submissive behavior in children to yield a higher rate of positive reinforcement from peers than assertive behavior. These findings call in to question whether assertiveness is an effective and desirable behavior for children to engage in.

#### Construct Development

As reviewed previously, Eisler and his colleagues (Eisler et al., 1973; Eisler et al., 1975; Hersen et al., 1974) had a major impact on the development of the construct of assertiveness as applied to adults and subsequently translated to children. The behavioral components of assertiveness explicated by these authors in



the early 1970s (e.g., eye contact, speech duration, latency, requesting new behavior, etc.) continue to be widely assessed and trained in children and adults in the 1980s (e.g., Kirkland, Thelen & Miller, 1983; Romano & Bellack, 1980). Another investigator who has played a prominent role in the development of the construct of assertiveness is Wolpe, one of the founding fathers of modern day behavioral psychology. In a 1969 article, Wolpe defined assertiveness as "...applied to the outward expression of practically all feelings other than anxiety. ...Assertiveness usually involves more or less aggressive behavior, but it may express friendly, affectionate and other non-anxious feeling" p.61.

The assertiveness construct as broadly defined by Wolpe (1969) played a key role in the conceptualization and execution of pivotal assertiveness research (e.g., Eisler et al., 1973). This influence is typified by Bornstein et al. (1977) who in their study with children had adult judges rate children's overall assertiveness after reading Wolpe's (1969) article. Thus a molar construct developed for use with adult psychiatric patients has been used by adult judges to validate the occurrence of adult derived behaviors in children. Given the significance of the Bornstein et al. (1977) article to the subsequent

application of assertiveness to children, this early validation bias may have been monumental.

The potentially insidious effects of adult influences on the conceptualization of social skills (e.g., assertiveness) in children have not gone unnoticed by behavioral investigators. For example, Achenbach (1978) cites the tendency to adopt assessment and treatment techniques from the adult literature for use with children as prominent, and goes on to suggest that much of the child social-skills treatment literature is invalid as a result. Strain, Odom and McConnell (1984) assert that adult selected targets in children may result in brief artificial changes in interaction patterns which eventually succumb to the naturalistic contingencies of peer interaction. In comparing discrepant evaluations of child assertive behavior between child and adult judges, Ollendick et al. (1985) note: "While we may be teaching skills that are valued from an adult's perspective, these same skills may not be the most productive ones from the child's standpoint. In all probability, adult perceived assertiveness and child perceived likeability are different constructs and should not be used interchangeably in the assessment and evaluation of social skills training programs" (p.32).

A related issue, perhaps more serious than adult influence, is the rapid proliferation and expansion of the construct of assertiveness. It is almost as if each new investigation adds a component behavior to be subsumed under the rubric of assertiveness. Chittenden (1942) defined assertiveness in terms of the behavioral influence of one child on another. Barrett and Yarrow (1977) refined this definition to behaviors which direct or terminate the activity of another person. Thereafter the construct became complicated. Slaby (cited in Combs & Slaby, 1977) defined assertiveness by a group of behaviors in response to negative (e.g., asserting a personal course of action, ignoring) and/or positive (e.g., asking for permission, making friendly suggestions) situations. With the adoption of the molecular components of assertiveness from Eisler et al. (1973, 1975), Bornstein et al. (1977) cued the rapid expansion of the construct to include levels of eye contact, speech duration, loudness of speech, number of words and requests for new behavior. Reardon et al. (1976) expanded on these behaviors by introducing offers of spontaneous positive behavior and appropriate affect. Other examples could be provided ad infinitum; the point is that the construct of assertiveness in children has expanded to the point of becoming unwieldy.

While some investigators have documented results questioning the applicability of the assertiveness construct to children (e.g., Deluty, 1982; Ollendick et al., 1985), a focused analysis of this issue has not yet been presented. In the case of assertiveness in children, it appears that we have lost sight of the functions of constructs in empirical science. Underwood (1957) presents the value of constructs in terms of unifying disparate sources of information and facilitating the prediction of behavior under different stimulus conditions. For Underwood, the promotion of parsimonious analysis is the sine qua non of constructs. For example, the construct of learning simplifies analysis by summarizing a broad class of phenomena whereby behavior changes as a function of stimulation. Learning is a construct which has extremely explicit referents: It seems that this referential explicitness has led to the advantageous delimitation of the research enterprise to observable, precisely measurable phenomena. We begin to lose this advantage when vague constructs such as assertiveness are incorporated into our investigative practices, almost without question. Simply stated, the construct of assertiveness has become too diffuse to have significant analytical value.

## Social Validity Issues

The social validity of treatment induced change may be seen to be comprised of two primary components. The social significance of behavioral targets relates to their congruence with societal standards (Wolf, 1978). Social importance concerns the impact of the training program on the individual's standing in his/her social group (Gresham, 1986). Based on these criteria, the training of assertiveness skills in children may be seen as socially significant; generally assertiveness is viewed as a valued skill for adults and children according to broad societal standards. However, it is not empirically definite that training assertiveness in children is of social importance; at best, the data bearing on this issue are equivocal. Van Hasselt (1979) notes that for the most part, the training of behavioral components of assertiveness in children has received minimal validation support. Feidler and Beach (1977) stress that assertiveness in certain situations is contraindicated, e.g., complying to a mildly unreasonable request by a peer may be a socially skilled behavior which functions to strengthen the friendship. As mentioned previously, aggressive (rather than assertive) behavior in boys is often followed by positive social sequelae (Deluty, 1981).

While the social validity of social skills training programs (including assertiveness) is oftentimes questionable, a more serious issue is the almost total failure of investigators in this field to validate behavioral targets before training commences. Typically it is assumed that because a behavior has been trained by other researchers, it adequately represents the construct of assertiveness and that training will lead to meaningful clinical outcomes in the client. Alternatively, behaviors are trained and then validated after the fact. Unfortunately, this validation is often based on the subjective judgements of adults, a population far removed from the environmental contingencies of children who receive mental health treatment. Thus a whole series of behaviors subjectively validated in this way (e.g., Bornstein et al., 1977; Reardon et al., 1979; c.f., Romano & Bellack, 1980) may be inherently off base .

This failure to validate behavioral targets in advance may account for the failure of many social skills training programs to result in significant, durable change (Gottman, 1976). Gresham and Lemanek (1983) state that the most likely outcome of training socially insignificant targets is extinction, i.e., the performance of behaviors that are not natural to the local environmental contingencies are

ignored and drop out of the child's repertoire. Given the unfortunately weak status of maintenance in treatment outcome studies today, this issue assumes considerable importance.

A related issue is the training of targets, which may or may not be validated in advance, with complete neglect of the appropriate performance criteria for those targets (Van Houten, 1979). Thus for each behavior we train there is an optimal range of efficacy. Training children to emit behaviors below this level results in minimal impact on others; training excessively high performance may result in negative reactions in peers or even social rejection. Thus one is led to question how often we are iatrogenically causing maladjustment in the children we treat. For example a child may be ignored by her peers if she lacks the skill to initiate positive social interaction, but if after training she initiates excessively, social rejection may result, an outcome which is (arguably) worse than being ignored. Consideration of this issue forces the clinician to demonstrate carefully that a particular behavior is in fact a problem, before implementing a treatment which has inherent, albeit subtle, risks to the client.

#### The Template Matching Method of Target Selection

Cone and Hoier (1986) have highlighted the limitations

of the traditional approach to the selection and training of behavioral targets in children. Specifically the processes of traitism, normism and hypothetico-deductivism are cited as placing constraining influences on psychological analysis. Traitism is the perpetuation of concepts (or constructs) which are only vaguely tied to stimulus referents. Thus assessment and training efforts become centered around global, ill defined variables such as attitudes, instead of clearly specified, observable behaviors. Normism is the process whereby children are trained to meet normative standards which may not be synonymous with effective or successful standards and may not be relevant to the local contingencies the client comes in contact with. Hypothetico-deductivism refers to the process of deducing from general constructs specific behaviors to be assessed and/or trained in clients. The major problem of this approach is that the prior formulation of response classes may, if erroneous or not broad enough, subsequently mislead or constrain analysis.

Alternatively Cone and Hoier (1986) propose that behavior itself should be viewed as the subject matter, rather than as a representation of some underlying process (trait logic). Analysis should focus on the individual as norms may not be applicable due to the situational



specificity of behavior (c.f., Kazdin, 1979). Additionally this analysis should proceed inductively as behaviors may be organized in ways which bear no structural or functional relationship to the a priori constraining influence of constructs. Finally, behaviors should be analyzed in reference to a criterion of effective performance specific to the settings of interest for individual clients.

As mentioned previously, the above considerations are incorporated in the template matching technique (Cone, 1980). Thus far this procedure has been used in only one clinical assessment study, and no clinical treatment outcome studies. Hoier, McConnell and Pally (1987) used a direct observation procedure to assess the differences between children in special and regular education classrooms. Children in the special education classroom were observed to receive more direct instruction and more reinforcement than children in the regular education classroom. Thus for this population in this particular setting, information was provided on potential training targets for children preparing to go into regular classrooms from special education (e.g., performing more independent work with less attention from teachers).

It is proposed that the template matching approach offers considerable advantage in the empirical evaluation

of behaviors we standardly train children to engage in. First, template matching procedures are relatively straightforward to implement. The investigator simply defines the parameters of the target situation (e.g., behaviors calling for assertiveness in a classroom setting) and identifies exemplary performers through assessment of knowledgeable individuals in the environment (e.g., teachers, peers). The behaviors of deficient performers are analyzed in relation to the successful performers, with the resulting delineation of empirically validated behavioral targets enabling expedited commencement of training. Second the procedures are highly generalizable across clinical situations and child problems; all that is required is the presence of knowledgeable individuals in the target environment capable of identifying exemplary performers and the capability of measuring their behaviors. Third, template matching procedures can be seen to promote precision in measurement through their emphasis on observable behavior. Fourth, template matching procedures offer the vehicle for the production of local norm templates, which once developed can offer target selection guidelines of more direct applicability than more traditional normative data, which are often too general to provide any significant benefit in intervention with an

individual child. For example, assessments on how successful youth behave in a third grade, middle class, rural gym class offer more information to the investigator with a client in a similar setting than physical education norms from the Presidential Fitness Committee. Lastly, and most importantly, template matching procedures provide a broadly generalizable method to analyze the appropriateness of behavioral targets and training programs which we implement with children. In the field currently, little attention is paid to whether we should be training particular behaviors to particular children.

Unfortunately, it is common for behaviors, once introduced into the literature, to assume a life of their own, being applied across various types of client children with varying types of problems. Infrequently are efforts made to check the appropriateness of behavioral targets.

A zeitgeist is needed wherein clinical child investigators step back and seriously analyze whether intervention efforts should continue to be directed at cognitive or behavioral targets that have not been validated empirically. The ultimate goal of such a pursuit is the training of targets only proven to be related to efficacy. This goal, if achieved, would have myriad spinoff benefits including: maximization of mental health

resources; shorter, less costly treatment for clients; and, most importantly, improved clinical outcomes in clients.

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