



1977

## A Measurement Study of Assertive Behavior in Elementary School Boys

Richard Crawford Reardon  
*Loyola University Chicago*

Follow this and additional works at: [https://ecommons.luc.edu/luc\\_diss](https://ecommons.luc.edu/luc_diss)



Part of the [Psychology Commons](#)

---

### Recommended Citation

Reardon, Richard Crawford, "A Measurement Study of Assertive Behavior in Elementary School Boys" (1977). *Dissertations*. 1754.

[https://ecommons.luc.edu/luc\\_diss/1754](https://ecommons.luc.edu/luc_diss/1754)

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact [ecommons@luc.edu](mailto:ecommons@luc.edu).



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](#).  
Copyright © 1977 Richard Crawford Reardon

201

A MEASUREMENT STUDY OF ASSERTIVE BEHAVIOR

IN

ELEMENTARY SCHOOL BOYS

by

Richard C. Reardon

A Dissertation Submitted to the Faculty of the Graduate School

of Loyola University of Chicago in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

July

1977

## ACKNOWLEDGMENTS

I would like to thank the members of my dissertation committee, Dr. Jeanne M. Foley (director), Dr. Ronald E. Walker, Dr. Janet Polivy, Dr. Michel Hersen, and Dr. Alan S. Bellack, for their advice and support. Thanks are also extended to Martin T. Williams for his generous assistance in the computer analysis of the data. I am indebted to Harry and Roseanne Sherk for their conscientious help in the collection of the behavioral data. Cheryl Evans, Franchesca Flemming, Joseph O'Brien, Mitchell Bornstein, and Dr. Roberta Irgens rated portions of the data and I am grateful for their diligence. I am indebted to the teachers of the Sunset Park and Falk elementary schools for their ratings and to Mr. William MacDonald, assistant principal of the Falk School, for his helpfulness. To Catherine M. Ponne I am obliged for transcribing the children's stories and for her many kindnesses during the preparation of this manuscript.

Finally, the moral support and encouragement of my parents, Walter and Patricia Reardon, have been invaluable.

## VITA

Richard Crawford Reardon was born on June 1, 1947, in Oak Park, Illinois.

He was graduated from St. Viator High School, Arlington Heights, Illinois, in June of 1965. He attended St. Mary's College, Winona, Minnesota and was graduated with a B.A. in psychology, summa cum laude, in May, 1969. While in college, he was a member of Psi Chi and was elected to Delta Epsilon Sigma and to Who's Who Among Students in American Universities and Colleges. He entered the graduate program in clinical psychology at Loyola University of Chicago in September, 1969 and received his M.A. degree in June, 1975.

During 1970 and 1971 he spent 1,000 hours as a trainee in clinical psychology at the Veterans Administration Hospital, Hines, Illinois. He assisted on several research projects in the Department of Psychiatry at Children's Memorial Hospital, Chicago, Illinois from 1972 to 1974. From September, 1974 until July, 1977 he was a psychology trainee at the Veterans Administration Hospital, Pittsburgh, Pennsylvania and took an externship in the Family Therapy Unit of Western Psychiatric Institute and Clinic, University of Pittsburgh School of Medicine.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS . . . . .	ii
VITA . . . . .	iii
LIST OF TABLES . . . . .	vi
CONTENTS OF APPENDICES . . . . .	ix
INTRODUCTION AND REVIEW OF THE LITERATURE . . . . .	1
Defining Social Skill . . . . .	1
Measuring Assertiveness . . . . .	8
Self-Report . . . . .	8
Behavioral Measures . . . . .	14
Physiological Measures . . . . .	20
Instigating Assertive Behavior--Experimental Evidence . . . . .	22
Clinical Applications of Assertive Training . . . . .	35
Role-Taking Ability . . . . .	39
Statement of Research Purpose . . . . .	41
METHOD . . . . .	44
Subjects . . . . .	44
Measures . . . . .	44
Behavioral Assertiveness Test for Boys . . . . .	44
Role-Taking Task . . . . .	52
Teacher Ratings of Assertiveness and Other Social Behaviors . . . . .	53
IQ Scores . . . . .	54
Self-Report Assertiveness Test for Boys . . . . .	54
Procedure . . . . .	55
RESULTS . . . . .	57
Behavioral Assertiveness Test for Boys . . . . .	57
Comparisons Between High- and Low-Assertive Groups . . . . .	58
The Effects of Age . . . . .	68
Effects of Scene Valence . . . . .	70
Child Versus Adult Prompter . . . . .	70
Self-Report and Behavioral Assessments of Assertiveness . . . . .	71
Correlations Between Teachers' Ratings and Behavioral Assertiveness Ratings . . . . .	77
Assertiveness and Measures of Cognitive Ability . . . . .	78
Multiple-Regression Analyses . . . . .	80
DISCUSSION . . . . .	91

	Page
Behavioral Assertiveness Test for Boys . . . . .	91
Comparisons Between High- and Low-Assertive Groups . . .	91
The Effects of Age . . . . .	92
The Effects of Scene Valence . . . . .	93
Child Versus Adult Prompter . . . . .	94
Self-Report and Behavioral Assessments of Assertiveness . .	95
Correlations Between Teachers' Ratings and Behavioral Assertiveness Ratings . . . . .	97
Assertiveness and Measures of Cognitive Ability . . . . .	100
Implications for Future Research . . . . .	101
 SUMMARY . . . . .	 103
REFERENCE NOTES . . . . .	105
REFERENCES . . . . .	106
APPENDIX A . . . . .	118
APPENDIX B . . . . .	126
APPENDIX C . . . . .	128
APPENDIX D . . . . .	130
APPENDIX E . . . . .	132
APPENDIX F . . . . .	135
APPENDIX G . . . . .	138
APPENDIX H . . . . .	142
APPENDIX I . . . . .	153
APPENDIX J . . . . .	155
APPENDIX K . . . . .	157

## LIST OF TABLES

Table	Page
1. Means and Standard Deviations for the Teachers' Ratings of 50 Scenes for the Behavioral Assertiveness Test for Boys . . . . .	46
2. Interrater Agreement for the Behavioral Response Components, Role-taking Task Scores, and Overall Assertiveness . . . . .	51
3. Means and Significance Levels for High and Low Overall Assertiveness Groups on the Behavioral Components. . . . .	59
4. Analysis of Variance for Latency . . . . .	60
5. Analysis of Variance for Speech Duration . . . . .	61
6. Analysis of Variance for Number of Words . . . . .	62
7. Analysis of Variance for Speech Disturbances . . . . .	63
8. Analysis of Variance for Eye Contact . . . . .	64
9. Analysis of Variance for Affect. . . . .	65
10. Analyses of Variance for Smiles, Spontaneous Positive Behavior, Regard, and Appreciation . . . . .	66
11. Analysis of Variance for Gestures, Compliance, and Requests . . . . .	67
12. Analysis of Variance for Overall Assertiveness . . . . .	69
13. Pearson Product-Moment Correlation Coefficients between Positive Adult Prompt Scenes and Positive Child Prompt Scenes . . . . .	72

Table	Page
14. Pearson Product-Moment Correlation Coefficients between Negative Adult Prompt Scenes and Negative Child Prompt Scenes . . . . .	73
15. Correlations of Teachers' Ratings of Social Skills, Role-Taking Task Scores, IQ, and Self-Reports of Assertiveness with Overall Assertiveness, Positive Assertiveness, and Negative Assertiveness Ratings . . . . .	75
16. Pearson Product-Moment Correlation Coefficients between Self-Report Assertiveness Test Scores and Assertiveness Ratings of the Role-Played Scenes for Each Age Level . . .	76
17. Pearson Product-Moment Correlation Coefficients between Teachers' Ratings of Assertiveness and Assertiveness Ratings of the Role-Played Scenes for Each Age Level . . .	79
18. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Positive Assertiveness Ratings . . . . .	82
19. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Negative Assertiveness Ratings . . . . .	83
20. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Teacher Ratings of Positive Assertive Skill . . . . .	84
21. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Teacher Ratings of Negative Assertive Skill . . . . .	85

Table	Page
22. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Self-Report Positive Assertiveness Scores . . . . .	86
23. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Self-Report Negative Assertiveness Scores . . . . .	87
24. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Teacher Ratings of Prosocial Behavior . . . . .	88
25. Summary of Ten-Variable Regression Analysis of Role-Taking Task Scores and Behavioral Components as Predictors of Teacher Ratings of Sensitivity . . . . .	89

## CONTENTS OF APPENDICES

	Page
APPENDIX A Instructions to Teachers for Rating the Behavioral Assertiveness Test Items . . . . .	118
APPENDIX B Introduction to the Rater's Overall Assertiveness Training Tape . . . . .	126
APPENDIX C Instructions for Raters of Overall Assertiveness . .	128
APPENDIX D Instructions to the Subjects for the Role-Taking Task . . . . .	130
APPENDIX E Teacher Ratings of Assertiveness . . . . .	132
APPENDIX F Instructions to Teachers for Making Observations and Ratings on the "Sensitiveness to Others" Scale . . .	135
APPENDIX G Pittsburgh Adjustment Survey Scales . . . . .	138
APPENDIX H Self-Report Assertiveness Test for Boys . . . . .	142
APPENDIX I Instructions to the Subjects: The Behavioral Assertiveness Test for Boys . . . . .	153
APPENDIX J Instructions to the Child Promoters . . . . .	155
APPENDIX K Instructions to the Subjects with a Child Prompter .	157

## INTRODUCTION AND REVIEW OF THE LITERATURE

### Defining Social Skill

The research to be reported here concerns the identification of the components of assertive behavior in elementary school boys. This introductory section provides a definition of assertiveness, traces the emergence of this concept from recent developments in behavior therapy and behavior modification, and indicates its relationship to the field of social skills training.

In recent years much research activity has been devoted to the investigation of social skills and the amelioration of social skill deficits. In both clinical and nonclinical populations, adequate social performance is deemed requisite to successful functioning. Recent work has begun to identify the scope and evaluate the implications of deficiencies in social skill. For example, in a survey of normal college students, Bryant and Trower (1974) found that 11% of their sample suffered from considerable distress in a variety of social situations. Among psychiatric patients, Zigler and Phillips (1961, 1962) have shown that patients who have higher premorbid levels of social competence have shorter hospitalizations and less likelihood of future hospitalizations. In addition, they have shown that social competence is related to the process-reactive dimension in psychopathology. Social skill also seems to have a bearing on prognosis in psychotherapy. Frank (1974), summarizing the results of 25 years of research on brief psychotherapy with outpatients, noted that positive therapeutic outcome was, among other things, related to improved social skills among

patients. Social skills and social-skills training are also pertinent to a variety of maladies. A "state of the art" review by Hersen and Eisler (1976) addressed syndromes so apparently diverse as unassertiveness, minimal dating, depression, and schizophrenic withdrawal.

Most of the current research on the identification and elimination of social-skills deficits has been from a behavioral perspective and most intervention strategies focus directly on the behavioral deficits rather than on underlying psychodynamics. Hersen and Eisler (1976) typify this orientation by remarking that ". . .instead of viewing most behavior disorders in terms of the quasi-medical model, we are more likely to view clients and patients in light of their particular deficiencies in the development of appropriate social skills" (p. 375). MacDonald (1975) also finds an educational model more congenial than a medical one in a conception of social-skill deficits and their remediation. Insofar as social skills are learned behaviors, therapy is concerned with teaching the client more adaptive response alternatives. Hersen and Bellack (In press) note that deficits in social skill are usually attributed to: (a) deficient learning history; (b) the disruptive effects of anxiety; or (c) unreinforcing social milieu, such as those found in many chronic-care psychiatric facilities, which foster the unlearning of previously adaptive behaviors.

Hersen and Bellack (In press) argue for a perspective which conceives of a composite of individual social skills as more consonant with research data than one which maintains a single global definition of social skill. They offer the following as a semispecific definition of the domain of social skills:

We therefore emphasize an individual's ability to express both positive and negative feelings in the interpersonal context without suffering consequent loss of social reinforcement. Such skill is demonstrated in a large variety of interpersonal contexts. . . and involves the coordinated delivery of appropriate verbal and nonverbal responses. In addition, the socially skilled individual is attuned to the realities of the situation and is aware when he/she is likely to be reinforced for his/her efforts. Thus, at times, the socially skilled individual may have to forego the expression of "hostile" assertiveness if such expression is likely to result in punishment or social censure. (p. 5)

Lewinsohn and his colleagues (Lewinsohn, Weinstein, & Alper, 1970; Libet & Lewinsohn, 1973) postulate social-skills deficits as central to depression to the extent that such skill deficits result in low rates of positive social reinforcement (Lewinsohn, 1975). Libet and Lewinsohn (1973) define social skill as ". . .the complex ability both to emit behaviors which are positively or negatively reinforced and not to emit behaviors which are punished or extinguished by others" (p. 304).

Of the various social skills which have been studied perhaps assertiveness has attracted the greatest interest among both researchers and the public-at-large (Dubrow, 1975). Books of the "self-help" genre (e.g., Alberti & Emmons, 1970) abound and researchers have concluded that assertive training can be an effective treatment intervention for a variety of disorders (Hersen, Eisler, & Miller, 1973). To those investigators and practitioners interested in assertiveness, the work of Joseph Wolpe and Arnold Lazarus is regarded as seminal (Lazarus, 1971, 1973; Wolpe, 1970, 1973a, 1973b; Wolpe & Lazarus, 1966).

With regard to his own thinking on assertiveness, Wolpe (1973a) acknowledges a debt to the earlier work of Salter (1961) who described the "inhibitory" and "excitatory" personalities which correspond roughly

to the categories of unassertive and assertive behavior respectively. According to Salter's view the inhibitory person suffers from a "constipation of the emotions" and his therapeutic program, consisting of six excitatory exercises, is designed to help the inhibitory person learn more expressive response styles. The exercises include: (a) "feeling talk," which is the verbalization of spontaneous emotions; (b) expressing emotions facially; (c) contradicting and attacking when simulated agreeability masks disagreement; (d) the deliberate use of the word "I"; (e) agreeing with praise; and (f) improvising from moment to moment rather than living in the future. Salter's rationale for his therapeutic exercises maintains that "to change the way a person feels and thinks about himself, we must change the way he acts towards others" (p. 100).

Wolpe (1973a) also sees the problems of many patients as the inability to say what is on their minds. He defines assertive behavior as ". . . the proper expression of any emotion other than anxiety towards another person" (p. 81). On the theoretical level, Wolpe postulates reciprocal inhibition as the therapeutic event with the assertive expression inhibiting anxiety and weakening the anxiety-response connection. He also calls attention to operant features and suggests that the favorable outcomes occasioned by the assertive act will be reinforcing and increase the probability of further assertive behavior.

While Wolpe emphasized what he called "hostile" assertiveness (e.g., the expression of anger, resentment, displeasure; the ability to refuse unreasonable requests), Lazarus (1971, 1973) and others (Eisler, Hersen, & Miller, 1976; Hersen, Eisler, & Miller, 1973) have elaborated

on other possibilities as well. Lazarus (1971) prefers the rubric "emotional freedom" over assertiveness since it can connote "the subtleties of love and affection, empathy and compassion, admiration and appreciation, curiosity and interest, as well as anger, pain, remorse, skepticism, fear, and sadness" (p. 116). In a later work Lazarus (1973) maintained this expanded conception of assertiveness and delineates four categories: (a) the ability to say "no"; (b) the ability to ask for favors; (c) the ability to express positive and negative feelings; and (d) the ability to initiate, continue, and terminate conversations. Thus, assertiveness entails not only the expression of anger and resentment but also covers "all socially acceptable expressions of personal rights and feelings" (Wolpe & Lazarus, 1966, p. 39).

Wolpe (1973a) suggested that assertive training is indicated for those individuals whose anxiety prevents them from behaving assertively in social situations. Components of the assertive training procedure as advocated by Wolpe (1970, 1973a) and Lazarus (1971) include: behavior rehearsal (or role playing), modeling (or role reversal), coaching, shaping, and therapist feedback. With these techniques, adequately assertive responses to situations relevant to the patient's problems are practiced and perfected and the patient is enjoined to apply his new skills in critical, real-life situations as "homework." Therapists are urged to caution patients to respond assertively only in situations which are likely to have rewarding outcomes, particularly as they initiate their first tentative assertions. Until firmly established, punishing consequences would undermine the effects of the training.

Modifications of the standard assertive training procedure are indicated for certain clients. When even role-played assertive interactions are too anxiety arousing, Wolpe (1973b) suggests that a preliminary course of systematic desensitization is in order. In such cases, hierarchy construction is concerned with fearful aspects of the assertive situation. Another related alternative, called "rehearsal desensitization" is described by Lazarus (1971) and Piaget and Lazarus (1969). Basically, this procedure involves the use of a graded hierarchy of scenes related to the client's assertiveness difficulties. These are successively role-played as competence and confidence on each one, increasingly more difficult, are achieved. In this way, the client is gradually eased into assertive responses which are central to his difficulties.

Wolpe and Lazarus (1966) speculated, and subsequent research has documented (Eisler, Hersen, Miller, & Blanchard, 1975), that assertiveness is not a unitary trait but is dependent upon such contextual features as the type of assertiveness required (e.g., "positive" or "negative"), the nature of the situation, and the characteristics of the interpersonal partner. Consequently, effective assessment and training must usually cover a variety of interpersonal contexts and extensive generalization of training effects from one context to another may not be routinely assumed.

While assertive verbal content (i.e., what one says) may vary considerably from situation to situation, certain stylistic or paralinguistic cues have importance across contexts. Writers on the subject have called attention to the need for training clients on these nonverbal

components (e.g., latency of response, loudness, tone of voice, and gestures) as well (Eisler, Miller, & Hersen, 1973; Serber, 1972; Wolpe, 1973a).

A related body of research has been concerned with the ability to understand other persons (Walker & Foley, 1973). Such skill has been variously referred to as social intelligence, empathy, role taking, or person perception. Investigators in this tradition have assumed that accurate perception of others is essential for successful social performance. The present study, however, focuses on the behavioral components which constitute social skill rather than on the cognitive factors which may precede social performance. The next sections provide a review of the empirical research on the assessment and modification of social skills.

## Measuring Assertiveness

Researchers have collected self-report, behavioral, and physiological data in their attempts to measure assertiveness. In a recent review of the social-skills assessment literature, Hersen and Bellack (In press) observed that "no single measure can provide a comprehensive picture of the multiple parameters of any targeted behavior. This admonition is as applicable to assessment of social skills as it is to other behaviors" (p. 5). The literature reflects the multifaceted interests of those who have attempted to measure assertiveness.

Researchers have employed two general types of self-report instruments. One variety asks subjects to report on their social fears or social anxieties. The assumption here is that such anxiety stands in the way of successful social performance. Other self-report techniques ask subjects to indicate how they have or how they would respond in selected interactions. Direct behavioral measurements have also been generally of two types. Frequently in analogue research some form of role-played interaction is employed and behaviors are directly quantified (e.g., refusal rates, eye contact, loudness). Such data are also provided by unobtrusive, in vivo behavioral tests. These measures have been enlisted particularly in studies of the generalization of training effects. Less often, investigators have used physiological indices of arousal such as GSR or pulse rate to assess emotionality in role-played interactions. A review of the various approaches to the assessment of assertiveness follows.

Self-report. Watson and Friend (1969) reported on the development

of two scales, the Social Avoidance and Distress Scale, and the Fear of Negative Evaluation Scale. These scales were developed in order to measure the construct of social anxiety although they attempted to foster discriminant relationships between them. In a sample of college students, point-biserial correlations of each item with its own scale were .72 and .77 for the Fear of Negative Evaluation and Social Avoidance and Distress scales respectively. These coefficients were construed as indicating sufficient homogeneity. The scores for these scales were not normally distributed. High Social Avoidance and Distress scores were relatively infrequent and the authors speculated that this reflected the relative infrequency with which "schizoid" traits are distributed in the general population. Males and females showed significantly different patterns of response on the scales. Males tended to obtain higher scores on the Social Avoidance and Distress Scale and females scored higher on the Fear of Negative Evaluation Scale. Test-retest reliability for a sample of college students over a 1-month interval were .78 for the Fear of Negative Evaluation Scale and .68 for the Social Avoidance and Distress Scale. Experimental and correlational studies with these self-report instruments revealed that "people high on the Social Avoidance and Distress Scale did avoid social situations and were anxious in social interactions. Individuals high on the Fear of Negative Evaluation Scale became nervous in evaluative conditions and seemed to seek social approval" (p. 456). This latter was an unexpected finding and the authors hypothesized that these individuals sought social approval as a way to avoid social disapproval. In addition, the predicted discriminant and convergent

relationships were confirmed.

Reliability and validity data for another self-report measure were reported by Rathus (1973a). He administered the 30-item Rathus Assertiveness Schedule to a sample of undergraduate men and women. The test-retest correlation coefficient over an 8-week interval was .78 and split-half reliability was .77. Validity was assessed by comparing scores on the Rathus Assertiveness Scale to two external criteria. In one study, the correlation of these scores with ratings based on role-played assertiveness scenes was .70. In the other study, subjects were rated by acquaintances on a semantic differential which contained an assertiveness factor. The correlations of the Rathus Assertiveness Scale scores with the five scales comprising the assertiveness factor were: boldness ( $r = .61$ ); outspokenness ( $r = .62$ ); assertiveness ( $r = .32$ ); aggressiveness ( $r = .54$ ); and confidence ( $r = .33$ ). Twenty-seven of the 30 Rathus Assertiveness Scale items were found to correlate significantly with total scale scores. Twenty-eight of the items correlated negatively with semantic differential ratings of "niceness" and six of these correlations were significant. This finding prompted the author to suggest that clients be made aware of the distinction between demanding to be treated fairly and expressions of nastiness. He also cautioned that clients must be prepared for possible negative reactions to their assertive attempts.

A series of studies have been conducted on another self-report measure of assertiveness, the College Self-Expression Scale. In the first of these, Galassi, DeLo, Galassi, and Bastien (1974) reported reliability and validity data for this 50-item scale. In each of six

samples of college students, males tended to achieve somewhat higher assertiveness scores than females. Test-retest correlation coefficients over a two-week interval for two college samples were .89 and .90. Construct validity was assessed via correlations with 24 scales of the Gough and Heilbrun Adjective Check List. Highly assertive students were described as expressive, spontaneous, well-defended, confident, and able to lead and influence others. Low scoring students, on the other hand, were described as having an inadequate and negative self-evaluation, feelings of inferiority, a tendency to be overly solicitous of emotional support from others, and excessive interpersonal anxiety. No significant correlation was found between assertiveness scores and the aggression scale. (Rathus had found a correlation between his measure of assertiveness and ratings of aggressiveness.) Also negative and significant correlations were found between assertiveness and the counseling readiness and unfavorable scales of the Adjective Checklist, suggesting poorer adjustment on the part of the unassertive students.

Galassi and Galassi (1974) presented evidence on the concurrent validity of the College Self-Expression Scale. The correlation between dormitory counselors' ratings of assertiveness and the assertiveness scores of residents was .33 ( $p < .005$ ). In another sample, students who sought personal adjustment counseling received significantly lower assertiveness scores than students selected at random or students seeking educational-vocational counseling. Later, Galassi and Galassi (1975) compared scores on their assertiveness scale with scores on the eight aggression-hostility scales of the Buss-Durkee Inventory. In

their sample of male and female college students, the only significant positive correlation found was between the assertiveness scale and the verbal aggressiveness scale for the females. In most instances, the shared variance between the scales was small and the authors concluded that the College Self-Expression Scale taps something other than aggressiveness.

The development of another self-report assertiveness measure, the Constriction Scale, was reported by Bates and Zimmerman (1971). Reliability coefficients (K-R 20 and Spearman Brown) ranged between .77 and .81 for samples of college men and women. Unassertive students tended to score higher on measures of deference and abasement and lower on measures of affiliation, dominance, autonomy, and exhibitionism. In addition, unassertive students also tended to have higher scores on neuroticism, fear, succorance, and counseling readiness (for men only). Assertive students had greater self-confidence and derived more satisfaction from environmental stimuli. There was some evidence that the test measures somewhat different components for men and women.

McFall and Lillesand (1971) constructed the Conflict Resolution Inventory as a measure of assertive refusal behavior. They presented an empirically derived list of 82 assertive refusal situations to a group of undergraduate students who indicated how much difficulty they would have in refusing the various unreasonable requests. On the basis of a global, self-report rating of assertiveness, the student sample was divided into an assertive and an unassertive group. The 35 items which best discriminated these two groups comprised the final form of the inventory. Reliability data were not presented but some evidence

of concurrent validity was seen in changes following assertiveness training. Treated groups of students showed increased assertiveness and decreased unassertiveness after brief treatment. The correlations between the Inventory and scores based on a role-played behavioral measure were .69 ( $p < .01$ ) at pretest and .63 ( $p < .01$ ) at posttest.

Lawrence (1970) reported the use of the Interpersonal Behavior Test as a criterion measure in a study on the effects of assertive training. Such training led to greater self-reported assertiveness. The Interpersonal Behavior Test was also used by Percell, Berwick, and Beigel (1974). These investigators found a relationship between assertiveness and self-acceptance in a sample of male psychiatric patients ( $r = .49$ ;  $p < .001$ ) and female psychiatric patients ( $r = .51$ ;  $p < .001$ ). For the female patients, a significant negative relationship between assertiveness and anxiety was found ( $r = -.88$ ;  $p < .001$ ). In addition, increased assertiveness following training as judged by behavioral ratings was accompanied by greater self-reported assertiveness on the Interpersonal Behavior Test for a sample of psychiatric outpatients.

The Wolpe-Lazarus Assertiveness Scale has been used in some studies. Eisler, Miller, and Hersen (1973), on the basis of overall ratings of assertiveness on a behavioral test, divided a sample of psychiatric patients into a high assertive and low assertive group. The patients in the high assertive group had significantly higher Wolpe-Lazarus scores. This finding was replicated in a later study (Eisler et al., 1975). In an investigation of components of the assertive training treatment package, however, Hersen, Eisler, Miller, Johnson, and Pinkston

(1973) failed to find treatment effects (as measured from a behavioral test) reflected by Wolpe-Lazarus scores. Other researchers (McFall & Marson, 1970) have found self-reports of assertiveness on the Wolpe-Lazarus to parallel behavioral gains. While the Hersen et al. (1973) study involved psychiatric patients, McFall and Marston (1970) assessed college students. It may be that differences in the populations sampled account for the differing results on the Wolpe-Lazarus Scale.

Morgan (1974) constructed a Social Fear Schedule (consisting of eight items from the Wolpe-Lang Fear Survey Schedule plus two additional items) and administered this along with the Rathus Assertiveness Schedule to a sample of male and female undergraduates. He found small correlations between the two measures for the total sample and for the separate sexes. The investigator observed, however, that some subjects scored in the highest quartile on each measure (i.e., high social fears and high assertiveness) and others scored in the lowest quartile on each (i.e., low fears and low assertiveness). He hypothesized that the second group (low on each measure) constituted persons who had not had the opportunity to learn assertive responses and that their deficit was based on faulty learning rather than on the inhibiting effects of anxiety. Concerning the first group (high on each measure) he suggested that these individuals behaved assertively, in spite of their fears, because of their expectation that such behavior would be reinforced. He concluded that therapeutic interventions must consider not only the level of social fear, but also the level of assertive skill and the nature of the social reinforcement.

Behavioral Measures. A number of studies have employed some sort

of behavioral task to assess assertiveness. Direct behavioral measurements have been used to identify the components of assertive responding, document treatment effects, and study transfer of training. Both role-played and in vivo tasks have been adopted.

McFall and Twentyman (1973) described the use of the Behavioral Role-Playing Assertion Test which consisted of nine standardized, pre-recorded situations. Subjects were asked to give the replies they would probably give in real-life situations. An example of one of the situations follows:

Narrator: Suppose you worked part-time in an office in the afternoon. At 4:31 one afternoon, as you were looking forward to going home and anticipating your evening out at a concert with some friends, your boss asks you if you would mind working overtime that night. What do you say? (McFall & Twentyman, 1973, p. 201).

These assertive refusal situations are rated on a 5-point scale ranging from 1 = unqualified acceptance to 5 = unqualified refusal. In their study the correlation of judges' ratings of responses on the behavioral test at pretreatment was .76 and at posttreatment, .96. In an earlier investigation with the behavioral test (McFall & Lillesand, 1971) the interjudge correlations were .92 and .95 for pre- and posttreatment ratings respectively. No data concerning the external validity of the Behavioral Role-Playing Assertion Test are provided.

Another behavioral measure, the Behavioral Assertiveness Test, was developed by Eisler, Miller, and Hersen (1973). This measure, consisting of 14 standard interpersonal situations, was designed to assess negative assertive skill. In the testing situation, a description of each scene is read over an intercom by the narrator in an adjoining room. At the end of the description, a female assistant, in the same

room as the subject, delivers a "prompt" to which the subject is asked to respond. An example of one of the situations follows:

Narrator: You have just come home from work, and as you settle down to read the newspaper you discover that your wife has cut out an important article in order to get a recipe that is on the back of it. You really like to read the whole newspaper. Role Model Wife: I just wanted to cut out a recipe before I forgot about it. (Eisler, Miller, & Hersen, 1973, p. 296).

Subjects' videotaped responses are subsequently rated for a variety of verbal and nonverbal components: duration of looking, duration of reply, latency of response, loudness of speech, fluency of speech, compliance content, content requesting new behavior, affect, and overall assertiveness. Interjudge agreement for compliance and affect were 100% and 99.3% respectively while correlations for the other measures ranged from .96 to .99. A group of psychiatric patients, divided at the median into highly assertive and unassertive groups were differentiated on five of the nine component measures. Assertive patients responded more quickly and louder, evidence less compliance and more affect, and more frequently requested that the interpersonal partner change her behavior. In addition, the assertive subjects attained significantly greater assertiveness scores on the Wolpe-Lazarus Assertiveness Test, a self-report measure. The Willoughby Personality Schedule, a measure of social anxiety, did not distinguish between the groups.

Eisler et al. (1975) partially replicated and extended this work with the construction of the Behavioral Assertiveness Test-Revised. This new measure was an attempt to assess positive or commendatory assertiveness as well as negative assertiveness. The 32 scenes comprising the test varied along three dimensions of situational context:

familiarity of interpersonal partner (familiar vs. unfamiliar), sex of interpersonal partner (male vs. female), and type of assertive response required (positive vs. negative). The combination of these variables produced eight types of scenes: male-positive-familiar; male-positive-unfamiliar; male-negative-familiar; male-negative-unfamiliar; female-positive-familiar; female-positive-unfamiliar; female-negative-familiar; and female-negative-unfamiliar. Like the earlier test, each of the scenes is presented via intercom by a narrator and an assistant (of the appropriate sex) delivers the prompt to which the subject is asked to respond. The test was administered to a sample of psychiatric patients and measures were obtained on five verbal and seven nonverbal components.

Results for situational context showed that positive and negative scenes elicited different nonverbal behaviors. On positive scenes, replies were shorter, there was less eye contact, less affect, less speech volume, shorter latencies, and lower ratings of overall assertiveness. With respect to sex of interpersonal partner, the subjects were more assertive with men on the negative scenes and more assertive with women on positive scenes. Overall, subjects were better able to be assertive with unfamiliar persons and were better able to express commendatory assertion to unfamiliar persons. Significant Sex X Type of assertive expression interactions were found for duration of reply, latency, and speech disturbances. Sex X Familiarity interactions were found for seven of the 12 component measures and for two measures for Familiarity X Type of assertive expression interactions. In comparing high and low assertive subjects, it was found that high assertive

subjects had significantly longer speech duration, spoke louder and with more affect, smiled less, and had more speech disruptions. On negative scenes, high assertive subjects manifested less compliance and requested behavior change more often than unassertive subjects. On positive scenes, high assertive subjects offered more praise to both men and women and offered spontaneous positive behavior more frequently. Interjudge agreement for the five measures of speech content, number of speech disturbances, and frequency of smiles was over 95% for all situational contexts. For the continuous measures, the correlations between the ratings of two judges were .94 or higher. The investigators interpreted their results as supporting a stimulus-specific interpretation of assertiveness, with the type and quality of response functionally related to such contextual features as type of situation, sex, and familiarity of the interpersonal partner. These effects were found on nonverbal as well as verbal content measures. They noted that individuals do not seem to be uniformly assertive in all situations and that when assessing patients for training, attention should be given to identifying classes of situations in which the patient evidences deficits. They also pointed out that, as with negative assertion, it is possible to differentiate assertive from unassertive subjects in situations requiring positive assertive responses.

For their treatment study, Bornstein, Bellack, and Hersen (In press) devised the Behavioral Assertiveness Test for Children as a measure of negative assertive ability. The test consists of nine scenes, five with a same-sex partner and four with an opposite-sex partner. The following is an example of a scene with a female partner:

Narrator: You're part of a small group in science class. Your group is trying to come up with an idea for a project to present to the class. You start to give your idea when Amy begins to tell hers also.

Prompt: "Hey, listen to my idea." (Bornstein et al., In press)

As with the other versions of the Behavioral Assertiveness Test, each scene is described by a narrator from an adjoining room via intercom and an assistant prompts the subject's response with the prearranged line. The subjects' responses were videotaped and rated for selected target behaviors: eye contact, loudness of speech, duration of speech, and requests for new behavior. For the continuous variables, the correlations between the ratings of two judges were in the mid .90s. For judgments of requests for new behavior, the percentage of agreements varied from 85% to 100%. Some evidence of the test-retest reliability of the Behavioral Assertiveness Test for Children was made possible by the multiple-baseline treatment strategy employed. In general, each targeted component behavior remained at a stable level until training for that particular behavior was applied. The investigators indicated a need for normative data on the components of assertiveness in children in order to give direction to future treatment studies. Such data are lacking for both positive and negative assertive skill.

While researchers have devoted little attention to the measurement of assertive behavior in children, other social skills have been investigated. Sherman and Farina (1974) found a positive relationship between the level of social adequacy exhibited by mother-son pairs. Highly socially competent mothers were more likely to have socially adequate sons than mothers whose social adequacy was judged to be poor. They suggested that parental models play an important role in children's

acquisition of social competence. Patterson (1964) factor analyzed referral and observation data in a clinic setting and identified three factors: withdrawal, aggression, and immaturity. Withdrawn children were shy, cooperative but passive, seldom smiled, and gave little energy to social relationships. Immature children were passive, overly conforming, unable to defend themselves, and had difficulty with their siblings. Excessive fighting was most characteristic of the aggressive children.

Physiological measures. Hersen and Bellack (In press) note that only one study, that of McFall and Marston (1970), has employed physiological measurement in the assessment of social skills in college students. Such measures have yet to be used in samples of psychiatric patients. McFall and Marston (1970) found that autonomic arousal, as measured by pulse rate, was significantly reduced at posttreatment for their combined experimental groups but not for their combined control groups. Hersen and Bellack (In press) pointed out that the lack of data on the physiological components of assertiveness in psychiatric patients is a serious omission since treatment must often be applied to all three of the response systems: the verbal, the motoric, and the autonomic. That such multichannel treatment interventions are frequently needed is demonstrated by the low intercorrelations of these response modalities. They point out that "it does not follow that once the motoric behavior is modified the verbal response (i.e., attitude) will automatically change. Frequently it will but at other times the verbal response must also undergo direct modification" (Hersen & Bellack, In press, p. 37). In other instances, as Wolpe (1973b) observed, a patient's

level of anxiety will have to be given explicit attention through efforts aimed at reducing autonomic arousal.

### Instigating Assertive Behavior--Experimental Evidence

Historically, a hallmark of the behavioral orientation has been the emphasis on the close relationship between assessment and therapeutic interventions. In fact, behavioral therapists have stressed that assessment should continue throughout the duration of the therapy. Although the present research is concerned with the assessment of assertive behavior, the following section on the modification of unassertive responding is presented as background material.

Despite the fact that social skills training and assertiveness training have only recently emerged, the experimental literature already contains a number of studies which reflect attempts to isolate effective treatment components. Although some researchers have compared relatively "macro-" treatment units (e.g., social skills training vs. brief psychotherapy), others have tried to assess the contributions of more discrete treatment elements (e.g., modeling, instructions, and practice). The studies to be reviewed have included both clinical and nonclinical subject samples and have employed both treatment and treatment-analogue strategies.

In an early study, Wagner (1968a) found that a group of psychiatric patients who were positively reinforced for verbal expressions of anger in a role-playing situation gave significantly more angry verbalizations at posttest than did a group that was punished for such responses or a control group that had discussed neutral topics. In a related experiment, Wagner (1968b) found that automated reinforcement was more effective in increasing anger expressiveness than behavior

rehearsal. No follow-up or investigation of generalization were reported.

Argyle, Bryant, and Trower (1974) compared the effectiveness of brief psychotherapy with social-skills training for persons with interpersonal problems. The social-skills training program was essentially didactic and employed role playing, role reversal, modeling, instructions, and homework assignments. At the end of treatment, both groups had significantly improved their level of social skills. At a 1-year follow-up, however, there was evidence that the psychotherapy group had deteriorated somewhat while the social-skills groups actually improved slightly. Social-skills training was judged the more efficient of the two procedures since it entailed fewer than half the number of therapy sessions.

Serber and Nelson (1971) reported the results of the use of systematic desensitization, assertive training, and a combination of the two in alleviating the distress of hospitalized schizophrenics. Treatment extended over six weeks and included up to 18 sessions. Of the 14 patients treated with assertive training, only two evidenced any benefits at the 6-month follow-up and these gains were reported to be very slight. While some showed increased assertiveness during the period of training, these improvements quickly disappeared after its termination. The authors concluded that both treatments were ineffective.

Somewhat more success in developing assertive behavior in a schizophrenic sample was reported by Weinman, Gelbart, Wallace, and Post (1972). The three treatment techniques employed were socio-

environmental therapy, systematic desensitization, and relaxation. The dependent measure for assertiveness was the Behavior in Critical Situations Scale which assessed behavior in four situations: affiliation, failure, disagreement, and default. At posttest, self-reported anxiety significantly decreased for all conditions and was not specific to therapeutic conditions. Only the socioenvironmental therapy led to improved assertiveness and this was true only for older patients.

Friedman (1971), in an analogue study, compared the efficacy of six treatments in developing assertive behavior. The treatments consisted of one 8- to 10-minute session and included: (a) modeling plus role-playing; (b) modeling; (c) directed role-playing; (d) improvised role-playing; (e) assertive script, or (f) nonassertive script. The subjects were 50 male and 51 female college students. Results showed that the subjects in the modeling plus role-playing group achieved the greatest increase in assertiveness and this group had the largest percentage of subjects achieving the criterion levels of assertiveness. These subjects were significantly more assertive than all others except the improvised role-playing subjects on the Sum Assertion measure and the modeling subjects on the criterion behaviors. Further, the modeling, directed role-playing, and improvised role-playing groups were significantly more assertive than the nonassertive script group. Finally, the assertive script group was more assertive than the nonassertive script group.

In a related series of studies, McFall and his colleagues also attempted to isolate the effective components of the assertive training treatment package (McFall & Lillesand, 1971; McFall & Marston, 1970;

McFall & Twentyman, 1973). In the first experiment, McFall and Marston (1970) compared two experimental groups (behavior rehearsal with and without feedback) to placebo treatment and assessment-only control groups. The subjects were self-referred college students who wanted to increase their assertive skill. Behavioral, self-report, and physiological measurements were obtained before and after brief training, and an in vivo assessment of generalization was made using a telephone sales pitch. The results for the behavioral role-playing data, self-reported anxiety, and pulse rate indicated that the combined experimental groups evidenced significantly greater increases in assertiveness than the combined control groups. On the test of generalization, the combined experimental groups were again found to be more assertive than the controls. Regarding the failure of feedback to enhance performance, the researchers reported that "it would be hasty to conclude . . . that feedback was of no real benefit. The feedback subjects tended to show the highest absolute change in performance on the behavioral measures after treatment. This was especially true of the telephone follow-up test" (p. 303). In the next study, McFall and Lillesand (1971) compared the effects of modeling under conditions of overt or covert response rehearsal with an assessment-placebo control. On a self-report measure, the two experimental groups showed significant increases on assertiveness and significant decreases on unassertiveness with the covert rehearsal group tending to show the most marked changes. The two experimental groups showed significant gains over the control group in role-played assessments of refusal behavior. Training effects also transferred to untrained scenes. Generalization effects were not

found on a telephone follow-up measure of refusal behavior, although both experimental groups achieved higher refusal scores on an extended interaction test. The tendency for covert rehearsal to be superior to overt rehearsal was explained in terms of the inhibiting effect of the anxiety aroused in the overt condition.

In a series of four experiments, McFall and Twentyman (1973) compared the relative effectiveness of various training components. Rehearsal and coaching alone were effective techniques but modeling added little. Learning transferred to untrained behavioral scenes, but there was only limited evidence of generalization on unobtrusive, extralaboratory measures. No differences were found between three rehearsal modes: overt, covert, or a combination of the two. Despite the unexpected finding that symbolic modeling tended to be ineffective, the investigators suggested that in actual clinical applications modeling be retained since it did not impede the acquisition of assertiveness and since some clients might find it helpful.

Rathus (1973a) employed videotaped models and directed practice in nine types of assertive responses with a sample of college women. Treatment consisted of seven 1-hour sessions and homework assignments to engage in assertive exercises. In comparison to placebo treatment and untreated control groups, results for both the self-report and behavioral tests indicated the superiority of the experimental condition. No differences were found on self-report measures of social fears.

Young, Rimm, and Kennedy (1973) conducted an analogue study of behavior rehearsal therapy and compared the effectiveness of modeling with and without reinforcement to placebo therapy and no-treatment

control groups. Forty female undergraduates received two 30-minute treatment sessions. The results showed that modeling significantly increased the performance of the two experimental groups but, contrary to expectations, the addition of reinforcement to modeling did not enhance learning. Transfer of training to untreated behavioral role-playing scenes was meager. Modeling plus reinforcement led to gains in self-reported assertiveness on one of two measures. With respect to their failure to find generalization on the behavioral test, they suggested that "the results appear to lend support to the stimulus specific conception of assertiveness. . ." (p. 319).

Eisler, Hersen, and Miller (1973), using a sample of male psychiatric patients, studied three groups: a modeling group, a behavior rehearsal without feedback group, and a test-retest control group. They found that the modeling group was more assertive on five of eight behavioral components: duration of reply, requests for new behavior, affect, loudness, and overall assertiveness. The behavior rehearsal and test-retest groups did not change significantly on any of the measures. The investigators noted that in contrast to the findings of McFall and Marston (1970), behavior rehearsal without feedback did not lead to increased assertiveness. Eisler, Hersen, and Miller (1973) suggested that the subjects in the latter study were instructed to improve their performance by focusing on their tone of voice, inflection, affect, etc., and that these instructions may have led to improvements.

In an attempt to resolve this disparity, Hersen, Eisler, Miller, Johnson, and Pinkston (1973) assigned male psychiatric patients to one of five conditions: test-retest, practice-control, instructions,

modeling, and modeling plus instructions. Training was administered in four sessions. The modeling plus instructions combination was the most potent training condition, leading to significant changes on five of seven behavioral components: duration of looking, duration of reply, requests for new behavior, affect, and overall assertiveness. The loudness component was most affected by instructions and modeling produced the greatest influence on compliance content. The researchers concluded that practice alone in the absence of instructions is not likely to overcome assertiveness deficits. The changes seen on the behavioral measures, however, were not reflected on patients' self-reports of assertiveness.

Eisler, Hersen, and Miller (1974) described the use of instructions and performance feedback in increasing the assertive behavior of two psychiatric patients: one an alcoholic and another who evidenced uncontrolled outbursts of rage. Employing the single-case, multiple-baseline experimental design, the authors sequentially shaped components of assertive behavior and demonstrated transfer of training to problem relevant situations. Finding that some behaviors, such as requests for new behavior, increased concomitantly with others (e.g., speech duration) before training had been applied to them, they concluded that the components of assertiveness were not entirely independent of one another. Interestingly, even though the patient with uncontrollable outbursts of rage could hardly be described as "inhibited," assertive training was apparently effective since no outbursts occurred during the 9-month follow-up period. It would seem that the training had equipped him with response alternatives which made rage reactions unnecessary.

Kazdin (1974) studied the effects of covert modeling with and without model reinforcement. Subjects in the covert modeling plus reinforcement group were asked to imagine the assertive situation, the model's response and favorable consequences. In the covert modeling condition, subjects were asked to imagine only the assertive situation and the model's response without any consequences. The no-model control subjects were asked to imagine just the assertive situation. The delayed treatment controls received only the pre- and posttest measures. Both self-report (Conflict Resolution Inventory, the Action Situation Inventory, the Wolpe-Lazarus Assertive Training Scale, and the Willoughby Scale) and behavioral assessments (a behavioral role-playing test similar to McFall and Marston's [1970] ) were made. The covert modeling plus reinforcement subjects evidenced the greatest gains on the trained behavioral scenes, but the modeling alone subjects fared equally well on a parallel set of untrained scenes. Subjects in the three treatment groups all improved in self-reported assertiveness although for the no-model subjects these gains were not matched by increases on the role playing test. At 2-week follow-up, refusal rates for an unobtrusive telephone request did not differentiate among the groups. The author concluded that the superiority of the covert modeling plus reinforcement condition was only partially confirmed.

In a related study, Kazdin (1975) investigated the effects of the number of models imagined (one vs. several) and the effects of imagined model reinforcement (positive consequences vs. no consequences) on the development of assertive behavior. In a control condition, subjects imagined a nonassertive model with no consequences following behavior.

The investigator also assessed the subjects' imagery during treatment. The results revealed that (a) greater increases in assertiveness were obtained when subjects imagined multiple rather than single models; (b) imagining favorable responses following assertive behavior led to greater modeling effects; (c) the covert modeling scenes led to consistently greater gains in assertiveness than the no-assertive model condition; (d) gains in covert modeling transferred to novel situations and were maintained at the 4-month follow-up; (e) assessment of the subjects' imagery revealed small but systematic deviations from intended imagery, and (f) favorable model consequences tended to lead to greater increases in assertiveness than did multiple models.

Thorpe (1975) compared the efficacy of four treatments (systematic desensitization, modeling and behavioral rehearsal, self-instructional training, and placebo therapy) on the instigation of assertive refusal behavior. A variety of self-report, behavioral, and physiological measures were used. Treatment was given each of the 32 college student subjects in four, 1-hour sessions. In general, on the self-report and behavioral measures, the self-instructional therapy group showed the most significant gains. Where treatment effects were shown, the groups had the same rank-ordering from most to least effective: self-instructional training, modeling and behavioral rehearsal, systematic desensitization, and placebo control. The modeling plus behavior rehearsal never produced a gain which was not at least matched by self-instructional training and the researcher concluded that the latter was the most successful of the techniques compared.

Two studies have been conducted to study explicitly the generali-

ization effects of assertive training. In the first, Hersen, Eisler, and Miller (1974) assigned 50 male psychiatric patients to one of five conditions: (a) test-retest; (b) practice-control; (c) practice control with generalization instructions; (d) modeling plus coaching, and (e) modeling plus coaching with additional generalization instructions. Training was administered to the two modeling groups over two days while the practice groups were given four sessions over the same period. Five scenes from the Behavioral Assertiveness Test served as training scenes and five others were administered pre- and posttest and served as the generalization scenes. An in vivo generalization task required that subjects request a promised allotment of canteen chits after they were "short-changed" immediately following the last session. The modeling and instructions groups alone showed significant training effects on seven of the eight behavioral components: duration of looking, duration of reply, loudness, compliance content, requests for new behavior, affect, and overall assertiveness. The practice-control and test-retest groups showed no significant changes. On the five generalization scenes, the modeling plus instructions groups evidenced significant changes on only five of the eight behavioral components: duration of looking, duration of reply, loudness, affect, and overall assertiveness. Contrary to expectations, however, the addition of generalization instructions to the modeling with coaching did not facilitate transfer of training. In fact, the generalization instructions may have had an inhibitory effect. No group differences were found on the in vivo generalization measure. The researchers noted that generalization on the behavioral test failed to occur on two of the most

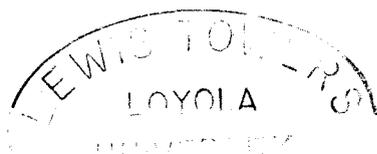
complex components: compliance content and requests for new behavior. In addition, they emphasized that generalization cannot be expected to occur routinely but must be planned for during training. They suggested that perhaps clients should be taught to discriminate occasions for which assertive responding is appropriate.

Using single-case, multiple-baseline experimental designs, Bellack, Hersen, and Turner (1976) studied the transfer of training effects of assertiveness training for three chronic schizophrenic patients. Training, which consisted of instructions, feedback, and modeling, was applied sequentially to behavioral components which had been identified as deficient during baseline, role-played assessments. The patients, two females and one male, received from 25 to 31 training sessions and were tested on two sets of generalization scenes, a familiar and a novel set. Two situational components were varied: type of assertiveness and sex of interpersonal partner. For the most part, training effects persisted through the 8- and 10-week follow-ups for the two female patients and were evident on the untrained and novel generalization measures. Requests for new behavior, a verbal component, did not reflect generalization effects, however. The male patient was hospitalized and was not available for follow-up. The researchers pointed out that longer follow-up periods need to be studied and that generalization needs to be assessed in real-life situations, not just analogue ones. They also noted a need for more normative data on the social behavior of psychiatric patients.

Only one study has yet been undertaken to evaluate assertiveness training in children. With a single-case, multiple-baseline strategy,

Bornstein et al. (In press) administered a treatment package consisting of instructions, behavioral rehearsal, modeling, and feedback to four children who had been identified as unassertive by their teachers and by preliminary baseline assessment on the Behavioral Assertiveness Test for Children. The targeted responses for the three girls were eye contact, loudness of speech, and requests for new behavior; for the boy, eye contact, duration of speech, and requests for new behavior. Training sessions were held for 15 to 30 minutes, three times per week for three weeks and targeted responses were trained sequentially. Results showed consistent increases for all three children and responses improved over baseline levels only after treatment was applied. Ratings of overall assertiveness also increased, but dramatically so after training for requests for new behavior was instituted. Improved performance levels were found on untrained generalization scenes and at the 2- and 4-week follow-up assessments. The investigators noted the need to establish the relationship of deficits in assertiveness to real-life functioning and the need for normative data for selecting target behaviors and identifying unassertive children. They also called for the construction of a standardized screening device to differentiate high and low assertive children.

Goldsmith and McFall (1975) empirically generated criteria for successful performance and a set of interpersonal situations relevant to a social-skills treatment program. The social-skills program encompassed a wide variety of situations and interactions and was not limited to assertiveness. The situational contexts included: dating, making friends, having job interviews, relating to authorities, relating to



service personnel, and interacting with persons who are seen as more intelligent, attractive, or physically different. The social skills included: initiating or terminating conversations, self-disclosure, handling silences, dealing with rejection, and assertiveness. This social-skills curriculum was incorporated into a behavioral treatment package and was compared with a pseudo-therapy treatment and a no-treatment control group. Results favored the social-skills training technique on a variety of self-report and behavioral measures. Evidence of generalization was found on untrained behavioral scenes despite the brevity of the treatment (three hours within a five-day period). They noted that treatment was equally effective for psychotic, neurotic, and character disorder patients but observed that longer term follow-up and in vivo assessment of generalization are needed.

### Clinical Applications of Assertive Training

A number of writers have discussed issues in the clinical application of assertive training and present suggestions and practical guidelines (Alberti & Emmons, 1974; Argyle, Trower, & Bryand, 1974; Fensterheim, 1972a, 1972b; Hersen & Bellack, 1976; Hewes, 1975; Lazarus, 1971; Ludwig & Lazarus, 1972; Rathus & Rupert, 1973; Rimm & Masters, 1974; Wolpe, 1973a, 1973b). Although most work to date involves the application of assertive training in individual therapy, a few studies have evaluated the effectiveness of group therapy approaches.

Lomont, Gilner, Spector, and Skinner (1969) reported a comparison of group assertive training to group insight therapy. Twelve psychiatric inpatients were assigned to one of two groups which met for 1.5 hours daily, five days per week, for six weeks. Patients were selected who had problems with social anxiety. Assertion training included role-playing, outside homework assignments, modeling, instructions, feedback, and group discussion. Chi-square analysis for the number of patients showing improvement in the two groups from pre- to posttest was significant ( $p < .025$ ) with more assertive training patients showing gains. While the assertion group showed greater decreases on each of the MMPI clinical scales and greater mean total decreases on all clinical scales, the differences were not significant. The assertion group showed significant pre- to postchanges on the D and Pt scales while no changes were found for the insight group. The groups showed no significant changes, nor did they differ from one another significantly at posttest, on either the dominance-submission or the love-hate scales

of the Leary Interpersonal Checklist.

Group assertive training and a placebo group treatment were compared by Rimm, Hill, Brown, and Stuart (1974) for the amelioration of inappropriate aggression. The researchers noted that most investigations of assertiveness have focused on socially inhibited or inept subjects, not aggressive ones. Their sample included seven experimental and six control college students who felt they had difficulty controlling their tempers. Eight hours of assertive training or placebo discussion were provided over three weeks. Behavior rehearsal was the main technique employed in the assertion group. At posttreatment assessment, assertive training subjects were found to be significantly more assertive and to exhibit more comfort on a behavioral role-playing test. No difference was found with respect to self-rated confidence, but assertive training subjects rated themselves as less "uptight" and less angry. The groups did not differ on the Lawrence Assertiveness Inventory. The investigators suggested that assertive training was effective since it had provided subjects with alternatives to inappropriate anger.

A combination of thought stopping and covert assertion was used in the treatment of snake phobia by Rimm, Saunders, and Westel (1975). Female college students (selected on the basis of their response to the snake item of the Fear Survey Schedule and on their behavior in an avoidance test) were given one of three treatments: a combination of thought stopping and covert assertion, placebo discussion, or test-retest assessments. Results at posttest on the Behavioral Avoidance Test showed significant improvement for the experimental group compared

with the untreated controls. At a 2-week follow-up, the improvement of the experimental group was significantly greater than either of the control groups. Experimental subjects rated themselves as less fearful on the Fear Thermometer than the discussion control subjects at posttest, and at the 2-week follow-up reported less fear than either of the control groups. The researchers pointed out, however, that their design did not permit an analysis of the contributions of the combined treatment components (thought stopping and covert assertion) in the improvement of the experimental subjects.

MacPherson (1972) reported the use of assertive training in the treatment of a woman with anxiety and hysterical globus. Treatment was administered to two classes of behaviors: assertive behaviors towards her mother were encouraged and aggressive responses toward her husband were discouraged. Treatment took the following form: 10 situations with her mother were selected and for each an assertive and a nonassertive response was formulated. Upon the presentation of each scene in role-played interactions, she was to give the response with which she felt most comfortable. The nonassertive alternative resulted in the administration of an electric shock, while the choice of the assertive response resulted in verbal reinforcement. For the husband scenes the contingencies were reversed. Treatment consisted of 36 visits over a 6-month period. The patient maintained her improvements through the 1- and 2.5-year follow-ups (i.e., weight gain of 15 lbs. and improved relationships with her husband and her mother).

Others also have used assertive training for difficulties related to domestic problems. Eisler, Miller, Hersen, and Alford (1974) gave

assertive training to three passive-avoidance husbands and monitored marital interactions on a pre- and posttreatment basis. Behaviors targeted for modification were selected on the basis of initial videotaped interactions between spouses. The first husband received training on relatively unstructured scenes related to marital interactions. In the second case, the husband received assertive training on relatively structured interpersonal scenes which were unrelated to his marital interactions. The third husband was trained on structured scenes specifically related to areas of marital conflict. The results showed that training effects generalized to marital interactions and that generalization was facilitated where the training scenes were related to areas of marital conflict. The assertive changes in the first and third husbands led to changes in the patterns of marital interactions at posttest.

In addition to the reported clinical success of assertive training in controlled experimental applications, there are numerous uncontrolled case reports. Either alone or in combination with other treatments, assertive training has been used for a variety of disorders. A list includes: crying spells (Rimm, 1967); urinary retention (Barnard, Flesher, & Steinbook, 1966); schizophrenia (Bloomfield, 1973); homosexual pedophilia (Edwards, 1972); marital communication skill (Fensterheim, 1972c); anxiety (Goldstein, Serber, & Piaget, 1970); social withdrawal (Katz, 1971); hallucinations (Nydegger, 1972); self-mutilation (Stevenson & Wolpe, 1960); and aggressive outbursts (Wallace, Teigen, Liberman, & Baker, 1973). In addition, Seligman (1975) believes that assertiveness could be useful for overcoming learned helplessness and depression.

### Role-Taking Ability

A number of researchers have investigated the cognitive components of social skill and have posited role-taking ability as an important component of social interaction. Weinstein (1969) viewed role-taking as an ability with instrumental value to the extent that it enables the person "to manipulate the response of others" (p. 755). This conception of social skill from an instrumental perspective is similar to that of those who have emphasized assertiveness as an ability which enables one to have more control in social situations.

Many of those who have studied social skill in children have relied heavily on Piaget's concepts of egocentrism and decentering. Selman (1972) has outlined the developmental stages through which children progress in acquiring role-taking ability. At the most primitive level, the child does not differentiate his own thoughts and perceptions from those of others. However, as he matures, the child comes to realize that there are alternatives to his own point of view. Eventually, he is able to view himself from the point of view of another person. This ability to view objects and events from more than one perspective has been labeled "decentering" and it is relevant to the perception of both social and impersonal phenomena.

Feffer and his colleagues (Feffer, 1959; Feffer & Gourevitch, 1960; Feffer & Suchotliff, 1966; Schnall & Feffer, Note 1) have developed a measure of decentering skill, the Role-Taking Task. Schnall and Feffer (Note 1) pointed out that this measure is based on a Piagetian conception of cognitive development in which decentering is an important element of

mature perception. The procedure requires that the child tell a story about a picture and then retell it from the point of view of each of the characters. They explained that the task is:

evaluated in terms of the degree to which the subject is able to shift from his initial orientation in refocusing upon his actors from different roles, while at the same time maintaining continuity between his various versions of the initial story. It is assumed that in successful role taking the individual is evidencing a type of decentering that is simultaneously coordinated with previous and anticipated focusings. . . . These general considerations serve as the basis for the specific categories whereby decentering activity is evaluated. These (20) categories are ordered in terms of the degree to which an increasing number of aspects of the situation are simultaneously considered or coordinated from more than one point of view. (Schnall & Feffer, Note 1, pp. 9-10)

Feffer and Gourevitch (1960) and Feffer and Suchotliff (1966) have found that decentering ability, as measured by the Role-Taking Task, is related to developmental level, cognitive maturity, and a measure of effective social interaction. This task was employed in the present investigation in order to determine whether or not role-taking ability is related to assertive skill in boys.

### Statement of Research Purpose

To date, there has been little research on the assertive behavior of children and it appears that only two such reports are available (Bornstein et al., In press; Patterson, 1972). The accumulating evidence reviewed here, however, indicates that social skill is an important aspect of successful adaptation in adult life. The present investigation was undertaken to study the assertive behavior of boys and examine the relationship of boys' assertiveness to several cognitive and social variables. In view of the success of Hersen and his colleagues (Eisler, Miller, & Hersen, 1973; Eisler et al., 1975; Hersen, Bellack, & Turner, Note 2) in developing a laboratory analogue of assertive responding in adults, a similar test was devised for this study.

The present research, which is exploratory in nature, examined the effects of age, scene valence (i.e., positive versus negative) and level of assertive skill (i.e., high assertive versus low assertive skill) on the response components of elementary school boys. The verbal and non-verbal components used here are the ones that Hersen and his collaborators have found useful in previous research. In this study, subjects were videotaped as they gave their role-played responses in positive and negative standard analogue situations. Both adult and peer prompters were employed to facilitate subjects' responses in the analogue situations. Videotapes of subjects' responses were rated for specified behavioral components and for assertiveness (overall assertiveness, positive assertiveness, and negative assertiveness). In addition, IQ scores, a measure of role-taking skill, self-reports of assertiveness, and teacher ratings

of assertive and other social behaviors were obtained. The questions of interest were:

- 1) Can behavioral components be identified which differentiate high- and low-assertive boys in positive and negative social contexts? If so, how do these components relate to age level? The identification of such components would give therapists an empirical basis for selecting relevant behavioral targets during the assessment and modification of boys' assertive responses.
- 2) What is the extent of agreement between behavioral and self-report assessments of assertiveness? Are these methods interchangeable or do they lead to differing estimates of social skill? To answer these questions, subjects completed a self-report assertiveness test which closely paralleled the stimuli used in the behavioral assessment.
- 3) Although role playing is a frequently used therapeutic technique (Boies, 1972) and although it may be a valid diagnostic tool for adults (Kreitler & Kreitler, 1968) its concurrent validity as a measure of assertiveness for children remains to be demonstrated. Therefore, how closely related are teachers' ratings of assertiveness and judgments derived from role-played interactions?
- 4) What is the nature of the relationship between assertiveness and such cognitive variables as IQ and role-taking skill? How is assertiveness related to other social behaviors, such as interpersonal sensitivity, aggressive behavior, withdrawn

behavior, passive-aggressive behavior, and prosocial behavior? Answers to these questions will help to shed light on the construct of assertiveness in boys.

## METHOD

### Subjects

Three groups of 20 boys were selected at random from the class rolls of the Falk Elementary School. The Falk School is privately owned by the University of Pittsburgh and is administered by the School of Education. The Falk student body, which is racially and ethnically diverse, is drawn from three sources: from local economically underprivileged families, from families of University of Pittsburgh faculty and staff, and from a pool of local applicants who exhibited exceptional academic potential. All subjects were volunteers and all who were asked agreed to participate in the study.

The youngest group of subjects consisted of third and fourth graders; the intermediate group, of fifth and sixth graders; and the eldest group, of seventh and eighth graders.

In order to determine whether previous exposure to the behavioral assessment influenced self-reports of assertiveness, 20 other boys who had no experience with the behavioral measure also completed the self-report test. These subjects were also randomly selected from the class rolls at the Falk School.

### Measures

Behavioral Assertiveness Test for Boys. An item pool of 50 scenes was written, 25 of which were designed to elicit positive assertive responses and 25 to elicit negative assertive responses. Ten elementary school teachers from the Sunset Park School in Mt. Prospect, Illinois

were asked to rate each scene on a 5-point scale according to how common they thought it would be in the experience of elementary school boys. This item pool is provided in Appendix A along with the instructions for the teachers' ratings. The means and standard deviations of the teachers' ratings are presented in Table 1. The 10 positive and the 10 negative scenes with the highest average teacher ratings were selected to comprise the Behavioral Assertiveness Test for Boys and were presented to the subjects with the assistance of an adult prompter. From the remaining items, the two positive and the two negative scenes with the highest average teacher ratings were selected and were presented to the subjects with the help of a child prompter.

The units of analysis for the responses to the behavioral assertiveness test were the behavioral components identified by Hersen and his colleagues (Eisler, Miller, & Hersen, 1973; Eisler et al., 1975).

These include:

1. Nonverbal-content Behaviors

a) Ratio of Eye Contact to Duration of Response:

This is computed by dividing the length of time in seconds that the subject looked at his interpersonal partner by the time in seconds from the delivery of the prompt to the termination of the response.

b) Smiles: Smiles were recorded on an occurrence or non-occurrence basis for each positive scene from the delivery of the prompt to the termination of the response. Smiles were not scored on negative scenes.

c) Duration of Reply: This is the time in seconds that the

Table 1

Means and Standard Deviations for the Teachers'  
Ratings of 50 Scenes for the  
Behavioral Assertiveness Test for Boys

Positive Scenes <sup>1</sup>			Negative Scenes		
Item	<u>M</u>	<u>SD</u>	Item	<u>M</u>	<u>SD</u>
1*	4.7	0.48	1*	4.0	1.41
2*	3.9	1.28	2	2.3	1.25
3	1.9	0.99	3**	3.2	1.14
4	3.0	1.56	4	2.3	1.25
5	2.8	1.13	5*	3.6	1.27
6*	3.6	1.26	6	2.5	1.51
7*	4.4	0.84	7*	3.2	1.31
8*	4.3	0.82	8*	3.6	1.51
9	2.6	0.96	9	1.9	0.99
10**	3.3	1.50	10*	4.1	1.10
11*	3.3	1.25	11**	3.2	1.23
12**	3.3	1.56	12	1.8	0.92
13*	4.0	1.05	13	1.8	1.03
14*	3.5	1.27	14	3.1	1.10
15	1.9	0.99	15	2.6	1.17
16	3.1	1.28	16*	4.1	1.28
17	1.7	1.16	17	2.6	1.51
18	3.1	1.37	18	3.1	1.10
19*	3.6	0.84	19*	4.7	0.48
20	2.7	1.06	20	2.2	1.13
21	2.6	0.96	21*	4.0	1.41
22*	4.1	0.99	22*	3.7	0.95
23	2.4	1.07	23*	3.4	1.07
24	2.6	0.96	24	2.5	1.35
25	3.2	1.03	25	2.4	1.26

<sup>1</sup>A complete list of the scenes is provided in Appendix A.

\*Selected for use in the Behavioral Assertiveness Test with the adult prompt.

\*\*Selected for use in the Behavioral Assertiveness Test with the child prompt.

subject spoke to the interpersonal partner. If the subject failed to respond within 60 seconds the next scene was presented.

- d) Number of Words: This is the number of words that the subject spoke after the delivery of the prompt.
  - e) Latency of Response: This is the time in seconds from the end of the prompt until the subject began his reply.
  - f) Affect: The subject's affect was scored on a 5-point scale with 1 indicating a dull-monotone and 5 representing a full, lively, and appropriate inflection.
  - g) Ratio of Speech Disturbances to Duration of Speech: The frequency of speech disturbances including pauses, stutters, and expletives such as "ah," "oh," and "um," were recorded for each scene and this number was divided by the duration of the reply in seconds.
  - h) Gestures: Gestures (such as shaking the head or wagging a finger) were recorded on an occurrence or nonoccurrence basis for each negative scene from the delivery of the prompt to the termination of the response.
2. Negative Verbal Content (scored on negative scenes)
- a) Compliance: Verbal content indicating unassertive compliance with an unpleasant situation was rated on a dichotomous occurrence or nonoccurrence basis for each scene. Compliance was scored if the subject did not resist his interpersonal partner's position (e.g., if he let his partner turn on an unwanted T.V. program, or if he agreed to let him

cut in line in front of him).

- b) Requests for New Behavior: Verbal content requesting that the interpersonal partner change his behavior was scored on a dichotomous occurrence or nonoccurrence basis for each scene. To receive a score, a response had to evidence more than mere noncomplacence. The subject had to make an explicit request that his interpersonal partner change his behavior (e.g., he had to ask his partner to go to the end of the line or ask him to put on the preferred T.V. program again).

3. Positive Verbal Content (scored on positive scenes)

- a) Regard: This was scored when the subject expressed approval, admiration, caring, affection, or when the subject was complimentary toward his partner (e.g., if he expressed concern over his playmate's injury or congratulated his teammate on a fine play). Regard was scored on an occurrence or nonoccurrence basis for each scene.
- b) Spontaneous Positive Behavior: This category was scored on an occurrence or nonoccurrence basis. It is defined as verbal content indicating that the subject had volunteered to perform some positive act for his partner (e.g., he offered to buy an ice cream cone for his teammate who scored the touchdown).
- c) Appreciation: This was also scored on a dichotomous occurrence or nonoccurrence basis for each scene. It was recorded when the subject expressed gratitude toward his partner or

if the subject agreed with praise given to him.

#### 4. Assertiveness Ratings

Each of the subjects' role-played responses to each scene was globally rated on a 5-point scale of assertiveness with 1 indicating a very unassertive response and 5 indicating a very assertive response. From these ratings, three kinds of assertiveness scores were calculated. The overall assertiveness score consisted of the arithmetic average of the assertiveness ratings for all of a subject's scenes (both positive and negative). The positive assertiveness score was the arithmetic average of the assertiveness ratings for the subject's positive scenes. A subject's negative assertiveness score was the arithmetic average of the ratings for his negative scenes.

Two pairs of raters were used to score the subjects' responses on the Behavioral Assertiveness Test for Boys. One pair assigned scores for the verbal and nonverbal response components and the second pair made the ratings of overall assertiveness.

The first pair consisted of two female undergraduate psychology majors at the University of Pittsburgh who had registered for an independent study course. Their training as raters was conducted in a 1-hour session with the experimenter. During this hour, they reviewed the verbal and nonverbal response classes defined in the preceding section and practiced scoring hypothetical responses for verbal content.

Each of the raters scored the responses of 40 subjects and the 20 overlapping sets of ratings were used to assess interrater agreement.

Pearson product-moment correlation coefficients were computed between the two sets of ratings for the interval scale measures (latency, speech duration, affect, and ratio of speech disturbances to speech duration) and these values are reported in Table 2. The coefficients ranged from .72 to .99 and indicated acceptable levels of agreement to the experimenter. In view of this, subjects were assigned scores by only one of the raters and these scores were used in all subsequent analyses.

For each of the dichotomous variables (smiles, gestures, compliance, requests, regard, appreciation, and spontaneous positive behavior) two percentage agreement values are reported in Table 2 (Hersen & Barlow, 1976). Percentages of agreement for occurrences varied between 64% and 98%. For occurrences plus nonoccurrences, the percentage agreement values ranged between 95% and 99%. As for the interval scale variables, these indices indicated acceptable levels of interrater agreement to the experimenter, and therefore the scores for each subject were assigned by only one rater.

A second set of judges rated the subjects' scenes for overall assertiveness. The first of these judges was a male undergraduate psychology major at the University of Pittsburgh who had also registered for an independent study course. The second was a male graduate student in clinical psychology who had had previous experience in ratings of this kind. The judges made their ratings after having viewed a training tape which portrayed the responses of children at various levels of assertive skill. The introduction to this training tape is provided in Appendix B. Definitions of positive and negative assertive skill, which

Table 2  
Interrater Agreement  
for the  
Behavioral Response Components,  
Role-taking Task Scores, and Overall Assertiveness

Measures	$\underline{r^*}$	% Agreement		
		R <sup>1</sup>	R <sup>2</sup>	R <sup>3</sup>
Latency	.98			
Speech Duration	.99			
Number of Words	.99			
Ratio of Eye Contact to Speech Duration	.96			
Affect	.85			
Ratio of Speech Disturbances to Speech Duration	.72			
Role-taking Task	.81			
Smiles		86	95	
Gestures		64	99	
Compliance		78	97	
Requests		94	99	
Regard		93	98	
Appreciation		98	99	
Spontaneous Positive Behavior		92	99	
Overall Assertiveness				86

\*Pearson product-moment correlation coefficient ( $N = 20$ ).

<sup>1</sup>Percentage of agreements for occurrences.

<sup>2</sup>Percentage of agreements for occurrences and nonoccurrences.

<sup>3</sup>An agreement was recorded when the scores of the two raters differed by no more than one point on this 1 to 5 scale.

the judges also read before making their ratings, are presented in Appendix C.

After the judges had rated the responses of 20 subjects, a percentage agreement score was computed between their ratings. In deriving this value, an agreement was recorded for a particular scene when the scores of the two judges differed by no more than 1 point on the 1- to 5-point scale of overall assertiveness. The percentage of agreement was defined as the number of agreements divided by the number of agreements plus disagreements multiplied by 100. Computed in this way, the judges agreed on 86% of their ratings as presented in Table 2. Since this was considered an acceptable level of interrater agreement by the experimenter, only one judge (the undergraduate rater) rated the scenes of the remaining 40 subjects and only his scores were used in subsequent statistical analyses for the entire sample of 60 subjects. This judge was not familiar with the scoring categories for the behavioral components.

Role-taking Task. Each of the 60 subjects who participated in the Behavioral Assertiveness Test for Boys was also assessed on the Role-taking Task (Schnall & Feffer, Note 1). For this measure, the subjects were asked to tell a story about a TAT-like picture. After giving an initial story, the subjects were instructed to retell the story from the point of view of each of the characters. The instructions for this task may be found in Appendix D. The subjects' responses were audiotaped and later transcribed for scoring. The stimulus picture for the stories was taken from an anthology of the cinema and depicts a scene from a "Blondie" movie. In the picture, Dagwood is holding a very large dog on a

chain, apparently restraining him so that he will not attack the much smaller dog held by his son. Blondie is standing between them surveying the action.

Each of the 60 stories was scored by two raters according to the criteria developed by Schnall and Feffer (Note 1). The first rater was a female clinical psychologist with several years experience in work with children. The second was the experimenter. Both raters were blind with respect to the identity of the subjects. The Pearson product-moment correlation coefficient between these two sets of ratings is .81 (as reported in Table 2). The average of the two sets of ratings was computed for each subject's story and was used as his Role-taking Task score in subsequent analyses.

Teacher ratings of assertiveness and other social behaviors. The homeroom teachers of each of the subjects who participated in the behavioral assessment were asked to read definitions of positive and negative assertive skill and rate each child on a 100-point scale for each type of behavior (see Appendix E). These are modifications of similar scales developed by McFall and Lillesand (1971) for their Conflict Resolution Inventory. Likewise, these teachers rated each child on the Fels Sensitiveness to Others Scale (Richards & Simons, 1941). On this measure, anchor descriptions of behaviors are placed at equal intervals along the scale, although teachers are asked to assign their ratings at any point on this 100 mm. line. Scores range from 0 to 100 on this scale (see Appendix F). Finally, teachers rated their students on the Pittsburgh Adjustment Survey Scales (Ross, Lacey, & Parton, 1965; see Appendix G) which yield scores on four dimensions: aggressive behavior,

withdrawn behavior, passive-aggressive behavior, and prosocial behavior. For each of the behavioral descriptions comprising this survey, teachers rated each subject on a 3-point scale (0 = not descriptive, 1 = somewhat descriptive, 2 = definitely descriptive). Ross, Lacey, and Parton (1965) found no developmental changes over the 6- to 12-year old range of their normative sample on these scales.

IQ Scores. Stanford Binet-LM IQ scores were available from school records for 42 of the 60 subjects who participated in the behavioral assessment.

Self-Report Assertiveness Test for Boys. For the 20 scenes used in the behavioral test, a series of response alternatives was written by the investigator and an assistant. The investigator believed that these alternatives had face validity and represented statements that boys might say. The response alternatives, together with the scene descriptions, comprised the self-report version. For the 10 positive scenes, the alternatives expressed regard, appreciation, an offer of spontaneous positive behavior, an irrelevancy, or no response. For the 10 negative scenes, the following alternatives were available: noncompliance, aggression, request for new behavior, compliance, or no response. On this test, provided in Appendix H, the subjects were asked to check as many of the statements for each scene as they thought they might use in a real-life situation.

An assertiveness score for both positive and negative scenes was computed. A subject's assertiveness score for each positive scene (scores can range between 0 and 3) depended on whether he endorsed the expression of regard and/or appreciation and/or the offer of spontaneous

positive behavior. If he endorsed the "wouldn't say anything" or the irrelevant alternatives, his score for that scene was 0 even if other alternatives were checked. For each negative scene, a subject's assertiveness score was a maximum of 2 if he endorsed both the noncompliant alternative and the request for new behavior. His score was 1 if he chose only one of these. If he endorsed the aggressive, compliant, or "wouldn't say anything" alternatives, his assertion score for that scene was 0, even if other alternatives were endorsed as well.

### Procedure

Two adjacent rooms were used for videotaping the subjects' responses to the Behavioral Assertiveness Test for Boys. In one of these, the experimenter operated the videotape recording equipment and the intercom which connected with the studio. The studio contained an intercom speaker and chairs for the research assistant and the subject. The subjects' responses were recorded through a one-way screen. In a third room, subjects' Role-taking Task stories were recorded on an audio tape recorder. Each of the 60 main subjects completed 20 scenes from the Behavioral Assertiveness Test for Boys (10 positive and 10 negative).

The experimenter escorted the subjects, three at a time, from their classes to the laboratory and back again. Both the Role-taking Task and the behavioral test were administered in the same session, and random selection determined the order in which the subjects were assessed. After the experimenter had read the instructions to the subject, the practice scenes were presented (see Appendix I). These were followed by the test scenes and the following sequence was observed: the experimenter read the narration for a scene over the intercom, the assistant delivered

his prompt, and the child gave his response. Twenty scenes were given to all subjects (10 positive and 10 negative). These scenes were presented to the subjects with the assistance of an adult prompter (a male undergraduate student). The order of presentation of the scenes was randomized for each subject.

As an afterthought, and after the data collection was well underway, the experimenter decided to present the remaining 29 subjects with four additional behavioral scenes (two of each type) with the help of a peer prompter. This provided an opportunity to check the effects of an adult vs. a peer prompter on the boys' responses. The prompts for these extra four scenes were delivered by one of the subject's classmates. The peer prompters were also selected randomly and were given the instructions in Appendix J. The instructions which were read to the subjects for these extra four scenes are given in Appendix K.

After all the subjects had finished the behavioral assessment, they completed the Self-Report Assertiveness Test for Boys during classroom time and were rated by their homeroom teachers for positive and negative assertive skill, prosocial behavior, aggressive behavior, passive-aggressive behavior, withdrawn behavior, and sensitivity to others.

## RESULTS

As mentioned earlier, this exploratory study was undertaken to investigate the assertive behavior of elementary school boys and several issues were explored. A primary purpose of this study was to identify the behavioral components which differentiate high- and low-assertive boys and to examine the effects of age and scene valence on their assertive responses. In addition, this study: investigated the concurrent validity of the behavioral assessment procedure by examining the relationship of behavioral ratings of assertiveness to assertiveness self-reports and teacher ratings of assertiveness; explored the relationship of assertive skill to measures of cognitive ability; attempted to evaluate the construct of assertiveness in boys by examining the relationship of assertiveness ratings to ratings of other social behaviors; and, finally, attempted to use the components of assertiveness and de-centering scores to predict assertiveness ratings and ratings of other social behaviors. The results bearing on these questions are presented in the following sections.

### Behavioral Assertiveness Test for Boys

For each of the following analyses of variance, where overall assertiveness ratings were used as an independent variable, subjects were classified as high or low assertive based on a separate median split of mean overall assertiveness scores for each age group. These medians, for the youngest, intermediate, and oldest subjects respectively, were: 2.50, 2.70, and 2.73.

In order to assess the effects of age, scene valence, and level of assertive skill, three types of analyses of variance were performed on the data from the behavioral assessment. For the interval scale, nonverbal-content variables (affect, number of words, speech duration, latency, speech disturbances, and eye contact),  $3 \times 2 \times 2 \times 10$  analyses were used. The levels of each factor were: (a) age (younger vs. intermediate vs. older subjects); (b) group (high-assertive vs. low-assertive group); (c) valence (positive vs. negative scenes); and (d) scenes within valence (10 different scenes within each of the two levels of valence).

For the dichotomous nonverbal-content behaviors (smiles and gestures) and the verbal content categories (spontaneous positive behavior, regard, appreciation, compliance, and requests for new behavior),  $3 \times 2$  analyses of variance were employed. The levels of each factor were: (a) age (younger vs. intermediate vs. older subjects); and (b) high- vs. low-assertive subjects.

A  $3 \times 2 \times 10$  analysis of variance with repeated measures on the last two factors was performed on the ratings of overall assertiveness. The levels of the variables were: (a) age (younger vs. intermediate vs. older subjects); (b) positive vs. negative scenes; and (c) scenes within valence (10 different scenes within each of the two levels of valence).

Comparisons between high- and low-assertive groups. Table 3 presents the means, F ratios, and significance levels for high- and low-assertive subjects on each of the behavioral response components. These F ratios (which are from the analyses of variance summarized in Tables 4 through 11) indicate that the high- and low-assertive groups differed

Table 3

Means and Significance Levels for High and Low Overall Assertiveness  
Groups on the Behavioral Components

Variable	Grade						Combined Grades		
	3-4		5-6		7-8		High	Low	
	High	Low	High	Low	High	Low			
	<u>M</u>	<u>M</u>	<u>M</u>	<u>M</u>	<u>M</u>	<u>M</u>	<u>F</u>		
Latency	1.36	3.95	1.38	3.56	1.18	1.33	1.31	2.95	5.30*
Speech Duration	3.50	2.25	4.33	2.25	8.55	2.21	5.46	2.24	7.22**
Number of Words	12.95	7.27	16.20	8.46	26.66	9.49	18.60	8.41	11.54***
Speech Disturbances	0.12	0.08	0.11	0.07	0.11	0.08	0.11	0.08	2.91
Eye Contact	0.23	0.29	0.35	0.27	0.18	0.11	0.25	0.22	<1.00
Affect	3.28	2.53	2.59	2.47	3.56	2.37	3.14	2.46	9.74***
Smiles	3.60	1.80	3.00	4.30	5.40	4.30	4.00	3.47	<1.00
Spontaneous Posi- tive Behavior	0.80	0.20	2.00	1.00	2.20	1.60	1.67	0.93	7.12**
Regard	5.50	5.10	5.20	5.10	5.90	5.30	5.53	5.17	3.12
Appreciation	4.40	4.00	4.90	4.50	4.50	4.50	4.60	4.33	1.41
Gestures	1.90	1.70	1.70	0.90	1.40	0.10	1.67	0.90	1.74
Compliance	2.70	3.00	2.60	1.70	2.10	2.30	2.47	2.33	<1.00
Requests	2.90	2.00	4.60	3.80	4.70	3.90	4.06	3.23	4.61*

\*p &lt; .05

\*\*p &lt; .025

\*\*\*p &lt; .005

Table 4

## Analysis of Variance for Latency

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Between Subjects			
Age	2	229.22	1.51
Group	1	805.90	5.30*
Age x Group	2	171.36	1.13
Error	54	151.90	
Within Subjects			
Valence	1	111.75	1.04
Valence x Age	2	68.21	<1.00
Valence x Group	1	48.80	<1.00
Valence x Age x Group	2	75.31	<1.00
Error	54	107.24	
Scenes within Valence	18	25.01	2.11**
Scenes within Valence x Age	36	9.83	<1.00
Scenes within Valence x Group	18	19.51	1.65
Scenes within Valence x Age x Group	36	10.37	<1.00
Error	972	11.84	

\*p &lt;.05

\*\*p &lt;.01

Table 5

## Analysis of Variance for Speech Duration

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Between Subjects			
Age	2	719.62	1.67
Group	1	3114.71	7.22*
Age x Group	2	747.30	1.73
Error	54	431.22	
Within Subjects			
Valence	1	747.18	22.89**
Valence x Age	2	2.35	<1.00
Valence x Group	1	48.52	1.49
Valence x Age x Group	2	76.14	2.33
Error	54	32.64	
Scenes within Valence	18	16.26	2.21*
Scenes within Valence x Age	36	6.68	<1.00
Scenes within Valence x Group	18	5.78	<1.00
Scenes within Valence x Age x Group	36	6.66	<1.00
Error	972	7.35	

\*p &lt;.025

\*\*p &lt;.001

Table 6

## Analysis of Variance for Number of Words

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Between Subjects			
Age	2	6748.00	2.50
Group	1	31191.60	11.54**
Age x Group	2	3747.40	1.38
Error	54	2703.69	
Within Subjects			
Valence	1	13280.05	45.02***
Valence x Age	2	29.04	<1.00
Valence x Group	1	1019.36	3.45
Valence x Age x Group	2	428.65	1.45
Error	54	295.00	
Scenes within Valence	18	154.41	2.11*
Scenes within Valence x Age	36	60.06	<1.00
Scenes within Valence x Group	18	69.99	<1.00
Scenes within Valence x Age x Group	36	65.77	<1.00
Error	972	73.02	

\*p &lt;.025

\*\*p &lt;.005

\*\*\*p &lt;.001

Table 7

## Analysis of Variance for Speech Disturbances

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Between Subjects			
Age	2	0.008	<1.00
Group	1	0.374	2.91
Age x Group	2	0.004	<1.00
Error	54	0.128	
Within Subjects			
Valence	1	0.018	<1.00
Valence x Age	2	0.007	<1.00
Valence x Group	1	0.045	<1.00
Valence x Age x Group	2	0.004	<1.00
Error	54	0.070	
Scenes within Valence	18	0.027	<1.00
Scenes within Valence x Age	36	0.034	1.02
Scenes within Valence x Group	18	0.033	1.01
Scenes within Valence x Age x Group	36	0.031	<1.00
Error	972	0.033	

Table 8

## Analysis of Variance for Eye Contact

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Between Subjects			
Age	2	2.803	2.24
Group	1	0.279	<1.00
Age x Group	2	0.672	<1.00
Error	54	1.250	
Within Subjects			
Valence	1	0.005	<1.00
Valence x Age	2	0.013	<1.00
Valence x Group	1	0.172	1.43
Valence x Age x Group	2	0.009	<1.00
Error	54	0.120	
Scenes within Valence	18	0.103	1.49
Scenes within Valence x Age	36	0.069	1.00
Scenes within Valence x Group	18	0.051	<1.00
Scenes within Valence x Age x Group	36	0.074	1.07
Error	972	0.069	

Table 9

## Analysis of Variance for Affect

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Between Subjects			
Age	2	22.13	1.55
Group	1	138.72	9.74*
Age x Group	2	28.89	2.03
Error	54	14.25	
Within Subjects			
Valence	1	29.45	22.08**
Valence x Age	2	0.69	<1.00
Valence x Group	1	0.40	<1.00
Valence x Age x Group	2	0.22	<1.00
Error	54	1.33	
Scenes within Valence	18	1.11	2.92*
Scenes within Valence x Age	36	0.28	<1.00
Scenes within Valence x Group	18	0.54	1.42
Scenes within Valence x Age x Group	36	0.32	<1.00
Error	972	0.38	

\*p &lt;.005

\*\*p &lt;.001

Table 10

Analyses of Variance for  
Smiles, Spontaneous Positive Behavior, Regard, & Appreciation

Source	df	Smiles		Spontaneous Positive Behavior		Regard		Appreci- ation	
		MS	F	MS	F	MS	F	MS	F
Age	2	23.22	2.95	10.40	9.18**	1.05	1.62	1.27	1.68
Group	1	4.27	<1.00	8.07	7.12*	2.02	3.12	1.07	1.41
Age x Group	2	13.22	1.68	0.27	<1.00	0.32	<1.00	0.27	<1.00
Error	54	7.86		1.13		0.65		0.75	

\*p &lt;.025

\*\*p &lt;.001

Table 11

Analysis of Variance for  
Gestures, Compliance, & Requests

Source	df	Gestures		Compliance		Requests	
		MS	F	MS	F	MS	F
Age	2	5.52	1.09	3.05	<1.00	21.65	9.59**
Group	1	8.82	1.74	0.27	<1.00	10.42	4.61*
Age x Group	2	1.52	<1.00	2.22	<1.00	0.02	<1.00
Error	54	5.06		3.10		2.26	

\*p &lt;.05

\*\*p &lt;.001

significantly on 6 of the 13 variables. Differences were found on: latency (Table 4:  $F(1,54) = 5.30$ ;  $p < .05$ ), speech duration (Table 5:  $F(1,54) = 7.22$ ;  $p < .025$ ), number of words (Table 6:  $F(1,54) = 11.54$ ;  $p < .005$ ), affect (Table 9:  $F(1,54) = 9.74$ ;  $p < .005$ ), spontaneous positive behavior (Table 10:  $F(1,54) = 7.12$ ;  $p < .025$ ), and requests (Table 11:  $F(1,54) = 4.61$ ;  $p < .05$ ). None of the interactions with group was significant.

Compared with the low-assertive group, the high-assertive subjects had shorter response latencies (high  $M = 1.31$ ; low  $M = 2.95$ ), they gave lengthier replies (high  $M = 5.46$ ; low  $M = 2.24$ ), they used more than twice the number of words (high  $M = 18.60$ ; low  $M = 8.41$ ), they evidenced more appropriate affect (high  $M = 3.14$ ; low  $M = 2.46$ ), they made more offers of spontaneous positive behavior on the positive scenes (high  $M = 1.67$ ; low  $M = 0.93$ ), and they made more requests of their interpersonal partner on the negative scenes (high  $M = 4.06$ ; low  $M = 3.23$ ).

The effects of age. Table 3 presents the means for high- and low-assertive subjects at each grade level on each of the response components. Tables 4 through 12, summarizing the analyses of variance for each of the behavioral components and overall assertiveness, show only two significant main effects for age. These effects are limited to the verbal content categories of spontaneous positive behavior (Table 10:  $F(2,54) = 9.18$ ;  $p < .001$ ) and requests for new behavior (Table 11:  $F(2,54) = 9.59$ ;  $p < .001$ ). None of the interactions with age was significant.

Scheffé post hoc comparisons revealed that the intermediate (fifth and sixth graders) and older subjects (seventh and eighth graders) made

Table 12

## Analysis of Variance for Overall Assertiveness

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Between Subjects			
Age	2	11.50	2.66
Error	57	4.32	
Within Subjects			
Valence	1	0.75	<1.00
Valence x Age	2	1.18	1.52
Error	57	0.77	
Scenes within Valence	18	2.81	7.48*
Scenes within Valence x Age	36	0.35	<1.00
Error	1026	0.37	

\*p &lt;.001

significantly more offers of spontaneous positive behavior ( $p < .05$ ) than the youngest group (third and fourth graders). The intermediate and older subjects did not differ significantly from one another. The mean number of offers of spontaneous positive behavior for the youngest, intermediate, and oldest subjects respectively were: 0.50, 1.50, and 1.90 (out of a possible score of 10).

Likewise, Scheffé post hoc comparisons for the requests for new behavior variable showed that the two older groups made significantly more requests of their interpersonal partner than the youngest group ( $p < .05$ ), although they did not differ significantly from one another. The means for the groups, youngest to oldest respectively, for requests for new behavior were: 2.45, 4.20, and 4.30 (out of a possible score of 10).

Effects of Scene Valence. Analyses of variance for the six non-verbal-content response categories which were scored on both positive and negative scenes are summarized in Tables 3 through 8; the analysis of variance summary for overall assertiveness is given on Table 11. Significant differences between positive and negative scenes were found for: speech duration (Table 5:  $F(1,54) = 22.89$ ;  $p < .001$ ), number of words (Table 6:  $F(1,54) = 45.02$ ;  $p < .001$ ), and affect (Table 9:  $F(1,54) = 22.08$ ;  $p < .001$ ). None of the interactions with valence was significant. Subjects spoke longer (positive  $M = 3.06$ ; negative  $M = 16.83$ ), and evidenced greater affect (positive  $M = 2.64$ ; negative  $M = 2.96$ ) on the negative scenes.

Child versus adult prompter. Pearson product-moment correlation coefficients were computed in order to assess the effect of the age of

the prompter on the subjects' responses in the behavioral assessment. For the 29 subjects who had both the peer and adult prompts, mean scores for the 10 positive adult prompt scenes were correlated with the mean scores for the two positive child prompt scenes for each of the behavioral components and the ratings of overall positive assertiveness. These Pearson product-moment correlation coefficients are reported in Table 13. Significant positive correlations were found for: latency ( $\underline{r} = .92$ ;  $\underline{p} < .001$ ); speech duration ( $\underline{r} = .77$ ;  $\underline{p} < .001$ ); number of words ( $\underline{r} = .75$ ;  $\underline{p} < .001$ ); eye contact ( $\underline{r} = .53$ ;  $\underline{p} < .002$ ); affect ( $\underline{r} = .70$ ;  $\underline{p} < .001$ ); regard ( $\underline{r} = .35$ ;  $\underline{p} < .05$ ); and overall positive assertiveness ( $\underline{r} = .69$ ;  $\underline{p} < .001$ ). The coefficients for smiles, speech disturbances, appreciation, and spontaneous positive behavior were not significant.

Similarly, Pearson product-moment correlation coefficients were computed between the mean scores for the 10 adult prompt negative scenes and the 2 child prompt negative scenes for each behavioral component and overall negative assertiveness. Table 14 shows that significant positive correlations were obtained for: speech duration ( $\underline{r} = .64$ ;  $\underline{p} < .001$ ); number of words ( $\underline{r} = .80$ ;  $\underline{p} < .001$ ); eye contact ( $\underline{r} = .41$ ;  $\underline{p} < .05$ ); affect ( $\underline{r} = .64$ ;  $\underline{p} < .001$ ); speech disturbances ( $\underline{r} = .34$ ;  $\underline{p} < .05$ ); gestures ( $\underline{r} = .32$ ;  $\underline{p} < .05$ ); requests ( $\underline{r} = .46$ ;  $\underline{p} < .01$ ); and overall negative assertiveness ( $\underline{r} = .69$ ;  $\underline{p} < .001$ ). The correlation coefficients for latency and compliance were not significant.

#### Self-report and Behavioral Assessments of Assertiveness

Two types of analyses were performed on the self-report data. First, in order to determine whether previous exposure to the behavioral assessment

Table 13

Pearson Product-Moment Correlation Coefficients  
 between Positive Adult Prompt Scenes and  
 Positive Child Prompt Scenes ( $N=29$ )

Variable	<u>df</u>	<u>r</u>
Latency	27	.92***
Speech Duration	27	.77***
Number of Words	27	.75***
Ratio of Eye Contact	27	.53**
Smiles	27	.30
Affect	27	.70***
Ratio of Speech Disturbances	27	.25
Regard	27	.35*
Appreciation	27	.12
Spontaneous Positive Behavior	27	-.17
Positive Assertiveness	27	.69***

\* $p < .05$

\*\* $p < .002$

\*\*\* $p < .001$

Table 14

Pearson Product-Moment Correlation Coefficients  
 between Negative Adult Prompt Scenes and  
 Negative Child Prompt Scenes ( $N=29$ )

Variable	<u>df</u>	<u>r</u>
Latency	27	.06
Speech Duration	27	.64***
Number of Words	27	.80***
Ratio of Eye Contact	27	.41*
Affect	27	.64***
Ratio of Speech Disturbances	27	.34*
Gestures	27	.32*
Compliance	27	.01
Requests	27	.46**
Negative Assertiveness	27	.69***

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$

influenced self-reports of assertiveness, the self-report assertiveness scores of the 60 subjects who had first participated in the Behavioral Assertiveness Test for Boys were compared with those of 20 other subjects who had no such previous exposure. T-tests showed no significant differences for either positive ( $\underline{t} = .53$ ;  $\underline{p} < .60$ ) or negative ( $\underline{t} = .55$ ;  $\underline{p} < .59$ ) assertiveness self-report scores.

Second, Pearson product-moment correlation coefficients were computed in order to examine the extent of agreement between self-report and behavioral assessments of assertiveness. These values are reported in Table 15. Table 15 shows that self-reports of negative assertive skill correlated significantly with the following behavioral ratings: overall assertiveness ( $\underline{r} = .42$ ;  $\underline{p} < .001$ ), positive assertiveness ( $\underline{r} = .31$ ;  $\underline{p} < .01$ ), and negative assertiveness ( $\underline{r} = .46$ ;  $\underline{p} < .001$ ). Self-reports of positive assertive skill correlated significantly only with the behavioral ratings of negative assertiveness ( $\underline{r} = .23$ ;  $\underline{p} < .05$ ).

In order to determine whether these generally low agreements between self-report and behavioral ratings of assertiveness were due to lower agreements for some ages compared with others, the sample of 60 was divided into 3 age groups of 20 subjects each and the Pearson product-moment correlation coefficients were recomputed. The third and fourth graders formed the youngest group; the fifth and sixth graders, the intermediate age group; and the seventh and eighth graders, the eldest group. Table 16 presents the correlation coefficients between the self-reports of positive assertive skill and the behavioral ratings of positive assertiveness for each of the age groups. These values, for the youngest, intermediate, and oldest subjects respectively, are:

Table 15

Correlations of Teachers' Ratings of Social Skills, Role-Taking Task Scores, IQ, and Self-Reports of Assertiveness with Overall Assertiveness, Positive Assertiveness, and Negative Assertiveness Ratings

Variable	df	Overall Assertiveness <u>r</u>	Positive Assertiveness <u>r</u>	Negative Assertiveness <u>r</u>
Teacher Ratings ( <u>N</u> = 60)				
Positive Assertive Skill	58	.19	.10	.24*
Negative Assertive Skill	58	.07	.00	.12
Sensitivity to Others	58	.31**	.18	.37***
Aggressive Behavior	58	-.05	.06	-.13
Prosocial Behavior	58	.28*	.18	.32**
Withdrawn Behavior	58	-.03	-.02	-.03
Passive Aggressive Behavior	58	-.16	-.07	-.21
Role-Taking Task ( <u>N</u> = 60)	58	.48****	.49****	.42****
IQ ( <u>N</u> = 42)	40	-.04	.01	-.08
Self-Report Measures ( <u>N</u> = 60)				
Positive Assertive Skill	58	.21	.14	.23*
Negative Assertive Skill	58	.42****	.31**	.46****

\*p < .05\*\*p < .01\*\*\*p < .005\*\*\*\*p < .001

Table 16

Pearson Product-Moment Correlation Coefficients  
 between Self-Report Assertiveness Test Scores  
 and Assertiveness Ratings of the Role-Played  
 Scenes for Each Age Level  
 (N=20)

---

	<u>df</u>	<u>r</u>
Positive Assertiveness		
7th and 8th Graders	18	.63***
5th and 6th Graders	18	.30
3rd and 4th Graders	18	-.30
Negative Assertiveness		
7th and 8th Graders	18	.60**
5th and 6th Graders	18	.27
3rd and 4th Graders	18	.48*

---

\* $p < .02$

\*\* $p < .003$

\*\*\* $p < .002$

-.30(n.s.), .30(n.s.), and .63 ( $p < .002$ ). That is, increasing agreement is found with increasing age.

A somewhat different pattern of agreement was found for the correlations between self-reports of negative assertive skill and behavioral ratings of negative assertiveness. These values are also presented for the three age groups in Table 16. In this case, the highest level of agreement was also found for the oldest subjects ( $r = .60$ ;  $p < .002$ ) but here the intermediate group had the lowest agreement ( $r = .27$ ;  $p > .05$ ) while the correlation for the youngest group fell between the others ( $r = .48$ ;  $p < .02$ ).

#### Correlations Between Teachers' Ratings and Behavioral Assertiveness

##### Ratings

Pearson product-moment correlation coefficients were computed in order to examine the extent of agreement between teachers' and behavioral assessments of assertiveness. Additional Pearson product-moment correlation coefficients were calculated between the behavioral ratings of assertiveness and the teachers' ratings of other social behaviors in order to explore some of the social correlates of the construct of assertiveness in boys. These values are reported in Table 15.

Table 15 shows that teacher ratings of sensitivity to others ( $r = .31$ ;  $p < .01$ ) and prosocial behavior ( $r = .28$ ;  $p < .05$ ) correlated significantly with behavioral ratings of overall assertiveness. The correlations between the overall assertiveness ratings and the teacher ratings of positive and negative assertive skill, aggressive behavior, withdrawn behavior, and passive-aggressive behavior were not significant. Table 15 presents the coefficients for the correlations between the teachers'

ratings and the behavioral ratings of positive assertive skill (assertiveness ratings averaged across the 10 positive scenes). None of these values are significant. The coefficients reported in Table 15 also show three significant correlations between teachers' ratings and behavioral ratings of negative assertive skill (assertiveness ratings averaged across the 10 negative scenes). These low-moderate correlations were found for positive assertive skill ( $r = .24$ ;  $p < .05$ ), sensitivity to others ( $r = .37$ ;  $p < .005$ ), and prosocial behavior ( $r = .32$ ;  $p < .01$ ).

In order to investigate a possible source of the low agreement between teachers' and behavioral ratings of assertiveness, the sample of 60 subjects was divided into 3 age groups of 20 subjects each and the Pearson product-moment correlation coefficients were recalculated. The youngest group consisted of the third and fourth graders, the intermediate group of fifth and sixth graders, and the eldest group of seventh and eighth graders. The correlation coefficients between the teachers' ratings of positive assertive skill and behavioral ratings of positive assertiveness (Table 17) show increasing agreement with increasing age of the subjects. These values, for the youngest, intermediate, and eldest subjects respectively, are:  $-.17$ (n.s.),  $.24$ (n.s.), and  $.55$  ( $p < .01$ ). For the negative assertiveness ratings, increasing agreement is found with decreasing age, although none of the correlations is significant. These values, for the youngest to oldest subjects respectively, are:  $.27$ ,  $.11$ , and  $.01$  (Table 17).

#### Assertiveness and Measures of Cognitive Ability

In order to examine the extent of the relationship between assertive skill and measures of cognitive ability, Pearson product-moment correlation

Table 17

Pearson Product-Moment Correlation Coefficients  
 between Teachers' Ratings of Assertiveness  
 and Assertiveness Ratings of the Role-Played  
 Scenes for Each Age Level  
 (N=20)

---

	<u>df</u>	<u>r</u>
Positive Assertiveness		
7th and 8th Graders	18	.55*
5th and 6th Graders	18	.24
3rd and 4th Graders	18	-.17
Negative Assertiveness		
7th and 8th Graders	18	.01
5th and 6th Graders	18	.11
3rd and 4th Graders	18	.27

---

\*p < .01

coefficients were calculated between assertiveness ratings and IQ scores, and between assertiveness ratings and Role-taking Task scores. These data are presented in Table 15.

The Pearson product-moment correlation coefficient between IQ and overall assertiveness ratings was not significant ( $r = -.04$ ). When overall assertiveness was divided into its positive and negative components (i.e., assertiveness ratings averaged across the 10 positive and the 10 negative scenes respectively) these coefficients remained nonsignificant. The correlations between IQ and positive and negative assertiveness ratings were .01 and  $-.08$  respectively.

Table 15 also presents the Pearson product-moment correlation coefficients between Role-taking Task scores and overall assertiveness ratings ( $r = .48$ ;  $p < .001$ ), positive assertiveness ratings ( $r = .49$ ;  $p < .001$ ), and negative assertiveness ratings ( $r = .42$ ;  $p < .001$ ). In each case, a moderate relationship was found between role-taking skill and the behavioral ratings of assertiveness.

#### Multiple-Regression Analyses

In the interest of further exploring relationships among the data, a series of multiple-regression analyses were performed. Although the primary goal was to determine whether or not the assertiveness response components and role-taking scores could adequately predict behavioral ratings of positive and negative assertive skill, other analyses were undertaken as well. For these latter analyses, the response components and role-taking scores were used to predict self-report and teacher ratings of positive and negative assertiveness, and teacher ratings of prosocial behavior and sensitivity to others.

In the multiple-regression analyses on the behavioral, self-report, and teacher ratings of positive assertive skill, the following served as independent variables: Role-taking Task scores and scores on the assertiveness response components (regard, appreciation, spontaneous positive behavior, smiles, eye contact, speech disturbances, latency, affect, and number of words). For the multiple-regression analyses on the behavioral, self-report, and teacher ratings of negative assertive skill and on the teacher ratings of prosocial behavior and sensitivity to others, the independent variables were: Role-taking Task scores and assertiveness response components (requests for new behavior, compliance, affect, number of words, gestures, latency, speech disturbances, smiles, and eye contact). Summaries of these analyses are presented in Tables 18 through 25. These tables list the variables in the order of their entry into the equation, the multiple correlation, the increase in variance, the  $F$  ratio at each step, and the simple correlation of each variable with the criterion variable.

Tables 18 and 19 provide the summaries of the regression analyses on the behavioral ratings of positive and negative assertive skill. In the multiple-regression on the behavioral ratings of positive assertive skill, the addition of each variable to the regression equation significantly reduced the variance at each step and all 10 variables were entered into the final equation. The final multiple correlation was .8935, with the variables accounting for 80% of the variance of the positive assertiveness ratings. In the multiple-regression analysis on the behavioral ratings of negative assertive skill, the nine variables entered into the regression equation each reduced a significant amount

Table 18

Summary of Ten-Variable Regression Analysis of  
 Role-Taking Task Scores and Behavioral Components as Predictors of  
 Positive Assertiveness Ratings

Variable Entered	Multiple <u>R</u>	Increase in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role Taking Task	.4891	.2392	18.24*	.4891
Number of Words	.8416	.4690	69.18*	.8175
Affect	.8657	.0411	55.82*	.6133
Spontaneous Positive Behavior	.8812	.0272	47.80*	.4523
Appreciation	.8886	.0130	40.53*	.4072
Latency	.8907	.0037	33.91*	-.2176
Smiles	.8922	.0027	28.99*	.2776
Speech Disturbances	.8930	.0014	25.10*	.0565
Regard	.8933	.0006	21.95*	.4580
Eye Contact	.8935	.0004	19.41*	.0139

Note: Constant = 1.59

\* $p < .001$

Table 19

Summary of Ten-Variable Regression Analysis of  
Role-Taking Task Scores and Behavioral Components as Predictors of  
Negative Assertiveness Ratings

Variable Entered	Multiple <u>R</u>	Increase in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role-Taking Task	.4189	.1755	12.35*	.4189
Number of Words	.7456	.3804	35.68**	.7217
Latency	.7734	.0423	27.79**	-.3136
Gestures	.7898	.0255	22.79**	.2829
Speech Disturbances	.7970	.0115	18.81**	.1513
Smiles	.8012	.0067	15.84**	-.1590
Compliance	.8048	.0058	13.66**	-.1513
Affect	.8070	.0035	11.90**	.3424
Eye Contact	.8072	.0003	10.39**	-.0192

Note: Constant = 2.30

\* p < .01

\*\*p < .001

Table 20

Summary of Ten-Variable Regression Analysis of  
Role-Taking Task Scores and Behavioral Components as Predictors of  
Teacher Ratings of Positive Assertive Skill

Variable Entered	Multiple <u>R</u>	Increase in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role-Taking Task	.1247	.0156	0.92	.1247
Regard	.3786	.1277	4.77**	.3775
Smiles	.4176	.0311	3.94**	-.0405
Eye Contact	.4451	.0237	3.40**	.1121
Speech Disturbances	.4692	.0220	3.05**	.1091
Spontaneous Positive Behavior	.4906	.0206	2.80**	-.0738
Latency	.4962	.0055	2.43*	-.0215
Affect	.4994	.0032	2.11	.0934
Appreciation	.4999	.0005	1.85	-.0574
Number of Words	.5005	.0005	1.64	.1140

Note: Constant = -29.12

\*p < .05

\*\*p < .025

Table 21

Summary of Ten-Variable Regression Analysis of  
Role-Taking Task Scores and Behavioral Components as Predictors of  
Teacher Ratings of Negative Assertive Skill

Variable Entered	Multiple <u>R</u>	Increase in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role-Taking Task	.0296	.0009	0.05	.0296
Latency	.1714	.0285	0.86	-.1704
Requests	.2021	.0114	0.79	-.0561
Eye Contact	.2231	.0089	0.72	-.0839
Gestures	.2413	.0084	0.67	.0887
Smiles	.2546	.0066	0.61	-.0463
Speech Disturbances	.2642	.0050	0.56	.0000
Affect	.2740	.0053	0.52	-.0051
Compliance	.2802	.0034	0.47	-.1126
Number of Words	.2820	.0010	0.42	-.0418

Note: Constant = 75.51

Table 22

Summary of Ten-Variable Regression Analysis of  
 Role-Taking Task Scores and Behavioral Components as Predictors of  
 Self-Report Positive Assertiveness Scores

Variable Entered	Multiple <u>R</u>	Increase in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role-Taking Task	.0902	.0081	0.48	-.0902
Appreciation	.2625	.0608	2.11	.2377
Latency	.2879	.0140	1.69	.0908
Speech Disturbances	.3181	.0183	1.55	.0846
Spontaneous Positive Behavior	.3280	.0064	1.30	.0999
Number of Words.	.3413	.0089	1.16	.0060
Regard	.3698	.0203	1.18	.0064
Smiles	.3735	.0027	1.03	.0276
Affect	.3769	.0025	0.92	.0284

Note: Constant = -8.9995

Table 23

Summary of Ten-Variable Regression Analysis of  
 Role-Taking Task Scores and Behavioral Components as Predictors of  
 Self-Report Negative Assertiveness Scores

Variable Entered	Multiple <u>R</u>	Increase in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role-Taking Task	.0377	.0014	0.08	-.0377
Gestures	.2721	.0726	2.28	-.2718
Affect	.2976	.0145	1.81	.0070
Number of Words	.3293	.0198	1.67	-.1371
Requests	.3546	.0173	1.55	.0873
Speech Disturbances	.3579	.0024	1.30	.0370
Compliance	.3587	.0005	1.10	-.0664

Note: Constant = 16.8980

Table 24

Summary of Ten-Variable Regression Analysis of  
Role-Taking Task Scores and Behavioral Components as Predictors of  
Teacher Ratings of Prosocial Behavior

Variable Entered	Multiple <u>R</u>	Increased in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role-Taking Task	.3006	.0904	5.76*	.3006
Number of Words	.5118	.1715	10.11***	.5087
Eye Contact	.5557	.0469	8.34***	-.2256
Affect	.6015	.0530	7.79***	.3700
Gestures	.6215	.0244	6.80***	.2786
Smiles	.6379	.0207	6.06***	-.0965
Speech Disturbances	.6472	.0120	5.36***	-.0278
Requests	.6542	.0090	4.77***	.3270
Compliance	.6546	.0005	4.16**	-.0548

Note: Constant = 24.07

\*p <.025

\*\*p <.005

\*\*\*p <.001

Table 25

Summary of Ten-Variable Regression Analysis of  
Role-Taking Task Scores and Behavioral Components as Predictors of  
Teacher Ratings of Sensitivity

Variable Entered	Multiple <u>R</u>	Increase in <u>R</u> <sup>2</sup>	<u>F</u>	Simple <u>R</u>
Role-Taking Task	.3202	.1025	6.63*	.3202
Affect	.5508	.2008	12.41***	.5043
Requests	.6157	.0757	11.40***	.3914
Compliance	.6505	.0441	10.09***	.0658
Number of Words	.6569	.0083	8.20***	.5070
Gestures	.6632	.0083	6.94***	.0903
Latency	.6678	.0060	5.98***	-.2331
Speech Disturbances	.6699	.0028	5.19***	.0427
Smiles	.6702	.0013	4.54***	.0037
Eye Contact	.6719	.0015	4.03**	.0553

Note: Constant = 0.8661

\*p < .025

\*\*p < .005

\*\*\*p < .001

of variance. The requests for new behavior variable were not entered into the final equation since it did not significantly reduce a unique portion of the variance. The final multiple correlation was .8072, with the predictor variables accounting for 65% of the variance of the negative assertiveness ratings.

The Role-taking Task scores and the behavioral components accounted for considerably less of the variance of the self-report and teacher ratings of positive and negative assertiveness. Summaries of these regression analyses are presented in Tables 20 through 23. The independent variables accounted for the following amounts of the variance of the assertiveness scores: self-reports of positive assertive skill (14%), self-reports of negative assertive skill (13%), teacher ratings of positive assertive skill (25%), and teacher ratings of negative assertive skill (8%).

Since there were significant, positive correlations between behavioral ratings of negative assertive skill and teacher ratings of prosocial behavior and sensitivity to others (Table 15), these teacher ratings were selected as criterion variables in multiple-regression analyses. The results of the analyses are summarized in Tables 24 and 25. Role-taking Task scores and the behavioral components accounted for 43% of the variance in teachers' ratings of prosocial behavior and 45% of the teachers' ratings of sensitivity to others. In each of these analyses, each variable reduced a significant amount of variance of the teachers' ratings when it was entered into the regression equation.

## DISCUSSION

The present study was undertaken to examine the effects of age, scene valence, and level of assertive skill on the assertive responses of elementary school boys. In addition, this research presented an analogue measure of assertiveness for boys and collected data bearing on its concurrent validity and on the construct of assertiveness in boys. The results of this exploratory investigation are discussed in the following sections.

### Behavioral Assertiveness Test for Boys

Comparisons between high- and low-assertive groups. The present research identified behavioral components which constitute assertive skill in elementary school boys. At each grade level, boys were classified as either high or low assertive, based on ratings of overall assertiveness, and their scores on various response components were compared. The results indicate that high- and low-assertive boys can be differentiated on a number of discrete behavioral response components. Compared with unassertive subjects, the assertive boys of all ages: responded more quickly, spoke longer using more words, evidenced greater affect, made more offers of spontaneous positive behavior in positive contexts, and made more requests of their interpersonal partners for behavior change in negative situations. The variables which did not discriminate between the high- and low-assertive subjects were: eye contact, smiles, gestures, speech disturbances, appreciation, regard, and compliance. The importance of the behavioral components and role-

taking skill to ratings of assertiveness was also indicated by the results of the multiple-regression analyses. For predicting the ratings of positive assertive skill, all the variables were entered into the final equation and accounted for 80% of the variance. In the multiple regression analysis for ratings of negative assertive skill, nine variables accounted for 65% of the variance. The pattern of differences found here between the high- and low-assertive subjects is, in general, similar to that found for adult psychiatric patients. However, assertive psychiatric patients also differed from unassertive ones by offering more praise and appreciation, and less verbal compliance (Eisler, Miller, & Hersen, 1973; Eisler et al., 1975).

Although some research data describing the components of assertiveness in adult psychiatric patients have been reported (Eisler, Miller, & Hersen, 1973; Eisler et al., 1975; Hersen, Bellack, & Turner, Note 2), the present study represents the first attempt to provide empirical data on the components of assertive skill in normal, elementary school boys. The importance of such data has been noted by others (Bornstein et al., In press) since the identification of the response components which comprise effective assertive behavior has direct relevance to clinical applications. Baseline assessment on these components can be used to identify deficient behaviors which can then serve as the targets for therapeutic interventions. Additional research on the assertive behavior of elementary school girls is needed before therapists can, with confidence, select relevant behavioral targets in remediating their assertiveness deficits.

The effects of age. Developmental changes in the expression of

assertiveness were seen in the present sample of boys. Although the age groups did not differ on ratings of overall assertiveness, the older boys (grades five through eight) made more requests for behavioral change in negative contexts and made more offers of spontaneous positive behavior in positive situations than did the youngest subjects. No other age-related differences were found in the behavioral assessment. These differences in categories of verbal content are not accounted for on the basis of differing levels of verbal productivity since the various age groups did not differ in the number or words they used in their responses. These differences in verbal content suggest that particular attention should be paid to the nonverbal-content response components of younger boys during the assessment and modification of assertive behavior.

The effects of scene valence. In addition to obvious differences in verbal content, the effect of scene valence was reflected in three nonverbal-content response components. Regardless of age or level of assertive skill, subjects spoke longer using more words and greater affect in negative contexts. These findings parallel those of other studies with adult samples. Eisler et al. (1975) found scene valence differences on six nonverbal-content components. For negative scenes, their male patients had more eye contact, smiled less often, evidenced greater affect, had shorter response latencies, spoke at greater length, and talked louder. In the Hersen et al. (Note 2) study, female patients spoke longer in negative contexts than in positive ones. As in these studies of adult assertiveness, the effects of scene valence, demonstrated here, are consistent with a stimulus-specific interpretation of

assertiveness. That is, the style of assertive expression in boys is functionally related to aspects of the social context and is not a personality trait which is expressed uniformly in all situations. Further research is needed to determine the effects of other situational variables (such as the degree of familiarity with, and the sex of, the interpersonal partner) on the assertive responses of boys. On the basis of the findings in adult samples (Eisler et al., 1975; Hersen et al., Note 2), these variables are also likely to exert influence on the response components of children.

Child versus adult prompter. The correlations between the subjects' responses in the adult- and peer-prompter conditions ranged from low to high. For both positive and negative scenes, the correlation for overall assertiveness ratings was moderately high. On the positive scenes, the correlations for those nonverbal-content response components which differentiated the high- and low-assertive subjects (i.e., latency, speech duration, number of words, and affect) were particularly high. Unexpectedly, however, the verbal content category which differentiated the high- and low-assertive subjects on positive scenes (spontaneous positive behavior) showed a low and negative correlation under the two prompt conditions. On the negative scenes, the correlations for the components which distinguished high- and low-assertive subjects (latency, speech duration, number of words, affect, and requests) ranged from moderate to high with the exception of latency which showed a very low correlation. The correlations indicate that analogue behavioral assessment of boys' assertiveness under conditions of adult and peer prompts leads to moderately high agreement for overall

assertiveness ratings, but the correlations for particular response components range from high to low. The verbal content categories show especially low agreement and the reasons for this are not altogether clear. One possibility is that while the subjects were familiar with the peer prompt, the adult prompt was a virtual stranger. Eisler et al. (1975) found that the level of familiarity with the interpersonal partner exerted significant effects on expressions of assertiveness, particularly in positive situations. In the present sample, some of the subjects may have considerably modified their verbal responses in the two prompt conditions. Other research (Martin, Gelfand, & Hartmann, 1971) has shown that adult and peer observers have differential effects on children's aggressive behavior. While the presence of an adult initially inhibited aggressive displays, the level of the children's aggression tended to increase if the adult remained permissive. These findings suggest that adults might take some precautions when they assess the verbal components of boys' assertiveness in role-played interactions. A preliminary "get acquainted" session and an accepting attitude could foster more natural responding and thus permit more accurate assessment.

#### Self-report and Behavioral Assessments of Assertiveness

The finding of low agreement between the self-report and behavioral measures of assertiveness was disappointing though not altogether unexpected. Others have pointed out that motoric, physiological, and self-report measures of the same construct typically yield low intercorrelations (Hersen & Bellack, In press). Although self-reports of negative assertiveness showed moderate, significant relationships with behavioral

ratings of overall assertiveness and with negative assertiveness, these self-reports also correlated significantly with the behavioral ratings of positive assertive skill. Thus little evidence for the concurrent validity of the behavioral measure was found. At the same time, there is no evidence of the validity of the self-report test. Since the response alternatives for this measure were not empirically generated but were selected by the author on the basis of their face validity, they may not have provided a representative sample of the statements that boys use in natural settings. Multiple-regression analyses, using role-taking scores and the behavioral components as predictors of self-reports of positive and negative assertiveness, also indicated a low level of relationship between the behavioral and self-report modalities. In each of these analyses, the components accounted for less than 14% of the variance of the self-report scores.

In order to explore the contribution of age differences to the low agreement between the self-report and behavioral measures, the sample was divided into three age levels and the correlation coefficients were recomputed. These analyses revealed moderate to high correlations between the self-reports and the behavioral ratings only for the oldest subjects, the seventh and eighth graders. Several factors may account for this finding. First, a lower level of reading ability among the younger subjects may have precluded higher agreement (for instance, they may not have understood the test instructions as well as the older boys). Rohwer (1970) has noted that maturational factors are important in the development of reading skill. Second, the response alternatives and/or the social situations used in the assessment may

have been more relevant for the older subjects. Third, self-appraisal may be an ability that develops with age and with experience in a variety of social situations. Such an interpretation is consistent with G. H. Mead's thought on language and perception. As Brown (1965) has summarized:

The human organism is able to conceive of its self, in Mead's opinion, only by participating in the minds of others. From the point of view of another, the organism is a person having certain traits, abilities, and motives. A man can perceive his own personality, Mead argues, only by reflection in the eyes of another. (p. 648)

In addition, Shanley, Walker, and Foley (1971) found that social intelligence (that is, empathy) test scores showed developmental increases in their sample of sixth, ninth, and twelfth grade subjects. Insofar as self-perception and the perception of others are skills which develop together, it might be expected that older boys are able to form more accurate appraisals of their own behavior in a variety of interpersonal situations. These considerations suggest that the self-report measure used in this study cannot substitute for the behavioral test in measuring the assertive skill of younger boys. With subjects below the seventh grade, the two assessment techniques seem to be measuring different behaviors.

#### Correlations Between Teachers' Ratings and Behavioral Assertiveness

##### Ratings

The correlations between teachers' ratings of assertive skill and those derived from the behavioral assessment were negligible. Further analyses which divided the sample into three age groups revealed that, for the ratings of positive assertive skill, agreement was highest for the oldest subjects and lowest for the youngest. For the negative

assertiveness ratings, agreement was uniformly low. Multiple-regression analyses showed that role-taking scores and the behavioral components accounted for only 25% of the variance of teachers' ratings of positive assertiveness, and only 8% of their negative assertiveness ratings. The reasons for the generally low agreement between the teachers' and the behavioral ratings are not readily apparent, although several factors may have been responsible. One possibility is that the teachers may not have had many opportunities to observe the assertive behaviors of their students. In addition, it may be that teachers (as adults) cannot be unobtrusive observers of such behavior and that their mere presence produces a reactive effect. This possibility is given some credence by impressionistic observations of the behavior of the subjects in the peer-prompt condition. In these scenes, the subjects seemed noticeably more animated and spontaneous, using "saltier" language than they had employed with the adult prompt. It is plausible that boys are less likely to instigate negative assertive responses in the presence of their teachers, and are somewhat freer to display positive assertive responses. If so, then teachers see only a restricted range of their students' behavioral repertoires. The research of Martin et al. (1971) which demonstrated that adult observers tend to suppress the aggressive displays of children also raises the question of the effect of teachers' presence on boys' assertiveness. An additional possibility militating against high agreement was the difficulty of the ratings asked of the teachers. While the behavioral ratings of assertiveness were based on discrete behavioral samples, the teachers were asked to condense their impressions of their students into two global ratings.

Kent, O'Leary, Diament, and Deitz (1974) have shown that global ratings of behavior are more prone to observer bias than are ratings of more discrete behavioral data. Likewise, Wahler and Leske (1973) have pointed out that it is difficult to obtain accurate observer reports when the observational unit consists of a number of child behaviors. They were able to collect more accurate global reports, however, by enumerating the specific behaviors which comprise the global summary. In the present research, the agreement between the teachers' ratings of assertiveness and the behavioral ratings might have been enhanced if the teachers had been asked to rate more discrete behavioral situations which more closely resembled those used in the behavioral assessment. In any event, the teacher ratings failed to provide evidence for concurrent validity of the behavioral ratings of assertiveness.

The correlations between teachers' ratings of other social behaviors and the behavioral ratings of assertive skill have interesting implications for the construct of assertiveness. Behavioral overall assertiveness ratings correlated significantly with teacher ratings of sensitivity to others and prosocial behavior. No less interesting are the low correlations of overall assertiveness with teacher ratings of aggressive behavior, withdrawn behavior, and passive-aggressive behavior. Although none of the teacher ratings correlated significantly with the behavioral ratings of positive assertiveness, negative assertiveness ratings correlated significantly with sensitivity to others and prosocial behavior. Low, nonsignificant, negative correlations were found between negative assertive skill and teacher ratings of

aggressive, withdrawn, and passive-aggressive behaviors. These findings indicate that boys who are able to assert themselves, particularly in negative contexts, are seen as sensitive and sociable by their teachers. Teachers do not necessarily view their assertive boys as aggressive. The multiple-regression analyses which used role-taking scores and the components of negative assertive skill as predictors of prosocial behavior and sensitivity to others yielded similar results. The independent variables accounted for more than 42% of the variance in each case. To the extent that sociability and sensitivity enhance social interaction, assertive boys may find social adjustment somewhat easier than their unassertive contemporaries. The association of assertive skill with other desirable social behaviors is a finding that accords well with the expectations of therapists who advocate assertiveness training as a means of enhancing the social competence of children (e.g., Bornstein et al., In press); it also runs counter to the stereotypes of some who picture assertive individuals as "obnoxious" or "pushy."

#### Assertiveness and Measures of Cognitive Ability

Role-taking skill, as assessed by the Role-taking Task, correlated significantly with behavioral ratings of overall assertiveness and accounted for 23% of the variance of these ratings. As mentioned earlier, role-taking skill (or decentering) refers to the ability to perceive a social situation from several alternative points of view simultaneously, and is related to developmental level, cognitive maturity, and a measure of effective social interaction (Feffer & Gourevitch, 1960; Feffer & Suchotliff, 1966). Role-taking scores accounted for somewhat more of the variance of positive than of negative assertiveness ratings (24%

versus 17%). The ability to take another's point of view would, thus, seem to be a more important component of positive than negative assertiveness. This is not surprising, given the stimuli for the two types of assertion. Empathic skill enables one to understand if another is sad and needs an encouraging word, if he feels lonely, or wants congratulations. That is, this understanding of others' points of view helps us provide appropriate positive social reinforcement. On the other hand, negative assertive responses are attempts to satisfy our own needs and express our own feelings, and depend less on our perception of the needs of others. The correlation of assertiveness with a measure of cognitive maturity is not accounted for on the basis of intellectual ability. Assertiveness ratings and a separate measure of IQ were essentially unrelated. Walker and Foley (1973) and Shanley et al. (1971) have noted that measures of social skill have frequently correlated too highly with measures of abstract intelligence, raising the question of the independence of these two constructs. In the present research, however, IQ scores accounted for virtually none of the variance of the behavioral ratings of assertiveness.

#### Implications for Future Research

The present investigation raises questions for future research. The evidence of sex differences in the expression of adult assertiveness (Eisler et al., 1975; Hersen et al., Note 2) suggests that caution is warranted in generalizing the present results to girls. Whether similar sex differences exist in children is an empirical question which merits further study. In addition, more information is needed to determine the validity of analogue assessment techniques for measuring

the assertiveness of children. The development of unobtrusive measures of in vivo behavior (e.g., Webb, Campbell, Schwartz, & Sechrest, 1966) could help to mitigate potential reactive effects produced by adult observers and provide naturalistic behavioral samples of children's assertive skills. In addition to valence, other situational variables (such as familiarity with, and the sex of, the interpersonal partner) must be examined to assess their influence on the social skills of children. The developmental aspects of assertiveness also need more clarification. It is not known to what extent assertive skill in childhood predicts later levels of assertiveness or social competence. For both practical and theoretical reasons, it is important to discover if adequate assertiveness in childhood provides immunity from "learned helplessness" (Seligman, 1975) and depression in adult life. If assertive responses help to effect the outcomes of social interactions and if the lack of response contingent social reinforcement is important in the etiology of depression (Lewinsohn, 1975) then we might expect that assertive children (and adults) would be less susceptible to depressive episodes. Clearly, more research is needed to test these important questions.

## SUMMARY

Although converging lines of research have demonstrated the importance of social skill to adaptation in life, and while researchers have identified the verbal and nonverbal components of assertiveness in adults, little research has been devoted to the assertive skills of children. However, before they can proceed with systematic interventions to remediate the assertiveness deficits of children, therapists need empirical data describing the nature of these deficits. It was toward this end that the present investigation was undertaken.

This study examined positive and negative assertive skill in 60 elementary school boys, grades three through eight. Subjects gave their role-played responses in standard analogue situations requiring the expression of positive and negative assertion. Responses were videotaped and later rated for specified behavioral components. In addition, subjects completed a self-report version of the behavioral test, and teachers provided ratings of subjects' assertive and other social behaviors.

High- and low-assertive subjects were identified through ratings of overall assertiveness. Results of this study indicate that: (a) the high- and low-assertive subjects differ on a number of response components which are related to age level and type of assertive situation (positive versus negative), (b) assertive skill is associated with role-taking (or decentering) ability, (c) teachers tend to perceive their assertive boys as more sociable and interpersonally sensitive

than unassertive boys, (d) there is essentially no correlation between teachers' ratings of aggressiveness and separate behavioral ratings of assertive skill, (e) behavioral ratings of assertiveness showed little relationship to self-report or teacher ratings of assertiveness.

The findings are discussed in relation to the literature on the assessment of the assertive behavior of adults. The present research sheds some light on the construct of assertiveness in boys and indicates which specific verbal and nonverbal behavioral components should be assessed prior to therapy in order to select relevant targets for modification.

## Reference Notes

1. Schnall, M., & Feffer, M. Role-Taking Task Scoring Criteria.  
Available through the American Documentation Institute (Document No. 58-44).
2. Hersen, M., Bellack, A. S., & Turner, S. M. Assessment of assertiveness in female psychiatric patients: Motoric, self-report, and physiological measures. Unpublished manuscript, 1977. (Available from Michel Hersen, Department of Psychiatry, University of Pittsburgh, School of Medicine, Pittsburgh, Pennsylvania).

## REFERENCES

- Alberti, R. E., & Emmons, M. L. Your perfect right. San Luis Obispo: Impact, 1974.
- Argyle, M., Bryant, B., & Trower, P. Social skills training and psychotherapy: A comparative study. Psychological Medicine, 1974, 4, 435-443.
- Argyle, M., Trower, P., & Bryant, B. Explorations in the treatment of personality disorders and neurosis by social skills training. British Journal of Medical Psychology, 1974, 47, 63-72.
- Barnard, G. W., Flesher, C. K., & Steinbook, R. M. The treatment of urinary retention by aversive stimulus cessation and assertive training. Behavior Research & Therapy, 1966, 4, 232-236/
- Bates, H. D., & Zimmerman, S. F. Toward the development of a screening scale for assertive training. Psychological Reports, 1971, 28, 99-107.
- Bellack, A. S., Hersen, M., & Turner, S. M. Generalization effects of social skills training in chronic schizophrenics: An experimental analysis. Behavior Research & Therapy, 1976, 14, 391-398.
- Bloomfield, H. H. Assertive training in an outpatient group of chronic schizophrenics: A preliminary report. Behavior Therapy, 1973, 4, 277-281.
- Boies, K. G. Role playing as a behavior change technique: Reivew of the empirical literature. Psychotherapy: Theory, Research, and Practice, 1972, 9, 185-192.

- Bornstein, M. R., Bellack, A. S., & Hersen, M. Social skills training for unassertive children: A multiple baseline analysis. Journal of Applied Behavioral Analysis, In press.
- Brown, R. Social psychology. New York: The Free Press, 1965.
- Bryant, B., & Trower, P. E. Social difficulty in a student sample. British Journal of Educational Psychology, 1974, 43, 13-21.
- Doering, M. F., Hamlin, R. M., Everstine, L., Eigenbrode, C. R., Chambers, G. S., Wolpin, M., & Lackner, F. M. The use of training to increase the intensity of angry verbalization. Psychological Monographs: General & Applied, 1962, 76 (37, Whole No. 556).
- Dubrow, M. Female assertiveness: How a pussycat can learn to be a panther. New York, 1975, 8(30), 40-45.
- Edwards, N. B. Case conference: Assertive training in a case of homosexual pedophilia. Journal of Behavior Therapy & Experimental Psychiatry, 1972, 3, 55-63.
- Eisler, R. M., Hersen, M., & Miller, P. M. Effects of modeling on components of assertive behavior. Journal of Behavior Therapy & Experimental Psychiatry, 1973, 4, 1-6.
- Eisler, R. M., Hersen, M., & Miller, P. M. Shaping components of assertive behavior with instructions and feedback. American Journal of Psychiatry, 1974, 131, 1344-1347.
- Eisler, R. M., Hersen, M., Miller, P. M., & Blanchard, E. B. Situational determinants of assertive behavior. Journal of Consulting and Clinical Psychology, 1975, 43, 330-340.
- Eisler, R. M., Miller, P. M., & Hersen, M. Components of assertive behavior. Journal of Clinical Psychology, 1973, 29, 295-299.

- Eisler, R. M., Miller, P. M., Hersen, M., & Alford, H. Effects of assertive training on marital interaction. Archives of General Psychiatry, 1974, 30, 643-649.
- Feffer, M. The cognitive implications of role-taking behavior. Journal of Personality, 1959, 27, 152-168.
- Feffer, M., & Gourevitch, V. Cognitive aspects of role-taking in children. Journal of Personality, 1960, 28, 384-396.
- Feffer, M., & Suchotliff, L. Decentering implications of social interactions. Journal of Personality and Social Psychology, 1966, 4, 415-422.
- Fensterheim, H. The initial interview. In A. A. Lazarus (Ed.), Clinical behavior therapy. New York: Brunner/Mazel, Inc., 1972.
- Fensterheim, H. Behavior therapy: Assertive training in groups. In C. J. Sager & H. S. Kaplan (Eds.), Progress in group and family therapy. New York: Brunner/Mazel, Inc., 1972b.
- Fensterheim, H. Assertive methods and marital problems. In R. D. Rubin, H. Fensterheim, J. D. Henderson, & L. P. Ullman (Eds.), Advances in behavior therapy. New York: Academic Press, 1972c.
- Frank, J. D. Therapeutic components of psychotherapy: A 25-year progress report of research. Journal of Nervous & Mental Disease, 1974, 159, 325-342.
- Friedman, P. H. The effects of modeling and role playing on assertive behavior. In R. D. Rubin, H. Fensterheim, A. A. Lazarus, & C. M. Franks (Eds.), Advances in behavior therapy. New York: Academic Press, 1971.

- Galassi, J. P., DeLo, J. S., Galassi, M. D., & Bastien, S. The college self-expression scale: A measure of assertiveness. Behavior Therapy, 1974, 5, 165-171.
- Galassi, J. P., & Galassi, M. D. Validity of a measure of assertiveness. Journal of Counseling Psychology, 1974, 21, 248-250.
- Galassi, J. P., & Galassi, M. D. Relationship between assertiveness and aggressiveness. Psychological Reports, 1975, 36, 352-354.
- Gittleman, M. Behavior rehearsal as a technique in child treatment. Journal of Child Psychology & Psychiatry, 1965, 6, 251-255.
- Goldsmith, J. B., & McFall, R. M. Development and evaluation of an interpersonal skill-training program for psychiatric inpatients. Journal of Abnormal Psychology, 1975, 84, 51-58.
- Hersen, M., & Barlow, D. H. Single-care experimental designs: Strategies for studying behavior change. New York: Pergamon Press, 1976.
- Hersen, M., & Bellack, A. S. Social skills training for chronic psychiatric patients: Rationale, research findings, and future directions. Comprehensive Psychiatry, 1976, 17, 559-580.
- Hersen, M., & Bellack, A. S. Assessment of social skills. In A. R. Ciminero, K. S. Calhoun, & H. E. Adams (Eds.), Handbook for behavioral assessment. New York: John Wiley & Sons, In press.
- Hersen, M., & Eisler, R. M. Social skills training. In W. E. Craighead, A. E. Kazdin, & M. J. Mahoney (Eds.), Behavior modification: Principles, issues, and applications. Boston: Houghton Mifflin Company, 1976.

- Hersen, M., Eisler, R. M., & Miller, P. M. Development of assertive responses: Clinical measurement and research considerations. Behavior Research & Therapy, 1973, 11, 505-521.
- Hersen, M., Eisler, R. M., & Miller, P. M. An experimental analysis of generalization in assertive training. Behavior Research & Therapy, 1974, 12, 295-310.
- Hersen, M., Eisler, R. M., Miller, P. M., Johnson, M. B., & Pinkston, S. G. Effects of practice, instructions and modeling on components of assertive behavior. Behavior Research & Therapy, 1973, 11, 443-451.
- Hewes, D. D. On effective assertive behavior: A brief note. Behavior Therapy, 1975, 6, 269-271.
- Katz, R. Case conference: Rapid development of activity in a case of chronic passivity. Journal of Behavior Therapy & Experimental Psychiatry, 1971, 2, 187-193.
- Kazdin, A. E. Effects of covert modeling and model reinforcement on assertive behavior. Journal of Abnormal Psychology, 1974, 83, 140-252.
- Kazdin, A. E. Covert modeling, imagery assessment, and assertive behavior. Journal of Consulting and Clinical Psychology, 1975, 43, 716-724.
- Kent, R. N., O'Leary, K. D., Diament, C., & Deitz, A. Expectation biases in observational evaluation of therapeutic change. Journal of Consulting and Clinical Psychology, 1974, 42, 774-780.

- Kreitler, H., & Kreitler, S. Validation of psychodramatic behavior against behavior in life. British Journal of Medical Psychology, 1968, 41, 185-192.
- Lawrence, P. S. The assessment and modification of assertive behavior. Unpublished doctoral dissertation, Arizona State University, 1970.
- Lazarus, A. A. Behavior therapy and beyond. New York: McGraw-Hill Book Company, 1971.
- Lazarus, A. A. On assertive behavior: A brief note. Behavior Therapy, 1973, 4, 697-698.
- Lewinsohn, P. M. The behavioral study and treatment of depression. In M. Hersen, R. M. Eisler, & P. M. Miller (Eds.), Progress in behavior modification (Vol. 1). New York: Academic Press, 1975.
- Lewinsohn, P. M., Weinstein, M. S., & Alper, T. A behavioral approach to the group treatment of depressed persons: A methodological contribution. Journal of Clinical Psychology, 1970, 26, 525-532.
- Libet, J. M., & Lewinsohn, P. M. The concept of social skill with special reference to the behavior of depressed persons. Journal of Consulting and Clinical Psychology, 1973, 40, 304-312.
- Lomont, J. F., Gilner, F. H., Spector, N. J., & Skinner, K. K. Group assertion training and group insight therapies. Psychological Reports, 1969, 25, 463-470.
- Ludwig, L. D., & Lazarus, A. A. A cognitive and behavioral approach to the treatment of social inhibition. Psychotherapy: Theory, Research, & Practice, 1972, 9, 204-206.

- MacDonald, M. L. Teaching assertion: A paradigm for therapeutic intervention. Psychotherapy: Theory, Research, & Practice, 1975, 12, 60-67.
- MacPherson, E. L. R. Selective operant conditioning and deconditioning of assertive modes of behavior. Journal of Behavior Therapy & Experimental Psychiatry, 1972, 3, 99-102.
- Martin, M. F., Gelfand, D. M., & Hartmann, D. P. Effects of adult and peer observers on boys' and girls' responses to an aggressive model. Child Development, 1971, 42, 1271-1275.
- McFall, R. M., & Lillesand, D. B. Behavior rehearsal with modeling and coaching in assertion training. Journal of Abnormal Psychology, 1971, 77, 313-323.
- McFall, R. M., & Marston, A. R. An experimental investigation of behavior rehearsal in assertive training. Journal of Abnormal Psychology, 1970, 76, 295-303.
- McFall, R. M., & Twentyman, C. T. Four experiments on the relative contributions of rehearsal, modeling, and coaching to assertion training. Journal of Abnormal Psychology, 1973, 81, 199-218.
- Morgan, W. G. The relationship between expressed social fears and assertiveness and its treatment implications. Behavior Research & Therapy, 1974, 12, 255-257.
- Nydegger, R. V. The elimination of hallucinatory and delusional behavior by verbal conditioning and assertive training: A case study. Behavior Therapy & Experimental Psychiatry, 1972, 3, 225-227.

- Patterson, G. R. An empirical approach to the classification of disturbed children. Journal of Clinical Psychology, 1964, 20, 326-337.
- Patterson, R. L. Time-out and assertive training for a dependent child. Behavior Therapy, 1972, 3, 466-468.
- Percell, L. P., Berwick, P. T., & Beigel, A. The effects of assertive training on self-concept and anxiety. Archives of General Psychiatry, 1974, 31, 502-504.
- Piaget, G. W., & Lazarus, A. A. The use of rehearsal desensitization. Psychotherapy: Theory, Research, & Practice, 1969, 6, 264-266.
- Rathus, S. A. A 30-item schedule for assessing assertive behavior. Behavior Therapy, 1973a, 4, 398-406.
- Rathus, S. A. Instigation of assertive behavior through videotape-mediated assertive models and directed practice. Behavior Research & Therapy, 1973b, 11, 57-65.
- Rathus, S. A., & Rupert, C. Assertion training in the secondary school and the college. Adolescence, 1973, 8, 257-264.
- Richards, T. W., & Simmons, M. P. The Fels child behavior scales. Genetic Psychology Monographs, 1941, 24, 259-309.
- Rimm, D. C. Assertive training used in treatment of chronic crying spells. Behavior Research & Therapy, 1967, 5, 373-374.
- Rimm, D. C., Hill, G. A., Brown, N. N., & Stuart, J. E. Group assertive training in treatment of expression of inappropriate anger. Psychological Reports, 1974, 34, 791-798.
- Rimm, D. C., & Masters, J. C. Behavior therapy: Techniques and empirical findings. New York: Academic Press, Inc., 1974.

- Rimm, D. C., Saunders, W. D., & Westel, W. Thought stopping and covert assertion in the treatment of snake phobics. Journal of Consulting and Clinical Psychology, 1975, 43, 92-93.
- Rohwer, W. D. Cognitive development and education. In P. H. Mussen (Ed.), Carmichael's manual of child psychology (Vol. 1). New York: John Wiley & Sons, Inc., 1970.
- Ross, A. E., Lacey, H. M., & Parton, D. A. The development of a behavior checklist for boys. Child Development, 1965, 36, 1013-1027.
- Salter, A. Conditioned reflex therapy. New York: Capricorn Books, 1961.
- Seligman, M. E. Helplessness: On depression, development, and death. San Francisco: W. H. Freeman and Company, 1975.
- Selman, R. L. Rating another's perspective: Role-taking development in early childhood. Child Development, 1971, 42, 1721-1734.
- Serber, M. Teaching the non-verbal components of assertive training. Journal of Behavior Therapy & Experimental Psychiatry, 1972, 3, 179-183.
- Serber, M., & Nelson, P. The ineffectiveness of systematic desensitization and assertive training in hospitalized schizophrenics. Journal of Behavior Therapy & Experimental Psychiatry, 1971, 2, 107-109.
- Shanley, L. A., Walker, R. E., & Foley, J. M. Social intelligence: A concept in search of data. Psychological Reports, 1971, 29, 1123-1132.

- Sherman, H., & Farina, A. Social adequacy of parents and children. Journal of Abnormal Psychology, 1974, 83, 327-330.
- Stevenson, I., & Wolpe, J. Recovery from sexual deviations through overcoming non-sexual neurotic responses. American Journal of Psychiatry, 1960, 116, 737-742.
- Thorpe, G. L. Desensitization, behavior rehearsal, self-instructional training, and placebo effects on assertive refusal behavior. European Journal of Behavioral Analysis & Modification, 1975, 1, 30-44.
- Wagner, M. K. Reinforcement of the expression of anger through role-playing. Behavior Research & Therapy, 1968a, 6, 91-95.
- Wagner, M. K. Comparative effectiveness of behavioral rehearsal and verbal reinforcement for effecting anger expressiveness. Psychological Reports, 1968b, 22, 1079-1080.
- Wahler, R. G., & Leske, G. Accurate and inaccurate observer summary reports. Journal of Nervous and Mental Disease, 1973, 156, 386-394.
- Walker, R. E., & Foley, J. M. Social intelligence: Its history and measurement. Psychological Reports, 1973, 33, 839-864.
- Wallace, C. J., Teigen, J. R., Liberman, R. P., & Baker, V. Destructive behavior treated by contingency contracts and assertive training: A case study. Journal of Behavior Therapy & Experimental Psychiatry, 1973, 4, 273-274.
- Watson, D., & Friend, R. Measurement of social evaluative anxiety. Journal of Consulting and Clinical Psychology, 1969, 33, 448-457.

- Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. Unobtrusive measures: Nonreactive research in the social sciences. Chicago: Rand McNally & Company, 1966.
- Weinman, B., Gelbart, P., Wallace, M., & Post, M. Inducing assertive behavior in chronic schizophrenics: A comparison of socioenvironmental, desensitization, and relaxation therapies. Journal of Consulting and Clinical Psychology, 1972, 39, 246-252.
- Weinstein, E. The development of interpersonal competence. In D. A. Goslin (Ed.), Handbook of socialization theory and research. Chicago: Rand McNally, 1969.
- Wolpe, J. The instigation of assertive behavior: Transcripts from two cases. Journal of Behavior Therapy & Experimental Psychiatry, 1970, 1, 145-151.
- Wolpe, J. The practice of behavior therapy. New York: Pergamon Press, 1973a.
- Wolpe, J. Supervision transcript: V--mainly about assertive training. Journal of Behavior Therapy & Experimental Psychiatry, 1973b, 4, 141-148.
- Wolpe, J., & Lazarus, A. A. Behavior therapy techniques. New York: Pergamon Press, 1966.
- Young, E. R., Rimm, D. C., & Kennedy, T. D. An experimental investigation of modeling and verbal reinforcement in the modification of assertive behavior. Behavior Research & Therapy, 1973, 11, 317-319.

Zigler, E., & Phillips, L. Social competence and outcome in psychiatric disorder. Journal of Abnormal & Social Psychology, 1961, 63, 264-271.

Zigler, E., & Phillips, L. Social competence and the process-reactive distinction in psychopathology. Journal of Abnormal & Social Psychology, 1962, 65, 215-222.

APPENDIX A

## APPENDIX A

### INSTRUCTIONS TO TEACHERS FOR RATING THE BEHAVIORAL ASSERTIVENESS TEST ITEMS

On the following pages you will find 50 situations which could possibly confront an elementary school boy. Each scene consists of a narration and a prompt. I will be using some of these in a research study of assertive behavior in boys and I would like your help in selecting those situations which a boy might be likely to encounter.

The "narrator" in each scene sets the stage, so to speak, by describing the location, the activity, and the persons present. The "prompt" is something said by a person in the scene to which the boy is asked to give his response.

The scenes have been designed to elicit either a negative assertive response or a commendatory assertive response. Negative and commendatory assertions may be defined as "person's ability to express his rights and feelings towards others, whether these are positive or negative."

With this definition in mind, I would like you to rate the following scenes on a five-point scale according to how commonly you think a boy might confront such a situation. Please rate each scene on the scale below:

5---extremely common

4---very common

3---moderately common

2---somewhat common

1---uncommon

Please write your rating in the margin to the left of each scene.  
Thank you.

## A BEHAVIORAL ASSERTIVENESS TEST FOR BOYS--SCENES FOR NEGATIVE ASSERTION

1. Narrator: Pretend that you are at home watching your favorite T.V. program with your friend. He gets up and turns on something you don't like.  
Prompt: "Let's watch this instead."
2. Narrator: Pretend that you lent your pencil to a boy in your class. He brings it back to you but he broke the point and didn't sharpen it.  
Prompt: "Here's the pencil. I broke the point."
3. Narrator: 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.  
Prompt: "Let us cut in front of you."
4. Narrator: Pretend that a boy in your class has borrowed your book but now you need it and you want it back. He comes over to you and says:  
Prompt: "I want to keep your book until next week."
5. Narrator: Imagine that you are in school watching a movie and you get up to get a drink of water. When you go back to your seat you find some boy sitting there. He says:  
Prompt: "I'm sitting here."
6. Narrator: 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:  
Prompt: "I want to keep your bike until tomorrow, OK?"
7. Narrator: You have been working on a drawing in art class and you really like it. You get up to go to the water fountain and when you come back you find that the boy next to you scribbled all over your drawing and ruined it. He says:  
Prompt: "I didn't like your drawing so I scribbled on it."
8. Narrator: You are running down the street and a boy trips you on purpose and you fall on the sidewalk. He says:  
Prompt: "Do you look silly, ha ha ha!"
9. Narrator: One of the kids in your class is having a birthday party. One of the boys in your room eats your ice cream and cake. You wanted it. He says:  
Prompt: "I was really hungry."

10. Narrator: 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:  
Prompt: "C'mon, let's play another game; don't leave now."
11. Narrator: You are trying to do your homework but your brother is playing the record player so loud that it is bothering you. You want him to be quiet and he says:  
Prompt: "Where are the other records?"
12. Narrator: You go over to your friend's house to play but he has to rake the leaves first. He says:  
Prompt: "Here, you rake these leaves. I want to read this comic books."
13. Narrator: Imagine that you are watching your favorite T.V. show. Your friend comes to your door and says:  
Prompt: "How 'bout helping me clean up my garage? "
14. Narrator: A boy in your class has been teasing you and calling you names. On your way home from school he says:  
Prompt: "Hey, what's the matter?"
15. Narrator: 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:  
Prompt: "Let me have a dollar. I'll pay you back tomorrow."
16. Narrator: Pretend that you really wanted to go to the park but your friend says:  
Prompt: Naw, stay here with me."
17. Narrator: Yesterday you told your friend a secret that you didn't want anyone else to know. Today you find that everyone in your class has heard it. Your friend says:  
Prompt: "I guess I told a few people."
18. Narrator: You are at the store and you want to buy something very much but you don't have quite enough money. You know that your friend has some extra money that he doesn't need. He says:  
Prompt: "What's the matter, don't you have enough money?"
19. Narrator: Your friend is teasing you and you are getting tired of it. He says:  
Prompt: "What's the matter, can't you take a joke?"
20. Narrator: A boy in your class has been teasing you and calling you names. He comes over to you later and says:  
Prompt: "Hey, I shouldn't have done that. I'm sorry."

21. Narrator: A boy in your class has a pile of books on his desk and someone knocked them all over the floor. He thinks you did it and he says:  
Prompt: "OK, now you can pick them up!"
22. Narrator: You are at school carrying a great big pile of papers and when you trip on the stairs the papers go flying all over the place. You would like some help picking them up. A boy in your class comes over and says:  
Prompt: "Boy, what a mess."
23. Narrator: You are at the movies and it's a really good show but some boy in the seat behind you is making a bunch of noise and is bothering you. You turn around and he says:  
Prompt: "Boy, this movie stinks."
24. Narrator: Some boys from your class are playing ball on the playground and are having lots of fun. You are standing on the side and you wish you could play. One of them says:  
Prompt: "Hey, there's \_\_\_\_\_ (child's name)."
25. Narrator: A friend of yours got a new bike and he let everybody ride on it except you. You feel bad about this. He says:  
Prompt: "Hey, what's the matter?"

## BEHAVIORAL ASSERTIVENESS TEST FOR BOYS--SCENES FOR COMMENDATORY ASSERTION

1. Narrator: A boy in your class drew a picture and he thinks that it's really good. You think so too. He says:  
Prompt: "How do you like my picture?"
2. Narrator: You forgot your lunch at home. A boy in your class sees that you don't have anything to eat. You are really hungry. He says:  
Prompt: "Here, have one of my sandwiches."
3. Narrator: You are drawing a picture in art class and your pencil breaks. The boy next to you wants to help out. He says:  
Prompt: "I'll go sharpen your pencil for you."
4. Narrator: Your friend got a new coat for his birthday, the kind he's always wanted. He puts it on so you can see it. You think it looks really good. He says:  
Prompt: "How do you like my coat?"
5. Narrator: You are on the playground and you fall down. A boy comes over and gives you his hand. He says:  
Prompt: "Here, let me help you."
6. Narrator: You are with your friend at the ice cream store but you don't have any money. You would really like to have an ice cream cone. Your friend says:  
Prompt: "I have some extra money. Here's an ice cream cone."
7. Narrator: Your friend shows you his report card. He got very good grades and you know he studied very hard. He says:  
Prompt: "What do you think of this?"
8. Narrator: 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:  
Prompt: "Here, I hope you like it."
9. Narrator: There is a new boy in your class and this is his first day in school. He doesn't know anyone and he looks lonely. You wish he felt happier. He comes over to you and says:  
Prompt: "Hello. My name is John."
10. Narrator: Imagine that you got a new sweater for your birthday. You like it very much. Your friend says:  
Prompt: "Gee, I really like your sweater. It really looks good on you."

11. Narrator: You want to ride your bike but it's broken. Your friend says that you can ride his. You're really glad. He says:  
Prompt: "Here, you can use my bike."
12. Narrator: You are on the playground and one of the little children falls down. Your friend goes over and helps the child up and makes sure that he's not hurt. You are really glad that your friend is kind and would like to tell him so. He comes back and says:  
Prompt: "He's OK; just a bruise."
13. Narrator: A boy in your room had to tell a story in front of the whole class. You thought it was very good. Later on he says:  
Prompt: "How did you like my story."
14. Narrator: You are playing football with some of the boys from your school. One of them makes a terrific catch and runs for a touchdown. He's on your team and he says:  
Prompt: "How did you like that one?"
15. Narrator: A boy in your class gives you a piece of cake that his mother made. When you finish it he says:  
Prompt: "Well?"
16. Narrator: Your friend invited you to go to a movie with his family. When they bring you home your friend says:  
Prompt: "I hope you had a good time."
17. Narrator: You're walking to the park with your best friend. He says:  
Prompt: "I hope we'll always be friends."
18. Narrator: A boy you know got a new baseball uniform. He puts it on so he can show it to you. He says:  
Prompt: "How do you like it?"
19. Narrator: You drew a picture in art class and the boy next to you says:  
Prompt: "Wow, that's really great!"
20. Narrator: You're on the playground and a boy falls down and hurts himself. You go over to help and he says:  
Prompt: "Ow! That really hurts!"
21. Narrator: Your friend's dog died and he feels terrible and he's crying. You want to make him feel better. He says:  
Prompt: "I'm really going to miss her."
22. Narrator: Your friend got a new bike. He's really happy with it and he wants to show it to you. He says:  
Prompt: "How do you like it?"

23. Narrator: A boy in your class buys you an ice cream cone and you didn't even have to ask him for one even though you wanted one.

He says:

Prompt: "Here, have an ice cream cone."

24. Narrator: You are walking home from school and you drop your books all over the sidewalk. Your friend says:

Prompt: "Here, let me help you pick up those books."

25. Narrator: You have to rake the leaves before you can go out and play. Your friend says:

Prompt: "I'll give you some help with those leaves."

APPENDIX B

## APPENDIX B

### INTRODUCTION TO THE RATER'S OVERALL ASSERTIVENESS TRAINING TAPE

On this film you will be shown segments of videotape of five children responding to a behavioral assertiveness test. The scenes to which they will be responding are of two general types: negative and positive.

For the negative assertive scenes three children will give their responses. The scenes are grouped into three levels of skill. In level 1, the children give very unassertive responses. These are followed by a group of responses which are moderately assertive and which merit a rating of three. Finally, the children respond with very assertive responses which are given the rating of five.

Following this section, you will see two children give their replies to scenes designed to elicit positive assertive responses. Again, the scenes are presented at three levels of skill. The first group, showing very unassertive responses, are given a rating of one. These are followed by moderately assertive responses which are given a rating of three. Finally, very assertive responses will be shown and these are assigned a rating of five.

Later, you will be asked to make your ratings of overall assertiveness based on the definitions of positive and negative assertiveness which you have been given and the scenes you view here, representing three levels of skill, will serve as anchor points to help facilitate your ratings. On the ratings you actually make, however, you will be asked to assign scores of one through five, with one representing a very unassertive response and five representing a very assertive response. Responses of intermediate skill level will be given a rating of 2, 3, or 4 depending on your judgment.

Now in just a few moments the first group of scenes, the negative ones, will be seen. Skill level one will be presented first followed by level three, and then level five.

Here comes level one. The narration for the first scene begins with the words: "Imagine you lent your pencil to Joanie. . ."

APPENDIX C

## APPENDIX C

### INSTRUCTIONS FOR RATERS OF OVERALL ASSERTIVENESS

A. Oppositional assertive behavior involves expressing legitimate opposition or making demands in socially appropriate ways in an interpersonal situation. It may involve standing up for one's reasonable rights or it may involve saying "No" to unreasonable or unpleasant requests. Oppositional assertive behavior is not aggressive behavior (e.g., bullying, violence, sarcasm, intimidation, etc.) because aggressive behavior is socially reprehensible and is aimed at harming another person. Oppositional assertive behavior is based on the legitimate personal rights which people are entitled to exercise and it may involve the expression of such feelings as anger, resentment, displeasure, or disappointment.

B. Commendatory assertive behavior involves such "positive feelings as: affection, praise, endearment, appreciation, respect, joy, adulation, liking, gratitude, caring, and the like. Commendatory assertive skill involves the ability to accept from others as well as express such feelings in an interpersonal situation. Deficits in commendatory assertive ability are seen, for example, where a person does not express affection which one feels (or joy, or regard, or respect, etc.) or in fawning types of affectionate expression which are not genuine.

APPENDIX D

## APPENDIX D

### INSTRUCTIONS TO THE SUBJECTS FOR THE ROLE-TAKING TASK

I have a picture here and I'd like you to tell me a story about it. Here it is (handing the picture to him). Make up a story for this picture. (When the subject has completed his story, the tape is replayed for him to hear it. He is then asked to retell the story from the points of view of each of the characters, in the order in which they were introduced by him.) Now make believe that you are \_\_\_\_\_ (the first character) in the story you just made up. Tell the story again like you are \_\_\_\_\_. (These last instructions are repeated for the other two characters.)

APPENDIX E

## APPENDIX E

### TEACHER RATINGS OF ASSERTIVENESS

In this section you will be asked to make two ratings based on the definitions of oppositional assertive behavior and commendatory assertive behavior given below.

A. Oppositional assertive behavior involves expressing legitimate opposition or making demands in socially appropriate ways in an interpersonal situation. It may involve standing up for one's reasonable rights or it may involve saying "No" to unreasonable or unpleasant requests. Oppositional assertive behavior is not aggressive behavior (e.g., bullying, violence, sarcasm, intimidation, etc.) because aggressive behavior is socially reprehensible and is aimed at harming another person. Oppositional assertive behavior is based on the legitimate personal rights which people are entitled to exercise and it may involve the expression of such feelings as anger, resentment, displeasure, or disappointment. Consider this example that one of your students might encounter:

He is in the movies and some boy in the seat behind him is making quite a bit of noise and this is bothering him. When he turns around, the noisy boy says, "This movie stinks!"

A good oppositional assertive response in such a situation might be: "I can't hear the movie while you are talking. Would you please be quiet or sit somewhere else." This response contrasts with an aggressive response such as: "Shut up!" An overly inhibited reaction to this situation would be to say nothing and to "try and ignore" the irritating person.

B. Commendatory assertive behavior involves such "positive" feelings as: affection, praise, endearment, appreciation, respect, joy, adulation, liking, gratitude, caring, and the like. Commendatory assertive skill involves the ability to accept from others as well as express such feelings in an interpersonal situation. Consider this example:

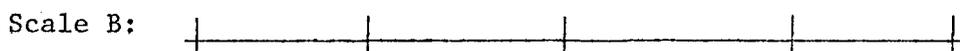
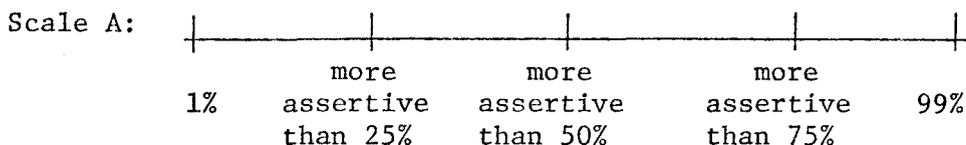
Student "A" forgot his lunch at home and he is very hungry.

Student "B" notices this and says: "Here, you can have one of my sandwiches."

Student "A" might reply: "Gee, thanks a lot. That's really nice of you. Tomorrow I'll give you one of my candy bars." Such a response would be considered an appropriate commendatory assertion in that it entails gratitude (Gee, thanks a lot), praise (that's really nice of you), and the spontaneous offer of some positive behavior (tomorrow I'll give you one of my candy bars). A less complete expression of commendatory assertion might be limited to simple gratitude alone (thanks). A lack of commendatory assertive skill might be reflected in the refusal of the offer of the sandwich ("No thanks, I'm not really hungry"--when, in fact, he is). Deficits in commendatory assertive ability are seen, for example, where a person does not express affection which he feels (or joy, or regard, or respect, etc.) or in fawning types of affectionate expression which are not genuine.

Now, based on the descriptions of oppositional and commendatory assertion you have just read, and on your observations of \_\_\_\_\_'s interactions with other boys during the year, please make the following two ratings.

A. How does \_\_\_\_\_ compare with other boys in your school in oppositional assertive ability? Please place an "X" somewhere along Scale A to indicate your rating. Your rating need not fall at one of the quartiles.



B. How does he compare with other boys in your school in commendatory assertive ability? Please place your "X" somewhere along Scale B above to indicate your rating. Again, your rating need not fall at one of the quartiles.

APPENDIX F

APPENDIX F

Child's Name: \_\_\_\_\_

INSTRUCTIONS TO TEACHERS FOR MAKING OBSERVATIONS  
AND RATINGS ON THE "SENSITIVENESS TO OTHERS" SCALE

1. Familiarize yourself thoroughly with the scale before making observations so as to focus your attention on the variable to be rated.
2. Concentrate on building up a generalized impression of the child's value on the variable, rather than on recording concrete incidents and details.
3. Compare freely one child with another, as the rating proceeds, revising previous ratings as needed, so that when completed the sheet checks for absolute ratings and for comparative ratings as well.
4. In rating a child with reference to others, disregard age as far as you can. Rate his behavior.
5. Your entry on the rating line is an "X" to be placed directly on the line at the point best representing your judgment of the location of the ratee on that scale. This point is termed the "score." It may fall anywhere along the line from one extreme to another, regardless of whether it falls opposite a cue point or somewhere between or beyond the cues.
6. Treat the scale as a smooth gradation from one extreme to the other. Use the cue points merely as points of reference in building up your concept of the total variable, rather than as discrete items to be checked.
7. The variable "sensitiveness to others" is a complex of loosely correlated elements, and is defined by the descriptions and all the cues on the sheet taken as a whole. Avoid mere reference to the "name" of the variable; the name is merely a convenient handle for reference and may be very misleading if taken by itself to define the variable.

\*\*\*\*\*

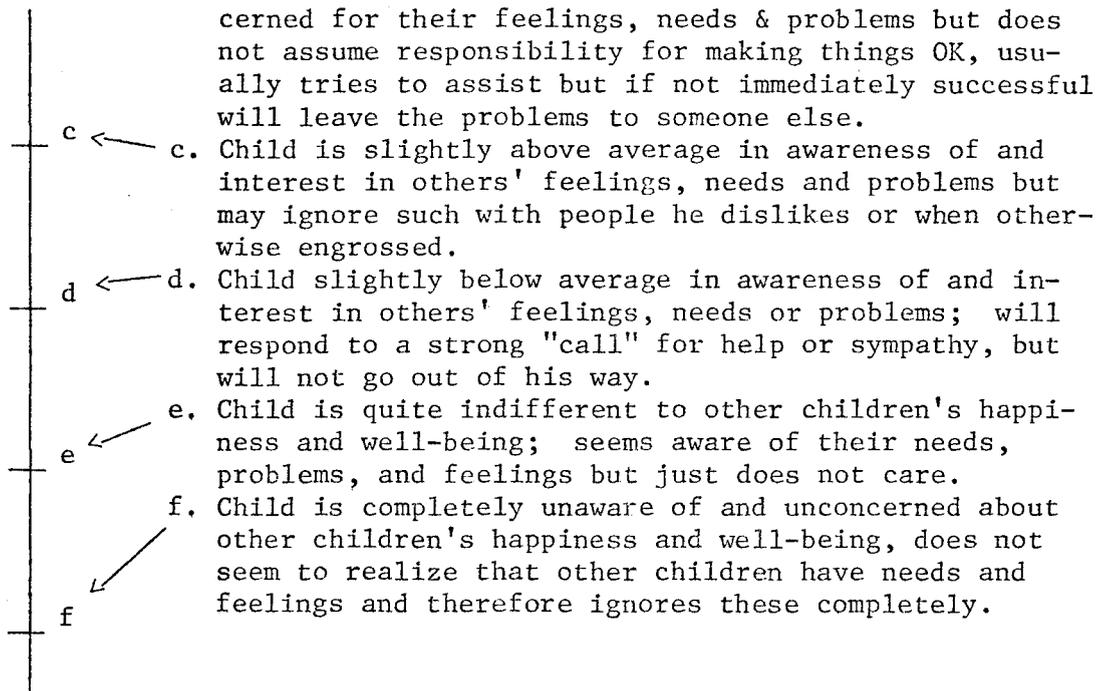
"SENSITIVENESS TO OTHERS" SCALE

Description: Overall rating on child's "tender" behaviors and sensitiveness to other children's feelings, problems and needs. Three aspects of the child's apparent thoughtfulness with his peers are relevant: 1) awareness of other children's feelings, needs, problems, etc.; 2) extent of his concern about them; and 3) the behavior manifestation of his awareness and concern.

PLACE YOUR "X" SOMEWHERE ALONG THIS SCALE

- |  |   |   |
|--|---|---|
|  | a | ← a. Child goes out of way to preserve and/or restore happiness & well-being of other children; unusual awareness and concern for children's feelings, needs & problems, tends to assume responsibility for making things OK. |
|  | b | ← b. Child interested in preserving and/or restoring happiness and well-being of other children; aware and con-   |

PLACE YOUR "X" SOMEWHERE ALONG THIS SCALE



APPENDIX G

APPENDIX G

PITTSBURGH ADJUSTMENT SURVEY SCALES

Please rate \_\_\_\_\_ on each of the behaviors listed below according to the following scale:

- 0 = not descriptive
- 1 = somewhat descriptive
- 2 = definitely descriptive

Please make a rating for each item, using your "best guess" for those situations about which you might not have first-hand knowledge. Please indicate your rating by circling the appropriate number for each item.

- |  |   |   |   |
|--|---|---|---|
| 1. He is friendly.....   | 0 | 1 | 2 |
| 2. He tends to give up if he has something hard to finish.....                 | 0 | 1 | 2 |
| 3. He interrupts whoever is speaking.....                                      | 0 | 1 | 2 |
| 4. He is a restless boy.....   | 0 | 1 | 2 |
| 5. He starts fighting over nothing.....  | 0 | 1 | 2 |
| 6. He is a helpful child.....  | 0 | 1 | 2 |
| 7. He is alert in class.....   | 0 | 1 | 2 |
| 8. He is afraid of loud noise.....   | 0 | 1 | 2 |
| 9. He is rude to adults.....   | 0 | 1 | 2 |
| 10. On the playground he just stands around.....                               | 0 | 1 | 2 |
| 11. He acts up when I'm not watching.....                                      | 0 | 1 | 2 |
| 12. He volunteers to recite in class.....                                      | 0 | 1 | 2 |
| 13. He hits and pushes other children.....                                     | 0 | 1 | 2 |
| 14. His hands shake when he is called on to recite.....                        | 0 | 1 | 2 |
| 15. He finds fault with what other children do.....                            | 0 | 1 | 2 |
| 16. He approaches a difficult task with an air of defeatism....                | 0 | 1 | 2 |
| 17. He is considerate of others.....   | 0 | 1 | 2 |
| 18. Other children are afraid of him.....                                      | 0 | 1 | 2 |
| 19. He lacks the ambition to do well in school.....                            | 0 | 1 | 2 |
| 20. He does things to get others angry.....                                    | 0 | 1 | 2 |
| 21. He will put up an argument when told that he can't do something.....       | 0 | 1 | 2 |
| 22. He does his homework.....  | 0 | 1 | 2 |
| 23. He teases other children.....  | 0 | 1 | 2 |
| 24. He is afraid of making mistakes.....                                       | 0 | 1 | 2 |
| 25. He is bossy with other children.....                                       | 0 | 1 | 2 |
| 26. He is easily upset by changes in things around him.....                    | 0 | 1 | 2 |
| 27. He is sure of himself.....   | 0 | 1 | 2 |
| 28. He uses abusive language toward other children.....                        | 0 | 1 | 2 |
| 29. He has changeable moods.....   | 0 | 1 | 2 |
| 30. He gives in when another child insists on doing something another way..... | 0 | 1 | 2 |
| 31. He does not respect other people's belongings.....                         | 0 | 1 | 2 |
| 32. He does not forget things that anger him.....                              | 0 | 1 | 2 |
| 33. He seems to be off in a world of his own.....                              | 0 | 1 | 2 |
| 34. Any form of discipline makes him furious.....                              | 0 | 1 | 2 |
| 35. He likes an audience all the time.....                                     | 0 | 1 | 2 |

36. He keeps his angry feelings to himself.....	0	1	2
37. He has to have everything his own way.....	0	1	2
38. He works well by himself.....	0	1	2
39. When angry he will refuse to speak to anyone.....	0	1	2
40. His school performance is far below his capabilities.....	0	1	2
41. He has no friends.....	0	1	2
42. He hates everybody who comes near him.....	0	1	2
43. In competitive games he is able to hold his own with other children.....	0	1	2
44. He will not ask questions even when he does not know how to do the work.....	0	1	2
45. He fights back if another child has been asking for it.....	0	1	2
46. He never seems to be still for a moment.....	0	1	2
47. He argues with me.....	0	1	2
48. He is able to concentrate on things.....	0	1	2
49. He boasts about how tough he is.....	0	1	2
50. He seems to think that he is worthless.....	0	1	2
51. He tries to be the center of attention.....	0	1	2
52. He "drags his feet" when requested to do something.....	0	1	2
53. He accepts my suggestions.....	0	1	2
54. He sulks when things go wrong.....	0	1	2
55. He becomes frightened easily.....	0	1	2
56. He resents even the most gentle criticism of his work.....	0	1	2
57. He is never a leader with children his own age.....	0	1	2
58. He is able to see the bright side of things.....	0	1	2
59. He fights with smaller children.....	0	1	2
60. He rarely gets over excited.....	0	1	2
61. He is fearful of being hurt at play.....	0	1	2
62. He is stubborn.....	0	1	2
63. He never speaks up even when he has every right to be angry.....	0	1	2
64. He is interested in schoolwork.....	0	1	2
65. He tries to get other children into trouble.....	0	1	2
66. He does things just to attract attention.....	0	1	2
67. He never fights back even if someone hits him first.....	0	1	2
68. He prefers to attach himself to an adult rather than play with children.....	0	1	2
69. He is popular with his classmates.....	0	1	2
70. He does things that are normal for children much younger than he.....	0	1	2
71. He never sticks up for himself even when other children pick on him.....	0	1	2
72. He threatens to hurt other children when he is angry.....	0	1	2
73. He is not frustrated when trying new things on his own.....	0	1	2
74. He does not take orders when other children are in charge..	0	1	2
75. He prefers to be alone and play alone.....	0	1	2
76. He finishes his classroom assignments.....	0	1	2
77. He gives other children dirty looks.....	0	1	2
78. He deliberately interrupts what is going on by asking silly questions.....	0	1	2
79. He is slow in making friends.....	0	1	2

80. He seems as happy as most other children.....	0	1	2
81. He finds fault with instructions given by adults.....	0	1	2
82. He seems unconcerned when he misbehaves.....	0	1	2
83. He cries easily.....	0	1	2
84. He is afraid of strange adults.....	0	1	2
85. He is self-confident.....	0	1	2
86. When angry he will do things like slamming the door or bang- ing the desk.....	0	1	2
87. He acts in a "daredevil", fearless manner.....	0	1	2
88. He has difficulty speaking clearly when he is excited or upset.....	0	1	2
89. He has a "chip on his shoulder".....	0	1	2
90. He becomes embarrassed easily.....	0	1	2
91. He never shows his anger.....	0	1	2
92. He disturbs other children with his boisterous behavior....	0	1	2
93. He sometimes reacts with temper tantrums.....	0	1	2
94. Everyone gets along with him quite easily.....	0	1	2

APPENDIX H

## APPENDIX H

### SELF-REPORT ASSERTIVENESS TEST FOR BOYS INSTRUCTIONS TO STUDENTS

Student's Name \_\_\_\_\_

On the next few pages there are some situations. Please read each situation and pretend that you are with people you know and pretend that it is happening right now. You might be asked to pretend that you are playing outside, or doing work in school, or watching T.V. and so forth.

In each situation, the other person will say something to you. Please look at the statements and decide which one you might say in that situation. Put an "X" in the blank next to the statement you would probably use. If you would say more than one of the statements, put an "X" next to each one that you would say.

For example, here's a situation:

One of the kids in your class is having a birthday party. One of the boys in your room eats all your ice cream and cake and you wanted it. He says: "I was really hungry."

I would say:

- \_\_\_\_\_ A. You jerk! That was mine!
- \_\_\_\_\_ B. That's OK, I can get some more.
- \_\_\_\_\_ C. You shouldn't have eaten that.
- \_\_\_\_\_ D. Please go get me some more.
- \_\_\_\_\_ E. I probably wouldn't say anything.

If you would say "That's OK, I can get some more," you would put your "X" in the blank space next to Statement B. Or, if you would say "Please go get me some more. You shouldn't have eaten that" you would put an "X" next to Statement D and Statement C. If you would probably say nothing, you would put your "X" next to Statement E. If you might say "You jerk! That was mine!" your "X" would go next to Statement A.

Now turn the page and begin with Situation 1. There are twenty-four situations in all. Be sure to make your answers with an "X" and do all 24 situations.

1. You forgot your lunch at home. A boy in your class sees that you don't have anything to eat. You are real hungry. He says: "Here, have one of my sandwiches."

I would say:

- A. No thanks. I'm not too hungry.
- B. I probably wouldn't say anything.
- C. I'll give you one of mine tomorrow.
- D. Thanks a lot.
- E. That's really nice of you.

2. Pretend that you really wanted to go to the park but your friend says: "Naw, stay here with me."

I would say:

- A. I probably wouldn't say anything.
- B. What do you want to stay here for stupid, there's nothing to do here.
- C. I'd rather go to the park.
- D. No, let's go the park, there's more to do there.
- E. OK, maybe we could go later.

3. A boy in your class drew a picture and he thinks it is really good. You think so too. He says: "How do you like my picture?"

I would say:

- A. You really did a good job.
- B. I probably wouldn't say anything.
- C. You ought to see my picture.
- D. I'll help you pin it up.
- E. Thanks for showing it to me.

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

I would say:

- A. Where did you get it?
- B. Hey, thanks!
- C. Oh wow, you remembered that I wanted one of those!
- D. You can borrow it any time you want.
- E. I probably wouldn't say anything.

5. You are with your friend at the ice cream store but you don't have any money. You would really like to have an ice cream cone. Your friend says: "I have some extra money, here's an ice cream cone."

I would say:

- A. No thanks, I don't need one.
- B. I'll buy you one when I get some money.
- C. I probably wouldn't say anything.
- D. You're OK, man.
- E. Thanks a lot.

6. You are out playing with your friends and having a good time but you know that your mother wants you 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: "Come on, let's play another game, don't leave now!"

I would say:

- A. I probably wouldn't say anything.
- B. No, I'm leaving. See you later.
- C. OK, just one more.
- D. Let's wait till tomorrow.
- E. I don't want to play with you bums anymore.

7. You are in the movies and it is a really good show but some boy in the seat behind you is making a bunch of noise and it is bothering you. You turn around to say something to him and he says: "This movie stinks!"

I would say:

- A. I wouldn't say anything and I'd just try to ignore him.
- B. I think the movie is good and I can't hear it when you're talking.
- C. Why don't you shut up, big-mouth!
- D. Please be quiet.

8. You are playing football with some of the boys from your school. One of them makes a terrific catch and runs for a touchdown. He's on your team and he says: "How did you like that one?"

I would say:

- A. I'll buy you a coke for that one!
- B. Great catch!
- C. I probably wouldn't say anything.
- D. We ought to be able to win now.
- E. It was OK.

9. You want to ride your boke but it is broken. Your friend says that you can ride his. You're really glad. He says: "Here, you can use my bike."

I would say:

- A. Hey, that's really nice of you!
- B. You can use mine when it is fixed.
- C. I probably wouldn't say anything.
- D. No, that's OK. Mine will be fixed soon.
- E. Thanks a lot.

10. You drew a picture in art class and the boy next to you says: "Wow, that's really great!"

I would say:

- A. I probably wouldn't say anything.
- B. I like it too, thanks.
- C. I'll draw one for you too if you want.
- D. You can draw good too.
- E. It's no big deal.

11. You are running down the street and a boy trips you on purpose and you fall on the sidewalk. He says: "Do you look silly, ha, ha, ha!"

I would say:

- A. OUCH! That hurts.
- B. I probably wouldn't say anything.
- C. Don't do that again.
- D. I'll fix you good, you jerk!
- E. You had no right to do that.

12. Your friend got a new bike. He's really happy with it and he wants to show it to you. He says: "How do you like it?"

I would say:

- A. I'll help you wash it sometime.
- B. I probably wouldn't say anything.
- C. Thanks for showing me your bike.
- D. That's a really neat color.
- E. Where did you get it?

13. You are at school carrying a great big pile of papers and when you trip on the stairs the papers go flying all over the place. You would like some help picking them up. A boy in your class comes over and says: "Boy, what a mess!"

I would say:

- A. Would you help me pick them up?
- B. Ya, I really goofed up.
- C. Don't just stand there you turkey!
- D. I probably wouldn't say anything.
- E. It's no big deal.

14. A boy in your room had to tell a story in front of the whole class. You thought it was very good. Later on he says: "How did you like my story?"

I would say:

- A. I probably wouldn't say anything.
- B. Here, I'll buy you a coke.
- C. I'm glad you told the class about it.
- D. That was a really good story!
- E. Did that really happen?

15. You have been working on a drawing in art class and you really like it. You get up to go to the water fountain and when you come back you find that the boy next to you scribbled all over your drawing and ruined it. He says: "I didn't like your drawing so I scribbled on it."

I would say:

- A. That's alright. I wasn't going to keep it.
- B. I'm going to tell the teacher what you did.
- C. I probably wouldn't say anything.
- D. Erase all your scribbling and don't do that again.
- E. It was mine and you didn't have any right to mess it up.

16. Pretend that you are at home watching your favorite T.V. program with your friend. He gets up and turns on something that you don't like. He says: "Let's watch this instead."

I would say:

- A. Hey, you idiot!
- B. I want to watch that other show, it's my favorite.
- C. Turn it back to the other program.
- D. I probably wouldn't say anything.
- E. Okay.

17. A boy in your class has a pile of books on his desk and someone knocked them all over the floor. He thinks you did it and he says: "Okay, now you can pick them up!"

I would say:

- A. Okay, I'll help you.
- B. I probably wouldn't say anything.
- C. Don't tell me what to do!
- D. I didn't do it!
- E. Tell him to pick them up, he knocked them over.

18. Imagine that you are in school watching a movie and you get up to get a drink of water. When you go back to your seat you find some boy sitting there. He says: "I'm sitting here!"

I would say:

- A. Alright, I can sit over there.
- B. Get out of my seat now or you'll get in trouble!
- C. Please take one of those empty seats.
- D. That's my seat.
- E. I probably wouldn't say anything.

19. Your friend shows you his report card. He got very good grades and you knew he studied very hard. He says: "What do you think of this?"

I would say:

- \_\_\_\_\_ A. I probably wouldn't say anything.
- \_\_\_\_\_ B. Since you did so well I'll buy you a coke.
- \_\_\_\_\_ C. See, I knew you could do it!
- \_\_\_\_\_ D. I'm really glad you showed me how you did.
- \_\_\_\_\_ E. I could do that well too if I studied more.

20. Your friend is teasing you and you are getting really tired of it. He says: "What's the matter, can't you take a joke?"

I would say:

- \_\_\_\_\_ A. I wouldn't say anything and just walk away.
- \_\_\_\_\_ B. Cut it out.
- \_\_\_\_\_ C. That's not very funny.
- \_\_\_\_\_ D. You think you're real funny, don't you!

SCORING KEY FOR THE BOYS' SELF-REPORT  
ASSERTIVENESS TEST

1. A. Irrelevancy  
B. No response  
C. Spontaneous Positive Behavior  
D. Appreciation  
E. Regard
2. A. No response  
B. Aggression  
C. Non-compliance  
D. Request  
E. Compliance
3. A. Regard  
B. No response  
C. Irrelevancy  
D. Spontaneous Positive Behavior  
E. Appreciation
4. A. Irrelevancy  
B. Appreciation  
C. Regard  
D. Spontaneous Positive Behavior  
E. No response
5. A. Irrelevancy  
B. Spontaneous Positive Behavior  
C. No response  
D. Regard  
E. Appreciation
6. A. No response  
B. Non-compliance  
C. Compliance  
D. Request  
E. Aggression
7. A. No response  
B. Non-compliance  
C. Aggression  
D. Request
8. A. Spontaneous Positive Behavior  
B. Appreciation  
C. No response  
D. Regard  
E. Declines or Irrelevancy
9. A. Regard  
B. Spontaneous Positive Behavior  
C. No response  
D. Declines or Irrelevancy
10. A. No response  
B. Appreciation  
C. Spontaneous Positive Behavior  
D. Regard  
E. Declines or Irrelevancy
11. A. Compliance  
B. No response  
C. Request  
D. Aggression  
E. Non-compliance
12. A. Spontaneous Positive Behavior  
B. No response  
C. Appreciation  
D. Regard  
E. Irrelevancy
13. A. Request  
B. Compliance  
C. Aggression  
D. No response  
E. Non-compliance
14. A. No response  
B. Spontaneous Positive Behavior  
C. Appreciation  
D. Regard  
E. Irrelevancy

15. A. Compliance  
B. Aggression  
C. No response  
D. Request  
E. Non-compliance
16. A. Aggression  
B. Non-compliance  
C. Request  
D. No response  
E. Compliance
17. A. Compliance  
B. No response  
C. Aggression  
D. Non-compliance  
E. Request
18. A. Compliance  
B. Aggression  
C. Request  
D. Non-compliance  
E. No response
19. A. No response  
B. Spontaneous Positive  
Behavior  
C. Regard  
D. Appreciation  
E. Irrelevancy
20. A. No response  
B. Request  
C. Non-compliance  
D. Aggression

APPENDIX I

## APPENDIX I

### INSTRUCTIONS TO THE SUBJECTS: THE BEHAVIORAL ASSERTIVENESS TEST FOR BOYS

Hi (child's name). I'm next door, can you hear me? My voice comes through that speaker there. This is (assistant's name) here, he's going to help us out.

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, or watching T.V. When I describe each scene to you, I want you to pretend that it is happening right now.

(Assistant's name) is going to help us by pretending that he is with you in these situations. He might pretend that he is a boy in your class, or your best friend at home. After I describe a situation, he will say something to you. When he is finished talking, 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 irritated or angry at the other person. How here's one:

(The practice negative assertion scene is presented.  
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 commendatory assertion scene is presented.)

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?

APPENDIX J

## APPENDIX J

### INSTRUCTIONS TO THE CHILD PROMPTERS

Now (child's name) I'd like you to take Harry's place. Here are some cards and I have typed some things on them. See? Let's practice by having you read them out loud to me.

(Child is helped if he has difficulty with any words.)

Good! Now I've put them in order for you and what I'd like you to do is say what's on each card after I read the situation that goes with it. Let's practice again. When I read the situation, you read what's on your card, OK? Let's try the first one.

(First scene is read and the child delivers his prompt. He is given coaching if necessary.)

Remember to say your lines as if you were saying them in a real situation. Now let's try the others.

(The remaining three scenes are rehearsed and coaching is given as needed. Rehearsal continues until the child performs adequately.)

Good! Now in a few minutes I will go into the other room and (subject's name) will sit over there. When I read the situations over the loud-speaker, you say your lines to him just the way Harry did, OK? Do you have any questions?

APPENDIX K

## APPENDIX K

### INSTRUCTIONS TO THE SUBJECTS WITH A CHILD PROMPTER

Hi (child's name). Can you still hear me? Now we are going to continue with the same kind of situations except this time (prompt's name) is going to help out. He's going to take Harry's place. Like before I'm going to describe some situations and I want you to pretend that you are really there.

(Prompt's name) is going to help us by pretending that he is with you in these situations. He might pretend that he is a boy in your class or your best friend at home. After I describe a situation, he will say something to you. When he is finished talking, I want you to say what you really would say if you were really in that situation with that person. Do you know what I mean?

OK, here's the first situation.

APPROVAL SHEET

This dissertation submitted by Richard C. Reardon has been read and approved by the following Committee:

Dr. Jeanne M. Foley, Chairman  
Professor of Psychology and  
Dean for Social Sciences  
College of Arts and Sciences  
Loyola University of Chicago

Dr. Ronald E. Walker  
Professor of Psychology and  
Dean, College of Arts and Sciences  
Loyola University of Chicago

Dr. Janet Polivy  
Assistant Professor  
Department of Psychology  
Loyola University of Chicago

Dr. Michel Hersen  
Professor of Psychiatry  
University of Pittsburgh School of Medicine

Dr. Alan S. Bellack  
Associate Professor  
Department of Psychology  
University of Pittsburgh

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

July 25, 1977  
Date

Jeanne M. Foley  
Director's Signature