

SOCIAL SKILLS TRAINING  
WITH EMOTIONALLY DISTURBED CHILDREN

by

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### ABSTRACT

Social skills training was conducted with seven emotionally disturbed children who ranged in age from seven to eleven years. Children were referred from three settings, an in-patient child psychiatry assessment unit, a child psychiatry day treatment program and a group home for emotionally disturbed children. Results were positive in all instances, and in six of the seven cases there was some generalization to the natural environment.

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## SOCIAL SKILLS TRAINING WITH CHILDREN

"The bird a nest, the spider a web,  
man friendship"

William Blake

### INTRODUCTION

Children without friends are amongst the saddest of people referred to mental health workers. Whatever the cause of their loneliness, it pervades all aspects of their lives. School is not enjoyed to the fullest, holidays are dreaded, and family life suffers.

Social skills training is one approach which has been used to help children overcome their social skills deficits by teaching them new, more adaptive behaviors. Through careful behavioral assessment, the training program can be tailored to the specific needs of the individual child, and is therefore appropriate for many different situations. Social skills training has been successfully implemented with aggressive children (Bornstein, Bellack and Hersen, 1980; Elder, Eldelstein and Narick, 1979); unassertive children, (Bornstein, Bellack and Hersen, 1977); disruptive students, (Filipczak, Archer and Friedman, 1980); psychiatric patients, (Kazdin, Matson and Esveldt-Dawson, 1980); children with

learning disabilities, (La Greca and Mesibov, 1979, 1980); emotionally disturbed children, (Matson et al, 1980); juvenile delinquents (Ollendick and Hersen, 1979, Spence and Marzillier, 1979); withdrawn and socially isolated children, (Whitehill, Hersen and Bellack, 1980); and the mentally retarded, (Matson et al, 1980). Goldsmith and McFall (1975) summarize the underlying philosophy as follows:

"Social skill training is a general therapy approach aimed at increasing performance competence in critical life situations. In contrast to therapies aimed primarily at the elimination of maladaptive behaviors, skill training emphasizes the positive, educational aspects of treatment. It assumes that each individual always does the best he can, given his physical limitations and unique learning history, to respond as effectively as possible in every situation. Thus, when an individual's 'best effort' behavior is judged to be maladaptive, this indicates the presence of a situation specific skill deficit in that individual's repertoire, (Mager and Pipe, 1970). Whatever the origins of this deficit (e.g., lack of experience, faulty learning, biological dysfunction) it often may be overcome or partially compensated for through appropriate training in more skilful response alternatives. Presumably, once these new skills have been acquired and reinforced, they will displace any competing, less reinforcing maladaptive behaviors." (page 51).

This practicum has been undertaken using social skills training with elementary school aged children. The writer was eager to acquire knowledge and skill in a behaviorally-oriented treatment modality. Social skills training was appealing in that it is a versatile intervention, useful in working with many different kinds of children, and in a

variety of settings. Experience was obtained during this practicum in three settings - a group home for emotionally disturbed children, a child psychiatry in-patient assessment unit, and a child psychiatry day treatment program. Educational benefits included learning techniques of behavioral assessment; acquiring skill in implementing a social skills training program; evaluating the utility of the intervention for individual children; and observing how the intervention fits into the various settings. Social skills training has been and remains personally appealing to the writer in that it is a preventative as well as therapeutic measure, as will be documented in the next section.

## LITERATURE REVIEW

### SOCIAL SKILLS DEFICITS IN CHILDREN

#### A. Consequences

That social skills deficits in children have long-term consequences in their adjustment to life has been well documented. Children with poor peer relations later exhibit a higher incidence of:

1. delinquency (Roff, Sells and Golden, 1972)
2. bad conduct discharges from armed forces (Roff, 1961)
3. dropping out of school (Ullman, 1957; Hartup, 1970)
4. low academic performance (Strain, Shores and Kerr, 1976)
5. school maladjustment (Gronlund and Anderson, 1963)
6. adult mental health problems (Cowen, Pederson, Babylian, Izzo and Trost, 1973; Kohn and Clausen, 1955; Roff, 1970; Robbins, 1966)
7. alcoholism (Morris, 1956)

Conversely, social competency in childhood has been related to superior academic achievement, (Harper, 1976; Northway, 1944; Laughlin, 1954; Muma, 1965, 1968; Porterfield and Schliching, 1961) and adequate interpersonal adjustment later in life (Barclay, 1966; Brown, 1954; Guinourd and Rychlak, 1962; Young and Cooper, 1944). While these correlational studies do not necessarily imply causality, early identification and treatment of social skills deficits can be seen as contributing to the individual's long-term adjustment, as well as short-term happiness.

In one of the earliest papers on social skills training with children, Gertrude Chittenden (1942) discusses the means by which

children learn social skills. She states:

"The little child enters into his social group unequipped with the repertoire of responses he needs to enable him to engage in successful social interchange. His attempts to influence the behavior of others and his responses to their attempts to influence him are crude. He must learn, largely by trial and error and with more or less incidental help from experienced persons, which of these attempts and responses are likely to result in his acceptance by his associates and which will meet with their disapproval. Such a learning period, if marked with many failures and only chance successes, may result in the child's loss of interest in initiating social contacts accompanied by increasing submission to other persons' attempts to influence him, or it may result in a more frequent use of force in the attempt to make himself successful. Neither of these possible results, if extreme, contributes toward the integration of the child and his social group". (page 1).

Social skills training, then, is an attempt to teach the child the necessary behaviors for successful social interaction in a planned and orderly progression. Through the use of instruction, modelling, coaching, behavioral rehearsal (role-play), feedback, social reinforcement and homework assignments the therapist helps the child to expand his repertoire of alternative behaviors in various social situations, and to become sensitive to the consequences of the selected responses.

#### B. Varieties of Social Skills Deficits

There are different sorts of social skills deficits. Asher (1977) delineates two types of socially isolated children - those who are

actively disliked, and those who are merely ignored. Hymel and Asher (1977) found that the former comprised 60% of unpopular children, while the latter accounted for 40%. Rejected children were found to be "interpersonally obnoxious", emitting a high rate of aversive stimuli and a lower rate of more reinforcing, positive stimuli. Children who are ignored are simply nonreinforcing interpersonally.

Unassertive, socially withdrawn children are described by investigators as being isolated, passive, shy, and lethargic (Bower et al, 1976; Palmer, 1977; Patterson, 1960). They are often not identified as problematic by teachers who tend to reinforce their compliance (Cooke and Apolloni, 1976). These withdrawn children elicit few reinforcers due to their diminished level of social contact. Side effects of social withdrawal have been shown to be poorer academic achievement, (Hartup, 1970) and higher incidence of future mental health problems (Gottman et al, 1975).

Aggressive children make up the other end of the continuum. Investigators characterize them as being verbally and physically assaultive, teasing, provoking, quarrelsome and prone to violate or ignore the rights of others (Patterson et al, 1975). They, too, suffer from poorer academic progress and are likely to maintain their style of functioning into adulthood (Patterson, 1971; Robbins, 1966). Patterson and his colleagues (Patterson and Reid, 1970; Patterson, 1976) discuss the aggressive child as using "coercion" or "control by pain" to influence others. They go on to hypothesize that dyadic relationships are reciprocal in nature, and therefore both positive and aversive stimuli

will be exchanged at an equal rate. This concept is supported by research of Hartup, Glazer and Charlesworth, (1976) and Charlesworth and Hartup, (1967) which shows that the rate of positives given in the interpersonal setting correlates positively with the rate of positives received. This concept of "reciprocity" suggests two requirements for a skills training program - responses should be as positive as possible and should contain a minimum of aversive stimuli.

Several studies have shown that unpopular children do indeed suffer from a variety of social skills deficits, such as inability to initiate play, co-operate, accurately communicate needs and emotions, and respond to peers with appropriate affection, approval or help (Gottman, Gonso, and Rasmussen, 1975; Hartup, Glazer and Charlesworth, 1967). Negative social interactions often then encourage further maladaptive responses (withdrawal, verbal or physical aggression) which add to the vicious cycle. This behavior may also be inadvertently reinforced by adult attention or peer group submission. Peer acceptance plays an important role in the socialization of a child, and social skills provide the means of attaining social involvement and reinforcement.

### C. Identifying Valuable Social Skills

In order to develop an effective social skills training program, it is necessary to examine what behaviors and attributes correlate with social effectiveness. In general terms, peer acceptance has been found to be directly associated with friendliness (Marshall and McCandless, 1957; Moore, 1967) social visibility (Clifford, 1963) and outgoingness or social

participation (Baron, 1951; Bonney and Powell, 1953). Combs and Slaby (1977) also list the following measures of sensitivity, responsiveness and generosity in peer interaction as important:

1. The extent to which nurturance is given to peers (Moore and Undergraff, 1964)
2. The frequency with which the child dispenses positive social reinforcers to peer (Gottman et al, 1975; Hartup et al, 1967)
3. The frequency with which "kindness" is expressed to peers (Smith, 1950)
4. Willingness both to give and to receive friendly overtures and to respond positively to dependent behavior of peers (Campbell and Yarrow, 1961)
5. Sensitivity to social overtures of other children (Klaus, 1959)

Peer rejection has been studied less than peer acceptance. It has been found to correlate with the giving and receiving of negative social reinforcement, aversive behavior, and verbal and physical aggression (Hartup, 1967). It is essential to note, however, that contextual factors play an important role in assessing aggression -- when it is provoked, it is seen in a positive light by peers, whereas indirect aggression is viewed negatively (Lesser, 1959).

Other investigators (Morrison and Bellack, 1981; Rothenberg, 1970) have stressed the role of social perception in social skill, arguing that it is not enough merely to have a skill in one's repertoire; it is also necessary to be able to assess the appropriateness of using it in any

given context. That is, the ability to "read" the social environment is important. Rothenberg, (1970) refers to this ability as social sensitivity - "the ability to accurately perceive and comprehend the behavior, feelings and motives of other individuals". (page 335). This ability has been found to increase with age (Gottman et al, 1975) and to be particularly problematic for certain child populations, such as the emotionally disturbed or learning disabled. (La Greca, 1979, 1981).

In discussing how to select the appropriate social skills for training programs, Combs and Slaby (1977) point out:

"Research has so far been limited primarily to global correlates of social status. What is needed is empirical validation of specific social skills as correlates not only of social status but also of other qualitative and diversified measures of social effectiveness. In addition, the causal relationships between social skills and criterion measures, which are suggested by correlational findings, need to be clarified through the wider use of manipulative experimental designs. Only with such experimental validation can practitioners design special social-skills training programs that are based on more than clinical intuition." (page 172).

## 2. SOCIAL SKILLS TRAINING

### A. Definitions of Social Skills

Several different definitions of "social skill" have appeared in the literature, and, probably due to the complex nature of social interaction, there is little consistency. Social skills appears to be one of those areas in which it is assumed that everyone knows what is meant because it is an everyday kind of concept, but in reality when it comes to precisely defining terms there is little agreement.

Chittenden (1942) conceptualized social skills as involving subsets of dominant assertion, co-operative assertion, and submission or non-assertion. She defined assertiveness as performance of behaviors by one child which influenced another child, or which served to maintain the child's status. Barrett and Yarrow (1977) also discuss social skills in terms of assertive behaviors which direct or terminate another child's activity, without injuring or intending to harm the other.

In contrast to these definitions which center around the ability to show opposition or make demands, others stress more positive behaviors such as expressing affection or appreciation. Keller and Carlson (1974) define social skill as "the use of generalized reinforcers in the peer group", and this includes smiling, laughing, giving, showing affection and talking. Research regarding reciprocity in peer interaction (eg. Charlesworth and Hartup, 1967; Gottman et al, 1975) supports the importance of administering positive social reinforcers in the peer group.

Combs and Slaby (1977) define social skill as  
"... the ability to interact with others in a  
given social context in specific ways that  
are societally acceptable or valued and at the  
same time personally beneficial, mutually  
beneficial or beneficial primarily to others"  
(page 162),

They thus include co-operative skills and altruistic behaviors, while  
excluding exploitive or aggressive behaviors which may appear to be of  
individual benefit but which are harmful to others or unacceptable by  
societal standards. It is also emphasized that the word "skill" means  
a relatively specific behavior pattern (not a global attribute).

Performance alone is insufficient; competence involves the knowledge and  
ability to perform in the "socially skilled" way. Combs and Slaby (1977)  
also stress the importance of judging the value of a social skill from  
various perspectives - the child's, the peer group's, the parents', and  
the teacher's - since these may result in very different definitions of  
appropriate behavior.

Rinn and Markle (1979) define social skills as  
"a repertoire of verbal and non-verbal behaviors  
by which children affect the responses of  
other individuals (e.g., peers, parents, siblings,  
and teachers) in the interpersonal context.  
This repertoire acts as a mechanism through  
which children influence their environment by  
obtaining, removing or avoiding desirable and  
undesirable outcomes in the social sphere.  
Further, the extent to which they are successful

in obtaining desirable outcomes and avoiding or escaping undesirable ones without inflicting pain on others is the extent to which they are considered 'socially skilled'". (page 108).

Rinn and Markle (1979) feel the perspective taken should be the child's, as long as it does not conflict with parental or societal mores, but emphasise the importance of the proviso that no pain can be inflicted on others, either verbally (sarcasm, threats) or physically (hitting, gesturing).

While there are many definitions of social skills, and no one definition appears to satisfy everyone, Michelson and Wood (1980) feel that there is agreement as to the concepts of social skills. They state: "There are approximately seven elements that comprise the conception of social skills:

1. Specific, discreet verbal and non-verbal response components determine the adequacy of social behavior;
2. behavior repertoires involved in interpersonal situations are primarily learned response capabilities, i.e., skills;
3. as the parameters of adequate social behavior vary from situation to situation, socially skilled behavior is situationally specific;
4. socially adept children behave in ways that are both appropriate and effective;
5. social competency obtains maximized reinforcement from the social environment;

6. social skills involve social interactions that have been described as interdependent and reciprocal in nature; and
7. deficits and excesses in social behavior that are dysfunctional for the individual can be identified, targeted, and remediated by training." (page 251).

#### B. Components of Social Skill

There are many different classification systems and taxonomies of social skills used by researchers. Using previous research with adult populations (Eisler, Miller and Hersen, 1973; Eisler et al, 1975) Reardon et al (1978) tested the verbal and non-verbal response elements listed (see Table 1, page 14) and found that children classified as high or low assertive differed significantly on response latencies (item 5), length of reply (item 3), number of words spoken (item 4), appropriateness of affect (item 6), number of offers of spontaneous positive behavior (item 12), and number of requests of their interpersonal partner (item 10).

Rinn and Markle (1979) categorize social skills into four repertoires as follows: (page 110-111)

1. Self-Expressive Skills
  - a. Expression of feeling (sadness and happiness)
  - b. Expression of opinion
  - c. Accepting compliments
  - d. Stating positives about oneself
2. Other-Enhancing Skills
  - a. Stating positives about a best friend
  - b. Stating genuine agreement with another's opinion
  - c. Praising others

Table 1 Scoring Criteria for Behavioral Assertiveness Test-boys  
(from Van Hasselt et al, 1979, page 416)

Scoring criteria for behavioral assertiveness test-boys

1. *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.
2. *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.
3. *Duration of reply*: This is the time in seconds that the subject spoke to the interpersonal partner. If the subject failed to respond within 60 sec the next scene was presented.
4. *Number of words*: This is the number of words the subject used for his reply.
5. *Latency of response*: This is the time in seconds from the end of the prompt until the subject began his response.
6. *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.
7. *Ratio of speech disturbances to duration of speech*: The number of speech disturbances including pauses, stutters, and expletives such as 'ah', 'oh,' and 'um,' were recorded for each scene. This number was divided by the duration of the reply in seconds.
8. *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.
9. *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 explicitly resist his interpersonal partner's position.
10. *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 noncompliance. The subject had to make an explicit request that his partner change his behavior (e.g., he had to ask his partner to put on the preferred T.V. program again).
11. *Regard*: This was scored when the subject expressed approval, admiration, caring, affection, or when the subject was complimentary toward his partner. Regard was scored on an occurrence or non-occurrence basis for each scene.
12. *Spontaneous positive behavior*: This category was defined as verbal content indicating that the subject had volunteered to perform some positive act for his partner. It was scored on an occurrence or nonoccurrence basis for each scene.
13. *Appreciation*: This category was recorded when the subject expressed gratitude toward his partner or if he agreed with praise given to him. It was also scored on an occurrence or nonoccurrence basis.

3. Assertive Skills
  - a. Making simple requests
  - b. Disagreeing with another's opinion
  - c. Denying unreasonable requests
4. Communication Skills
  - a. Conversing
  - b. Interpersonal problem-solving

Rimm and Markle (1979) have developed an analogue system to measure the first three categories, and when tested on 28 children in grades 3 to 6, found that the analogue scores were significantly related to peer ratings of play.

La Greca and Mesibov (1979) have developed a social skills training program based on nine areas of social behavior which they have found to be relevant to peer acceptance. Table 2 (page 16) summarizes these nine areas and further subdivides each area into several skill components. La Greca and Mesibov (1979) suggest that while all areas are related to peer acceptance, each child will have a unique pattern of deficits, and the training program should be individualized to suit the needs of the situation. This flexibility allows for more effective intervention.

### C. Assessment of Social Skills

#### a) Importance of Assessment

Many different methods have been used to assess children's social skills, and these will be described in the next section. While one of the hallmarks of the behavioral model has been an emphasis on careful

Table 2

Areas of Interpersonal Functioning and Possible Skill Components<sup>a</sup>

Skill Area	
Enjoyment of Interactions	Smile Laughing When to smile (e.g., having a good time, when saying "hello")
Greeting	Look at person Smile Use the person's name Greet nicely (e.g., "Hi," "How are you?")
Joining	<p><u>Joining Sequence</u></p> <p>Smile Look at the person Use their name Stand near-by Greet them Ask to join nicely (e.g., "Can I sit with you?") Ask a question to enter the conversation</p> <p><u>Responding Positively When Others Join You</u></p> <p>Smile Acknowledge them nicely (e.g., "Sure, come on.") Offer a reason if turning them down (e.g., "Sorry, we're in the middle of the game. You can play the next one, though.")</p> <p><u>Handling Refusals</u></p> <p>Don't get mad Leave Join other peers or play alone</p>
Inviting	<p><u>Inviting Sequence</u></p> <p>Initial approach and greeting may be the same as joining sequence. Ask the person to do something with you (e.g., "Would you like to come over after school?") Set the date and time If person is busy, ask for another time</p> <p><u>Responding Positively to Invitations</u></p> <p>Smile, look at person Accept nicely (e.g., "Sure!") If cannot accept, offer a reason or suggest alternate plan</p>

Table 2 continued

Inviting	<u>Handling Refusals</u> Don't get mad Ask for an alternate time/plan Leave
Conversation	Smile Look most of the time, more when listening than talking Sit/Stand near the person Use "normal" voice (e.g., speak clearly, not loud or soft) Ask questions More open ended questions Stick to topic of conversation Intersperse questions with information about self (e.g., taking turns in the conversation) Talking more Elaborate on responses to questions Volunteer information about self, inter-interests, activities Generating topics of conversation When someone talks, listen, ask questions
Sharing/Cooperation	Taking turns Following game rules Fairly deciding "who goes first" Offer help when needed Share possessions with others Being a "good winner"/"good loser" Responding to requests for help
Complimenting	Look at the person Smile Make a positive statement (e.g., "I like the way you helped me, John.") Accepting compliments from others positively (e.g., smile, "Thank you.")
Appearance & Grooming	Hair: clean, neat (combed), acceptable style Face: clean Eyes: acceptable glasses (if applicable) Overall body: clean, smells good, appropriate range of weight for height Clothes: neat, clean, fit well, acceptably stylish

assessment, most evaluation of children's social skills is not based on a sound, comprehensive assessment methodology (Michelson and Wood, 1980). The social skills construct is complex, and is dependent on various perspectives, which complicates measurement. However selection of an effective treatment strategy is dependent upon adequate measurement and assessment. Michelson and Wood (1980) outline the functional purposes of assessment in the following framework: (page 251)

1. Normative data should be utilized in the identification and/or selection of socially dysfunctional children;
2. Specific parameters of the social skill deficits and excesses (i.e., target behaviors) should be identified and described;
3. Social skills should be measured reliably and validly with sufficient psychometric rigor;
4. Assessment information regarding identified deficits and excesses should direct the treatment strategy to be utilized; and
5. Assessment data should provide useful treatment evaluation information regarding on-going, outcome, follow-up, and generalization effects.

b) Assessment Methods

i) Physiological Assessment

Although no reports were found in which physiological measures have been used as part of social skills assessment with children, Van Hasselt et al (1979) feel they may have some utility in determining

the role of anxiety in interpersonal dysfunction where no social skills deficits exist, and possible coexistence of high emotional arousal and skills deficits. They state, "Identification of an anxiety component in either case would suggest the need to implement anxiety - reduction procedures as part of a comprehensive skills treatment approach". (page 422). Further research is needed before physiological measurements can make their full contribution to a thorough social skills assessment in children.

ii) Self-Report Assessment Techniques

Self-report questionnaires or inventories are efficient in assessing large groups, and are convenient, quantifiable and economical. However subjectivity and lack of external validity limit their usefulness.

Early self-report inventories were modified versions of those developed for use with adults, and dealt largely with assertiveness. The Rathus Assertiveness Scale (Rathus, 1973) has been used with junior high school students (Vaal and McCulloch, 1975) and elementary school children (D'Amico, 1976).

Reardon et al (1979) developed the Self-Report Assertiveness Test for Boys (SRAT-B) to measure assertive behavior in male children, who are asked on twenty items to check descriptions of behavior they would typically use in everyday situations. However, according to the investigators, this measure was not discriminating of assertiveness as measured through role-play situations. Correlations were significant only for the oldest subjects in their sample (i.e. the grade 7 and 8

students). No data regarding reliability was presented,

Wood and Michelson (1978) developed the Children's Assertive Behavior Scale (CABS), a 27 item scale which describes problem situations. Children respond by selecting a response from one of three choices - passive, aggressive or assertive (in scrambled order). Reliability (split-half and test retest) and external validity has been established to the authors' satisfaction.

While these scales are useful for screening large groups, they have their limitations. Neither scale (SRAT-B or CABS) established external validity through comparison with in vivo observations. In fact, they may measure only children's knowledge of correct social responses.

### iii) Clinical Interview

Much relevant clinical information about children has traditionally been gathered through interviews with parents, teachers, or other significant people. Interviews can be seen as useful components of social skills assessments, through which the therapist identifies some of the broad problem areas and develops speculation about the controlling stimuli. However, parents and teachers cannot be seen as objective, and the reliability of the information is often questionable. In addition, no standardized, quantifiable data is obtained. Thus interviews can be helpful, but are certainly not acceptable alone as assessment devices.

Interviews which include the children are surprisingly rare in social skills assessments. While children's behavior in the interview situation is usually not typical, there is evidence that the information they provide may be more reliable than is commonly believed. Herjanic et al (1975) found an 80% correlation between information provided by children and that from their parents. They state, "... that children are very much aware of their problems and that they are able to describe themselves in terms similar to those used by their parents... We conclude, therefore, that children are reliable reporters and that the use of a structured interview with children is worthy of further study." (page 47).

#### iv) Sociometric Evaluations

Sociometric assessment provides a measure of the child's social status. Peer nomination (Asher, 1977) is the most common technique used, in which children are asked to select a certain number of peers for specific purposes (i.e., to play with, to work with). This method has been used both with positive and negative criteria. One problem with peer nomination is that it does not take into account "neglected" children, who receive few positive or negative nominations.

An improved method is peer ratings, in which each child ranks all his classmates on a 5 point scale according to various questions (e.g. How much would you like to play with X?). This ensures that some children are not forgotten, and provides a comprehensive index of each child's peer acceptance.

There are advantages to the use of these sociometric techniques. They have excellent psychometric properties (Hymel and Asher, 1977) with proven reliability. In addition, their predictive validity is well documented (e.g. Cowen et al, 1973). However, Michelson and Wood (1980) list the following limitations of sociometric techniques: (page 255).

1. lack of demonstrated reliability with young children;
2. impractical and cumbersome procedures for day-to-day determination of status;
3. lack of demonstrated validity as regards observed behaviors (though some may argue that sociometrics may be more socially valid than behavioral observation); and
4. the fact that information from the assessment does not define behavioral deficits, excesses, and competencies needed to design treatment intervention.

In addition to these problems, Foster and Richey (1979) add the question of biases which can influence sociometric ratings, such as the instructional set and the amount of adult and peer surveillance while filling out the measure. They also raise the ethical question of using negative nominations, asking a child to make blatant rejecting statements about their peers. Generally, sociometric techniques are most useful for research purposes and for screening large groups, but are of limited value in everyday clinical work.

#### v) Teacher Ratings and Checklists

Teachers are sometimes asked to rank all the children in their class by a given criterion such as interaction rates, or to select students who are withdrawn or aggressive (Evers and Schwartz, 1973; O'Connor,

1969, 1972) based on their classroom behavior. Michelson and Wood (1980) state, "Although controversy exists as to the external validity and accuracy of teacher ratings, such procedures may be one of the most practical and socially valid assessment strategies for large groups of children." (page 255).

In addition to the non-standardized ratings and rankings done by teachers, more standardized checklists of social functioning have been developed. The most widely used has been the Walker Problem Behavior Identification Checklist (WPBIC) (Walker, 1970) which contains five subtests - Acting Out, Withdrawal, Distractability, Disturbed Peer Relations and Immaturity. The WPBIC can be completed by teachers (or other child care-givers) in a few minutes. Walker (1970) gives a split-half reliability coefficient of .98, concluding that the checklist can make individual separations among subjects with a considerable degree of reliability. He also presents validity estimates by showing the checklist's ability to discriminate groups of identified behavior problem children from matched controls. Criterion validity is established (using criteria of psychiatric referral, special educational provisions due to behavior problems at school and removal from school due to behavior problems), and Walker (1970) claims that the WPBIC has utility in the prediction of behavior disturbance in elementary school children. Factorial validity data and item validity data are also presented and judged to be satisfactory. Checks of external validity indicate a moderate correlation with observed behavior and sociometric ratings (Greenwood et al, 1976).

Another rating scale for use by teachers is the Health Resources Inventory (HRI) developed by Gesten (1976). This tests five factors -- "good student", "gutsy", "peer sociability", "rules" and "frustration tolerance". Test-retest reliability was .87 for the full scale and ranged from .72 to .91 for individual factors. The HRI was shown to discriminate between groups of normal and disturbed children and also to sensitively discriminate competence levels within a normative sample. Gesten (1976) does caution that the generalizability to age groups other than children in grades 1 to 3 has not been established.

Other rating scales have also been used by Reardon et al (1979) and Michelson and Wood, (1978), but these have been non-standardized Likert-type checklists and have shown poorly in tests of both internal and external validity.

Advantages of using teacher checklists are clear. They are quickly and economically administered, provide easily quantifiable data, evaluate a wide range of problem areas and can be useful as an outcome measure in treatment programs. However, there are some unresolved problems with their usage. Ratings will be inconsistent, depending upon the opportunities the adult has had to observe the child's behavior, as well as upon demand characteristics, personal biases, expectancies, and response set (Reardon et al, 1979). Michelson and Wood (1980) also express concern about the lack of demonstrated psychometric properties and state that controversy exists regarding their accuracy. Van Hasselt et al (1979)

concur with this concern, and also add that adequate understanding of the behaviors to be checked or rated cannot be taken for granted.

vi) Behavioral Observation

Direct observation has been the most commonly used method for assessing social skills. Naturalistic observation has been used to measure rate, duration, and frequency of social interaction, or the more qualitative dimension of "type" of behavior. Because social behavior tends to be situation specific, researchers must generally develop original observation codes and formats to fit into their setting. This has made for a great deal of variation in the observational systems which have been developed. Strain (1977) used a coding system which included two general classes - motor-gestural and vocal-verbal - to observe "initiated" and "responded" behaviors. Durlak and Mannarino (1977) have used an elaborate coding system developed by Wahler (1975) to record classroom behavior. This system contains 19 response categories which encompass five general classes of behavior: autistic, work, play, compliance-opposition, and social behaviors. This system is suitable for use in school, home or laboratory settings.

Several researchers (Gottman et al, 1976; Rinn and Markle, 1979) have indicated the need for more detailed observation systems designed to measure quality and quantity of social behaviors in natural settings, as well as to provide data regarding controlling stimuli. Clinical therapists, however, require more practical and efficient systems which can be used with little training by available staff.

Numerous methodological concerns have been expressed (Van Hasselt et al, 1979; Michelson and Wood, 1980) regarding the use of behavioral observation. These concerns include influence of data by observer expectancies, reactivity of the observational process, reliability of the coding system which is vulnerable to consensual drift, system complexity and knowledge of reliability assessment. Also a concern, is the lack of demonstrated social validity of direct behavioral observation (Michelson and Wood, 1980; Foster and Ritchey, 1979).

In addition to naturalistic observation, structured observation of children's behavior during a contrived situation has been used to assess social skills. This generally involves a confederate (peer or adult) who behaves in a preprogrammed manner. This achieves some measure of standardization and control over antecedent and consequent conditions. Chittenden, (1942) used a five minute long "controlled play situation" to reliably measure passive, aggressive and assertive behaviors. Wood and Michelson (1978) developed a contrived interview, the Children's Behavioral Scenario (CBS), to elicit assertive or non-assertive responses. It showed moderate correlations with self and teacher ratings of assertive behavior.

Structured observation has many of the same difficulties as naturalistic observation, as well as problems with external validity, social validity, and ethical concerns.

### vii) Social-Cognitive Tasks

Some investigators have used various social-cognitive assessment devices to measure social skills. For example role taking, that is the ability to simultaneously consider one's own point of view and that of others (Feffer and Gourevitch, 1960), has been related to cognitive maturity, developmental level, and measures of social interactive skill. Gottman et al (1975) used a set of photographs from Izard (1971) in which children were asked to match each face with a description of the emotion the person in the picture was feeling. Gottman et al (1975) also tested referential communication accuracy and perspective-taking ability. Referential communication was assessed through a word game in which the children had to communicate one word from a two word pair to a listener by sending a clue word. This task was adapted from Asher and Parke (1975), with adult judges rating the quality of the clue words selected. In the perspective-taking tasks, left-right perceptual decentering was assessed by having the child select from objects placed between himself and the examiner, (which was on his left, the examiner's left, and so on) (Elkind, 1961). In addition, the child was asked to match pictures of mountain ranges with the same model configuration of mountains built from blocks on a table in front of him, but to do so from the perspective of the examiner who sat on the other side of the table. The cards the child had to choose from contained errors of various kinds following Gibson (1966): a perspectival transformation error; a right-left reversal error; and a picture of the blocks from the child's viewpoint. Gottman et al (1975) also included a "blindfolded listener" task, in which the child had to

instruct a blindfolded puppet through a miniature display of an obstacle course (Flavell et al, 1968); and to describe a sequence of five toy men with hats of various colours and textures (eg. black leather, blue corduroy) to an imaginary blindfolded child. In addition to these social-cognitive tasks, classroom sociometric evaluations and observation of classroom behavior were carried out. Findings showed that level of performance on tasks increased with grade level; children in a middle-income school performed better than those in a lower-income school, and popular children are more skilful than unpopular children and interact differently with their peers.

Spence and Spence (1980) measured cognitive changes associated with social skills training with forty-four adolescent male offenders. The Locus of Control Scale for Children (Nowicki and Strickland, 1973) showed a statistically significant change towards internality for children who had undergone training. This indicates a shift toward perceiving a causal relationship between one's own behavior and reinforcement received. Self-esteem, that is the child's own evaluation of his own value, worthiness, adequacy and competence, was also measured using a thirty item questionnaire (Coopersmith, 1966). Results indicated a short-term improvement in self-esteem following social skills training. Spence and Spence postulate that positive attitude change along with behavior change following training will increase the probability of a lasting effect.

#### viii) Analogue Assessment

Analogue assessment or role-play tests provide laboratory simulations of real-life interpersonal situations. They have often been used as an alternative to direct observation of social behaviors and as a vehicle for social skills training. Developed first by Hersen and his colleagues (eg. Eisler et al, 1973) for use with adults, many researchers have adapted or developed similar methods for children. Generally situations are presented to the subject and a prompt is delivered by a confederate who initiates the subject's response.

Bornstein et al (1977) developed the Behavioral Assertiveness Test for Children (BAT-C) which is composed of nine scenes simulating children's typical daily encounters. Scenes were generated based on face validity. The BAT-C has been well-studied, both as an assessment tool and as an outcome measure (Beck et al, 1978; Bornstein et al, 1980; Ollendick and Hersen, 1979; Whitehill, 1978).

Reardon et al (1978) developed the Behavioral Assertiveness Test for Boys (BAT-B), consisting of twenty-four items designed to elicit both positive and negative assertive responses. Responses were rated both for overall assertiveness and for components such as smiles, latency of response, etc. While the BAT-B was shown to discriminate between "high" and "low" assertive boys, results did not correlate highly with teacher ratings or self-report measures.

Rinn and Markle (1979) have designed an analogue system for assessing social skills in children designed to measure self-expressive, other-enhancing and assertive repertoires. Low correlations were found between this measure and peer ratings. No correlations were found with WPBIC or teacher ratings. However, subsequent testing (Rinn et al, 1979b) suggested that with some modification to their analogue system correlations improved. Significant correlations were found with peer ratings of work and play, positive and negative peer nominations, and listing of positives about self and a best friend.

Whitehill et al (1980) developed the Conversation Probe, consisting of four common interpersonal situations which present the child with the opportunity to meet someone, to begin conversation and to maintain conversation for a specified period of time. Unlike other analogue measures, no prompt is given; rather, the child is read a situation and must initiate the interaction himself.

Van Hasselt et al (1981) conducted a correlational study to examine the validity and reliability of role-play tests with children, examining similar issues to those studied by Bellack et al (1978) with adults. Two role-play tests were used - the Children's Interpersonal Behavior Test (CIBT) and the Conversation Probe (Whitehill et al, 1980). Results showed that correlations between role play measures and criterion measures were quite low, and test-retest reliability was unacceptable. Van Hasselt et al (1981) conclude, however, that although these tests do not have high external validity they are not invalidated by the data. Some

parallels between role-play and in vivo performances were seen, especially for the longer interaction found in the Conversation Probe. They speculate that these extended interactions allow more opportunity for the subject's characteristic style to emerge, in contrast to the shorter, more restrictive role play scenes in the BAT-C or BAT-B.

While analogue measures have face validity and are an efficient assessment tool, several concerns regarding their use have been expressed. Their external validity and test-retest reliability have not been satisfactorily demonstrated (Bellack et al, 1978; Van Hasselt et al 1981); therefore findings must be interpreted with caution. Michelson and Wood (1980) list three additional concerns. Firstly, performance on role-play tests may only represent "knowledge" of the correct responses, and changes at post-test may be evidence of learning to role-play rather than true learning of social behavior. Secondly, little attention has been given to evaluating social validity and developing normative data comparisons. Lastly, situational factors of the role-play situation itself may be too restrictive, unrealistic or anxiety-provoking to allow natural social behaviors to emerge.

#### c) Validity of Assessment Methods

In discussing the importance of assessment procedures, Curran and Mariotto (1980) point out, "Although good measurement is not a sufficient condition for good theory, it is necessary for the development of a theoretical understanding of any variable, including social skills... If we do not improve our assessment sophistication, social skills as a

construct will remain little more than a summary term with enough surplus meaning to be meaningless." (page 32-33)

Kazdin et al (1981) have studied social skill performance of normal and psychiatric in-patient children as a function of assessment conditions. Examining sixty children, ages 6 to 12, they found that among both groups, performance of social skills during overt role-play assessment was influenced by incentive conditions (praise, feedback, stars) during the testing conditions. They speculate that low rates of performance during pre-test may indicate a performance deficit rather than a social skills deficit; that is, some children do have the ability to behave in a socially appropriate way when motivated to do so. Perhaps different intervention techniques would be warranted for these two groups. In evaluating intervention programs, whether subjects were actually taught new skills or simply brought to utilize skills already in their repertoires is an important consideration. Kazdin et al (1981) conclude, "Assessment procedures need to be designed in such a way that they distinguish among persons who can perform the response but, for whatever reason do not, and those who cannot perform the response under a variety of conditions when inducements are offered. Presumably, the treatment needed for persons who can and cannot perform the desired types of behavior would be considerably different." (page 151)

Green and Forehand (1980) have provided a review of assessment methodology for children's social skills, looking at concurrent validity, predictive validity, and construct validity. Most studies include

evidence for concurrent validity from whatever criteria are available at the same time as other measures are obtained. Predictive validity is more difficult to obtain, since longitudinal studies are costly and time-consuming. Green and Forehand conclude, "Resulting at least in part from the general nature of the terms used, at this time there is little reliable valid research evidence from longitudinal or retrospective studies relating childhood social skill difficulties with later adult psychopathology." (page 152). Construct validity, that is, theoretical validation using deductive methods, has not yet been established, although research is moving in that direction, Green and Forehand, (1980) state construct validity can be assessed through four methods; (page 154)

- 1) Groups of children should differ according to the theory of social skills.
- 2) Changes in the environment (eg. treatment) should influence or fail to influence the children's position on the distribution of a social skills measure in accordance with the theory's prediction.
- 3) There must be significant correlations between different measures that are assumed to measure the construct of social skills, and
- 4) There must be high intercorrelations between different parts of a test assumed to measure a unitary construct.

Failure of any one method means either the construct requires reformulation or the method is too insensitive.

#### D. Treatment

##### a) Treatment Components

Social skills training has been termed a "combination intervention" (Michelson and Wood, 1980) because it makes use of a variety of therapeutic strategies, at times in sequence and at other times concurrently. The training components commonly found in social skills training programs include instruction, modelling, behavioral rehearsal, coaching, feedback, social reinforcement and homework assignments. These will be briefly discussed individually, and research relevant to the specific technique will be cited.

i) Instruction involves presenting information to the child regarding appropriate behavior. This is usually done initially in a teaching sequence. It may include broad conceptual information, as well as specific components of the required skill. (eg. "Look into my eyes when you talk to me"). Clear instruction can lead to rapid acquisition of such discreet behaviors as eye contact and loudness of speech. (Bellack and Hersen, 1977, Hersen et al, 1973),

ii) Modelling is a display of social behavior, either appropriate or inappropriate, provided by the trainer as a teaching tool. Sometimes the trainer does the modelling. At other times peer models or videotapes are used. It is expected that the child acquires a "response potential" through observing desirable social behavior of others. The use of modelling has proven effective for children with limited skills repertoires, especially in the acquisition of the more complex behaviors. (Rinn and Markle, 1979; Hersen et al, 1973; Bellack and Hersen, 1977; Hersen and Bellack, 1976; O'Connor, 1969, 1972; Keller and Carlson, 1974; Ross et al, 1971;

Eisler et al, 1973; Evers and Schwartz, 1973; Evers-Pasquale and Sherman, 1975; Goodwin and Mahoney, 1975).

iii) Behavioral Rehearsal or role-play involves the child in practicing responses to stimuli from simulated situations presented by the trainer either verbally or through video-tapes. This is carried out over and over, with the child practicing appropriate responses under the guidance of the trainer. Staub (1971) discusses role-play as being especially useful and comfortable with children. "... children role-play extensively in their everyday interaction with other children. By enacting a variety of roles and exchanging roles in interactive situations, children may learn to view events from a variety of points view. Thus role-playing may increase the capacity for role-taking and thereby the vicarious experience of others' emotions. Through role-playing children may also learn behavior needed for specific purposes." (page 806) (Gittelman, 1965; Chittenden, 1942; Staub, 1971; Bornstein et al, 1977; Rinn and Markle, 1979a).

iv) Coaching is instruction given during behavioral rehearsal, involving the verbal transmission of cues, concepts and rules. These suggestions are then incorporated into the next role play attempt. (Asher, 1977; Oden and Asher, 1977; La Greca and Santogrossi, 1980; Rinn and Markle, 1979a).

v) Feedback is the trainer's comments on the child's behavior, either following his instructions on what changes are needed or following behavioral rehearsal. It can take the form of reinforcement

or suggestions for further change, Rinn and Markle (1979a) stress the importance of excited praise by the trainer, and state that praise should include: 1) specification of the appropriate response; 2) an enhancing comment; 3) excited affect; 4) a louder than usual voice level; 5) a smile; 6) a short-latency response; 7) eye contact; and 8) a pat on the shoulder or arm. (page 124) (Eisler et al, 1975; Rinn and Markle, 1979a).

vi) Social reinforcement is praise for the desired response and is often intertwined with feedback. It is used during training to gradually shape a given response during successive role-plays. With children, the help of parents and teachers is often enlisted, to provide social reinforcement of appropriate behavior in the natural environment. In addition, tangible reinforcers are sometimes used either by the trainee (eg. the "Goodie Box" used by Rinn and Markle, 1979a) or by the parents based on a "report card" given to the child after each session. (Allen et al, 1964, Charlesworth and Hartup, 1967; Johnston et al, 1964, Pinkston et al, 1972; Rinn and Markle, 1979a).

vii) Homework assignments are sometimes given to the child to encourage practice of newly acquired skills in the natural environment, (at home, school and play). These assignments are geared in such a way as to insure positive reinforcement, since a rebuff for attempts at using new behaviors would lead to a setback. The trainer carefully evaluates performance on role-play tasks to gauge when a homework assignment is appropriate, and the difficulty of the assignment is increased in a very gradual manner.

Results of the assignment are discussed at the beginning of the next session. (Bellack and Hersen, 1977; La Greca and Santogrossi, 1980). Not all social skills training programs make use of every treatment component, but very few use only one. Most contain a minimum of instructions, behavioral rehearsal and feedback. Rinn and Markle (1979a) suggest the need for research to "dismantle" the treatment program to discover what are the active ingredients. However, until this is done, a conservative approach would include all the elements.

b) Generalization of Treatment Effects

Generalization of treatment effects from the training situation to the natural environment is of critical importance when assessing the success of the intervention, but is often neglected in the research literature. In their review of generality of treatment effects Forehand and Atkeson (1977) divide generality into four areas as follows: (page 575, 576).

- i) temporal generality - the maintenance of treatment effects following termination of treatment;
- ii) setting generality - the occurrence of treatment effects in settings other than the therapeutic one;
- iii) behavioral generality - changes in behaviors not targetted for treatment; and
- iv) sibling generality - changes in behavior of the treated child's siblings.

The significance of these types of generalization is readily apparent in terms of effectiveness and efficiency of the treatment, and prevention of the need for repeated interventions.

Several methods have been used to enhance generalization. Rinn and Markle (1979a) incorporate four elements into their training program. First, having an instructional component in the training sequence for each skill is useful in mediating the skill across various situations. Second, by using four different role-play scenes for each skill, generalization across a variety of stimulus presentations is enhanced. Third, establishing a home program of parental reinforcement of newly acquired skills, and training parents in behavior skills helps to ensure maintenance of gains. Lastly, once the children have acquired competent repertoires of social skills they are encouraged to undertake more peer group activities, so that the reinforcement of peer interaction will facilitate generalization.

Beck et al, (1978) investigated generalizability of analogue-trained subjects, and found a lack of generalization to the school environment. Three suggestions were made to alter this - 1) incorporate peers into the training program; 2) integrate training in the natural environment; and 3) develop self-monitoring skills to improve generalization.

Michelson and Wood (1980) cite the need for more research directed toward increasing generalizability, and suggest the following: (page 281, 282).

- 1) utilizing both operant and modelling approaches;
- 2) fading out of operant contingencies as soon as the behavior is well established and at peer-criterion level;

- 3) utilizing a wide variety of modelling procedures, such as coaching, rehearsal and role-playing, to facilitate treatment effects and reduce the effect of individual differences;
- 4) including self-monitoring, self-maintenance and self-coping procedures; and
- 5) conducting regular and periodic follow-up assessment by blind, independent raters.

Hersen (1979) makes some valuable comments on the generalization of behavioral interventions:

"Following Baer, Wolf, and Risley's (1968) oft-quoted admonishment that 'generalization should be programmed rather than lamented', workers in the psychiatric arena have made valiant attempts in this direction.... Of course, a considerably greater effort needs to be made, particularly in light of the fact that as behavior therapists (although we should know better in terms of our background in learning theory), we are still returning our patients to the very same environments that produced the disorder in the first place and that undoubtably will reinforce psychopathology in the future.... Perhaps one of our errors in judgement, despite our obvious knowledge to the contrary, are that gains are expected to be maintained in the absence of further intervention. I now think this is absolutely wrong! I think that during follow-up we should systematically program periodic booster treatment sessions. This certainly would prove much more cost-effective than having the patient return one or two years later with a need to recommence treatment at a basic level.... Let me underscore that this in no

way would, and should, be interpreted as a negative evaluation of the original behavioral intervention!" (pages 75-76).

c) Ethical Considerations

The ethical concern most often discussed by social skills trainers is the selection of skills to be included in the program. It is important to acknowledge that value judgements are unavoidable. Whose standards will be seen as most relevant to appropriate behavior -- the child's, the peer group's, the school system's, the parents' or the trainer's? With children this is an especially relevant question, since standards of socially competent behavior change with age and developmental level. However, norms also vary across socioeconomic levels, cultural groups, sex, and geographical locale. These factors must be considered carefully by the therapist to avoid implementation of a program which will be harmful to the child.

Along similar lines, the importance of including adults from the child's environment (ie. teachers, parents) in the training program must be underscored. If these people are not partners in the therapeutic process the danger exists that they will rebuff or punish the child for practicing his newly acquired skills. This would constitute not only poor clinical practice, but also a serious ethical breach in exposing the child to these negative consequences.

The potential also exists in social skills training that by teaching children to be aware of the impact they have on others they become overly sensitive to peer approval, disapproval and popularity. This can lead to over-conformity or to the unreasonable need for social acceptance. While a well-planned social skills training program can avoid this undesirable side effect, the potential for its occurrence should not be over-looked.

Finally, societal implications of social skills training must be considered. Winett and Walker (1972) point out that behavior modification often serves to support the status quo rather than to change it. However, many social norms are based on antiquated ideas of age, sexual and racial roles. We must question whether children should really be taught to behave in accordance with these out-dated mores. Again, clinicians must exercise good judgement in the selection of criterion responses for social skills training programs.

#### E. Evaluation

##### a) Social Validation

It is necessary for any good treatment program to assess its results, not only in terms of whether any change occurred, but also as to whether that change was clinically significant. That is, did it make a difference in the person's life? Kazdin (1977) states, "Clinically important changes should be dramatic and obvious from the data so that there is no need to resort to statistical tests. These changes surpass the relatively weak criterion afforded by statistical evaluation,"(page 428).

Risley (1970) has proposed two means of evaluating interventions. Firstly, an experimental criterion must establish that an intervention is responsible for behavior change. Secondly, (and more importantly for clinicians) a therapeutic criterion must determine whether the behavior change is of clinical or social importance. This compares the behavior change following treatment to the level of behavior change necessary for an improvement in everyday functioning, in contrast to the experimental criterion which compares behavior to what it would be like had no treatment taken place.

Wolf and his colleagues (Maloney et al, 1976; Minken et al, 1976; Phillips et al, 1973; Wolf, 1978) have developed "social validation" as a means of evaluating applied interventions.

"Social validation, broadly defined, refers to assessing the social acceptability of intervention programs. Several facets of acceptability must be distinguished. Initially, the acceptability of the focus of the intervention can be assessed. This aspect of social acceptability refers to whether the behaviors selected are important to individuals in the natural environment. Second, the acceptability of the procedures can be assessed. Presumably, many procedures might alter behavior (eg., reinforcement of a particular response, time out, shock). Acceptability of, or consumer satisfaction with, the procedure can be determined and used as a basis for selecting among effective techniques. Finally, the importance of the behavior change achieved with treatment can be validated by examining the change

in the light of the performance of nondeviant peers in the environment or through evaluations by individuals in everyday contact with the client." (Kazdin, 1977, page 430).

Thus treatment can be evaluated by assessing whether the child is now within the normative range of behavior, and whether he is seen differently by others (parents, teachers, peers).

There are some difficulties with this approach. Firstly, to use normative data as a criterion implies satisfaction with the norm, which may not be the case. Secondly, it is often difficult to determine the appropriate normative group for some people and the relativity of norms must be recognized. With regard to subjective evaluations, there is sometimes difficulty with scales used. These are often composed of items chosen based on face validity and little attention is paid to adequate methods of scale construction. However, despite these methodological problems with the use of social validation, this approach to evaluating the impact of treatment appears to provide the most clinically relevant information. Was socially important change achieved?

## F. EMPIRICAL STUDIES

Interpersonal behavior is learned by children in three major ways (Combs and Slaby, 1971).

- These are
1. adult guidance, instruction and reinforcement
  2. observation of social behaviors and their consequences displayed by adults, peers and media models, and
  3. direct experience in interacting with peers and working out social problems.

Correspondingly, there have developed three procedural approaches to changing social skills:

1. shaping procedures and operant techniques using contingent adult reinforcement of appropriate peer interaction
2. modelling or combined modelling and reinforcement procedures using actual, imagined, or filmed role models, and
3. direct training procedures that make more explicit use of the child's cognitive and verbal facilities.

The first two methods will be discussed briefly. The third, which has become known as social skills training, will constitute the remainder of this report.

### a) Operant Techniques

Contingent reinforcement (operant conditioning) was used frequently by early social skills trainers, particularly with pre-schoolers. Social or material reinforcers would be given for higher rates of peer interaction or decreased rates of negative interaction.

Using reversal designs Allen et al (1964), Buell et al (1968) and Johnston et al (1964) have shown the effectiveness of using adult contingencies. However, the return to baseline levels of interaction during the reversal phases seems to indicate the great extent to which new behaviors depend on continued contingencies.

Extinction has been used by Pinkston et al (1972) to reduce the aggressive behavior of a 3 year old boy, and by Allen et al (1964) with a 4 year old isolate. Time out has been an effective technique, used by Allen et al (1972) in the control of aggression and antisocial behaviors of young children.

Two cautions should be mentioned at this time. Much of this research has focussed on pre-schoolers, and extending it to school-aged children must be done with care. Also, using only adult contingencies does not allow for influence during the great amount of time spent in unsupervised play with peers.

Peer reinforcement of newly learned interaction skills in natural play settings greatly enhances their maintenance. Kirby and Toler (1970) increased interaction of a 5 year old boy by having the child pass out candy. Verbal interaction(asking for peers' choice of candy) and physical interaction (passing candy) were targeted, and in the following free-play period, his rate of interaction increased from 13% to 50%. The drop during the reversal period was to levels of 31% -- not as great a drop as found in studies where adult contingencies alone were used. Unfortunately, a rise in the level of aggression was also noted in this previously

isolated boy.

Strain and Timm (1974) used contingent adult reinforcement, both to the target child and to her peers, to increase social interaction in an isolated and "hyperactive" pre-school girl. They concluded that changes in the girl's behavior were accompanied by changes in her peers' behavior even when they were not directly reinforced, and referred to this as a "spillover effect". This was further investigated by Strain et al (1977) who found: 1) social interaction was increased by the use of peer confederates; 2) positive social behavior was increased by use of peer confederates; and 3) effects were directly related to the subjects' prior social behavioral repertoire. In view of the observed "spillover effect" and the general advisability of encouraging prosocial skills in all children, Combs and Slaby (1977) advocate the application of positive behavioral methods to an entire group. They state advantages as including 1) greater consistency in the application of reinforcement across children and across situations and 2) increased opportunities for positive peer influences, modelling and cueing effects,

One major problem with operant studies is the lack of follow-up data and inability to demonstrate maintenance effects. Michelson and Wood (1980) list further problems in teaching social skills:

- 1) Operant approaches are not efficient modalities for instructing complex behaviors.
- 2) Teaching complex social-interactive skills requires inclusion of cognitive aspects, using techniques such as modelling, rehearsal and cognitive instruction.

- 3) The processes of shaping, fading, and differential reinforcement all require behavioral approximations that may be time consuming and not suitable for certain varieties of socially disruptive behavior.
- 4) The child is not usually involved in the treatment process, but subject to external contingencies he doesn't understand. Lack of involvement might lead to poor generalization.
- 5) Operant procedures that aim to increase the frequency of peer interaction often neglect social competency or peer acceptance.

Thus operant procedures used alone do not seem to be the most viable alternative for teaching social skills. However, their demonstrated influence can be used effectively in conjunction with other approaches.

b) Observational Learning (Modelling)

Bandura's (1969) theory provided the background for the early work in the use of modelling procedures for teaching children new social behaviors. O'Connor (1969) made use of films of social interactions with positive outcomes to encourage such behavior in 6 isolated pre-school children. Children in his study increased their rates of interaction to those of normal children, while the control group showed no such change. In a second study, O'Connor (1972) included shaping in his design, so that there were 4 groups (totalling 31 isolated pre-schoolers) - modelling and shaping, modelling alone, shaping alone, and controls. Results showed modelling to be very effective, with no additional improvements with the inclusion of shaping. Shaping alone was also effective.

Evers and Schwartz (1973) replicated O'Connor's (1969) study on 13 nursery school isolates using teachers as reinforcing agents. They, too, found modelling to be effective, with or without praise. Both O'Connor and Evers and Schwartz showed continued improvements at three and six week follow-up. Effects of shaping alone, however, were not evident at the time of follow-up. Therefore the symbolic modelling procedure seems to produce a more stable change.

Keller and Carlson (1974) used video-tapes of social interaction with 19 socially isolated pre-schoolers, and found the exposed children showed significant increases in giving, receiving and total social interaction, whereas the control children (who had been shown a nature film) showed no change. At three week follow-up, decline in dependent measures were directly related to the children's initial level of skill on that item. This supports Bandura's (1969) notion of "social facilitation" -- modelling increases existing social behaviors without necessarily developing new ones. For new behaviors to emerge, more direct and explicit training is necessary.

Goodwin and Mahoney (1975) used a video-tape of a boy using covert coping statements to cope with verbal aggression, to treat 3 hyperactive, impulsive boys. They found this to be ineffective, until instruction and coaching were introduced as well.

Evers-Pasquale and Sherman (1975) replicated O'Connor's (1969) study, adding the dimension of peer (or non-peer) orientation. While all children were shown to benefit from the modelling film, those who were

assessed to be peer oriented scored significantly higher. This supports the belief that modelling procedures may be differentially effective depending upon the reinforcement history and preferences of the child.

Gottman (1977) again replicated the O'Connor (1969, 1972) studies, on 32 pre-school isolates, but with some methodological refinements such as an elaborate behavioral observation coding system. Findings were not duplicated with no significant differences found between control and experimental subjects. The author questions the method of selection of "withdrawn" children.

Cooke and Apolloni (1976) used live models to teach social emotional behaviors (including smiling, sharing, positive physical contacting, and verbal complimenting) to learning disabled grade four students. They used a multiple-baseline design, and found the modelling procedure to be effective for every targetted behavior. Increases were maintained at follow-up four weeks later. It was also found that untrained children increased their rates of social behaviors through contact with trained children, supporting the notion of peer reciprocity.

Yarrow, Scott and Waxler (1973) also used live models to encourage helping behavior. They found modelling to be especially effective when the model had already established a nurturing relationship with the children.

Thus modelling has been shown to be a highly effective technique for promoting prosocial behaviors. Follow-up data in these studies

indicate change is stable, at least over short intervals, in contrast to the operant research in which follow-up data is lacking. However, as in the operant studies, researchers into modelling procedures tend to equate the quantity of peer interaction with quality social participation. More specificity of social behaviors would be of greater benefit to the clinical therapist, rather than such global definitions of behavior.

c) Social Skills Training

Methods of intervention which make use of the operant techniques and modelling procedures already discussed, but which also include instruction, coaching, active problem-solving, and role-playing, have been termed by Michelson and Wood (1980) as "combination interventions". They state, "The common theme throughout these investigations is the training of specific, complex, socially interactive skills, using a variety of both operant and modelling techniques, in combination with cognitive mediation strategies." (page 273 - 274). By relying more explicitly on verbal and cognitive processes, this modality involves the child more directly and actively in the treatment process.

Chittenden (1942) was the pioneer in this area. She assigned nursery school children either to an experimental or control group, and used dolls to role-play social interaction in order to teach children to understand, interpret and respond appropriately to social situations. Training included instruction, modelling, role-playing, behavioral rehearsal, social reinforcement and problem-solving. Direct behavioral observation indicated a decrease in "dominative" behavior among treated

children, and an increase (although not statistically significant) in co-operative behavior. These changes were maintained at follow-up four weeks later.

Gottman et al (1976) used a social skills training program consisting of referential communications, modelling, role-playing, self-coping statements and instructions to teach friendship making skills to two female children. Two others made up a control group. At nine week follow-up there was a significant improvement in the sociometric status of the treated children. Small sample size and use of girls only limits the generalizability of these findings.

Minken et al (1976) used instruction, coaching, modelling, behavioral rehearsal, and video-taped feedback to train four girls in social skills. The girls were residents of an Achievement Place Group Home. Using a social validation of selected behaviors, relevant target skills were selected, and results showed treatment effectiveness in a variety of conversational areas as rated by independent judges.

Maloney et al (1976) also taught conversational skills to 13 to 15 year old residents of an Achievement Place Group Home. Improvements were observed across all targeted behaviors, with social validation of training effects obtained.

Whiteside (1976) investigated assertive behavior training with 45 juvenile first offenders, who were randomly assigned to one of five conditions: 1) assertive behavior training, 2) client-centered

counselling, 3) waiting list, 4) pre-post test only, and 5) post-test only. Change was measured by self-report only, and the absence of follow-up and objective behavioral assessment make results tentative, at best. Assertive training and client-centered counselling were shown to be equally effective on non-behavioral measures used.

Third and fourth grade socially isolated children were coached in social skills for friendship making by Oden and Asher (1977). In comparing three conditions - social skills training, peer-pairing and control - they found the group which had undergone training increased on a play sociometric rating significantly more than the other two groups. No significant differences were found on work sociometric ratings, friendship nominations, or behavioral measures. Gains were maintained on play ratings upon follow-up one year later.

Bornstein et al (1977) used a social skills training program consisting of instructions, feedback, behavior rehearsal and modelling with four unassertive children, 8 to 11 years. Using a multiple-baseline analysis, they concluded that treatment was effective in changing all behaviors selected for modification (including ratio of eye contact to speech duration, loudness of speech and requests for new behavior) and that effects generalized to untrained interpersonal situations. Gains were maintained at two and four week follow-up. This investigation also provided a modification of the Behavior Assertiveness Test (Eisler et al, 1973, 1975) for use with children. This is a series of standard interpersonal situations which are used in role-play. It has become

known as BAT-C and is now widely used.

Bornstein et al (1980) again used the BAT-C role-play test, this time with four highly aggressive children after a similar program of social skills training. Positive effects were shown for all targeted behaviors, in all subjects. Follow-up was inconsistent, with only 2 of the 4 children able to generalize skills to a different setting. The importance of individualizing the training program and of developing a positive therapeutic relationship is discussed.

Calpin and Kornblith (1978) found video-taped feedback extremely useful in their treatment of four aggressive in-patient males, aged 9 - 11 years. Expression of affect, requests for new behaviors, and overall social skills were trained in a program using instruction, modelling, video-taped feedback, coaching and behavioral rehearsal. The BAT-C role-play test was used for assessment purposes, and the generalization scenes showed significant improvements in 3 of the 4 boys. Follow-up at one and three months showed some backsliding, but 3 of the 4 children remained at higher than baseline levels.

Linguist and Parr (1978) compared the effectiveness of modelling, rehearsal, modelling and rehearsal, placebo script counselling and delayed-treatment control with sixty randomly assigned grade 8 students. Self-report, teacher ratings, peer-ratings, role-play tests and a specific problem inventory were used to assess outcome. Results showed modelling plus rehearsal groups did significantly better

than control groups, but other comparisons provided no significant findings. No follow-up was reported.

Sugai (1978) trained fourth and fifth graders in social skills using a program consisting of small and large group format, instructions, modelling, role-playing, programmed social reinforcement, corrective feedback and covert behavioral rehearsal. Gains were observed on behavioral, self-report and behavior rating scales for several targeted skills.

Beck et al (1978) extended the Bornstein (1977) work with analog-trained subjects. Findings showed the effectiveness of social skills training; however generalization to a natural school environment was not seen. Three suggestions were made to enhance generalization: 1) incorporate peers into the training program, 2) integrate training in the natural environments, and 3) develop self-monitoring skills.

Social skills training was conducted with an entire fourth grade class by Michelson and Wood (1978). Eighty children were randomly assigned to one of four conditions - 1) sixteen hours of social skills training, 2) eight hours of social skills training, 3) sixteen hours of placebo ecology discussions and 4) pre-post testing control group. Instructions, modelling, behavioral rehearsal, scripts, class discussions, homework assignments, and role-playing were used to train skills such as giving and receiving compliments: refusing both reasonable and unreasonable requests; requesting favors and behavior

change from others; standing up for one's rights; initiating, maintaining, and terminating conversations; giving and receiving empathy; relaxation training; rational thinking; and conflict-resolution training. Both treatment groups showed significant improvements, with no differences depending upon the length of treatment. Neither control group showed improvement. Follow-up at four weeks showed continued gains, with the group which had sixteen hours training scoring significantly higher.

Hops et al (1978) have developed a program called Procedures for Establishing Effective Relationship Skills (PEERS) which is used to help withdrawn children become more integrated into their social groups. The teacher and peer group participate through group play activities, peer tutoring, joint tasks and token reinforcements. A gradual fading procedure is used to insure maintenance of gains.

A similar program has been developed by Walker et al (1978) for use with socially negative, aggressive children. Called RECESS, (Reprogramming Environmental Contingencies for Effective Social Skills) it includes direct social skills training, response-cost point system, praise, and group and individual consequences. Promising results have been shown in its effectiveness and efficiency as a treatment package and in the use of classroom teachers and playground supervisors to implement the program.

Ollendick and Hersen (1979) provided social skills training to incarcerated juvenile delinquents. Twenty-seven children were randomly

assigned to a social skills, discussion or control group. Self-report, role-play and behavioral measures showed the social skills group to have made greater gains on most measures, including eye contact, assertive verbal responses, reduction in state anxiety, increase in locus of control, and points earned in the token economy.

Elder et al (1979) used a multiple-baseline design to train socially appropriate means of interrupting, requesting behavior change, and responding to negative communication in four aggressive adolescent psychiatric patients. Positive effects were seen in both trained and untrained role-play scenes, and generalization to lunchroom and dayroom settings was demonstrated. Reduction in the number of token economy fines and in time spent in seclusion was also shown.

Spence and Marzillier (1979) examined the effects of a social skills training program consisting of instructions, modelling, role-playing, video-taped feedback, and social reinforcement, using a multiple baseline design with 5 adolescent male offenders, from 10 - 15 years. Gains were obtained on increasing eye contact and decreasing fiddling movements but listening skills, staff ratings and ratings of independent judges did not improve. Follow-up at two weeks showed maintenance of those gains which were made. No conclusions on generalization of training effects can be made, but the authors conclude that social skills training can be effective in producing short term improvements in certain basic social skills.

Gross et al (1979) provided a self-management and social skills training program for 10 pre-delinquent and delinquent youths. Written lessons, discussion, quizzes, modelling, rehearsal, role-playing, behavior modification skills, and self-management techniques were used. Rating scales, parent and teacher reports, court records, grades and school attendance all showed evidence of improvement. Interestingly, a "consumer evaluation" was also provided, which showed the children themselves felt the program was effective. Follow-up at two months showed effects were maintained on most measures. The authors feel that the inclusion of the youths in the behavior modification techniques greatly increased their involvement and the ultimate success of the program.

Rinn and Markle (1979) developed an analogue system for assessing and training social skills for use with out-patient children from grades 3 to 6. Their program is designed for use with either individuals or small groups, and proceeds through six steps: 1) instructions, 2) questioning, 3) modelled response, 4) review, 5) students' response, and 6) feedback. Tangible rewards from a "Goodie Box" are provided to enhance motivation. While the authors conclude that their program is effective, they state, "... further research is needed to 'dismantle' the training procedure in order to discern which elements are functional and should be maintained." (page 127)

In a series of studies, La Greca et al (1979, 1980, 1981) have examined the use of social skills training with learning disabled elementary school students. La Greca and Mesibov (1979) investigated

the selection of appropriate target skills for learning disabled students, and out of nine areas of social behavior -- joining others, greeting and inviting skills, conversation skills, co-operation and sharing skills, verbal affection and complimenting, play skills, and physical appearance and grooming they chose four as being most relevant -- greeting, inviting, joining and conversation. Children were seen weekly in groups of four to six students, over a total of six to eight weeks. Modelling, rehearsal, coaching, and feedback were utilized. The effectiveness of the intervention was shown at post-test, but the authors raised several concerns. They felt the program should be more individualized; that learning-disabled students may require a longer training period, with overlearning and overtraining; that there is greater sensitivity on the part of learning-disabled students, and a less direct approach might prevent withdrawal; that feelings must be integrated into the skills program; and that learning-disabled children need a more thorough orientation to the intervention than do their non-disabled peers.

La Greca and Santogrossi (1980) used a program similar to the one just described with 30 children, grades 3 to 5. Those who participated in the training program showed increased skill in role-play situations, greater verbal knowledge of how to interact with peers and more initiation of peer interactions in school, as compared to those in the attention-placebo or waiting-list control groups. No differences between these latter two groups were noted. From this, the authors conclude, "... that efforts to increase merely a child's social contacts,

without additionally providing the child with instruction on appropriate social behaviors to employ with peers, are not likely to have any impact on the child's peer interactions", (page 225).

La Greca and Mesibov (1981) used a social skills training program with four learning-disabled boys, ages 12 to 16, to train joining skills and conversation skills. Improvement was seen in interpersonal skills and in the frequency of interaction with peers, shown on role-play tests and self-report ratings.

Cognitive changes associated with social skills training were examined by Spence and Spence (1980). Forty-four male offenders between 10 and 16 years of age were randomly assigned to one of three groups - social skills training, attention-placebo, and no-treatment controls. A self-esteem inventory and a locus of control scale were completed by each child. Results showed pre-to-post-training increases in self-esteem for both the social skills training and the attention-placebo groups, but not for the control group. However, these increases did not last until follow-up six months later. The social skills training group showed a significant shift towards internality on the locus of control scale, while no change was seen on this dimension in the other two groups. However, this was also a short-term change, with a return to baseline by the six month follow-up. The authors conclude that although social skills training is effective in producing short term increases in self-esteem and shifts towards internal locus of control, these changes are of short duration. They also note

that the change in self-esteem may be due to non-specific therapy factors since it was also shown by the attention-placebo group.

Whitehill et al (1980) used a social skills training program consisting of instructions, modelling, behavior rehearsal, performance feedback, and programmed generalization to teach conversation skills to four socially isolated children, ages 8 to 10 years. All children showed improvement based upon role-play tasks and classroom observation. Sociometric ratings and teacher ratings showed only minimal change. Treatment gains generalized to untreated role-play scenes, and persisted at 4 to 8 week follow-up evaluations. Whitehill concludes, "...The negligible post-treatment gains in the sociometrics suggest that there is no simple correspondence between conversational skills and increased peer acceptance." (page 224).

A social skills training program for use with disruptive adolescents within the school setting was developed by Filipczak, Archer and Friedman (1980). This group-oriented program has been tested in rural, urban and suburban schools, with training and control groups totalling over 500 students. Called PREP, (Preparation through Responsive Educational Programs) it includes academic and family training components as well as social skills training. This makes it difficult to draw firm conclusions about the effectiveness of the social skills component separately, although the authors feel "...results point to positive outcomes on multiple reliable indices of social skill across several program years and setting." (page 260). This study is particu-

larly interesting in that it addresses the question of the cost effectiveness of this sort of program in a public school setting, concluding that it can be implemented by regular school personnel, given limited training and supervision.

Gresham and Nagle (1980) have studied forty socially isolated 3rd and 4th grade children who were randomly assigned to one of four conditions: coaching, modelling, mixed abbreviated modelling and coaching, and a control group. In addition to standard sociometric scales, the children were rated on peer-orientation based on a test to measure their social interaction preferences. The first three groups all showed roughly equivalent improvements in over-all social skills, while the control group showed no significant change. Contrary to expectation based on previous findings (Evers - Pasquale, 1978; Evers - Pasquale and Sherman, 1975) the peer orientation factor did not prove to be a particularly strong modulator of responsiveness to social skills training. More detailed comparison between groups shows coaching to be more effective in inhibiting rates of negative peer interaction, while modelling is more effective in increasing rates of positive peer interaction.

Matson, Kazdin and Esveldt-Dawson (1980) treated two moderately retarded in-patient boys, ages 11 and 12, for deficits in social skills, including facial mannerisms, physical gestures, eye contact, words spoken, intonation and content of speech. A social skills training program, consisting of instructions, performance feedback, social

reinforcement, modelling, and role-playing, was evaluated in separate multiple-baseline designs across behaviors for each child. Treatment effects were evaluated against the performance of four non-problematic peers to provide social validation of therapeutic gains (Kazdin, 1977; Wolf, 1978). Results indicated that specific target behaviors improved, as did overall ratings of social performance. Generalization to untreated behaviors and novel scenes was also shown, and was maintained at four and six week follow-up. The authors emphasize the usefulness of social skills training with the mentally retarded, who can be brought up to the levels of social functioning shown by their normal age-mates.

Matson et al (1980) treated four emotionally disturbed, hospitalized children aged 9 to 11 years for social skills deficits using a group treatment package consisting of instructions, performance feedback, modelling, role-playing and social reinforcement. The study was designed to 1) test the vicarious learning effects of social skills training; 2) assess the degree to which "booster sessions" enhance maintenance of skills training; 3) assess the generalization effects of observational learning and social skills training; and 4) include consumer evaluation of training. They found that observational learning alone was of minimal benefit, whereas the effects of direct social skills treatment on both verbal and non-verbal components were immediate and generalized to untreated scenes and to behavior on the ward. These gains were maintained at fifteen week follow-up with and without booster sessions, and the authors state that the question of the advisability of

continued periodic treatment requires further research. The children suggested greater variation in treatment scenes, and using peer-model prompts rather than adults would make training more realistic. Again, the authors suggest further research into these areas to assess their effects on training as well as consumer satisfaction.

Calpin and Cinciripini (1980) conducted a multiple baseline analysis of social skills training on two in-patients, ages 10 and 11, of a hospital unit for emotionally disturbed children. Using the Behavioral Assertiveness Test for Children as their dependent measure and conducting a training program consisting of instructions, modeling, video-taped feedback and rehearsal, they found that both children showed considerable improvement in social skills.

Ladd (1981) utilized a social skills training program with socially isolated third grade children, who were randomly assigned to skill training, attention control or non-treatment control groups. Social skills training aimed at increasing leadership abilities, question asking and offering support to peers. Sociometric and observational assessments indicated that skills training has a beneficial and lasting effect on peer acceptance in the classroom. Improvement was seen in question asking and leading in the trained group, while no change was seen in the control groups. However no increase in supportive statements resulted from social skills training. It was noted that although some significant positive change in peer's attitudes towards treated children was seen immediately, this increased by the four week follow-up suggesting that

sufficient exposure to behavioral change is necessary for optimal effect.

A cognitive social skills training program was developed by Combs and Lahey (1981) for use with isolated pre-school children. Three children, ages 3 - 5 were seen, and trained for eye contact, initiation of peer verbal interaction, verbal response to peer verbalization and positive non-verbal peer contact. Only slight gains were shown on post-test evaluation and these decreased slightly by follow-up six weeks later, although they remained slightly above baseline. Subsequently an operant procedure using prompting and contingent adult attention in the classroom was used and produced significant increases in all behaviors. (This was instituted for clinical reasons, as well as to show the validity of the dependent measures). The authors conclude:

"The weak effects of cognitive social skills training as it was used here suggest that it alone is not effective in producing clinically significant increases in the social interaction of children with severe social deficits. However, if its function was to provide the children with knowledge of what to do in social situations, it may have contributed to the effectiveness of subsequent interventions. Assessment of the individual child's knowledge of appropriate social behaviors may be an important first step in designing a skills training approach. It may be that those children who possess the knowledge of how to make friends and initiate interactions would benefit from the use of the operant training procedures alone. On the other hand, children who are isolated because

of lack of knowledge of the necessary social skills may initially need a more cognitively-oriented approach, which is then followed by a operant procedure." (page 57).

It must be noted that these findings are based on research with pre-schoolers, in contrast to most previously cited studies of latency aged children or adolescents. It may be that the level of cognitive development needed to benefit from social skills training approach is not attained until these later stages.

Spence and Marzillier (1981) have conducted research into social skills training with 76 adolescent male offenders, randomly assigning them to training, attention placebo, and no treatment control groups. Results showed that social skills training led to improvements in some but not all areas, and these improvements were maintained at three month follow-up. The training group was found to be significantly superior to either of the other two groups on the performance of basic skills (including increased eye contact and head movements and decreased fiddling) at post-test. However other measures, such as a staff questionnaire, social workers' ratings of work, school, and family relationships, and self-reported police convictions, showed no significant difference between groups. Thus it appears that generalization of newly trained social skills into the natural environment did not occur. The authors conclude that within a delinquent population social skills training is only likely to be beneficial if combined with other methods

which aim to increase pro-social and decrease antisocial behavior.

Sagotsky et al (1981) used modeling and direct instruction with 118 same sex pairs of first through third grade children, to teach them to choose co-operation over maladaptive competition in a game situation. Children were randomly divided into four groups - two modeling, one instruction, and one control group. All treatment groups did equally well, and significantly better than the control group. On follow-up seven weeks later using unfamiliar games, results showed that both age and experimental condition were significantly related to co-operation. First graders showed no generalization. For older children, again all three treatment groups scored better than the control group, with no significant differences seen between the treatment methods. The authors conclude that a relatively brief and straightforward intervention can effectively train co-operation.

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Table 3 Single Subject Experimental Designs  
 (from Van Hasselt et al, 1979, pages 424-5)

Reference	Subjects	Treatments	Outcome	Follow-ups
Allen <i>et al.</i> (1964)	4-yr-old socially isolated girl	Reinforcement of social interaction	Increase in rate of social interaction	6, 13, 15, and 25 days
Beck <i>et al.</i> (1978)	1, 10-yr-old socially isolated boy 1, 7-yr-old socially isolated girl	Instructions, feedback, behavior rehearsal, modeling	Improvements on trained and untrained role play scenes	none reported
Bornstein <i>et al.</i> (1977)	4 unassertive children (3 girls and 1 boy) 8-11 yr old	Instructions, feedback, behavior rehearsal, modeling	Improvement on trained and untrained role play scenes	2 and 4 weeks
Bornstein <i>et al.</i> (in press)	5 aggressive children (3 boys and 2 girls) 8-12 yr old	Instructions, feedback, behavior rehearsal, modeling	Improvement on trained and untrained role play scenes; moderate change in naturalistic setting	2 weeks, 1, 2, and 6 months
Buell <i>et al.</i> (1963)	3-yr-old socially deficient girl	Social reinforcement priming	Increased social interaction and outdoor play	1, 2, 3, and 4 weeks
Cooke and Appoloni (1976)	4 learning disabled, socially deficient children (3 girls and 1 boy) 6-9 yr old	Instructions, praise modeling	Improvement on targeted behaviors and in social interaction	1, 2, 3, and 4 weeks
Hart <i>et al.</i> (1968)	5-yr-old, socially isolated girl	Reinforcement of cooperative play	Increase in percentage of cooperative play	None reported
Kirby and Toler (1970)	5-yr-old, socially isolated boy	Reinforcement from teacher and peers	Increase in rate of social interaction	None reported

Table 3 (Cont'd.)  
Single Subject Experimental Designs

Reference	Subjects	Treatments	Outcome	Follow-ups
Panepinto (1976)	4 aggressive boys. (8-10 yr old)	Instructions, feedback behavior rehearsal, modeling	Improvement on trained and untrained role play scenes; moderate change in classroom behavior	1 week
Pinkston <i>et al.</i> (1973)	3-yr-old, aggressive boy	Extinction and reinforcement	Decrease in aggression and increase in peer interaction	1 month
Strain (1977)	3 behaviorally disordered, socially isolated boys (43-51 months)	Positive social initiations by peers	Increased frequency of positive social behavior in training sessions	None reported
Strain <i>et al.</i> (1976)	3 behaviorally disordered socially isolated boys (49-54 months)	Social reinforcement and prompting	Increase in positive social behavior and decrease in negative social behavior	None reported
Strain <i>et al.</i> (1977)	6 behaviorally disordered, socially isolated boys (39-53 months)	Positive social initiations by peers	Increased frequency of positive social behavior in training and generalization sessions	None reported
Strain and Timm (1974)	3-yr-old behaviorally disordered, socially isolated girl	Social reinforcement and physical contact	Increase in frequency of social behaviors	None reported
Walker and Hops (1973)	3 socially withdrawn girls (grades 1-3)	Token reinforcement	Increase in rates and frequencies of social interaction	None reported
Whitman <i>et al.</i> (1970)	Socially withdrawn boy (10 yr) and girl (6 yr)	Shaping and reinforcement (food and praise)	Increase in frequency and duration of social interaction	None reported
Whitehill (1978)	4 socially isolated children (2 boys and 2 girls) 9-11 yr old	Modeling, feedback coaching, instructions	Improvement on trained and untrained role play scenes and in naturalistic	4 and 8 weeks

Table 4 Group comparison studies (Van Hasselt, 1979, page 428)

Reference	Treatment and length	Subjects	Conditions	N	Follow-up	Best treatment
Chittenden (1942)	Individual, 11 sessions	Aggressive preschool children	Problem solving No-treatment control	10 9	1 month	Problem solving
Evers and Schwarz (1973)	Individual, 1 session	Socially withdrawn preschoolers	Modeling film Modeling film plus reinforcement	6 7	1 month	Modeling effective reinforcement with or without
Gottman (1972)	Individual, 1 session	Socially isolated preschoolers	Modeling film Control film	16 16	none 9 weeks	No significant effects of treatment Social skills training
Gottman <i>et al.</i> (1976)	Individual, 5 sessions	Socially isolated 3rd graders	Social skills training Interactions with adults	2 2		
Hymel and Asher (1977)	Individual, 6-10 sessions	Socially isolated 3rd, 4th and 5th grade children	Standardized coaching Individualized coaching Peer pairing condition	8 8 8	7 months	No treatment supremacy
Keller and Carlson (1974)	Individual, 4 sessions	Socially isolated preschoolers	Modeling film Control film Modeling film Control film	10 9 6 7	3 weeks none	Modeling Modeling
O'Connor (1969)	Individual, 1 session	Socially isolated preschoolers				
O'Connor (1972)	Individual, 1 session	Socially isolated preschoolers	Modeling plus shaping Modeling Shaping Control	7 9 8 7	3 and 6 weeks	Overall, modeling more effective with or without shaping
Oden and Asher (1977)	Individual, 6 sessions	Socially isolated 3rd and 4th graders	Coaching Peer pairing Control	11 11 11	1 yr	Coaching

Table 5

(from Michelson and Wood, 1980, page 264)

Analysis of Social Skills Training Articles 1942-1979		
Total number of articles pertaining to training		58.0
Mean number of subjects per article		7.3
Percentage of articles stating number of subjects		96.0
Mean age of subjects		7.7
Percentage of articles stating age of subjects		88.0
Mean number of training or contact hours		10.05
Percentage of articles stating number of contact hours		59.0
Percentage of female trainers		59.0
Percentage of male trainers		41.0
Percentage of articles giving sex of trainers		41.0
Average length of follow-up (for those studies reporting any)		82 days
Percentage of studies reporting any follow-up		54.0
Percentage of articles using a group design		44.6
Percentage of articles using a single-case experimental design		55.4
Breakdown of articles per year		
Year	Number	Percent
1942	1	1.8
1962	1	1.8
1964	1	1.8
1965	2	3.6
1966	1	1.8
1967	1	1.8
1968	2	3.6
1970	2	3.6
1971	3	5.5
1972	1	1.8
1973	3	5.5
1974	5	9.1
1975	13	23.6
1976	6	10.9
1977	11	20.0
1978	3	5.5
1979 <sup>a</sup>	3	5.5

<sup>a</sup> The number of articles for 1979 is probably an underestimate because the limited availability of articles in press. Approximately 75% of all articles were published since 1973.

#### G. SUMMARY

Overall, in reviewing the research literature on social skills training with children I have been positively impressed both with the methods utilized and the results obtained. Particularly appealing to me was the versatility of this intervention. Successful outcomes have been reported with age groups ranging from pre-schoolers to adults. Social skills training has been found to be useful in dealing with children having a wide range of problems from withdrawn isolated children to aggressive and delinquent children. It has also been used within a great variety of settings including schools, group homes, psychiatric units, institutional placements and psychiatric out-patient clinics.

My decision to proceed with a practicum using social skills training with emotionally disturbed children was based in large part upon its versatility. While in itself it is a very specific, focussed intervention it is readily adaptable to many problem areas and settings. For this reason it appeared to be a valuable tool for a social worker dealing with children.

## PRACTICUM REPORT

Social skills assessment and training was conducted with seven children ranging in age from 7 to 11 years. Cases were referred from three settings - an In-Patient Child Psychiatry Assessment Unit, a hospital based Day Treatment Program and a group home for emotionally disturbed children. These settings will be described more fully later.

Children were seen in a large room which was divided into two sections by portable screens. On one side were a work table, chairs and blackboard. This area was used for any paper and pencil tasks as well as for the instructional component of training in many instances. The other side of the room contained a coffee table and several armchairs, as well as the videotaping equipment. This area was used for the role-play portions of the training. Not only was this dual type of set-up more practical from the training standpoint, it also provided some change and movement for the children, which seemed to help those with poor attention spans to maintain their interest.

Training was conducted by the writer acting as single therapist rather than using both a trainer and prompter as is often done. Attempts at using a group home staff member as co-therapist were unsuccessful for practical reasons which will be discussed later. Child care workers, nursing staff and teachers were made aware of the training program and asked to provide reinforcement of newly trained behaviors in the natural environment.

## 1. ASSESSMENT PROCEDURES

Several assessment devices were utilized, in order to attain a well-rounded view of the child's social functioning. Parents or child care workers were asked to complete the Walker Problem Behavior Identification check list (Walker, 1970) and the Semantic Differential Checklist (Becker, 1960). The child (usually over two or three sessions) completed a listing of positives about self and friend (Rinn and Markle, 1979), the Self-Esteem Inventory (Coopersmith, 1967) or the Primary Self Concept Inventory (Muller and Leonetti, 1974), tests of perception of non-verbal cues, (Spence, 1980), Conversation Probe, (Whitehill, 1980), the Behavioral Assertiveness Test for Children, (Bornstein et al, 1977) and the Analogue Assessment (Rinn et al, 1979b). Each of these will be described along with an explanation of why it was selected. Copies of all tests are contained in the Appendices.

### A. Walker Problem Behavior Identification Checklist (WPBIC)

The WPBIC consists of fifty true or false questions which deal with the child's day to day behavior. Each question answered positively receives a weighted score on one of five sub-scales measuring acting-out behavior, withdrawn behavior, distractibility, disturbed peer relations, or immaturity. The range of possible scores is 0 to 98. On normative procedures conducted with 534 children in grades 4, 5 and 6 the mean score for the normative sample was 7.76 with a standard deviation of 10.53. For purposes of screening and identification a raw score of 21 was selected as indicating problems severe enough to warrant referral for further evaluation. Scores on each subtest are circled on a Profile Analysis

Chart and connected by straight lines to give a visual representation of the child's behavioral pattern. This also indicates (through conversion of raw scores to T scores) on which sub-scales the child's behavior is problematic. This information is helpful in determining the appropriateness of social skills training, as well as in selecting specific target behaviors to include in the training program.

#### B. Semantic Differential Checklist

This child rating schedule consists of 54 bi-polar, seven-point rating scales with antonym pairs of adjectives defining the extremes. Dimensions measured included an evaluative component, conduct, aggressiveness, level of anxiety, submissiveness, intelligence and hostility. This checklist provided an indication of mother's attitude towards the child, and was utilized to measure any changes in attitude occurring following the implementation of the social skills training program.

#### C. Listing of Positives about Self and Friend

Rinn and Markle (1979) developed the listing of positives about self and best friends as a useful screening device for social skills deficits. Basically, the fewer self-positives and best-friend positives, the greater the deficits. They found both factors to be significantly correlated with peer ratings of play. Best-friend positives were also significantly correlated with peer ratings of work, while self-positives were not. This test was used in the first clinical interviews with children, both as a screening device and as a tool to stimulate conversation and rapport.

#### D. Self-Esteem Inventory (SEI)

This test consists of 58 true or false questions related to school, family and peer relations. Fifty items make up the SEI while 8 items comprise a lie scale used to measure the degree to which the child is answering positively and inflating the score. This inventory was designed for use with 8 to 10 year olds. Normative data obtained from 1748 fifth and sixth grade students indicated a mean score for boys of 35.05 with a standard deviation of 6.9. No significant difference was found between boys and girls who obtained a mean score of 36.1 with a standard deviation of 6.4. This scale was used with the ten and eleven year olds in an effort to measure any changes in self-esteem subsequent to social skills training.

#### E. Primary Self-Concept Inventory

This test of self-esteem was used with the younger children, having been developed for use from kindergarten through grade four. It consists of 20 items: two warm-up items and 18 scored items. Each item picture depicts at least one child in a positive role and at least one child in a negative role. The child is asked to circle the child who is most like himself or herself. There are separate test booklets for boys and girls. Results are divided into three factors: personal-self measures perception of physical size and emotional state; social-self measures peer acceptance and helpfulness; and intellectual-self measures perceptions of successfulness and ability to conform to classroom behavioral expectations. Scores on each factor as well as total scores are converted to percentiles. Raw scores range from 0 - 18 total, with 0 - 6 on each of the three

sub-scales. It is suggested that a total score of 13 or lower, (48 percentile) or a domain score of 4 or lower (40 percentile) is indicative of an undesirably low self-concept. This was used to measure changes in self-esteem subsequent to social skills training.

#### F. Spence's Tests of Perception

Three tests were used to measure perception of non-verbal cues, in order to assess whether the child is able to determine the meaning of emotional messages sent out by others. Perception of Emotion from Facial Expression was measured using a series of ten photographs of people showing different emotions. The child was asked to select the person who looked happy, sad, and so on. Similarly, the Test for Perception of Emotional Expression from Posture Cues consists of a series of ten photographs of people in varying positions. Perception of Emotion from Gesture Cues was administered by the examiner making a gesture which the child is asked to interpret. No norms are available for these tests because Spence (1980) feels they would vary so much from group to group. These tests were used to measure changes in the child's ability to accurately perceive non-verbal communication following social skills training.

#### G. Conversation Probe

The Conversation Probe consists of four common interpersonal situations which present the child with the opportunity to meet someone and begin and maintain conversation for a period of one minute. Prior to administration, a practice scene is presented to ensure that the child understands the instructions. A count is made of the number of informative statements, open-ended questions, requests for shared activity, and

pauses over four seconds. Conversations are rated on a five point scale, where one indicates awkward, unnatural conversation and five indicates very fluent conversation. A mean score for the four items is then determined. The Conversation Probe allows for more flexible responses than the other prompted analogue tests and is therefore somewhat less restrictive. It was used to measure changes in conversational abilities following social skills training.

#### H. Behavioral Assertiveness Test for Children (BAT-C)

The BAT-C consists of nine scenes depicting situations that children are likely to engage in daily with other children. A short descriptive statement is read, and the child is given a prompt for a response. Scoring of eye contact, response latency, volume of speech, appropriate affect, non-compliance, a request for new behavior and absence of verbal abuse was obtained by giving one point for an acceptable response and zero for an unacceptable response. Thus the range of possible scores on each item is 0 - 7 and on the total test score is 0 - 63. This test provides a measure of the child's assertiveness, and will indicate problems with either overly submissive behavior or aggressive behavior.

#### I. Analogue Assessment

An Analogue Assessment was used to measure the child's role-play response to social situations including praising and complimenting others, disagreeing with others, making simple requests, accepting compliments, agreeing with another's opinion, expressing feeling and expressing opinions. A total of 15 scenes were used, and eye contact, latency of response, volume of speech, appropriateness of affect and appropriateness of verbal

content were scored. One point was given for acceptable behavior, zero for unacceptable behavior. Thus the range of possible scores is 0 - 5 per item; 0 - 75 for the total score. Scenes measuring assertiveness were omitted since this had been measured already by the BAT-C. Unfortunately, this makes comparisons with norms impossible. However, extrapolating from the norm of 65.3 obtained by testing on twenty-three grade 3 children where the range was 0 to 85, an approximate norm of 57.6 is obtained. (ie.  $\frac{75}{85} \times 65.3 = 57.6$ ). The Analogue Assessment was used to measure changes in the child's responses to a variety of social situations following social skills training.

#### J. Summary

All assessment measures were administered prior to social skills training and again four weeks following the termination of training. Scores were examined separately. No attempt was made to obtain an over-all score of social functioning, because the assessment devices were so diverse and did not lend themselves to such an additive measure.

## 2. SOCIAL SKILLS TRAINING

### A. Programs

A variety of social skills training programs were used, in various combinations depending upon the individual needs of the child. Each program will be described here separately, and in the case reports the specific elements of each program which have been used with that child will be presented.

a) La Greca (1981)

La Greca has developed a program of social skills training with elementary school students, based largely on her work with learning disabled children. Eight skill areas were selected for training based on her previous research (La Greca and Mesibov, 1979). These areas include: 1) smiling and laughing with peers; 2) greeting others; 3) joining on-going peer activities; 4) extending invitations to peers to engage in mutual activities; 5) conversation skills; 6) sharing and co-operation skills; 7) complimenting others; and 8) physical appearance and grooming. Table 2 , pages 16 and 17 lists the various skill areas included in the social skills training program and the specific components of each skill.

This program involves modelling, coaching and behavioral rehearsal strategies. Table 6 page 81 outlines the standard format for each training session. The program is designed to be completed in eight 45 minute sessions, as follows:

- session 1. general introduction  
smiling and laughing
- session 2. greeting skills
- session 3. joining others
- session 4. conversation skills
- session 5. inviting sequence
- session 6. sharing skills
- session 7. giving compliments
- session 8. physical appearance

La Greca points out that not all skills need be included in every program and that individualization of training programs is most appropriate.

b) Rinn and Markle (1979)

Rinn and Markle have also developed a social skills program, specifically designed for children from grades three to six. Their taxonomy

Table 6  
Training Session Format

Step	Procedure
1.	Review of previous training session.
2.	Trainers introduce and describe a new skill area.
3.	Trainers play a videotape of peer models or model appropriate social behavior.
4.	Trainers lead a discussion about the modeled behaviors, and how the children can use these behaviors in their daily peer interactions.
5.	The trainers provide the children with opportunities to role-play the skills with the trainers and then with other group members. All role-plays are videotaped.
6.	Children review the tapes of role-plays with the trainers, discussing good points and areas in need of improvement. More practice, if needed.
7.	Children verbally review the skill area with the trainer, and are given homework assignments to use the skills in peer interactions outside the group.

If more than one skill area is covered within a given session, steps 2 through 7 are repeated for the new skills area.

of social skills is as follows:

1. Self-Expressive Skills
  - a. Expression of feelings
  - b. Expression of opinions
  - c. Accepting compliments
  - d. Stating positives about oneself
2. Other-Enhancing Skills
  - a. Stating positives about a best friend
  - b. Stating genuine agreement with another's opinion
  - c. Praising others
3. Assertive Skills
  - a. Making simple requests
  - b. Disagreeing with another's opinion
  - c. Denying unreasonable requests
4. Communications Skills
  - a. Conversing
  - b. Interpersonal problem solving

This program has been designed primarily for out-patients on a one-to-one basis, but has also been used successfully with small groups. The program can be conducted by an individual clinician, but two therapists are recommended - one acting as trainer and the other as prompter. Instruction, questioning, modelling, role-playing and feedback are used in the systematic training of each skill. Rinn and Markle also use concrete reinforcers, selected from a "goodie box" earned by accumulating points during each session. They state that this serves to increase interest and enjoyment, as well as motivation. Training is conducted over six sessions, as outlines below:

- |            |  |
|------------|--|
| session 1. | introductory explanation                       |
|            | expression of feelings, expression of opinions |
| session 2. | accepting compliments stating                  |
|            | positives about oneself                        |

- session 3. stating positives about a best friend  
agreeing with others
- session 4. praising others  
making simple requests
- session 5. disagreeing with another's opinion  
denying unreasonable requests
- session 6. discussion of each skill review

In order to enhance generalization of skills, instructions were included in the training sequence for each skill to help mediate the skill across various situations. In addition using four different situations during training of each area and encouraging reinforcement of skills in the natural settings are helpful in this regard, as is the inclusion of peer reinforcement towards the end of training.

c) Spence (1980)

In contrast to the two programs discussed above, Spence's program is designed primarily for use with adolescents. However, she also uses it with younger children, leaving out inappropriate skills and modifying expectations according to the developmental level of the child. Spence breaks social behavior down into verbal and non-verbal components or basic and complex components. This taxonomy is outlined in Table 7 page 84. Training methods include instruction and discussion, modelling, role-play and rehearsal, verbal feedback, social reinforcement and video-taped feedback. Generalization is enhanced through use of the assignment of homework tasks; parent, teacher or peer participation outside sessions; use of a wide range of trainers and training situations; careful selection of appropriate targets; and self-monitoring and self-reinforcement. The

Table 7 Taxonomy of Social Skills (Spence)

- (i) *Non-verbal skills* — concern the communication of information to others without using the voice, but relying on other parts of the body —
- e.g. *eye contact*
  - gestures*
  - posture*
  - appearance*
  - facial expression*
- (ii) *Verbal skills* — these represent aspects of spoken language which play an important role in appropriate social interaction —
- e.g. *quality of speech* — volume, pitch, rate, clarity
  - amount of speech*
  - content of speech* — choice of topics, question asking
  - listening skills*
  - basic conversation skills*
  - complex conversation skills* — dealing with teasing, being assertive
- (iii) *Basic skills* — the elements of social behaviour can also be classified in terms of level of complexity. Basic skills represent the more simple aspects of both verbal and non-verbal social skills —
- e.g. *eye contact*
  - voice quality*
  - gestures*
  - smiling*
- (iv) *Complex skills* — these represent the combination of various basic skills for use in particular social interactions —
- e.g. *interview skills*
  - dealing with teasing/bullying*
  - dealing with criticism, apologizing, etc.*

In a way, complex skills involve *strategies* for dealing with particular social situations.

program example given by Spence is as follows:

- session 1. introduction and discussion of aims of SST  
perception of emotions from non-verbal cues
- session 2. use of non-verbal cues eg. facial expression, posture, gestures and tone of voice
- session 3. posture, fiddling, personal appearance, eye contact
- session 4. eye contact  
listening skills (head nods)
- session 5. listening skills (attention feedback)  
initiating conversation through question asking
- session 6. initiating conversation - meeting people, introductions, interrupting skills, making friends
- session 7. peer situations - dealing with teasing, bullying, provocation
- session 8. adult situations - accepting "no" decisions, criticisms, tellings off, owning up and apologizing
- session 9. dealing with police encounters  
boost eye contact, posture, facial expression and listening skills
- session 10. interview skills
- session 11. problem situations at work
- session 12. chatting up skills (ie heterosexual situations)

Spence stresses that this example should not be taken as a recipe for social skills training, but that the program design should depend on the needs of the child being seen. While the other programs also look at non-verbal behaviors, Spence's approach puts more emphasis on these, as well as on perceptual skills. The ability to "read" a social situation accurately is essential for appropriate social interaction.

d) Chittenden (1942)

Chittenden was the pioneer of social skills training. Her approach was to use a structured form of doll play with pre-schoolers.

Portions of her program were used in this practicum with a severely developmentally delayed 7 year old girl, with good results. Chittenden divided social behavior into three categories - domination, co-operation and non-assertion. Her aim was to increase co-operative play, while decreasing responses in the other two areas. The training program aimed to teach the child to discriminate between situations in which two children reached a satisfactory agreement concerning the use of play materials and those in which no satisfactory agreement was reached. In addition, training attempted to teach the child ways of working out social situations, such as taking turns with play materials, making common use of play materials, and making co-operative use of play materials. Structured doll plays were utilized to achieve these results, in a seven session training program (with testing sessions interspersed) as follows:

- session 1. preliminary situation to introduce child to format and materials
- session 2. discrimination session - taking turns
- session 3. discrimination session - sharing
- session 4. discrimination session - playing together
- session 5. training situation - taking turns
- session 6. training situation - sharing
- session 7. training situation - playing together

Chittenden found that the children identified readily with the dolls, and were able to generalize their newly acquired skills to the nursery school setting.

#### B. Training Methods

In conducting social skills training, methods utilized included instruction and discussion, modelling, behavioral rehearsal, coaching,

feedback, social reinforcement and homework assignments. These are defined in the literature review, page 34. In addition, concrete reinforcers were used including stickers, gum, soft drinks and comic books, depending upon the needs and likes of the individual child. These increased co-operation, interest and motivation, as well as providing something tangible which the child could show others to earn additional social reinforcement.

The format was basically the same for each session, as outlined below:

1. Homework assignment from previous session discussed.
2. Review of skills trained during last session.
3. Instruction and discussion on each new skill area (both broad discussion about the importance of the skill and specific references to components of the skill).
4. Modelling of both appropriate and inappropriate responses.
5. Role-play of four (or more) different scenes for each skill trained, with coaching from trainer.
6. Both verbal and videotaped feedback given to child.
7. Social reinforcement for acceptable performances.
8. Homework assignment discussed with child.
9. Concrete reinforcer given (or withheld if child's behavior has been unacceptable).
10. Appropriate person in the natural environment asked to reinforce newly trained behavior when it occurs, and occasionally prompt it.

Generally two skills were presented each session. It was helpful to pair a non-verbal skill such as perception of emotion from facial expression, use of gestures, or listening skills, with one which required verbal responses during active role-play. This provided some variety within the session

and helped to hold the child's attention. During the last few sessions, where possible a peer was included in the training in order to simulate the natural environment more closely and thus increase the likelihood of generalization occurring.

### 3. CASE REPORTS

#### A. In-Patient Child Psychiatry Assessment Unit

The in-patient child psychiatry assessment unit is a 13-bed ward of Children's Hospital. It is designed to provide comprehensive assessments of children between the ages 5 and 16, who are referred by community agencies or physicians. In addition to these elective admissions, emergency cases are admitted directly from the hospital's casualty department. Entrance complaints vary from behavioral problems, enuresis or parent-child conflicts to suicidal behavior or acute psychosis. The average length of stay is between three and four weeks, following which the assessment results are interpreted to the referral source who usually then picks up the task of providing follow-up. The unit is staffed by one psychiatrist, one psychologist, one social worker, one educational psychologist, two special education teachers, two occupational therapists and several registered nurses, psychiatric nurses and child care workers, as well as a ward clerk. In addition, psychiatric residents and community mental health workers in training provide direct patient care. The other departments of the hospital such as neurology, speech and hearing and ophthalmology are frequently consulted. As much as possible the ward milieu tries to simulate a more natural environment. Both ward staff and children wear ordinary clothes. The children maintain a fairly normal daily routine, with school periods, sessions with physicians or psychologists, and occupational therapy during regular "school hours". Evenings and weekends are less scheduled and children are taken on frequent outings to community events. Unless contra-indicated children have passes to go home each weekend, and evening passes are also arranged to allow continued attendance at activities such as cubs or swimming lessons.

## CASE ONE

R. is a 10 year 9 month old Caucasian girl referred for admission for psychiatric assessment by a child psychiatrist who had seen her through the school system. The initial referral had been due to an escalation in R.'s destructive behavior, to the point that physical restraint was necessary to stop her. At school she was described as verbally and physically abusive, disruptive, aggressive, teasing and provocative with peers, and defiant and hostile with teachers.

## BACKGROUND

R. is the only child living with her natural mother and new step-father. She has a 14 year old sister who lives with natural father in Ontario. This sister is reported by mother to have behavioral problems, including truanting, lying, stealing and running.

R. was born, following a prolonged, difficult labour, with hydrocephalus. Her colour was poor and she required resuscitation. She couldn't suck or swallow until 4 months and she slept little. At 8 months she developed pneumonia. Developmental milestones were delayed. R. sat at 13 months, walked at 3½ years and was toilet-trained at 4½ years. Throughout her early years she required several admissions to hospital, due to the hydrocephalus, and at 5 years a shunt was inserted from the right ventricle to the peritoneal cavity. She required a great deal of attention due to her illnesses and developed

into a very demanding and resistive child. At 6 years of age she was admitted for a psychiatric assessment in Ontario. Often a deterioration in her behavior had coincided with the malfunctioning of her shunt, leaving mother uncertain in dealing with her. R. has also had several admissions for removal of clots and tumors which have developed around the shunt. She has often returned to school with a shaved head, and been teased a great deal. R. also suffers from a seizure disorder which is controlled with anticonvulsant medication. She has had a rolling movement of her head since a year of age, which worsens during stressful periods. This is apparently now habitual, and has no physical cause.

R. has always been in special school programs, and there has been a steady escalation in her disruptive behavior. She has been suspended from school on three occasions due to aggressive behavior.

Parents separated when R. was 2 years old, and both children lived with mother. Father is described as alcoholic and abusive to mother, but not to the girls. Mother remarried one year ago, and moved to Winnipeg from Ontario six months ago due to her new husband's job transfer. It was shortly after this move that R.'s older sister went to live with her father. R. has little contact with her natural father, and mother feels she has not reacted badly to the remarriage or move. Step-father is a reformed alcoholic and the family is involved with A.A. and Al-Anon. This has provided a social network for them upon their move to Winnipeg.

#### HOSPITAL ASSESSMENT

Physical examination indicated that R.'s shunt was functioning properly, and a CT Scan showed no change from previous scans done in Ontario. The anticonvulsant medication was increased since blood levels were low, although no seizures had occurred.

Psychiatric diagnosis was of a separation anxiety disorder due to the frequent early separations and hospitalizations, as well as father's apparent rejection of R. This leads to R.'s need for firm controls, consistency, and structure. She was placed on a low dosage of a major tranquillizer to help control her anxiety, as well as some medication to help her sleep, as bedtime was noted to be a major problem time.

Psychological testing indicated low normal intelligence, with consistency across subscales. Visual motor problems were noted, as well as a high level of anxiety.

Academic testing showed weakness in R.'s memory and verbal abilities, in which she was functioning at a 7 year level. Achievement scores showed R. was working at a grade 3 level in reading, 2.7 level in maths, and 1.6 level in general knowledge. This last score was lowered by her poor memory and verbal abilities. The others were thought to be consistent with her low average intelligence. Overall it was felt that she was working up to her abilities and that she should be placed in a grade 3 program.

Occupational therapy conducted perceptual motor testing, and found that R.'s gross motor skills were extremely delayed, at the 5 year level. Her fine motor development was slightly better, at the 6.5 year level. Visual motor co-ordination was at the 6 year 11 month level. Soft neurological signs were evident, with primitive reflexes still present, and problems with visual perception and tracking. Memory problems included both short term memory and sequencing.

Nursing staff reported that R. had a great deal of difficulty with peers, being very bossy and provocative. Often her behavior became aggressive and she had to be isolated. She was described as very stubborn, demanding and manipulative. Bedtime was always difficult, with R. having a great deal of difficulty settling.

All disciplines agreed that R. was much better behaved when given a very structured day with clear, limited choices. Firm, consistent limits were essential with her.

#### SOCIAL SKILLS ASSESSMENT

R. was referred for social skills assessment and training because of her provocative behavior with peers and lack of friends. She presented as a co-operative, friendly girl somewhat anxious in the test situation. When asked to tell me some nice things about herself, she had a great deal of difficulty. Instead, she listed various kinds of misbehavior in which she engaged. With a lot of encouragement, she told me she was "cute" and that she "tried to behave". As a best friend she

named another girl on the ward, whom she had met two days earlier. While she described her as "nice" (the only positive thing she could say) she also told me that she lied, tattled, never cleaned her room, and wouldn't listen to the nurses. This screening test certainly concurred with the history of social skills deficits.

The Self-Esteem Inventory was completed, and R. scored 34, indicating that she did not have a serious problem with self-esteem. A score of 2 out of 8 on the lie scale shows this score may be slightly inflated.

The Conversation Probe was conducted, and on the 5 point scale, R. obtained a mean score of 2, indicating awkward and unnatural conversation. There were many long pauses in her conversations, and content largely consisted of informative statements in response to direct question. She did not follow these statements with any kind of linkages or questions except on a few occasions,

The Behavioral Assertiveness Test for children showed R. to have adequate eye contact, latency of speech, and volume. However her affect was often inappropriate and she never requested a new behavior in an appropriately assertive manner. Instead she was passively non-compliant. While her responses in the test situation never included aggressiveness, this had certainly been reported in her behavior in the natural environment.

The analogue assessment also showed R. to have adequate eye contact, latency of speech and volume. Again, her deficits occurred in the areas of affect and verbal content. There was no content area in which she consistently received full scores.

R.'s mother completed both the WPBIC and the Semantic Differential Checklist. On the WPBIC R. scored 62, and showed serious difficulties on 4 of the 5 sub-tests. The only area in which she scored at acceptable levels was in withdrawn behavior. Distractibility and disturbed peer relations were problematic, and R. was at the top of the scales for both acting-out and immaturity. The Semantic Differential Checklist indicated that mother saw R. as a very aggressive child with a conduct disorder and high anxiety level.

#### SOCIAL SKILLS TRAINING PROGRAM

While in hospital, R. was seen in a 7 session social skills training program. An outline of the sessions and R.'s behavior follows.

- Session I - discussed goals of SST and reasons for R.'s participation
- trained enjoyment of interaction, greeting behavior and joining sequence from La Greca's program
  - R. seemed to enjoy this first session, and responded well to praise
  - given homework - practice greeting and joining

- Session 2 - discussed homework, which R. had taken seriously
- reviewed greeting and joining, and R. showed she remembered content from Session 1
  - discussed rolling head movements, which she attributed to shunt. Video-tape was used to demonstrate how she could control this, and maintaining eye contact helped her do so
  - inviting sequence from La Greca was trained
- Session 3 - R. refused to come to session, due to a fight with nursing staff which she was still sulking about. She came quickly when given choice of spending time in isolation (ward policy is that if patients refuse to attend scheduled activities they must spend allotted time in isolation)
- apologized for her behavior soon after leaving ward
  - male peer attended this and subsequent sessions with R. - both children co-operative initially, but soon became silly, giggly and unco-operative
  - reviewed greeting and joining sequences
  - trained giving and receiving compliments and expression of feelings and opinions from Rinn's program
- Session 4 - seemed tired and lethargic today
- reviewed giving and receiving compliments and expression of feelings and opinions
  - trained agreeing and disagreeing with others (Rinn) and conversation skills (La Greca)
  - because of apathetic performance, I decided to institute use of concrete reinforcers. Negotiated for soft drink following session if R. 1) took an active interest and 2) learned appropriate responses. Negotiation process was used as content providing examples of agreeing and disagreeing and conversational abilities
  - level of co-operation increased markedly and reinforcer given
- Session 5 - reviewed conversation
- trained co-operation, using game of pick-up sticks which provided decisions regarding who goes first, need to establish rules, opportunities for cheating or fair behavior, and chance to be good winner or good loser. (R. lost).

Session 5 (Cont'd)

While all these areas were discussed, the children had difficulty seeing game as training tool, and became irritated by my "interruptions"

- reinforcer given

Session 6 - reviewed co-operation, again using pick-up sticks

- trained assertiveness (Rinn)
- R.'s skills are not too bad when she applies herself, but she generally lacks motivation for acceptable behavior

Session 7 - reviewed assertive behavior

- discussed positives about self and peer
- discussed SST program - R. described it as "fun", especially the video-taping, and the soft drinks

Summary --- Overall, R. appeared to do well during the SST sessions, but was only able to transfer skills to the ward environment to a limited extent. She responded well to the use of concrete reinforcers, and had more time been available I would have liked to institute a reward program contingent on ward behavior. I was able to make no change in the head rolling, which is a very long-standing, ingrained habit. Again, had more time been available, and had I had the necessary expertise, I believe a behavior modification approach could have been helpful for this.

#### REASSESSMENT

R. was seen for re-assessment 4 weeks following termination of training. She was very happy and excited to be visiting the hospital and remembered staff by name. She went through the assessment session quickly and easily, commenting on some of the specifics of the work we'd done together, and showing an ability to apply these. She was able to list four positives about herself - that she is nice, pretty, has a good sense of humor and is easy to get along with. She told me

about a male friend she'd made in her new school and was also able to list four positives about him. This total score of 8, in contrast to her initial score of 3 on this item, shows a considerable improvement.

The Self-Esteem Inventory was again completed, and R. scored 40, a 6 point rise. However there was a 2 point rise in her lie scale score, indicating that her re-assessment score was somewhat more inflated than the first. Overall, little change is seen in her level of self-esteem, which was acceptable even before SST.

Mean score on Conversation Probe was 4.5, a 50% rise over her initial scores. There were no long pauses in her response, and her conversation was nicely balanced between informative statements, open-ended questions, and requests for shared activities. To some extent I feel this great improvement can be attributed to familiarity with the examiner and with role-play techniques, but even when these factors are taken into account there appears to be considerable improvement in R.'s conversational abilities.

Again, the BAT-C showed R. has acceptable levels of eye contact, latency of speech and volume of speech. Her affect was much more appropriate, and she was able to exhibit effective assertive behavior on 7 of the 9 test items. This is a 22.2% increase over her pre-training assessment scores.

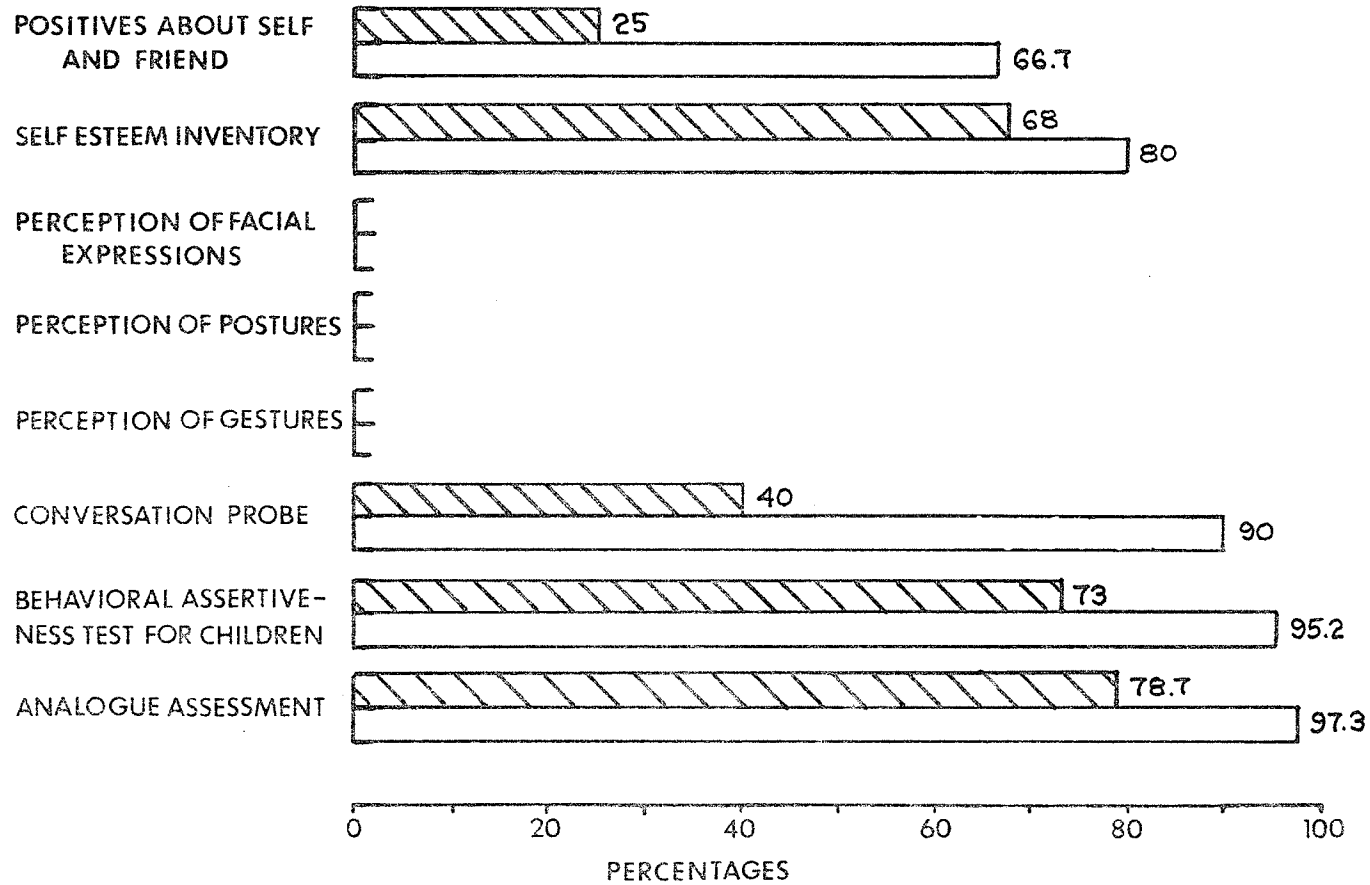
On the Analogue Assessment, R. also showed good eye contact, latency and volume of speech. Her affect was appropriate on all items, and verbal content was acceptable on 13 of the 15 items. This is an 18.6% increase over pre-training scores.

Overall, R. showed a good level of improvement in all areas tested. Results have been converted to percentages for uniformity in presentation, and graphed to show level of change. (See Figure 1, page 100). Mean score during pre-training assessment was 56.9% while post-training assessment mean was 85.8%. This indicates an overall rise of 28.9% in social skills as measured by these assessment devices.

R.'s mother also completed the WPBIC and Semantic Differential Checklist four weeks following termination of training. The score on the WPBIC was 37, a drop of 25.6%. This drop was seen on all sub-scales except peer relations, in which a rise was apparent. Upon closer examination, this rise was due to R.'s increased awareness of her lack of friends, and feelings of unhappiness and loneliness. She had never expressed those feelings before, and mother saw this change as a positive thing, leading to motivation for change. A similar trend was noticed in the Semantic Differential Checklist, in which improvements were noted on all scales except anxiety, which had increased due to R.'s increased awareness of her problems.

FIGURE 1 - RESULTS OF CASE ONE

PRE-SST  POST-SST 



On the whole, mother was very pleased with R.'s progress. The teacher had called her to say R. was making an effort to join in group activities and make friends. Her aggressive behavior had not been a problem since discharge, although she remained very stubborn, demanding and attention-seeking. The teacher has met with hospital staff and received recommendations regarding R.'s need for structure, clarity and consistency, as well as her need for support and reinforcement in social interactions. She will continue to encourage R.'s improvements of social skills within the school setting.

#### SUMMARY

Overall, I was satisfied with this first attempt at social skills training. I found that it was helpful to include a peer in the later sessions, both to keep interest and enjoyment high and to enhance the likelihood of generalization to natural settings. My initial lack of familiarity and comfort with the video-tape equipment kept me from making most effective use of it for feedback. The set up was to have the camera in the room which we used, but the deck and monitor in an adjoining room with wires running through a hole in the wall. This meant that to watch a segment we had to move into the next room, and as a result I tended to leave this to the end of the session. With feedback not as immediate as it should have been, it lost some of its impact. It was not until later sessions that I began to move the monitor into the room with us (that is, after I was sure enough of all the connections!). This enabled me to use the video-taped feedback much more effectively.

The other thing I found with this first case was that I did not make productive use of homework assignments. Until I became acquainted with nursing staff, I found that I did not make enough of an effort to have them reinforce the newly trained behaviors on the ward setting. While to some degree this would occur naturally, in later cases I have used this in a more planned and effective manner.

## CASE TWO

B. is a 10 year, 5 month old Caucasian boy referred for admission for psychiatric assessment by his school social worker, who had been involved with him since his behavior was identified as problematic by his nursery school teacher in 1975. In school his behavior is described as very inconsistent, and his teacher this year is concerned about his reality contact. He can be an angry, aggressive boy, but also withdraws into a world of fantasy at times. B. tries to become involved with peers but is awkward socially, and frequently meets with rejection. He tends to play mostly with younger children.

## BACKGROUND

B. is an only child, born after his parents were married for 12 years. Although parents still live together, their marital relationship has been extremely troubled since prior to B.'s birth. Since this event it has deteriorated further, and they often threaten each other with separation during their frequent heated quarrels.

B. was born at full term, by Caesarian section due to cephalopelvic disproportion. Developmental milestones were within normal limits, although somewhat delayed. At four years of age, he was assessed at the Child Development Clinic of Children's Hospital, due to his short attention span and poor verbal skills. He was found to be functioning at the 42 month level, which was approximately one year below his chronological age. Since this time B. has been involved with

the Child Guidance Clinic, and has been in special classroom placements.

In March, 1981 the school psychologist tested B. The results indicated that he was in the borderline range verbally, and the dull normal range on performance test items. However the psychologist felt B. had average potential, and questioned his thought processes and reality contact. Projective testing brought forth bizarre, regressive responses and ruminations about death, violence and destruction.

The social worker describes the family situation as full of conflict. Father is a well-meaning man, but is very rigid and sees his role primarily as bread-winner. He is a labourer, who puts in long hours. To some extent his overtime work is seen as an escape from the family situation, although it is financially necessary as well. Mother is described as a hostile and rejecting woman, with a very limited intellectual ability. She is so preoccupied with her own unmet needs that she is unable to focus on B. Parents have many disagreements regarding child-rearing practices and discipline. This family has little support from their extended family, friends or community.

#### HOSPITAL ASSESSMENT

Physical examination indicated a healthy boy with no problems. Psychiatric diagnosis was of an Atypical Anxiety Disorder with Parent-Child Problems. Marital problems, poor parenting skills, poor bonding, and mother's low intelligence were seen as predisposing factors in the

in the development of a very anxious boy with low self-esteem. Lack of appropriate role models in social interaction and lack of stimulation were also cited as contributing to B.'s difficulties. Thought processes and reality contact were judged to be intact and the use of fantasy, although somewhat excessive, was seen as an escape valve for this boy.

Psychological testing confirmed previous estimates that B. was functioning in the dull normal range. His performance anxiety was high and a great deal of anger was apparent on projective testing. No neurological difficulties were evident, and thought processes and reality contact were adequate.

Academic testing estimated B.'s cognitive ability in the borderline range, 3 years below his chronological age. Scores were consistent across sub-tests, with abstract reasoning being the lowest at the 6 year level. On the Wide Range Achievement Test (WRAT) B. scored between the beginning grade two and mid-grade two levels, except in written language which was at a grade one level. He had some difficulty with visual recall and motor integration, indicating a mild learning disability. His attention span was at the 7 to 8 year level, consistent with his cognitive abilities. His tested anxiety level was at the 72% ile, and he showed a great need for approval and fear of failure during testing. Academic recommendations were for a long term program consisting of individual instruction, lots of repetition and a very concrete approach to enable B. to obtain a functional literacy level.

Occupational Therapy conducted perceptual motor testing, and found a very confusing picture. B.'s high level of anxiety prevented him from doing well, but although he had difficulty with perceptual motor integration this was judged not to be due to a neurological problem. B.'s rigid posture and somatic-muscular tension were also attributed to his level of anxiety, and a relaxation therapy program was recommended.

Nursing reported B. to be a very withdrawn constrained boy who needed a great deal of encouragement to reach out to peers. On the ward he tended to get "lost in the shuffle" if staff did not make a point of supporting his attempts at social interaction. He related in an immature, guarded manner and could be very passive aggressive. Staff saw him as a needy boy who was looking for mothering.

#### SOCIAL SKILLS ASSESSMENT

B. was referred for social skills assessment and training because of his awkward, stilted style of relating to peers and his lack of friends. He presented as a very anxious, guarded boy who held himself rigidly, avoided eye contact, and answered in a low, tremulous voice. When asked to tell me some nice things about himself he misunderstood, and instead told me about some things he found nice - his dog and his race set. When the question was explained he was able, with a great deal of encouragement, to list three things - he liked animals, especially his dog, he was polite and he played well with friends. He named another

10 year old boy as his best friend and described him as "nice" and "friendly".

The Self-Esteem Inventory was very difficult for B., and he initially seemed to want to give what he considered to be the expected, positive answers. After some support and discussion he began to answer honestly, and became very sad and teary as he did so. However on questions regarding parents he always answered in a favourable light in a very challenging manner, as if daring me to contradict him. His score of 20 indicates very low self-esteem, and the lie scale score of 0 appears to indicate that this is a valid indicator. My feeling is that it is actually somewhat inflated when the question of family related items is considered. B. was quite concerned about how he did on this test, and wanted to count the "yeses" on his answer sheet. He was reassured and social skills training was presented as a way we could work together to help him to feel better about himself.

The Conversation Probe was conducted, and on the 5 point scale B. obtained a mean score of 2.25 indicating awkward and unnatural conversation. Content was well-balanced between informative statements, questions and requests for shared activity, but was sparse. There were many pauses and B. needed a good deal of prompting to continue.

The Behavioral Assertiveness Test for Children indicated that B. had difficulty with eye contact, affect and assertive behavior. His

responses were generally non-compliant and often included some verbal abuse. He could not request alternative behavior appropriately and did not receive a full score on any of the 9 test items.

On the Analogue Assessment B. did show adequate eye contact, and latency and volume of speech were also acceptable. Again, however, his affect was flat and restricted and his verbal content was poor. He did not receive full scores on any of the 15 test items.

B.'s mother completed both the WPBIC and the Semantic Differential Checklist. She had a great deal of difficulty in deciding how to answer, was very concrete in her responses and often went off onto tangents discussing her own problems. She did not understand many items, and I therefore question the validity of the scores. On the WPBIC B. scored acceptably on the sub-scales measuring withdrawal and distractibility. Acting out was seen as a problem and on the scales measuring disturbed peer relations and immaturity he scored at the very top. The total score of 60 is indicative of severe behavior problems. On the Semantic Differential Checklist, B.'s mother was unable to understand the 7 point scale; therefore a simple 3 choice (yes-maybe-no) system was used. Difficulties were seen in scales measuring aggressiveness and submissiveness indicating a problem with assertive behavior. The scale dealing with B.'s affective state was very difficult for mother, indicating her lack of emotional contact with him.

## SOCIAL SKILLS TRAINING PROGRAM

While in hospital, B. was seen in a 7 session social skills training program. An outline of the content and his behavior follows.

- Session 1 - discussed goals of SST and reasons for B.'s participation
- trained enjoyment of interaction and greeting (La Greca)
  - B. had trouble with affect and verbal content and needed many repetitions
  - verbal responses were short and choppy
  - responded fairly well to praise, enjoyed session and wanted to do more
  - given homework - to practice greeting when evening shift nurses came in
- Session 2 - discussed homework, which B. had not done - he cannot remember names, therefore did not greet staff
- reviewed greeting, and B. had trouble with eye contact and my name
  - trained joining (La Greca) - very slow-going because B. doesn't remember instructions
  - not enjoying session - asking about peer who I also see - seemed to want to test my reactions to his poor performance but afraid to do so directly, so asked if I was mad at peer for her misbehavior - relieved when I reinterpreted her behavior as a problem we'd work on together, similar to what he and I would do
- Session 3 - female peer attended this and subsequent sessions with B.
- anxiety level even higher than usual, probably due to peer's presence
  - giggly, silly behavior initially, but responded well when firm limit set
  - reviewed greeting and joining sequences
  - trained giving and receiving compliments and expression of feelings and opinion (Rinn)
  - has brought a small car to every session - seems to be his security object and he makes a point of showing it to me each time

- Session 4 - video-tape equipment not available, and B. very disappointed.
- reviewed compliments and expression of feelings and opinions
  - trained agreeing and disagreeing (Rinn) and conversation skills (La Greca)
  - following peers lead in passive aggressive behavior during session - discussed use of concrete reinforcer (soft drink) - B. reluctant to accept this, feeling he didn't deserve it - used discussion between peers on this issue as content material for session
  - co-operation increased, and reinforcer given - B. offered to share it with me
- Session 5 - reviewed conversation
- trained co-operation (La Greca) using game of pick-up sticks - B. much better than peer, but was a poor winner, bragging
  - discussed establishing rules of game, fairness, how to be good winner or good loser
  - during second game B. again won, but was much more considerate of peer's feelings, giving second chances and making suggestions and supportive comments
  - reinforcer given
- Session 6 - reviewed co-operation
- trained assertiveness (Rinn) - B. tried very hard today, and let me know he wanted praise
  - reassured me that he didn't need concrete reinforcer in order to co-operate, but pleased when I told him I thought he deserved it for his hard work
- Session 7 - reviewed assertive behavior
- discussed positives about self and peer - this led to some embarrassment and silliness
  - B. seems to feel peer has become his friend during sessions and values this

#### SUMMARY

B. was very slow to pick up skills during SST and needed many repetitions. He responded well to praise and social

reinforcement and did not really require the concrete reinforcer. In fact this seemed to make him feel guilty, possibly reflecting his low self-esteem (i.e. he doesn't deserve treats). During the course of SST, an improvement in B.'s self-esteem was seen. By the last session he was able to list many realistic positives about himself, and felt good about his relationship with peer.

#### REASSESSMENT

It was impossible to get B.'s parents co-operation for reassessment. His mother had found it very difficult to complete the questionnaires and did not want to "go through that again". She was preoccupied with the marital problems and felt that B.'s difficulties were of secondary importance. While she would not agree to bring B. into the hospital, she did not object to my seeing him at his school. Therefore, four weeks following termination of training, B. was seen in the nurse's office at his school for reassessment. He was pleased to see me and questioned me eagerly about staff and patients at the hospital, particularly the peer who had taken part in training sessions with him.

During reassessment B. related in a bragging, joking manner, trying to act "cool" and "tough". This tended to lower results somewhat, and I believe that he could have done better had he taken the questions more seriously. On the question of positives about himself he again could list 3, but also listed 5 negatives. He named the same friend as he had before and again listed 2 positives about him, adding that he was "dumb,

because he's my friend". All of this was done in the silly, boasting manner described. In contrast, on the Self-Esteem Inventory B. scored 37, a significant rise over his pre-training score of 20. While the lie scale score of 2 was also higher, there does appear to have been a genuine increase in B.'s self-esteem. He was less defensive regarding his parents and answered some questions related to family negatively, showing appropriately sad affect as he did.

On the Conversation Probe, B. obtained a mean score of 3 which is a 15% rise over his pre-training assessment score. His conversation was actually more improved than this score indicates, but he refused to co-operate with one of the 4 items, which lowered his mean. Content consisted of a good mix of informative statements and questions, with some appropriate requests for shared activities. There was only one pause of over 4 seconds.

On the BAT-C, B. showed good levels of eye contact, latency and volume of speech. His affect was appropriate on all items, which was in marked contrast to during pre-training assessment. He was able to be appropriately assertive on 5 of the 9 test items and only resorted to verbal abuse on 2 occasions. This is an overall rise of 19.1% in his assertive behavior.

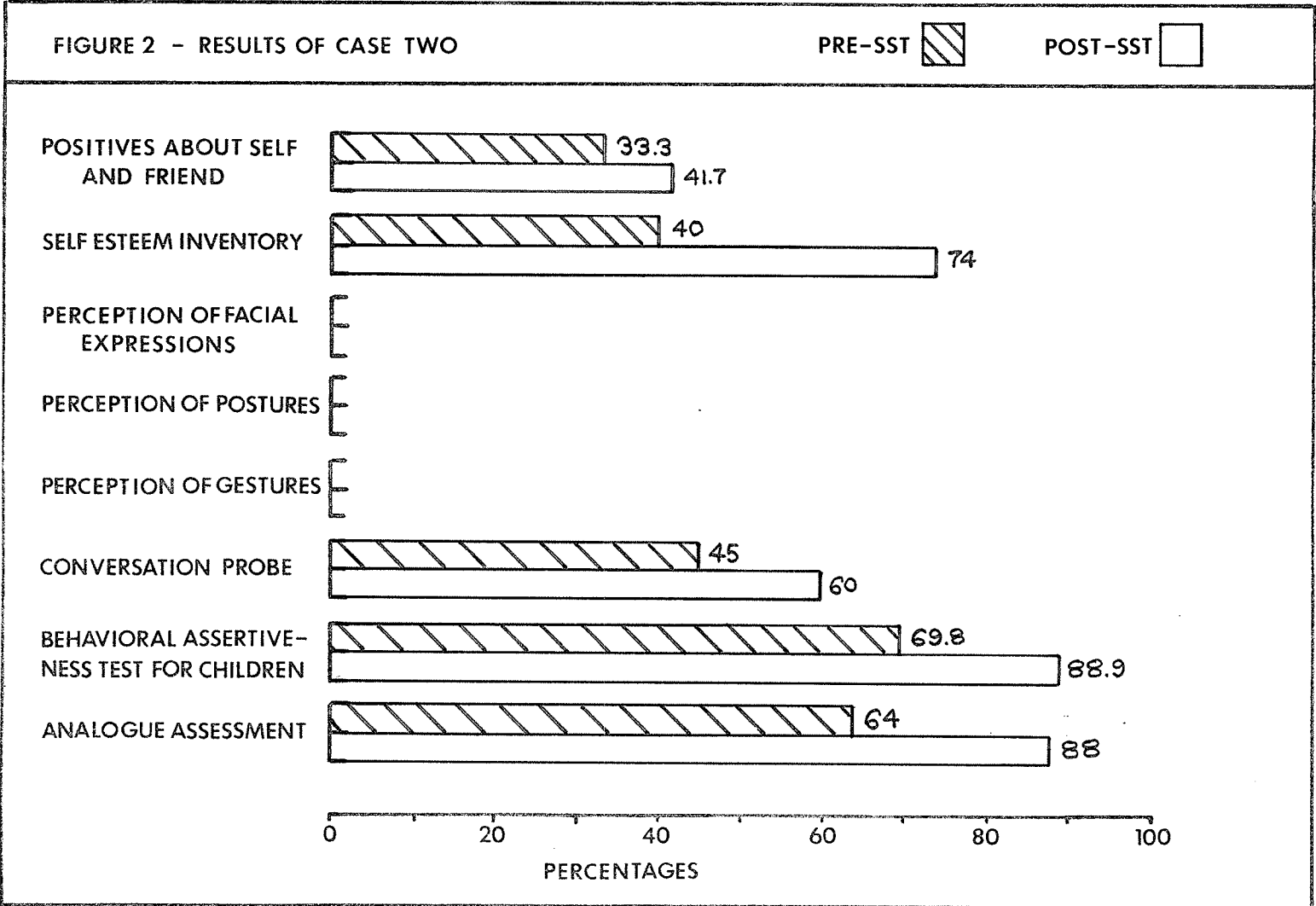
The Analogue Assessment showed an improvement of 24%. B. was able to achieve almost full scores on eye contact, latency, affect and

volume of speech. Again, verbal content was his main difficulty, but he was able to score full points in 7 of the 15 test items.

Overall, B. showed moderate improvement on most items, and considerable improvement in the area of self-esteem. Figure 2 gives pre and post training assessment scores, and indicates an overall rise of 20% in B.'s social skills. B. was pleased to tell me that his teacher is continuing with the social skills program, including a peer from his classrooms in the sessions. He was proud that he had a "head start" and could show the peer how to do the role-play items. With this continued training and reinforcement within the school setting B. should continue to make progress.

#### SUMMARY

I felt that this case had gone fairly well, although some of my concerns (poor use of video-taped feedback, inadequate reinforcement of new skills in ward environment) were the same as in the previously described case. My main frustration in working with B. was the lack of co-operation from his family. While the school placement is excellent and will be supportive, there is little co-operation from parents and B. will receive scant reinforcement from them for making any positive changes. While the school social worker will continue to try to help these parents focus more on their son's needs, my impression is that they are not capable of making many changes. This makes it that much more essential that B. be helped to achieve a better level of social functioning, in order to enable him to reach out to others in an appropriate manner and find ways of having his needs met outside of the family.



## CASE THREE

C. is a 10 year 7 month old Caucasian boy referred for admission for psychiatric assessment by his school social worker. He was described as an impulsive, aggressive boy who has no awareness of the effects of his actions on others. He has no friends at school or in his neighborhood, and his cub leader is concerned about his inability to get along in the group. In addition, C. is encopretic three or four times a week, and no physical problem has been discovered to account for this. He is a destructive boy, who cuts up his clothing or bedding when angry with his mother.

## BACKGROUND

C. is an only child, and lives alone with his 31 year old mother. Father, who is described as an abusive, possibly schizophrenic, drug addict separated from the family when C. was 8 months old, and C. has had no contact with him.

C. was born at full term by Caesarian section following a difficult pregnancy during which mother was physically abused and on anti-depressants. Mother has a prior history of drug abuse, but denies using any non-medical drugs during pregnancy. C. developed pneumonia and remained in the Intensive Care Nursery for one week. His milestones were somewhat delayed, and at 2 years of age mother had him assessed by the Child Development Clinic at Children's Hospital due to his "disobedient behavior". Mother herself had been seeing a psychiatrist off and on through C.'s early years, and at present is again on anti-

depressant medication.

At 3 years C. was placed in day care and mother returned to work. When he was enrolled in kindergarten at 5 years, the school told mother he was not yet ready and she was asked to keep him out for another year. His soiling at school led to teasing from peers and resulted in many fights. A behavior modification approach was attempted a year ago to control the encopresis, and C. responded well initially, but mother refused to continue the program because she "could not afford" the cost of the rewards. After this, the soiling increased and behavioral problems worsened. Recently mother took C. to a paediatrician (not their usual family doctor) who gave C. a trial on Ritalin for his "hyperactivity". Mother's impression was that this was helpful. It was discontinued upon C.'s admission to hospital, in order that his behavior could be assessed without medication.

#### HOSPITAL ASSESSMENT

C. was found to be a physically healthy 10 year old, whose height was at the 5th percentile and weight was at the 25th percentile. No physical cause was found for the encopresis, which occurred only on two occasions during his 6 week course in hospital. Diagnosis was of Attention Deficit Disorder with Hyperactivity, possibly caused by the anti-depressant medication mother took during pregnancy or C.'s difficult neo-natal period. C. was placed on Ritalin, which was

found to increase his attention span and lower his level of impulsive, acting-out behavior.

Psychological testing indicated that C. was very bright; however scores were lowered by his short attention span. Projective testing brought forth many aggressive fantasies and themes of unmet dependency needs. C. was judged to have adequate thought processes and reality testing.

Academic testing also showed C. to be a bright boy whose school functioning was hindered by his attention deficit. Prior to medication C.'s auditory attention was at the 5 year 9 month level. When on medication it rose to the 7 year 9 month level - a considerable improvement although still 3 years below his chronological age. Visual attention was age appropriate, and one of the recommendations to the school was that a visual learning approach be utilized.

Occupational therapy found C. to have some perceptual motor deficits, which improved when he was placed on medication. His small size lowered his scores to some extent because he could not meet expectations for his age.

Nursing staff found C. initially to be a very impulsive boy who had major temper tantrums at the least provocation. His social skills were extremely poor and although he did try to reach out to peers he resorted to aggressive behavior frequently. Throughout the course of his time in

hospital a great improvement was seen in C.'s behavior. The firm consistent ward milieu, the behavioral program which was instituted and the medication were all seen as contributing to this change. C.'s behavior was noticeably worse on return from his weekend passes home.

Mother was seen as a very dependent woman who looked to C. to fulfill some of her own needs. She waivered between a very demanding, rigid stance with C., and a more laissez-faire relationship in which she wanted to be "pals" with him. Recommendations were made for mother to receive help to enable her to allow C. to separate from her, as their relationship was seen as bordering on symbiotic.

#### SOCIAL SKILLS ASSESSMENT

C. was referred for social skills assessment and training because of his lack of friends and his impulsive, aggressive behavior with peers. He presented as a very anxious boy, squirming in his chair and behaving in a rather oppositional manner. C. initially could not list any good things about himself, saying that he "hated" himself because he was "always fighting". Only with a great deal of encouragement did he state anything positive. Finally, he described himself as "competitive", "fair", and a "good reader", and also added that he "got along with people", contradicting his earlier assertions. He named a 9 year old boy as his best friend and listed 3 positives about him, as well as adding that he "fights a lot, too".

On the Self-Esteem Inventory C. scored 20, with a lie scale score of 2, indicating very low self-esteem. His anxiety level rose considerably during this test, and towards the end C. made a game of giving his answers in "code" (one tap = yes; two taps = no) as a means of coping with his anxiety.

Spence's Perception of Emotion from Non-Verbal Cues tests were also administered to C. He scored 5 out of 10 on facial expressions, 5 out of 10 on body posture and 8 out of 10 on gestures, indicating that he has a good deal of difficulty in "reading" non-verbal cues accurately.

C. obtained a mean score of 2.75 on the Conversation Probe, which shows little comfort or fluency in conversation. His content consisted largely of informative statements, with few questions or requests for shared activities. He relied heavily on the other person to provide the stimulus and linkages in the conversation.

On the BAT-C C. showed adequate eye contact, latency and volume of speech. Affect was often inappropriate, however, and he was unable to be assertive in any of the 9 items. In 5 items he was simply submissive, while in the other 4 he resorted to verbal abuse. He was never able to request alternative behavior in an appropriately assertive manner.

C. showed much more appropriate affect on the Analogue Assessment, and again achieved adequate eye contact, latency and volume of speech.

His difficulty was in the area of verbal content; he was only successful on 7 of the 15 test items. On all role-play tests C. found it difficult to sustain the "pretending" and continually reminded me that what he was saying wasn't really true.

C.'s mother completed the WPBIC, on which C. scored 63. Withdrawal was the only problem not evident. Acting out, distractibility and immaturity were seen as mildly problematic, but on disturbed peer relations C. scored at the top of the Checklist. Mother chose extremes on all but 3 items, indicating her rigidity and need to have things either "black or white". Results indicated that mother sees C. as a very anxious boy who swings between aggression and submissiveness, and is unable to make full use of his intelligence.

#### SOCIAL SKILLS TRAINING

C. was seen in an 8 session social skills training program while in hospital.

- Session 1 - tantrum leaving ward as C. wanted to bring Leggo and I refused to allow this
- once en route, took my hand in what seemed an attempt at apology
  - trained perception of emotion from facial expression (Spence), using a set of photographs which I made - C. enjoyed "making faces" and was soon accurate in perception from photos
  - trained greeting and joining sequence (La Greca)

- Session 1 - C. caught on quickly, and enjoyed  
(Cont'd.) use of video-tape
- given concrete reinforcers (soft drink and "good work" sticker to wear on shirt)
  - homework given
- Session 2 - C. isolated for tantrum when I went to get him and refused to come with me, although he quickly did so
- discussed his style of leaving ward as important factor in our session, and concrete reinforcers would be contingent on this as well as on his behavior during session itself
  - reviewed facial expression - C. did very well, and really enjoyed praise
  - reviewed greeting and joining
  - trained expression of feelings and opinion (Rinn) - concentrated on verbal expression of anger - still concerned about reminding me we're just pretending
  - homework given - to express anger verbally rather than through fights or tantrums - if successful over 24 hour period he earns comic book
- Session 3 - C.'s grandfather was visiting when I arrived, and he was invited to session
- C. very proud to show grandfather the video equipment and explain what we were doing
  - reviewed expression of feelings and opinions
  - C. unsuccessful re. earning comic book, so we role-played the incident which had gotten him into trouble
  - renewed offer of comic book for 24 hour period free of tantrums or fights
  - trained perception of emotion from body posture (Spence) and discussed body language and fidgeting
  - given sticker and coke and proudly displayed these to grandfather, offering to share.

- Session 4 - C. was again oppositional re. leaving ward, and lost his sticker
- had not earned comic book (needed to be isolated on 5 occasions) and protested to me that the nurses were lying, unfair, etc. - however he agreed to try again
  - reviewed body posture and remembered this well
  - trained "active listening" (Spence) and agreeing and disagreeing, giving and receiving compliments (Rinn)
  - Very squirmy and distractible today - however whenever role-play was not acceptable C. was able to tell me what had not been done properly
  - C. can show a very nice, intelligent sense of humour, which he attempts to use to keep himself out of trouble at times
  - given reinforcer
- Session 5 - left ward with only a minimum of verbal complaints - given lots of praise for this
- very helpful with video-tape equipment and has learned to set it up already simply by watching me
  - reviewed agreeing and disagreeing, compliments, and listening skills - C. did quite well
  - had not earned comic - asked me to "write down rules" for him re. expression of anger and how to disagree without fighting
  - seems to be motivated, but lacks impulse control and frustration tolerance
  - changed the deal for comic book as it seemed too difficult for C. - divided day into 3 portions, during each of which C. could earn star. When he has 3 stars he gets comic, regardless of how long this takes
  - trained making simple requests (Rinn)
  - given both reinforcers, and very proud of his sticker since he'd lost it last time
- Session 6 - left ward easily - proud of the two stars he's already earned
- very passive aggressive initially, but did well once he began to co-operate

Session 6 - reviewed requests

- (Cont'd.)- trained assertiveness (Rinn) - C. picked up on expectations quickly and did very well
- given soft drink, but sticker withheld due to his early oppositional behavior at C.'s suggestion

Session 7 - has earned comic book and is very proud of this

- reviewed assertiveness - C. remembered well
- trained use of gestures

Session 8 - trained conversation (Spence)

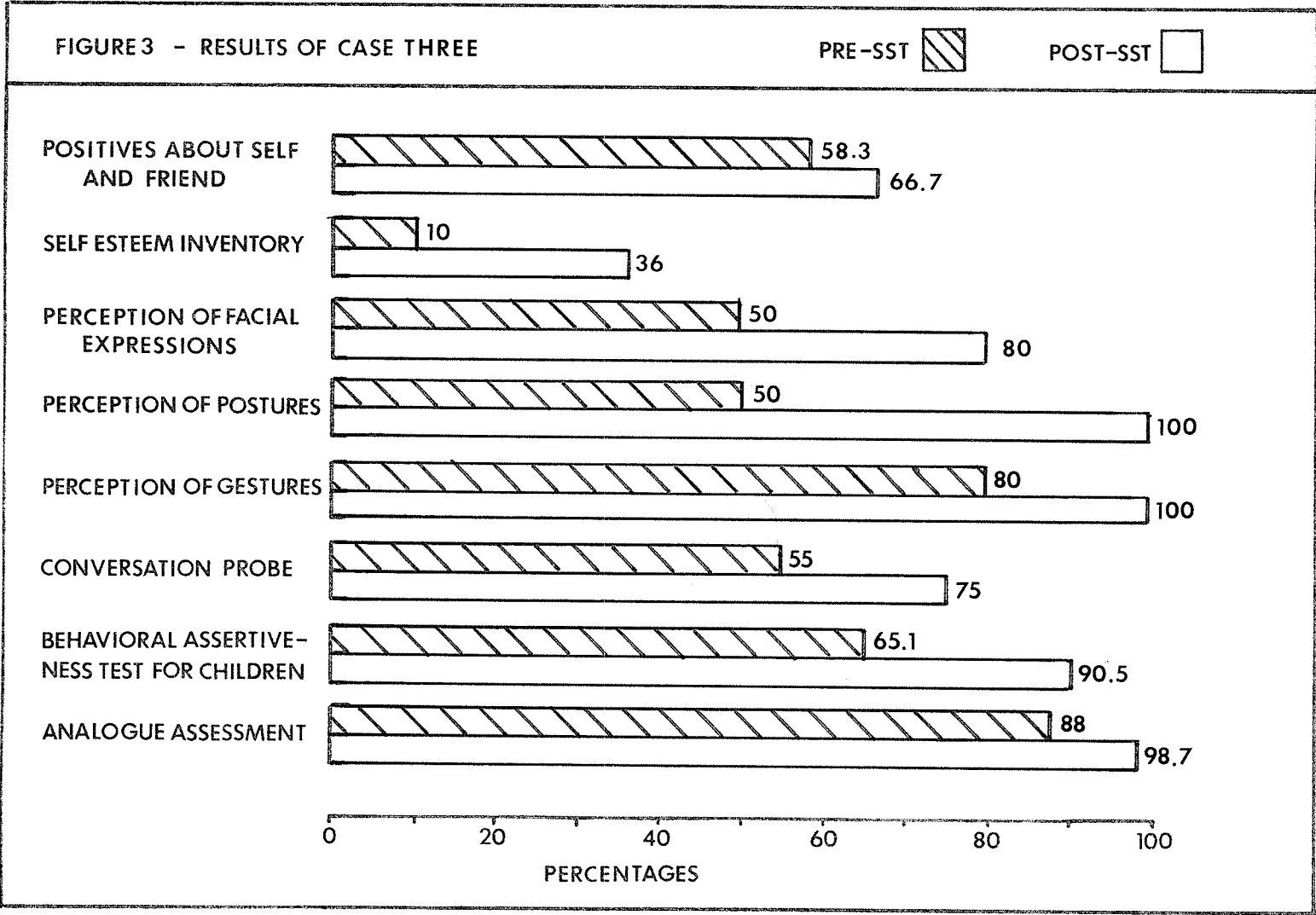
- no appropriate peer available, so session included a social worker, whom C. had never met, and a secretary whom he knew slightly
- C. did well and was very proud of praise
- given reinforcers, and has earned another comic book

#### SUMMARY

C. showed himself to be a very intelligent boy who was quickly able to determine and perform whatever was expected when he was motivated. However, he lacked the frustration tolerance and impulse control necessary to generalize these skills to the peer group on the ward, even when his motivation was high. When the task was made easier C. became more successful and the nurses continued this program in the ward setting even after the SST program was completed.

#### REASSESSMENT

C. was seen for reassessment four weeks following termination of social skills training. He was pleased to see me and behaved in a very socially appropriate manner. He was able to list four positives about himself; that he was trustworthy, well-behaved, lucky and had a good sense of humor. He named the same best friend as he had during the initial



assessment session, and listed four positives about this boy. This total score of 8 is only a very slight improvement over his score of 7 on this item during pre-training assessment.

On the Self-Esteem inventory C. scored 18, with a lie scale score of 1. This is a 2 point drop in self-esteem, although the lie scale score is also lower, so basically, C.'s self-image is unchanged, and is still undesirably low.

C. scored very well on Spence's tests of perception of non-verbal cues. He obtained perfect scores (10 out of 10) on tests of perceptions of emotion from body posture and understanding of gestures. This is a rise of 50% and 20% respectively. On perception of emotion from facial expression he scored 8 out of 10 - a rise of 30%. Overall, it appears that C. has become more able to "read" non-verbal cues in social situations.

On the Conversation Probe C. obtained a mean score of 3.75, a 20% rise over his pre-training score. His conversation was well-balanced between questions and informative statements and he was able to request shared activities appropriately. There were no awkward pauses, as there had been during the initial administration of this test.

The BAT-C was re-administered, and C. scored 57, which is a 25.4% increase over his first score. Eye contact, latency of response and volume of speech were again satisfactory. Affect was markedly improved

on re-test. C. was non-compliant on 6 of the 9 items and in 6 instances was able to appropriately request alternative behavior, something he had never done on pre-training assessment. He never resorted to the use of verbal abuse on re-test, as he had on two occasions during pre-training assessment. It appears then that C. has learned some socially acceptable assertive responses.

On the Analogue Assessment C. obtained a score of 74, which is a 10.7% rise over his score on initial testing. Again, eye contact, latency of response, affect and volume of speech were satisfactory. Verbal responses were much improved and C. appeared to give more thought to his replies, sometimes commenting on our training sessions after he replied.

C.'s mother again completed the Semantic Differential Checklist and the WPBIC. On the Semantic Differential, she again saw C. as having problems with aggression, submissiveness and intelligence. However intelligence was improved, as was her perception of C.'s anxiety level. On the WPBIC C. scored 60, a drop of only 3 points, or 3.1%. The overall pattern of his subscale scores was the same, with the only real difference being somewhat improved peer relationships. While the changes on both of these checklists were minimal, they were at least going in the desired direction. Overall, however, mother has noticed little change in C.

## SUMMARY

C. was a likable boy and I found that I enjoyed working with him despite his frequently frustrating oppositional behavior. His underlying warmth and appeal seemed to be overwhelmed by his lack of frustration tolerance and his impulsive behavior. While this seems to stem both from some organic hyperactivity and from his high level of anxiety, medication for hyperactivity appeared to have the desired effect. However even once on medication, C. was left with a deficit in social skills (as well as in other areas) which required remediation. He responded well to social skills training techniques with an overall improvement of 20.1% in social functioning as tested. C. will be followed by his school social worker who, with his teacher, will continue to prompt and reinforce his improved social skills. Despite C.'s measurable improvement in social skills, his mother noticed little change. In speculating as to the reason for this, three thoughts come to mind. For one thing, at reassessment C. had only been home from hospital for slightly over a week, and it could be that mother had not had sufficient time to observe his behavior. It is also possible that new skills had not generalized into the natural environment, although nursing staff had seen an improvement on the ward setting. Lastly, however, mother had told me angrily that C. had been kept too long in hospital, that she had not been well-informed by the doctor about the overall findings and that C. had not changed, therefore the entire admission had been a waste of time. It was in this frame of mind that she completed the checklists. In fact, in my opinion, she had some legitimate concerns regarding her

son's hospital stay, and following the reassessment process I spent a good deal of time with her discussing the overall assessment results and the process of follow-up through the school social worker.

C. was the first child with whom I used Spence's tests of perception of non-verbal cues, and with whom I incorporated these into the training program. He found the training of the use of and perception of facial expressions to be very enjoyable. In addition to ourselves and mirrors, I developed a set of photographs of various facial expressions including both adults and peers. For training of postures and gestures as well as tone of voice the video-tape equipment was useful. No test of tone of voice was used because I was not satisfied with the validity of audio-tapes which I made. Overall, I was pleased with the use of these items. The ability to perceive social situations accurately, including subtle non-verbal cues, is essential to skilful interpersonal functioning.

## CASE FOUR

P. is an 8 year old Mennonite girl who was referred for an in-patient psychiatric assessment by a private child psychiatrist, primarily for investigation of her seizure disorder. She had been having several "seizures" each day, and none of the three anti-convulsant medications she had been on had helped. In addition, P. was described as a dominant, demanding girl who had no friends in her regular grade 3 classroom.

## BACKGROUND

P. is the youngest of 9 children. Her siblings range in age from 29 years to 13 years, and the oldest five are living independently. She lives on a farm with her parents and three siblings ages 13, 15 and 17.

P. was an unplanned baby, born at full term following a normal pregnancy and delivery. Mother was 41 years old when P. was born. Birth weight was 6 pounds 3 ounces. At 3 months P. had a febrile seizure and was hospitalized and placed on anti-convulsant medication. Following this she developed "wheezing spells", and saw the doctor every two weeks until she was a year old. Developmental milestones were normal and mother denies any problems with P. until she entered school.

In kindergarten, P. was seen as a very dependent, whiney girl who sought adult attention through her helplessness. She was demanding and aggressive with peers. The teacher felt she should repeat kindergarten, but instead she was promoted to grade one. Problems persisted and P. was

referred to the school psychologist due to her unmanagable behavior. Prior to admission, the school had found it necessary to provide a special one-to-one aide to cope with P.'s behavior at recess and during the lunch hour because of her aggressiveness with peers. Even older and bigger children avoided her. In the more structured classroom setting she was less of a behavior problem, but the teacher had become very frustrated in dealing with her "seizures", which occurred 10 to 15 times a day.

The family is very isolated in the community. Father has been a chronic alcoholic for years, and has a reputation as being very aggressive. He has been abusive both to his wife and the children and is quite disengaged from family life. At this point he is no longer able to work and there is a great deal of financial stress. Mother has been primarily responsible for running the farm and bringing up the children. However over the past year she has been less able to cope and has also begun to drink more heavily. Family life is very chaotic, and P. does not even have her own bed - she sleeps with a brother, on the couch, or on the floor in her parents' room. Mother is very frustrated with P.'s behavior, but is compliant with her demands because she doesn't have the energy to provide more effective parenting. There has been some concern that mother does not administer P.'s anti-convulsant medication consistently.

#### HOSPITAL ASSESSMENT

P. was seen as a physically normal, obese 8 year old. Diagnosis was of a Conduct Disorder of the Undersocialized type, with many histrionic

personality traits. Lack of adequate parenting has led to a girl with very poor personal hygiene, few manners or social graces, and an inability to seek attention through positive means. Neurological investigations were not completed at the time of P.'s discharge from hospital. An EEG indicated a grade 2<sup>+</sup> abnormality, localized in the right fronto-temporal area. A CT scan was negative, and results from a 24 hour EEG had not yet been analysed. At the time of discharge P. was on no medication. The neurologist felt that two seizures witnessed by nursing staff were genuine. P. also reported several "auras" (i.e. sensations preceding seizures) and these were more difficult to assess. While some were no doubt genuine, some were clearly used as an avoidance technique, and it seemed best not to focus much attention on these occurrences and to provide as little secondary gain as possible.

Psychological testing indicated that P. was of normal intelligence. Academic testing showed her to be of average potential; however her scores on tests of general knowledge were below the grade one level. This was attributed to her limited exposure due to environmental factors. No evidence of any learning disabilities was noted, although scores on auditory memory were below average.

In occupational therapy P. was also seen as having an auditory memory problem, scoring one year below her age level. Visual memory was good, as were both fine and gross motor co-ordination. Her attention span was adequate although she tended to try to avoid tasks by taking on a

passive, helpless role.

Nursing staff saw P. as an anxious girl with a poor self image and poor social skills. She was very needy and responded well to warmth and attention. Personal hygiene was extremely poor and P. lacked even basic manners. She was noticed to regress when mother visited, using "baby talk" and becoming even more helpless than usual.

#### SOCIAL SKILLS ASSESSMENT

P. was referred for social skills assessment and training because of her aggressive behavior with peers and inability to reach out to them in an appropriate manner. She presented as a friendly girl who was very eager to please in the test situation. Her attention span was good and she concentrated well. When asked to tell me some nice things about herself P. responded immediately, saying "There's nothing good about me!" With a great deal of encouragement, she listed two things - that she was good at schoolwork, and helpful at home. As a best friend she picked her nurse, who she had just met two hours ago. She finally told me about the "only other friend" she'd ever had - a boy at school who also had seizures. However she could think of nothing nice to say about him and had never seen him outside of the school setting.

On the Primary Self-Concept Inventory P. obtained an overall score in the 33rd percentile. Sub-scale scores were personal-self - 40th percentile; social-self - 25th percentile; and intellectual-self - 75th

percentile. This confirms the clinical impression that P. has very low self-esteem.

On Spence's tests of perception of emotion P. scored poorly, recognizing only 5 out of 10 facial expressions and 2 out of 10 postural cues. She did better understanding gestures, scoring 8 out of 10. This indicates that P. has difficulty in interpreting non-verbal social cues.

P. obtained a mean score of 2 out of 5 on the Conversation Probe. Her conversations had several long pauses. Content was mostly statements of fact, with few questions or requests for shared activity to maintain the flow of the conversation.

On the Behavioral Assertiveness Test for children P. showed adequate eye contact, latency of response and volume of speech. However her affect was inappropriate on 4 of the 9 test items. She was non-compliant on all items but could only effectively request alternative behavior on three occasions and resorted to verbal abuse four times. She did not receive a full score on any of the 9 test items.

The Analogue Assessment also indicated that P. had adequate eye contact, latency of response and volume of speech. Her affect was inappropriate on 6 of the 15 items. Verbal content was also a problem for P. and she answered appropriately on only 8 of the 15 items. She received full marks on only 5 items, indicating very poor social skills.

P.'s mother completed the WPBIC and Semantic Differential Checklist. On the latter, mother indicated that she saw P. as a highly fearful, anxious girl, but otherwise P. was seen positively. On the WPBIC P. scored 50, only showing no difficulties on the sub-test measuring withdrawn behavior. Acting-out behavior and distractibility were seen as problematic, and on scales measuring disturbed peer relations and immaturity P. went off the top.

#### SOCIAL SKILLS TRAINING

P. was seen in a seven session social skills training program while in hospital. Following, is an outline of the program.

Session 1 - P. very pleased to come and eager to please

- trained perception of emotion from facial cues and body posture (Spence)
- P. quite concerned with how she was doing
- explained use of concrete reinforcers (stickers saying "good work" "nicely done", etc.) - P. wanted whole sheet of stickers, asking where she could buy them and generally trying to avoid discussing how her own behavior could influence these and other rewards

Session 2 - P. showing very poor socialization - slouching, scratching, burping - discussed manners and the effect her behaviors have on others

- reviewed facial expressions and body postures
- trained greeting and joining sequence (La Greca)
- asking throughout session if she would get a sticker
- concrete reinforcer given
- homework suggested - practice greeting and joining.

- Session 3 - prior to leaving ward, P. asking for help tying shoelace - very dependent and demanding - discussed more appropriate ways to ask for help
- reviewed greeting and joining
  - discussed body language and tone of voice, particularly whining
  - trained giving and receiving compliments (Rinn)
  - trained use of gestures (Spence)
  - P. still asking for more than one sticker
  - homework and concrete reinforcer given
- Session 4 - again showing helplessness re. getting drink of water - discussed this
- reviewed compliments
  - trained agreeing and disagreeing, and expression of feelings and opinions (Rinn)
  - P. said "hi" to strange man in hallway
  - discussed inappropriateness of this indiscriminate friendliness
- Session 5 - seen today with 7 year old female peer - P. very pushy and aggressive with her, even prior to their introduction - when settled, asking fairly appropriate questions in attempt to get to know peer
- unco-operative with any activities suggested by peer - doll play, cards, games - finally agreed to draw pictures (i.e. a more solitary activity, rather than co-operative play)
  - trained conversation (La Greca) - also discussed swearing (which P. did), whispering, tattling, sharing
  - reviewed compliments
  - reinforcer given
- Session 6 - seen again with peer - again bossy and patronizing, despite last session
- verbally abusive to peer when she withdrew from P.'s aggressive overtures.

Session 6 - unco-operative with games - began  
 (Cont'd.) two, but quit both halfway through

- discussed co-operative play (La Greca) - how to decide who goes first, establishing rules of game, playing fairly, and being a good winner or loser
- concrete reinforcer withheld due to P.'s oppositional behavior and refusal to discuss same.

Session 7 - discussed co-operative play skills and P.'s behavior last session

- trained assertiveness (Rinn) - P. has a great deal of difficulty with this, fearing people will be mad at her if she responds assertively - she also had difficulty remaining in "role-play", fearing I would really be angry over her role-played response
- P.'s whining tone of voice also inhibits her ability to appear assertive, and she often chooses to be helpless and submissive

Summary --- P. had difficulty in picking up on expectations within the training sessions and required many repetitions. She did not remember well from one session to the next, and did not appear to generalize to the ward setting, despite attempts by the nursing staff to reinforce her appropriate behavior. In areas of co-operative play and assertiveness P. simply refused to attempt to change her behavior. However, at other times she exhibited an intense desire to please and would work very hard to gain social reinforcement. Thus it was difficult to assess subjectively whether social skills training had been helpful or not.

#### REASSESSMENT

P. was seen for reassessment four weeks following termination of training. She was pleased to see me, remembered my name, and was co-operative with all test items. All test results have been converted


to percentages and graphed for easy comparison (see figure 4 page 138). When asked to tell me some good things about herself, P. was able to respond with four characteristics. As a friend she named a girl in grade two at her school, and she told me 3 nice things about this girl. On this screening test P. scored 7, in contrast to her pre-training score of 3, for a rise of 33.3%.


On the Primary Self-Concept Inventory, P. scored at the 48th percentile, a rise of 15 percentage points. On the sub-scales, her personal self-concept dropped 20 points, while her social and intellectual self-concepts rose 25 and 24 points respectively. On the whole, P. has improved in the area of self-esteem although in the personal self area (i.e. physical size and emotional state) she still does not feel good about herself.

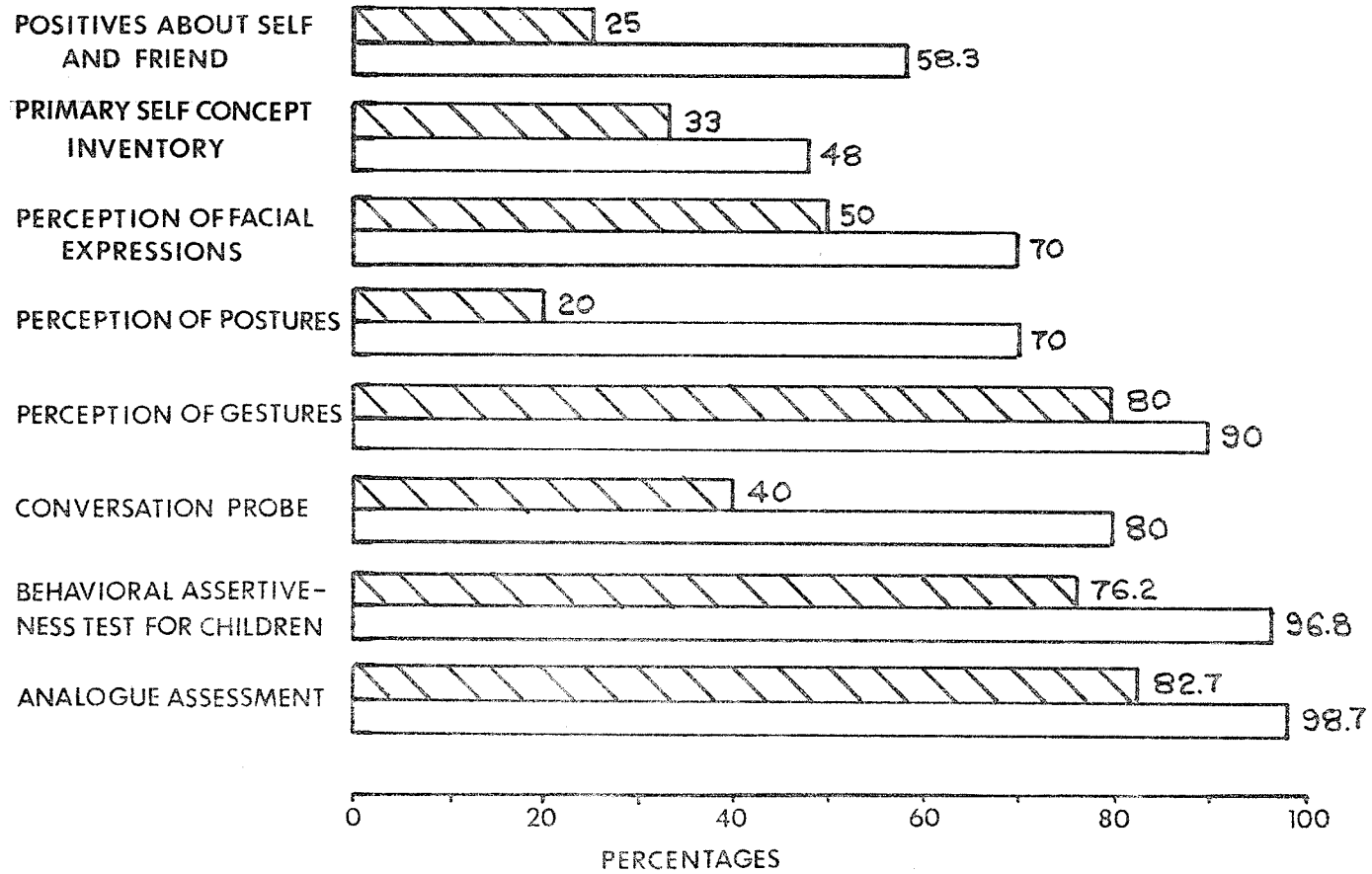
On Spence's tests of perception of non-verbal social cues, P. showed a good level of improvement. On the test of facial expressions she scored 7 out of 10, a rise of 20%. Perception of body language was 50% more accurate than on initial assessment, with a score of 7 out of 10. Interpretation of gestures improved 10%, with a raw score of 9 out of 10. Overall, it appears that P. was able to learn and retain these non-verbal social skills fairly well.

On the Conversation Probe P. did much better on reassessment, with a mean score of 4 out of 5, compared with her score of 2 out of 5 on

FIGURE 4 - RESULTS OF CASE FOUR

PRE-SST 

POST-SST 



pre-training assessment, for an increase of 40%. There were no awkward pauses in her conversations, and although content consisted predominantly of informative statements, she also used some questions and suggested some shared activities. She was able to make effective use of non-verbal communication (eye contact and inflection) in ensuring that the other person was following her statements.

P. scored very well on the BAT-C, with a raw score of 61 out of 63, for a rise of 20.6% over her initial score. Eye contact, latency of response and volume of speech were again adequate. Her affect was more often appropriate, and she never resorted to verbal abuse as she had on 5 of the 9 test items during pre-training assessment. On 8 of the 9 items she was able to effectively request alternative behavior from a peer, while on the first administration she managed this on only three occasions. Overall, P. achieved perfect scores on 8 of the 9 items (on one she was simply submissive) while on pre-training assessment she did not achieve a perfect score on any single test item. It appears then, that P. has learned and retained some good skills in positive assertive behavior.

On the Analogue Assessment P. scored 74 out of 75 for a rise of 16% over her initial score. Again, eye contact, latency of response and volume of speech were adequate. Affect was much more appropriate (15 out of 15, compared with 9 out of 15), and P. gave appropriate verbal responses on 14 out of the 15 items. Here too, it seems that P. had learned and retained appropriate social skills.

P.'s mother completed the Semantic Differential Checklist and the WPBIC again upon reassessment. Little change was seen in mother's perceptions of P. on the Semantic Differential Checklist. On the WPBIC however, P. scored 29, for a drop of 21.4% on problem behavior reported by mother. Again withdrawal was not seen as a problem, but all other subscales remained unacceptably high. All had dropped to some degree, with the largest improvements seen in the areas of peer relationships and level of maturity. It seems, then, that mother feels P.'s behavior has improved but that her subjective impressions of P. have not yet changed as a result of this.

#### SUMMARY

I was pleased (and somewhat surprised) at the positive results P. obtained on reassessment. Her overall mean score was 25.6% higher than that of the initial assessment, and mother's report of 21.4% less problem behavior tends to corroborate this. In addition, P.'s school principal expressed pleasure with the change in her behavior since her return from hospital. He showed an interest in the social skills training program, and was given some information which he will use to extend the program into the school setting. With this continued reinforcement P. should be able to make additional progress and generalize skills to the peer group setting. While it does not appear that the home situation will change appreciatively, perhaps with external supports P. will be able to progress sufficiently to overcome her other difficulties.

## COMMENTS ON IN-PATIENT SETTING

I felt that social skills training was a particularly appropriate intervention to use on the in-patient assessment unit. It appeared that most children who were admitted to the ward (even those who were outside of my chosen age range) suffered to some degree from social skills deficits. While this was seldomly the primary focus of the referral source, it often appeared to be of more importance to the child.

Social skills training was quite effective with in-patients, with changes in mean scores ranging from 20.1% to 28.9%. My speculation regarding this is that the admission (and the events leading up to it) represents a crisis in the life of the child and family. At this time, the child is particularly amenable to the form of short-term, intensive teaching which social skills training provides. Golan (1978) writes:

"During the resolution of the crisis, the individual tends to be particularly amenable to help. Customary defense mechanisms have become weakened, usual coping patterns have proved inadequate, and the ego has become more open to outside influence and change. A minimal effort at this time can produce a maximal effect; a small amount of help, appropriately focused, can prove more effective than more extensive help at a period of less emotional accessibility."

page 9

In addition, the ward setting provides a ready made peer group in which the child can practice newly acquired skills, with staff present to provide prompting, support and reinforcement.

Another positive factor on the in-patient unit was that the

referral sources (agency social workers and schools) were highly motivated. After receiving the overall assessment results, they were eager to be given some concrete recommendations for follow-up. Therefore, explanations regarding the content of the social skills program and the need for on-going reinforcement in the natural environment to enhance the likelihood of generalization were met with great co-operation.

The only difficulty which I encountered on the in-patient unit was in the area of communication and co-ordination with nursing staff. Nurses were quite co-operative and appreciated having some specific work to do with the children (i.e. prompt and reinforce newly trained skills) because often they feel they are left with the "baby sitting" while all the "therapy" takes place in the offices down the hall. However, because there are so many nurses who work various shifts it became difficult to ensure that they all understood the expectations. While I could speak with the child's nurse for the present shift, it was most important to ensure that messages were conveyed accurately to the evening staff because during this less structured time the children have more opportunity for interaction with peers. I resorted to written messages passed on during cardex meetings at shift change, but this was less satisfactory since I received little feedback. I suspect that the prompting and reinforcement in the peer group setting on the ward was not as consistent and effective as it could have been. Some in-service training to the staff group would be helpful if a social skills training program were to become an integral part of the hospital experience.

Overall, social skills training appeared to fit into the in-patient unit very nicely. It proved to be appropriate, effective, and appreciated both by the staff and the referral sources.

## B. Child Psychiatry Day Treatment Program

The Child Psychiatry Day Treatment Program is a psychoeducational program run within the Child Psychiatry Department of Children's Hospital. It is intended to serve the most severely disturbed children in the community - those who are autistic, schizophrenic, or severely developmentally delayed. Children are usually referred from special nursery school placements or from kindergarten classes, because they have been judged to be unmanageable within the regular school settings. The goal of the Day Treatment Program is to provide an individualized program taking into account the child's educational, psychological, social and developmental needs. The aim is to return the child to the public school system as soon as possible, often using the Day Treatment Satellite Program, which functions out of the public school, as a first step. The Program is staffed by two special education teachers, two child care workers, one psychiatric nurse, one occupational therapist and one social worker as well as a part-time psychologist and a consulting psychiatrist. There are ten children, ages 6 to 12, in the program, and they are divided into two groups on the basis of age and developmental level. This program, while institutionally based, makes frequent use of community resources and activities.

## CASE FIVE

S. is a 7 year 5 month old Caucasian girl who attends the Day Treatment Program of the Child Psychiatry Department at Children's Hospital. She was referred to this program due to her severe developmental delay which interfered with her functioning within the regular school setting. With peers she has been described as aggressive, and she had been scapegoated by the group in her kindergarten classroom.

## BACKGROUND

S. is the youngest of three children, having a 10 year old brother and an 8 year old sister. She lives with her mother, mother's common-law husband of seven years and her siblings, as well as some of the step-father's brothers who seem to board with the family occasionally.

S. was an unwanted baby and mother contemplated an abortion during pregnancy. Natural father left prior to S.'s birth, and has had no contact with the family. The pregnancy was a difficult one; mother had twenty episodes of vaginal bleeding and anemia. S. was born at full term, weighing 7 pounds 7 ounces. Mother was overwhelmed with the task of caring for three small children and began to drink heavily. The child welfare authorities became involved in trying to provide some support for mother. The children were never removed from her care.

At three months S. was admitted to hospital for investigation of anemia, and again at 3½ months due to cough and diarrhea. At that

time her height, weight and head circumference were all below the third percentile, and diagnosis was Failure to Thrive due to maternal and nutritional deprivation. Mother described S. as a "good" baby - she was content to play quietly in her crib and therefore did not demand mother's attention. Mother was seen as overwhelmed and depressed, having no money, food or help. S. was described as a flat, depressed looking baby whose development was within normal limits.

At nursery school, S. was again identified as having problems. She was defiant, had a short attention span, poor language development and lacked basic concepts. She spent an extra year in nursery school, because she was not ready for kindergarten.

At 4½ years S. was assessed by the Child Development Clinic, and was found to be functioning between the 3 year and 3½ year range. At that time the difficulty was again seen as the lack of stimulation in the chaotic family situation.

In kindergarten S. was referred to a speech therapist because of her poor language development. She interacted little with peers, playing mainly with her siblings. She had difficulty sharing, was attention-seeking and aggressive. Concept development was again noted to be poor and S. was referred to the Day Treatment Program.

Prior to admission to Day Treatment S. was assessed on the

In-Patient Child Psychiatry Unit. Diagnosis was of Atypical Pervasive Developmental Disorder. Psychological testing indicated that S. was functioning very poorly verbally, but performance scores were within normal limits. She was seen as a deprived, frightened child. Academic testing showed delayed cognitive development and few school readiness skills. S. had a poor attention span and little motivation, but responded well to care and attention. Occupational therapy found visual motor integration  $2\frac{1}{2}$  years delayed and some more minor delays in both fine and gross motor control. Nursing staff saw S. as a needy girl who was initially suspicious and guarded but opened up to consistent nurturing, becoming affectionate and eager to please.

In Day Treatment S. has made very slow progress academically, still being very unsure of basic concepts. She has a short attention span, is attention-seeking, jealous and easily hurt when criticized. She is often tired, unclean, poorly dressed and sad looking. On two occasions she was treated for lice. Although she appears more motivated, she has a great deal of difficulty learning and is easily discouraged. She continues with speech therapy, and testing shows she is below the 3rd percentile on tests of basic concepts, and has difficulty with word recall and grammatical development. Auditory comprehension is between the  $4\frac{1}{2}$  and 5 year level and expressive language at the  $4\frac{1}{2}$  year level.

The family continues to be somewhat chaotic. Mother works full time as a housekeeper in a hospital and step-father stays home and is primarily responsible for child care. He is described as a pleasant, intelligent man

and although there have been concerns about abuse when he drinks this has by and large been seen as unlikely. Both siblings are also reported to have poor language development and learning problems.

#### SOCIAL SKILLS ASSESSMENT

S. was referred for social skills assessment and training by hospital staff due to her immature social development and aggressive behavior with peers. It was felt that she had never been adequately taught social skills or exposed to appropriate role models.

S. presented as a needy, attention-seeking girl who came with me willingly. She had a short attention span and was very squirmy on her chair. S. was unable to tell me any good things about herself, instead talking about her negative behavior and need for punishment. She denied having any friends and said no one liked her. Even with a great deal of support and encouragement she refused to entertain a more positive reply.

The Primary Self-Concept Inventory showed S. to have an overall self-concept in the 33rd percentile. Sub-scale scores showed wide scatter, with Personal Self at the 40th percentile, social self at the 10th percentile and intellectual self at the 99th percentile. When responding to school-related items S. would "parrot" rules she had learned and this high score seems to indicate the "socialization to school" process which has taken place in Day Treatment.

Spence's tests of perception of emotion from non-verbal cues were completed, although S. often appeared to be guessing and scores may not be valid. On facial expressions S. scored 4 out of 10, and on posture 3 out of 10. However she achieved a perfect score on the test of comprehension of gestures.

On the Conversation Probe S. achieved a mean score of 2 out of 5, showing her conversation to be awkward and stilted. There were many long pauses and S. was never able to request a shared activity. Content consisted largely of statements of fact and these were frequently rather tangential.

An abbreviated form of the Behavioral Assertiveness Test for Children was used, because S.'s attention span did not appear to be sufficient to complete the entire test. Six items were selected, and three were role-played while three were acted out using dolls. Very little difference was found between the two methods of testing. With both, eye contact, affect, latency and volume of speech were adequate. S. was non-compliant in all instances, but was able to request alternative behavior on only one occasion and resorted to verbal abuse on two of the six items. Her total score was 32 out of 42.

The Analogue Assessment was also adapted somewhat for S. and was administered using both role-play and dolls. Latency and volume of speech were again adequate. However S. had difficulty maintaining eye contact,

and her affect was usually flat during role-play and often inappropriate, although more animated, during doll play. Verbal content was the most problematic area, and even allowing for S.'s poor verbal skills, responses were inadequate. That is, it appeared that the social response itself, not only how to verbalize a reply, was difficult for S. Total score was 56 out of a possible 80.

S.'s mother completed both the Walker Problem Behavior Identification Checklist and the Semantic Differential Checklist. The latter indicated that mother sees S. as a strong-willed girl who can be very warm and responsive. Also, she saw S. as somewhat more intelligent than is perhaps realistic. On the WPBIC S. scored 36, (where any score over 21 is considered indicative of problem behavior). The only sub-scale which did not indicate difficulties was the one measuring withdrawal. Acting out behavior, distractibility and immaturity were all problematic, and on the scale of disturbed peer relations, S. obtained the highest possible score, showing a severe deficit in this area.

#### SOCIAL SKILLS TRAINING

S. was seen twice weekly in an 8 session social skills training program. Because of her developmental level, doll play was utilized rather than the usual role-play techniques. Other training methods (instruction, modeling, feedback, social reinforcement, concrete rewards, and homework assignments) remained the same.

- Session 1 - trained perception of emotion from facial cues (Spence) - S. enjoyed this and learned quickly
- used dolls to train "taking turns" in play (Chittenden) - S. much inclined to fight but responded well to questions "Are they having fun?" "Will they want to be friends?"
  - given sticker and piece of gum as concrete reinforcers
- Session 2 - reviewed facial expressions - S. remembered fairly well
- reviewed "taking turns"
  - trained "sharing" (Chittenden) - S. says she likes fighting, it's more fun and she doesn't want to learn to play nicely or to make friends!
  - given concrete reinforcers
- Session 3 - came eagerly today, asking about dolls and remembering their names
- reviewed "sharing"
  - trained perception of emotion from body posture (Spence)
  - trained "playing together co-operatively" (Chittenden) - S. again inclined to play aggressively, but more easily influenced today towards friendly behavior - S. herself verbalized "They're not having fun" after making the dolls fight.
  - trained giving and receiving compliments (Rinn)
  - homework given, to practice compliments
  - concrete reinforcers given
- Session 4 - S. came directly from dentist - had a frozen mouth and did not really feel like working
- reviewed postures and compliments
  - trained greeting and joining others (La Greca)
  - homework given, to practice greeting and joining
  - concrete reinforcers given
- Session 5 - reviewed greeting and joining
- trained use of gestures and tone of voice (Spence)

- Session 5 - trained expression of feelings (Rinn) - happiness sadness and anger - S. had difficulty with this, both in choosing words and using appropriate tone of voice  
- given homework and concrete reinforcers
- Session 6 - reviewed expression of feelings  
- trained listening skills (Spence)  
- trained agreeing and disagreeing (Rinn)  
- S. continues to show improvement in quality of her play - more constructive with less aggression and whininess  
- discussed inclusion of peer in last two sessions, which S. accepted quite well  
- given homework and concrete reinforcers
- Session 7 - seen with 8 year old peer - S. quite wary of her - shy and withdrawn  
- initiated doll play, but peer unco-operative  
- agreed to draw pictures instead  
- shared cookie nicely with peer and given much praise  
- trained conversation (La Greca)  
- discussed co-operative play - sharing, compromising, inviting  
- also discussed tattling, swearing, whispering  
- reviewed compliments  
- given concrete reinforcers
- Session 8 - Seen again with peer  
- trained co-operative play (La Greca) using card games - how to decide who goes first, establishing rules of game, not cheating, being good winner or good loser.  
- S. won once and lost once and took both well  
- somewhat verbally abusive to peer but only in retaliation  
- given concrete reinforcers
- Summary --- S. responded well to doll play, and gradually became more constructive. She appeared to have learned some of the skills and certainly could use them within subsequent sessions. Her poor


Summary --- verbal abilities compound the  
(Cont'd.) difficulties she has with social  
skills, and both areas will require  
on-going input which is available  
within the Day Treatment Setting.  
Continued practice and reinforcement  
in the natural setting will be  
necessary in order for generaliza-  
tion to occur.


#### REASSESSMENT

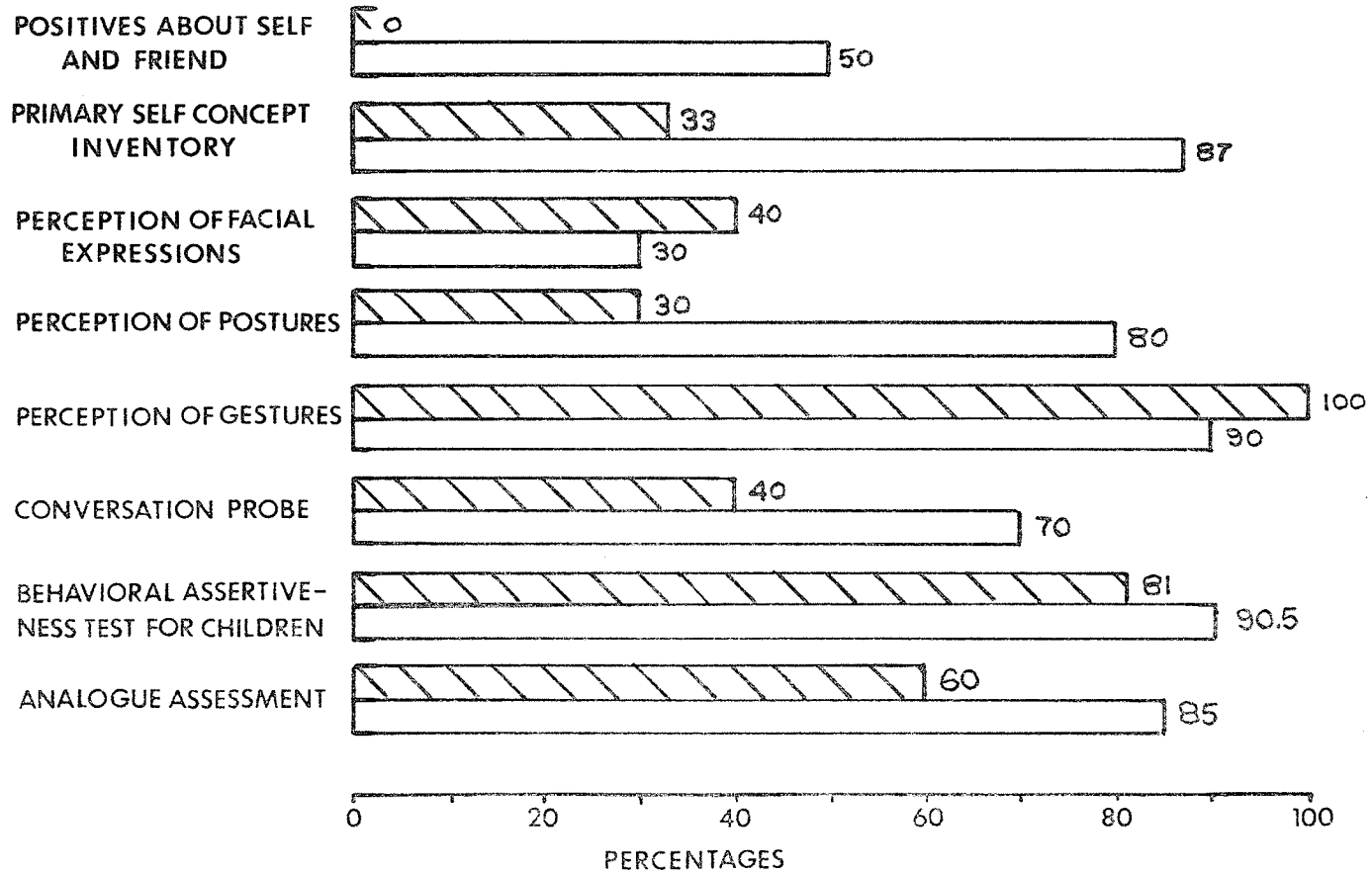
S. was seen for reassessment four weeks following termination of training. Prior to seeing S., her teacher warned me that she was not functioning too well that day for two reasons. Firstly, mother had been abusive the previous night; secondly S. had been to the dentist earlier the same morning. S. did not remember my name, but did remember the names of both dolls. Although rather subdued, she came along willingly and was very co-operative with reassessment. All results have been converted to percentages and graphed for easy comparison. (See figure 5, page 154).

When asked to tell me some positive things about herself, S. was able to list four things - that she was nice, well-behaved, didn't swear and was friendly. As a friend she named a boy in her classroom, who she described as "not rough" and said he shared candy with her. S.'s responses to this item were markedly better than on initial assessment, when she was unable to give any responses at all, in spite of a great deal of encouragement.

FIGURE 5 - RESULTS OF CASE FIVE

PRE-SST 

POST-SST 



On the Primary Self-Concept Inventory, S. scored at the 87th percentile overall, with sub-scale scores at the 75th percentile on personal self-concept, 85th percentile on social self-concept and 99th percentile on intellectual self-concept. This is an overall increase of 54 percentage points, with rises of 35 and 75 points respectively on the personal and social sub-scales. The intellectual sub-scale remained the same. These scores indicate a considerable increase in S.'s level of self-esteem, bringing it up to a very acceptable level. Using the indicators suggested in the test manual (Muller et al, 1974) her self-concept would no longer be seen as problematic.

Spence's tests of perception of non-verbal social cues were again administered. S. scored 3 out of 10 on facial expressions, a drop of 10%. As on the first administration, she appeared to be guessing. On the test of posture she scored 8 out of 10, a rise of 50%. On this item she gave more thought to her answers, sometimes assuming the posture herself while deliberating. This test seemed more valid than the previous administration. On gestures, S. scored 9 out of 10, a drop of 10% although still quite acceptable. Overall, I don't feel S. retained much of the learning of the use of non-verbal cues, (with the exception, perhaps, of posture) although during training she certainly seemed to have understood. Booster sessions in this area would be helpful.

On the Conversation Probe, S. obtained a mean score of 3.5 out of 5, a rise of 30% over initial assessment. She was much more able to

sustain a conversation, with no tangential responses shown. Her verbal content included informative statements, questions and requests for shared activities, with no awkward pauses noticed. This is a marked change from the initial assessment, when S. made little attempt to suggest activities, ask questions, or sustain the conversation.

On the BAT-C and Analogue Assessments again an abbreviated form was used, but role-play administration was possible. Scores on the previous administration using doll play varied little from the role-play scores, but difficulties in scoring such areas as eye contact and affect were apparent. Since there was little advantage to doll play, role-play alone was used on reassessment.

S. scored 19 out of 21 on the BAT-C, a rise of 9.5% over previous testing. On one item she was submissive, but on all others she was able to be appropriately assertive without resorting to verbal abuse. This contrasts with the initial assessment, on which she was verbally abusive on every item and was only once able to request an alternative behavior from a peer.

On the Analogue Assessment S. scored 34 out of 40, a rise of 25% over her initial score. Latency of response and loudness of speech were again adequate. Eye contact was much better, affect was more often appropriate, and verbal content was improved. In the area of affect S. still tends to be rather flat and restricted (although

today may have been a bad day for previously stated reasons) and more work could be used in this area. Verbal responses also need work - not only in terms of quality of speech, but social content as well.

Mother again completed the Semantic Differential Checklist and the WPBIC. On the Semantic Differential Checklist mother's replies indicated that she sees S. as being less anxious, less aggressive, and better behaved than on the initial administration. On the WPBIC S. scored 12 which is an overall drop of 24.5%, and while it is still above the norm it is below the level indicative of serious behavior problems. All sub-scales showed some decrease, with acting out behavior and immaturity dropping below problematic levels. Distractibility also was lessened, although still a mild problem and peer relations were still seen as disturbed. On the whole, mother was very pleased with S.'s progress and was looking forward to her being reintegrated into public school next year.

#### SUMMARY

I found that social skills training was readily adaptable for use with doll play with a young child. S. enjoyed sessions and although it was sometimes difficult to structure the play around specific skills, many occasions arose spontaneously which provided content to be trained. It was more necessary to allow for flexibility in terms of the order of presentation of training items, and thus to take advantage of these naturally occurring opportunities. Using this style of social skills training, my impression is that a longer course of sessions would be

advantageous. However even given the limitations, S. showed an overall increase of 24.8% which is certainly satisfactory. Continued work on her social skills will take place within the Day Treatment Program.

#### COMMENTS ON DAY TREATMENT SETTING

Social skills training appeared to fit well into the Day Treatment Program. The children in the program certainly suffered from social skills deficits, amongst their other difficulties. Although the staff were already working on this area with the children, it was being done on an unplanned, somewhat inconsistent basis. Several staff members expressed an interest in learning more about social skills training so that they could provide more systematic input to the children.

The girl I saw from Day Treatment was one of their higher functioning children. Many others were out of touch with reality, non-verbal, and more severely disturbed. For them, a social skills training program would have to deal with the most basic skills and would require many more repetitions than is usual. However the components of the training program would remain the same.

One of the pleasures of working in this setting was the co-operation I encountered from staff. Roles are clearly designated, so that I was able to discuss scheduling and request reinforcement from the same person (i.e. the classroom teacher) all of the time. Communication was very effective. The child's homework assignment was pinned up on the bulletin board after every session, and when I arrived for the following session the teacher would tell me how the practice had gone. This consistency seemed to be reflected in the level of generalization which was achieved (the WPBIC showed a drop of 24.5% in problem behavior).

Thus, social skills training appears to be an appropriate and effective intervention to use within a child psychiatry Day Treatment Program. Some of the programs which have been developed for pre-school children or for retarded children would likely be more appropriate than those discussed in this paper for use with this population. Their needs are for training in very basic skills which would allow them to function more appropriately within a normalized setting (e.g. when they are reintegrated into the public school system). I would certainly recommend that social skills training be incorporated into the regular framework of the Day Treatment Program.

## CHILDREN'S HOME OF WINNIPEG

Children's Home of Winnipeg is a privately run agency which operates six separate group homes for emotionally disturbed children, as well as specialized foster homes, school and vocational programs. Children are placed in the group homes by various child welfare authorities who pay for their stay on a per diem basis.

Children were referred for social skills training from one unit of Children's Home. This particular home serves 6 boys from 9 to 12 years of age. Children are described as having behavioral problems and severely deprived backgrounds, often with a history of neglect or abuse. The unit is staffed by rotational child care workers, with an in-house unit-director providing supervision. In addition, the unit has a half-time case worker and a consulting psychologist. Individualized Program Plans are developed for each child and children are encouraged to use community resources as much as possible both academically and socially. Much of the treatment takes place within the therapeutic milieu of the home. A behavioral program is utilized, with the boys earning privileges such as outings depending upon their behavior.

## CASE SIX

L. is an 11 year 6 month old Caucasian boy who is currently living in a group home for emotionally disturbed children. He came under the care of the child welfare authorities by a voluntary agreement with his parents, who felt unable to cope with his stealing, running, fire-setting and aggressive behavior. This has since become a permanent order of guardianship, and parents do not want to have L. home in the future. He has been in the current placement for about 7 months.

## BACKGROUND

L. is the middle child in a family of three children. Both siblings are female, and parents are reported to favour the girls while using L. as the "family scapegoat". The child welfare authorities have been involved since L. was 15 months of age and although physical abuse has never been definitely proven he has been apprehended due to neglect by parents. Both parents have a history of deprivation and abuse in their own backgrounds.

L. was born 9 weeks premature and spent three months in an incubator with severe feeding problems and difficulties with his lungs. Despite this, developmental milestones were normal.

At 15 months L. was placed in a foster home by parents while mother was in hospital giving birth to his younger sister. At that time the agency became concerned about physical abuse and did not return him

to the family until 9 months later. L. again came to the attention of the child welfare authorities when the kindergarten noticed a small burn on his cheek and belt marks on his arm. In addition to the concerns of abuse the school noted that L. was showing behavioral problems - lying, stealing and fighting. L. was referred to the Child Guidance Clinic and they and child welfare provided as much support as parents would accept. However parents became unco-operative and broke off contact with both agencies.

When L. was 8 the school again became concerned with his behavior and while parents initially denied problems at home, one week later they took L. to the child welfare authorities and requested that he be placed. They related stories of bizarre behavior including fire-setting, imaginary friends, pre-occupation with death and dying, and aggressive behavior including stabbing a peer with a knife.

L. was admitted to hospital for a psychiatric assessment prior to placement. Diagnosis was of a behavior disorder of the unsocialized aggressive type. An EEG was normal. Psychological testing indicated that L. was functioning in the dull normal range of intelligence, and on projective testing he was seen as having strong oral needs, and an overwhelming feeling of rejection and abandonment. Academic testing indicated that L. was below average in overall ability, although he scored higher in verbal areas. Both fine and gross motor skills were deficient, but no specific learning disability was found. Occupational Therapy testing also indicated poor visual-motor integration as well as deficits

in fine and gross motor skills. Nursing staff saw L. as a very needy boy who functioned poorly socially in spite of his attempts to make friends. He often lost control and became verbally and physically abusive with peers.

L. was placed in a group home run by the child welfare agency, where his behavior improved. He was returned home where there was an immediate regression to previous behaviors and he again became the family scapegoat. Five months later parents requested the agency to take over guardianship on a permanent basis. L. was placed in a Receiving Home, where he set a fire which destroyed the second floor of the home and sent one staff member to hospital. Four months later he was admitted to the current group home.

In the home L. has been described as a very needy, attention-seeking boy. Peers often turn against him because of his tattling. He awakens early and disturbs the other children. Staff has noted he has done some cross-dressing. L. calls his parents and requests visits frequently. They agree, but do not follow through, and L. becomes very disappointed but has trouble expressing his anger and hurt regarding the family situation.

#### SOCIAL SKILLS ASSESSMENT

L. was referred for social skills assessment and training by the group home staff because of his silly, attention-seeking behavior, inappropriate manner of speech and poor relationships with peers.

L. presented as a very friendly, talkative boy who seemed rather indiscriminate in his style of relating. When asked what was good about himself, he stated that although he got into trouble a lot, he was "friendly" and "did chores". As a best friend he named another boy in the home, saying he like him because he went along with L.'s suggestions, didn't get L. into trouble, and didn't fight with L.

On the Self-Esteem Inventory L. obtained a score of 18, with a lie scale score of 0 showing that he has very poor self-esteem. (This would be about the tenth percentile for boys L.'s age). While he had previously been very relaxed, he physically retreated into a corner and curled up into a ball while responding. Affect became very sad particularly when responding to questions relating to his family.

On Spence's tests of perception of emotion from non-verbal cues, L. scored poorly, recognizing only 6 of 10 facial expressions and 5 of 10 body postures. However he was able to recognize all 10 gestures.

On the Conversation Probe, L. obtained a mean score of 2.75 out of 5. Content largely consisted of informative statement with a few questions and only one request for shared activity. L. tended to go on and on at great length and not give the other person a chance to speak.

The Behavioral Assertiveness Test for Children indicated that L. has some difficulty with appropriately assertive behavior. Eye

contact, latency and volume of speech and affect were all acceptable. However L. was only able to ask for alternative behavior on 4 of the 9 test items. While he was generally non-compliant and did not resort to verbal abuse, he was simply ineffective.

On the Analogue Assessment L. also scored acceptably on eye contact, latency and volume of speech. Affect was appropriate on 11 of the 15 test items, and verbal content on only 8 of the 15 items.

A child care worker in the group home completed the behavioral checklists on L. On the Semantic Differential Checklist L. was seen as being a very aggressive, acting out boy with an extremely high level of anxiety. On the Walker Problem Behavior Identification Checklist (WPBIC) L. scored 29 (where any score of 21 indicates behavioral problems). The only sub-scale which indicated problem behavior was that of acting-out.

#### SOCIAL SKILLS TRAINING

L. was seen weekly initially, then twice weekly for a 6 session social skills training program. Two scheduled sessions were missed because L. had run away from the group home.

Session 1 - discussed goals of SST and why L. was referred  
- trained perception of emotion from facial expression (Spence) - L. had a great deal of difficulty with this, and his attention span was not adequate to complete it in one session

- Session 1 - trained greeting and joining (La Greca) -  
 (Cont'd) stumbled over his words and became  
 very discouraged - needed a great  
 deal of support to try again  
 - discussed use of concrete reinforcer (soft  
 drink) and rules explained  
 - given homework  
 - reinforcer given for 1st session
- Session 2 - forgot homework, so lost chance for  
 reinforcer - did not seem to care about  
 this, and remained co-operative  
 - reviewed facial expressions (Spence) -  
 L. much better at this task this week  
 - trained agreeing and disagreeing (Rinn) -  
 L. Much more relaxed with role-play and  
 able to pick up on expectations quickly  
 - given homework and reminded about  
 rules re. concrete reinforcer
- Session 3 - L. in after lapse of 14 days because  
 of his running away  
 - peer attended this and subsequent  
 sessions  
 - had remembered homework (although it  
 was virtually illegible!) - much  
 praise given  
 - L. did much fooling around today,  
 seemingly to impress peer  
 - reviewed agreeing and disagreeing  
 - trained giving and receiving  
 compliments (Rinn)  
 - trained making simple requests (Rinn)  
 - trained posture and body language (Spence)  
 - L.'s silly behavior completely  
 overshadowed peer - reinforcer withheld
- Session 4 - reviewed making simple requests - L.  
 can perform quite well when he chooses  
 to, but continues to fool around a  
 good deal  
 - trained listening skills and  
 conversational skills (Spence)  
 - reinforcer given, only with condition  
 that L. is to bring 2 ideas for next  
 session, since today's behavior alone  
 did not warrant it.
- Session 5 - reviewed listening skills and conversa-  
 tion  
 - trained interrupting (Spence) and

Session 5 - assertiveness (Rinn)

- (cont'd) - L. is able to be very effectively assertive, but spoils it by talking too much which serves to decrease his impact - his tone of voice is also often inappropriate
- L. remembered his agreement to provide topics re. peer situations and suggested how to deal with teasing and tattling. (The latter being a problem for L.)
  - much more co-operative today - given lots of praise as well as concrete reinforcer

Session 6 - L. brought in by social work student assigned to group home - took advantage of situation to fool around more, (had given her wrong directions and run away from her prior to their arrival)

- discussed this irresponsibility i.e. being dependent on staff control for appropriate behavior
- reviewed assertiveness - L. did very well, remembering expectations and performing well - tone of voice was particularly improved over last session and much praise given
- discussed behavior during interaction with adults - staff, teachers, police L. knew how to behave appropriately but fooled around a good deal
- trained how to introduce people
- decision re. concrete reinforcer given to social work student depending on behavior during trip home, since behavior during session was marginal and she appeared to need some help in managing.

SUMMARY

Overall I did not feel L. responded particularly well to social skills training. His acting out behavior during sessions increased when a peer was present, and tended to get in the way of learning. Use of the concrete reinforcer did not provide adequate motivation. His behavior

varied a great deal depending on which group home staff member was present during the session, and it was only towards the end of the training that my own relationship with him had developed to the point that I could set limits and still maintain his co-operation.

#### REASSESSMENT

L. was seen for reassessment 4 weeks following termination of training. He came willingly, related in an open, friendly manner and was co-operative with all test items. Results have been converted to percentages and graphed for easy comparison. (See figure 6 , page 170). L. told me he had "changed" and when asked to tell me some good things about himself, was able to list 4 areas all related to the "new him". As a friend he named a boy in his new school, and was able to tell me 4 nice things about this boy as well. This total of 8 is a 25.1% increase over his pre-training score of 5 on this screening test.

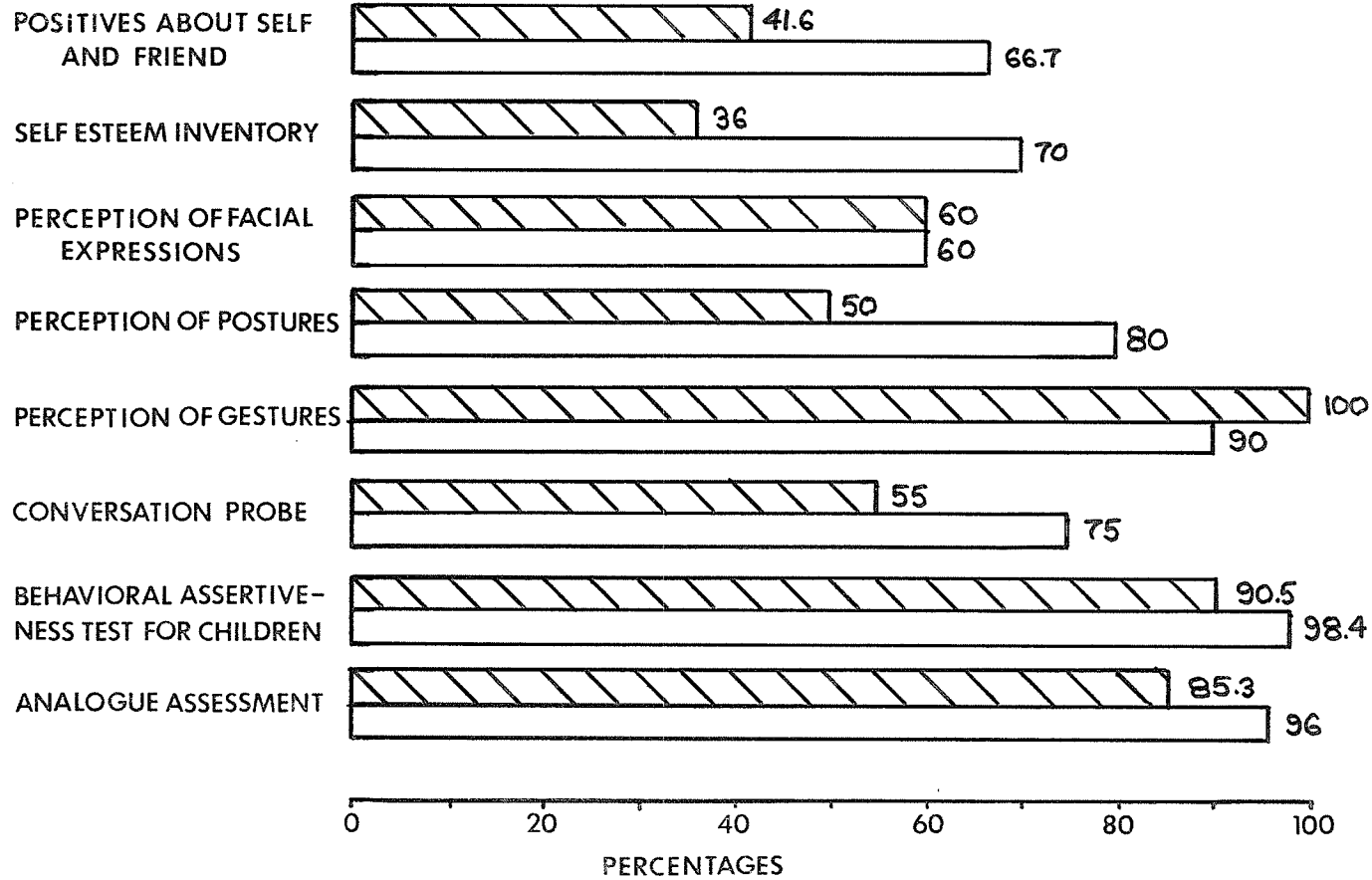
On the Self-Esteem Inventory L. obtained a score of 35 with a lie scale score of 2. Although the increase in the lie scale score indicates that the overall score may be slightly more inflated than on the initial assessment, still it would appear that L. has begun to feel better about himself. In fact, a score of 35 is 34% higher than his pre-training score. It should be noted, however, that during the initial assessment L. was grounded for running away and was generally in disgrace at the home. On reassessment he had earned back all priviledges and was proud of his newfound freedom. I suspect that it would take very little

FIGURE 6 - RESULTS OF CASE SIX

PRE-SST



POST-SST



for L.'s self-image scores to drop again.

On Spence's tests of perception of non-verbal social cues, L. showed a small improvement. He scored the same (6 out of 10) on the facial expressions, and slightly worse (9 out of 10) on gestures. Only on the tests of body language did he improve scoring 8 out of 10, in contrast to his pre-training scores of 5 out of 10 on this item. Overall, it did not appear that L. retained what he had learned in this non-verbal area.

On the Conversation Probe L. showed a 20% improvement, with his mean score rising from 2.75 to 3.75 out of 5. His conversation contained a nice mix of informative statements, questions, and suggestions for shared activities, with few awkward pauses. L. was much more able to "share" the conversation, in contrast to his tendency to dominate it on pre-training assessment. His increased ability to request a peer's participation in activities also seems to reflect this increased sensitivity to the other person.

On the Behavioral Assertiveness Test for Children, L. did extremely well, scoring 62 out of 63. This is a 7.9% increase over his previous score. Again, he obtained good scores on eye contact, latency of response, volume of speech and appropriateness of affect. He was non-compliant in a positive manner and never resorted to verbal abuse. The area in which he showed improvement was in his ability to suggest

alternative behavior to a peer in an effectively assertive manner. While he will require reinforcement in the natural environment for these skills to generalize to the peer group setting, L. does now have the ability to be assertive in a positive manner.

L. also showed improvement on the Analogue Assessment, scoring 10.7% higher than on his initial assessment. Eye contact, latency of response, and volume of speech were again adequate. Affect was more appropriate than previously, and verbal content was more often appropriate (13 of 15 responses, compared to 8 of 15 on first assessment). It appears that L. was able to learn and retain some more appropriate social responses.

The same child care worker filled out the Semantic Differential Checklist and the Walker Problem Behavior Identification Checklist on L. The Semantic Differential showed little change in the worker's perceptions of L., with only the sub scale measuring his anxiety level dropping significantly. He is still seen as an aggressive boy with much acting out behavior. On the WPBIC L. obtained a score of 23, which is a 6.1% drop from pre-training scores. This drop was in the area of acting out behavior, so perhaps L. is seen as slightly better behaved than prior to training. On the whole, however, L. is not viewed very differently from prior to social skills training.

#### SUMMARY

L. showed an overall mean score of 79.5% which is 14.7% higher

than on pre-training assessment. However it appears that either these improvements have not generalized to the natural environment, or that they are too small to have yet been perceived by the group home staff.

There were several difficulties in the training program which could account for L.'s poor showing. Firstly, sessions were disrupted on 2 occasions due to his running away. This not only caused a lack of continuity, but was also reflective of the general disruptiveness in his life during the training program. Perhaps this timing was simply not optimal for L. to take part in this kind of treatment.

Another cause for disruption occurred within the group home itself. There were several staff changes during the time L. took part in social skills training. One staff member was to act as co-therapist, but instead a different person brought L. almost every time. As a result there was no consistency within sessions, and in addition, reinforcement in the natural environment was not as effective as it should have been. The changes also no doubt effected L.'s level of anxiety and his behavior quite apart from training sessions.

The other difficulty was the lack of motivation on L.'s part. The offer of a soft drink as a concrete reinforcer did not provide enough incentive, and once a peer was introduced into the sessions the impulse to act up was too much for L. Perhaps if some kind of "report card" to the home had been used, with rewards provided by group home staff L. would have been more motivated. However, because the staff group was

undergoing changes, and also due to a reluctance on the part of the case worker to provide the possibility of rewards for L. which the other boys in the home had no chance to work for, this was not suggested.

Overall, then, it seems that L. obtained only small benefits from the social skills training program. In part, it appears that L. has always had some fairly good social skills, but lacks the motivation to use them. I do feel that he could benefit from a social skills training approach, but that this would have to be done within the natural environment and that the contingencies and reinforcers would have to be selected with more care.

## CASE SEVEN

D. is an 11 year 8 month old Caucasian boy who is presently living in a group home for emotionally disturbed children. He is under the care of the child welfare authorities by a voluntary agreement with his mother, which will expire in a few months. This placement was arranged because D.'s verbal and physical aggression and truanting had become too much for mother to handle. He has been in the current placement for almost one year.

## BACKGROUND

D. is the youngest child, and has 3 older half siblings from mother's previous marriage. His parents did not marry, and father separated from the family when he was 8 years of age. Father is described as a very violent man who abused both mother and the children. Mother is seen as a chronically depressed, ineffective woman who is unable to provide consistent nurturing or controls.

D. was a full-term baby, and pregnancy, delivery and neonatal period appear to have been normal. By two years, mother considered D. a problem because he was "hyperactive" and unco-operative with toilet training. At 2 years 8 months he was assessed by the Child Development Clinic of Children's Hospital who noted that he was negativistic, impulsive and unco-operative during testing. A social worker became involved with mother to help her to improve her parenting skills, and D. was enrolled in a nursery school program.

When D. was 4 years old, mother could no longer cope and he was placed in a foster home for 4 months where his behavior improved. He was returned home at his father's request.

Upon entry to grade I, D. was again identified as having behavioral problems - swearing, stealing, fighting and destructiveness. He was placed in an institutional school for emotionally disturbed boys where he responded well to the structure and consistency. He remained in this placement until he was 9 years old, when he returned home to mother. By this time father had left the family and moved to Nova Scotia. When mother found she was unable to cope with D. after a few months, she sent him to live with father. He remained there for about a year, during which time he witnessed much drinking, violence and sexual activity.

Upon return to mother and enrollment in school, D. was again identified as a behavior problem because of his aggressive behavior. The school requested help from the child welfare authorities which culminated in the present placement.

Prior to his admission to the group home, D. was assessed by Child Psychiatry. He was diagnosed as having a Conduct Disorder, with much emphasis being placed on his unstable, rejecting and violent family background. Psychological testing showed him to be functioning in the low average range on performance items and the borderline range verbally. It was also noted that he had great difficulty with visual-motor integration. The Occupational Therapy department found he also had

somewhat delayed language development. An educational assessment indicated that he has some visual motor and auditory motor difficulties, poor memory, and an auditory attention deficit. However this was attributed to his low intelligence rather than to a specific learning disability. He is functioning 2 to 3 years below his expected academic level.

In the group home D. is described as a fearful boy who seeks attention through his negative behavior. He is provocative with peers but tends to be a follower. He has been involved with a peer in shoplifting and running away on several occasions in the past few months. He often goes home to mother for weekends, but his case worker is not optimistic that mother will be capable of caring for him on any permanent basis.

#### SOCIAL SKILLS ASSESSMENT

D. was referred for social skills assessment and training because of his poor social and communication skills. The staff see him as a withdrawn immature boy who has never learned how to relate to people in an appropriate manner.

D. presented initially as an anxious boy who did not make eye contact and answered questions in a stammer so quiet I often had to ask him to repeat himself. He was unable to list any positive things about himself, even with much support and encouragement. After a great deal of prompting he named one friend, a boy from school, but could say only that

he was "nice" when asked what things he liked about him.

On the Self-Esteem Inventory, D. scored 31, with a lie scale score of 2. This is only slightly below the mean for this test, and certainly within acceptable limits.

On Spence's tests of perception of emotion from non-verbal cues D. did quite poorly, except for the test of gestures on which he scored 9 out of 10. However he could recognize only 2 out of 10 facial expressions and 4 out of 10 body postures indicating that he has difficulty "reading" non-verbal cues in social situations.

On the Conversation Probe D. obtained a mean score of 2.25 out of 5, which shows he lacks comfort and fluency in conversation. Verbal content consisted mainly of statements of fact or questions requiring only a single word response. He could not ask effectively for the other person to join him in an activity, and relied heavily on the other person to keep the conversation rolling.

On the Behavioral Assertiveness Test for Children D. was able to maintain good eye contact, and latency and volume of speech were adequate. Affect was appropriate on only 5 of the 9 test items. While D. was non-compliant on all but one item, he was only able to request alternative behavior on 4 items and on one occasion resorted to verbal abuse. He received full scores on only 2 of the 9 test items, indicating that appropriately

assertive behavior is a problem for him.

Eye contact, latency and volume of speech were also acceptable on the Analogue Assessment. Again, affect was a problem, with D. showing appropriate affect only 6 of the 15 items. Often his affect was flat and restricted. Verbal content was D.'s major problem. He often answered in single words even after encouragement to say more, and was only able to give appropriate responses in 3 of the 15 test items.

The Walker Problem Behavior Identification Checklist (WPBIC) and Semantic Differential Checklist were completed by one of the child care workers at the group home. D. obtained a score of 28 on the WPBIC (where any score over 21 is indicative of major behavioral problems). On the sub-scales, D. scored acceptable in the areas of acting out behavior and distractibility. Problems were apparent in the areas of withdrawn behavior, peer relations, and immaturity. On the Semantic Differential, D. was seen as a rather dull and hostile boy with a high level of anxiety.

#### SOCIAL SKILLS TRAINING

D. was seen weekly initially, then twice weekly in a 7 session social skills training program. One scheduled session was missed because he had run away from the group home.

Session 1 - discussed goals of SST and why D. was referred - he understood this quite easily and was very agreeable

- Session 1 - trained perception of emotion from  
(Cont'd) facial expression (Spence), using  
photographs and live demonstration - D.  
enjoyed this and became much better at it  
as we went along
- trained greeting and joining sequence  
(La Greca) - D. initially somewhat  
reluctant to role-play, but relaxed  
and began to participate more actively
  - discussed homework assignment, and  
rules re. earning concrete reinforcer  
(soft drink)
  - reinforcer given for 1st session
- Session 2 - did not do homework so reinforcer lost
- reviewed facial expressions - some  
improvement seen, although D. still  
has trouble with this
  - reviewed greeting and joining
  - trained expression of feelings (Rinn) -  
happiness, sadness, anger
  - homework again given and D. reminded  
of rules for obtaining reinforcer
- Session 3 - again forgot homework, so reinforcer  
lost - soft drink does not appear  
to be particularly motivating for D.
- reviewed expression of feelings
  - trained perception of emotion from  
body posture (Spence) and discussed  
body language and fidgeting
  - trained giving and receiving compliments  
(Rinn)
  - no homework given today
- Session 4 - in again after lapse of 11 days due  
to his running
- peer included in this and subsequent  
sessions - much more silly behavior  
with both boys, as they test out the  
situation again
  - reviewed posture, body language, and  
giving and receiving compliments
  - trained use of gestures
  - trained making simple requests (Rinn)
  - reinforcer withheld due to all the  
silliness.

- Session 5 - reviewed making simple requests  
 trained listening skills and conversational skills (Spence) - D. tends to slur words together, speaking too quickly
- D. able to pick up on expectations fairly well and perform adequately when peer is not interfering, but will quickly follow peer's lead and engage in silly, inappropriate behavior if not firmly controlled
  - given reinforcer today
- Session 6 - reviewed listening skills and conversation
- trained interrupting conversation (Spence) and assertiveness (Rinn)
  - D. has trouble with assertive behavior, even when he uses the right words, because his stammer and soft spoken style keep him from appearing firm
  - discussed other peer situations - dealing with teasing and tattling
  - behavior much more co-operative today, and much praise given for this
  - reinforcer given
- Session 7 - brought in by social work student assigned to group home - much more fooling around than usual (had given her wrong directions and run away away from her prior to arrival)
- reviewed assertive behavior - D. did not remember how to respond assertively and fooled around to hide his difficulties
  - discussed interaction with adults such as staff, teachers, and police officers - what behaviors will be helpful; what will cause problems
  - trained how to make introductions
  - decision re. concrete reinforcer given to social work student, depending upon behavior during return trip to group home. (D. began to run away from her prior to leaving building)

#### SUMMARY

D. was co-operative with sessions and although he required many repetitions before understanding expectations he

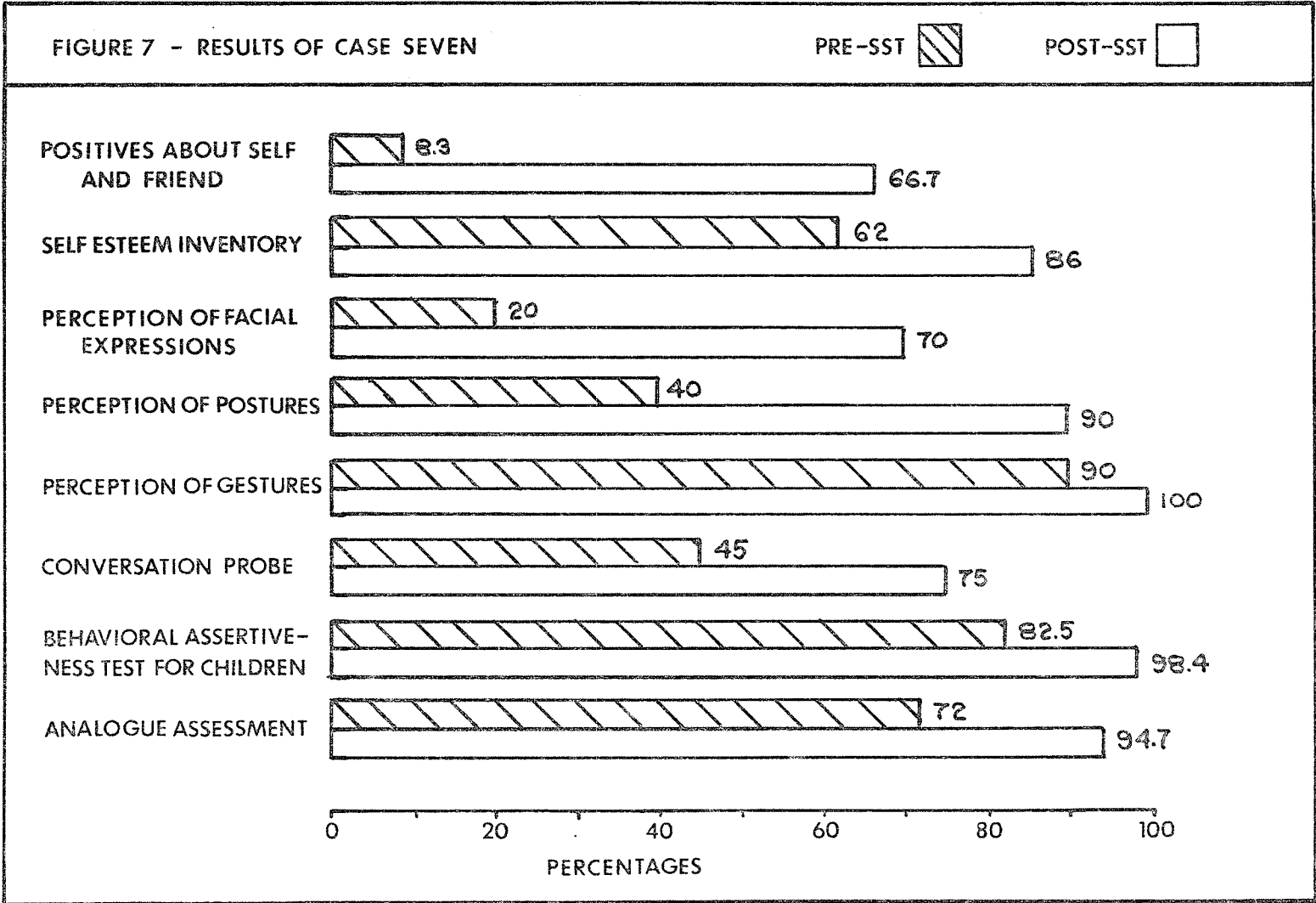
SUMMARY  
(Cont'd)

appeared to learn the skills being trained. The introduction of a peer into the sessions seemed detrimental, as D. suffered from the peer's acting out behavior. Not only did he follow the peer's lead in engaging in disruptive behavior, but he received less than his share of my time because this had to be spent setting limits on the other boy. On the whole I felt that D. could have received substantial benefit from social skills training, but that this will have been reduced due to these circumstances.

REASSESSMENT

D. was seen for reassessment 4 weeks following termination of training. He was in good spirits and was co-operative throughout the testing. When asked to tell me some positive things about himself he was able to respond with 5 quite realistic traits, whereas on the initial assessment he could tell me nothing good about himself even with a great deal of encouragement. As a friend he named a boy in his room at school and told me 3 positive things about this peer. On the screening test, then, he obtained a total score of 8 compared to 1 on the pre-training assessment, for a rise of 58.4%.

On the Self-Esteem Inventory, D. obtained a score of 43, which is 24% higher than his first score on this item. However the lie scale score was also 25% higher, indicating that his score was inflated by more false positives. Essentially then it appears that D.'s self-image is the same as prior to social skills training. Another factor possibly influencing the results on this measure is the circumstances under which



D. completed the first assessment. He was confined to his room because he'd run away and had just lost all privileges. At this time he was less likely to feel good about himself.

On Spence's tests of perception of non-verbal social cues D. did significantly better than on the initial assessment. On interpretations of facial expressions he scored 7 out of 10, a rise of 50%. He was also 50% higher on the test measuring perception of postures (i.e. body language) scoring 9 out of 10. On the tests of gestures he received a perfect score, a 10% rise. It appears that social skills training has been helpful in teaching D. to "read" non-verbal social cues more accurately, increasing the likelihood of appropriate responses.

On the Conversation Probe D. received a mean score of 3.75 out of 5, which is a 30% improvement. His conversations contained a nice mix of factual statements, questions, and suggestions for shared activities. There were no awkward pauses as there had been previously, and D. was much more able to do his share in sustaining the conversation.

The Behavioral Assertiveness Test for Children indicated that D. had learned more appropriate assertiveness. He scored 62 out of 63, a 15.9% rise over pre-training assessment. Again, his eye contact, latency of response, and volume of speech were adequate. D.'s affect was much more appropriate on this occasion. He was non-compliant on every item, asked effectively for a change in behavior from a peer on 8 out of 9 items and

never resorted to verbal abuse. He was therefore able to be positively assertive in a much more appropriate manner. These skills will require on-going reinforcement in the natural environment in order for generalization to the peer group setting to occur.

On the Analogue Assessment D. scored 71 out of 75, a rise of 22.7%. Eye contact, latency of response and volume of speech were appropriate on all items. D.'s affect was much more appropriate than on initial assessment. My impression is that this may be more due to D.'s increased comfort with role-playing and with the examiner rather than due to genuine change. On the first administration he had a nervous grin on his face throughout testing which lowered his scores. On reassessment D.'s verbal responses were appropriate on 11 of 15 items compared to only 3 of 15 items on the first administration. While this too may be partly due to his increased familiarity, I do feel that he was able to learn and retain more appropriate verbal skills through social skills training.

The same child care worker again completed the Semantic Differential Checklist, which showed no change in her perception of D., as well as the Walker Problem Identification Checklist. On this item, D. received a score of 26 - a drop of 2.1% over the initial score.

Essentially then, there has been little change either in D.'s behavior or in the group home staff's perception of D. Thus even though D. seems

to have made genuine gains in non-verbal areas as well as in verbal social behavior and assertiveness, these do not appear to have generalized to the group home setting.

#### SUMMARY

Although D. achieved a rise in mean scores of 32.6%, I do not feel this is entirely representative of such an improvement in his level of social skills. The circumstances of his initial assessment in addition to his level of anxiety during role-play items both seemed to have contributed to a lowering of his initial scores. However, D. does appear to have shown genuine improvement in the areas of verbal skills in various kinds of social interactions, as well as some increased ability to interpret non-verbal social cues.

There were several factors which interfered with D.'s program of training. He ran away on two occasions and missed one session. The staff group at the home was undergoing changes, and this served to disrupt the consistency of the participation of a co-therapist as well as to make prompting and reinforcement in the natural environment less effective. In addition, as was already mentioned, the participation of a peer seemed detrimental to D.'s learning. These factors are particularly disturbing because D. appeared interested and seemed to be able to make genuine gains in his social skills. Had things gone differently I feel he could have made better progress.

## COMMENTS ON GROUP HOME

Social skills training proved to be both appropriate and moderately effective with the boys referred from the group home. The WPBIC was completed by one of the child care workers on all children within the home, both before the two boys took part in the social skills training program and again four weeks following termination. In this way, the other four boys in the home made up a loosely structured comparison group. It would have been preferable for more than one staff member to have completed the checklists so as to decrease the subjectivity of responses. However this was not practical given the level of cooperation from group home staff. Table 8 page 188 summarized the data for the entire group. As it indicates, the two boys who engaged in social skills training showed some slight decrease in their levels of problem behavior. In contrast, all of the other boys have shown an increase in their levels of problem behavior. While these results must be interpreted cautiously, since the group is small and the worker who completed the forms was aware of which boys were involved in the social skills training program, it does appear that the program was helpful. It is also interesting that scores on the WPBIC were so low for this group, all of whom had been placed because of their problem behavior, compared to scores for children from other settings (i.e. in-patients and day treatment). Three factors may help to explain this. Firstly, these boys are living in a very controlled environment and may simply have less opportunities to engage in problem behavior. Secondly, forms were completed by a child care worker who may be able to be more objective than mothers who completed

Table 8 SUMMARY OF GROUP HOME DATA ON WPBIC

	Scale One Acting Out		Scale Two Withdrawal		Scale Three Distractibility		Scale Four Disturbed Peer Rel's		Scale Five Immaturity		Total		Change
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
Case 6	17	14	4	0	6	8	1	0	1	1	29	23	-6
Case 7	4	6	11	9	3	5	5	0	5	6	28	26	-2
Control 1	10	17	0	0	0	1	0	0	3	6	13	24	+11
Control 2	17	22	0	4	9	8	3	5	1	4	30	43	+13
Control 3	14	18	4	4	9	9	3	4	6	8	36	43	+7
Control 4	9	11	0	0	4	5	1	8	4	4	18	28	+10

their children's checklist, or who may have a higher threshold for problem behavior. Lastly, it may be that scores for in-patients were higher because these children and families were in crisis, whereas the children from the group home were assessed at a more stable time in their lives.

Working with the group home was a rather frustrating experience. While the social skills training approach should have fit nicely into the behavioral approach used in the home, communication and co-ordination was difficult. The initial plan had been for one child care worker to take part in the program as a co-therapist. This would not only ensure consistency and aid in the reinforcement of newly acquired skills in the natural environment, but would also teach one staff member the basics of social skills training. Several staff members expressed an interest in taking part so co-operation and enthusiasm was initially quite high. However due to staff changes in the home this did not work out and a different worker brought the boys almost every time. As a result, the staff person present did not fit smoothly into the session and no one person took responsibility for the portion of the program which was to occur in the home (i.e. prompting and reinforcement). This decreased the likelihood of generalization occurring and is reflected in the differences between the boys successes on reassessment and the lack of significant change shown on their WPBIC scores.

Another difficulty was the lack of clear lines of communication and authority. While I was told to communicate through the case worker,

whose responsibility it is to co-ordinate external programs for the boys, it was the unit supervisor who actually had to free up staff, ensure that the boys came to sessions, and encourage staff to see prompting and reinforcement in the natural environment as valuable. There appeared to be some personal differences between these two individuals and some control battles seemed to be played out through involvement in the program. Unit staff was split over this issue, and although a staff meeting was held in an attempt to resolve the difficulties (which of course went far beyond any concern over social skills training) co-operation and participation was never really adequate. It is difficult for me to assess how much of this problem was specific to this particular group home, but I suspect that the structure of the dual authority in the home would naturally lead to conflicts such as this.

On the whole, while social skills training seems both appropriate and effective with this group of boys, I feel that it would be more helpful if it was done within the home, with the participation of the entire group and of the staff. Although this would have meant not using video-taped feedback, I feel that this drawback would have more than been compensated for both by the presence of more modeling and by increased investment and co-operation on the part of the staff group.

#### 4. Evaluation of Social Skills Training

##### A. Group Data

Social skills training appears to be quite useful in working with emotionally disturbed children. Table 9 page 192 presents a summary of group data on each assessment measure administered directly to the children. In all but 3 instances change was in the desired direction, and the three negative scores were all minimal. Changes in self-esteem as measured by the listing of positives about self and friend, the Self-Esteem Inventory and the Primary Self-Concept Inventory range from -4% to +58%. For most children (i.e. case 1, 2, 4, 5, 7 and 6) there appeared to be a considerable increase in self-esteem following participation in the social skills training program. Case 3 was the only child whose self-esteem showed no significant change. The three tests of perception of non-verbal social cues also indicated positive change in most cases. Facial expressions and body language seemed to be most helpful. Most children did quite well in interpreting gestures even before social skills training. The three role-play measures indicated consistently positive changes ranging from +7.9% to 50%. In most instances eye contact, latency of response and volume of voice were adequate prior to training. Improvement in affect and in verbal content accounted for the change. The mean changes shown in each case range from +14.7% to +32.6%.

In three cases these mean change scores correspond fairly well to the negative percentage change on scores of the WPBIC which indicate decreases in levels of problem behavior. (i.e. case 1, +28.9, -25.6; case 4, +25.6, -21.4; case 5, +24.8, -24.5). This indicates that the

Table 9

## SUMMARY OF GROUP DATA

## Percentage and Direction of Change

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
Self and Friend Positives	+ 41.7	+ 8.4	+ 8.4	+ 33.3	+ 50	+ 25.1	+ 58.4
Self Esteem Inventory	+ 12	+ 34	- 4	-----	-----	+ 34	+ 24
Primary Self-Concept Inventory	-----	-----	-----	+ 15	+ 54	-----	-----
Perception of Facial Expressions	-----	-----	+ 30	+ 20	- 10	0	+ 50
Perception of Postures	-----	-----	+ 50	+ 50	+ 50	+ 30	+ 50
Perception of Gestures	-----	-----	+ 20	+ 10	- 10	- 10	+ 10
Conversation Probe	+ 50	+ 15	+ 20	+ 40	+ 30	+ 20	+ 30
Behavioral Assertiveness Test	+ 22.2	+ 19.1	+ 25.4	+ 20.6	+ 9.5	+ 7.9	+ 15.9
Analogue Assessment	+ 18.6	+ 24	+ 10.7	+ 16	+ 25	+ 10.7	+ 22.7
Mean Change	+ 28.9	+ 20.1	+ 20.1	+ 25.6	+ 24.8	+ 14.7	+ 32.6

behavior generalized to the natural environment and was perceived by others. In case 2 no data was available on the WPBIC. Cases 3, 6 and 7 showed little change on WPBIC scores, although a subjective verbal report from a teacher in case 3 suggests that change has been perceived in the school setting. Only the boys from the group home showed no generalization, which can be explained both by the lack of reinforcement in the natural setting, and by the more established negative behavior patterns which they exhibited to begin with. Table 10 page 194 provides a breakdown of data from the sub-tests of the WPBIC, with the mean and standard deviations for males and females provided for comparisons. Post test scores are starred where they indicate a negative change of one standard deviation or greater. (i.e. seemingly significant drop in levels of problem behavior). There was only one case (case 1, scale 4) where positive change of greater than one standard deviation was seen. This reflected an increase in awareness of unhappiness caused by lack of friends and seemed to be a motivating force for change in this case, so is perhaps not as negative as it appears.

#### B. Social Validation

No statistical analysis has been attempted on the data. Because this was a practicum experience, measures could be utilized which do not have adequately established normative data available. In addition the size of the sample seen is not adequate for many statistical tests and it was not set up to be a controlled study.

Instead, I will examine social skills training, from the perspective of social validation (Kazdin, 1977). Kazdin states:

Table 10 SUMMARY OF GROUP DATA ON WPBIC

	Scale One		Scale Two		Scale Three		Scale Four Disturbed Peer Rel's		Scale Five Immaturity		Total		Change
	Acting Out		Withdrawal		Distractibility		Peer Rel's		Immaturity		Total		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
Case 1 (F)	26	12*	6	4	12	8*	4	7 <sup>t</sup>	14	6*	62	37*	-25
Case 2 (M)	20	--	2	-	10	-	17	-	11	-	60	--	---
Case 3 (M)	19	21	7	6	12	11	18	14	7	8	63	60	-3
Case 4 (F)	16	11*	2	2	11	7*	8	3*	13	5*	50	29*	-21
Case 5 (F)	9	2*	2	0	10	5*	10	5*	5	0*	36	12*	-24
Case 6 (M)	17	14	4	0*	6	8	1	0	1	1	29	23	-6
Case 7 (M)	4	6	11	9	3	5	5	0*	5	6	28	26	-2
Mean (M)	3.20		1.59		3.77		1.18		.76		7.76		
S.D. (M)	5.70		3.32		3.74		3.01		1.99		10.53		
Mean (F)	1.05		1.59		1.33		.35		.52		7.76		
S.D. (F)	2.98		3.08		2.05		1.08		1.64		10.53		

\* negative change greater than one standard deviation

<sup>t</sup> positive change greater than one standard deviation

"Clinically important changes should be dramatic and obvious from the data so that there is no need to resort to statistical tests. These changes surpass the relatively weak criterion afforded by statistical evaluation"  
page 428

Social validation assesses the social acceptability of an intervention, examining the focus, procedures and behavior change achieved. The focus of social skills training certainly was on issues which were important to the individuals and to significant people in their environment. When the goals of social skills training were presented to the children (i.e. to learn to make friends and get along better with people) only one child (case 5) protested that it was not necessary. (In fact, she didn't say she had friends or could get along well, but rather that it was "more fun to play mean"). The other children all accepted this focus as appropriate for them. In all cases parents or workers indicated both subjectively and on the WPBIC that the children needed help in this area. All but two children (cases 6 and 7) scored at least two standard deviations over the mean score on the sub-scale of the WPBIC which measures disturbed peer relations. Case 7 was one standard deviation over the mean, while case 6 was at the mean. The scale measuring acting out also indicates that 6 of the children were two standard deviations over the mean while case 7 was close to the mean. (It should be remembered that case 6 and 7 were the group home boys, and their scores on the WPBIC were lower than the others for reasons already discussed.) On the total scores, all children scored over two standard deviations above mean scores for the normative

sample scores presented by Walker (1970). This suggests, then, that the focus of social skills training on interaction with peers and on assertive behavior is very appropriate for these children.

The acceptability of the procedures is the second consideration of social validation. These were discussed in detail with personnel from all three settings, and no concerns arose. In fact, instruction, modeling, and social reinforcement are used routinely in most settings dealing with children. Role-playing, video-taping for feedback and using concrete reinforcers were techniques which were more novel, but all were easily accepted. The children themselves usually found the sessions quite enjoyable. "Pretending" was something which came quite naturally to the younger ones, while the older boys were initially somewhat more inhibited. The video-taping was a new experience for all the children and they found this very enjoyable. The use of concrete reinforcers was also quite easily accepted by the children. Subjective evaluation by the children at the end of the program indicated that they felt it was fun as well as helpful. The only negative comment was that one boy felt I was sometimes "too much like a teacher".

Finally, social validation examines the importance of the behavior change achieved by the intervention. This can be done either through comparison with normative data, or by evaluations by individuals in everyday contact with the children. Using normative data from the WPBIC, post training scores still indicate problem levels of behavior, although

they are lower than pre-training scores. Only case 5 dropped to an acceptable level by normative standards. However, Kazdin (1977).

cautions:

"Simply defining one's 'peers' as the normative group hides many variables that may be relevant for judging treatment effects. The normative level of behavior of one's peers may relate to several subject and demographic variables. One's peers might be defined to include similarity to the client in sex, background, socio-economic standing, intelligence (quotient), marital status of parents or themselves, birth order, and less straight forward variables such as reinforcement history...

An important factor in using normative data is recognizing the relativity of norms and the variables that contribute to normative standards." (page 441)

Using a more subjective evaluation method, parents indicated that a clinically significant change had occurred in cases 1, 4, and 5. Teachers noticed positive changes in the school setting in cases 1, 2, 3, 4, and 6. Although not shown on the WPBIC score, group home staff felt that positive change occurred in case 6. Only case 7 appeared to have made no change in his behavior in the natural environment. Overall, this suggests that social skills training is able to achieve a socially significant level of change in most instances.

While these results have been gratifying one caution must be raised at this point. Because this endeavour was set up as a practicum experience rather than a controlled study internal validity is lacking. One cannot therefore be certain that the positive changes which occurred

have in fact been due to the intervention itself. Other factors such as maturation of the subjects, coincidental occurrences (e.g. hospitalization in the case of the in-patients), testing itself, inadvertant changes in instrumentation, and statistical regression must be examined. (Kazdin, 1981). In addition, one cannot determine what were the active ingredients of the treatment itself. The individual attention could have played a role, in addition to any or all of the specific training methods. To date, research studies have not been successful in teasing out the necessary components of social skills training, and therefore a conservative approach is to utilize all methods.

In summary, social skills training appears to have been appropriate, acceptable and effective with this group of children. The quality of a child's peer relations has a pervasive influence on all spheres of life, including school, family, and extra-curricular activities such as boy scouts or swimming lessons. Any intervention which can be helpful in improving the quality of social interaction is a valuable tool in the repertoire of a mental health worker dealing with children.

#### IV EVALUATION OF PRACTICUM

Overall, I have been satisfied with the practicum experience. The undertaking of the literature review provided me with the theoretical underpinnings and research evaluation of social skills training with children. Use of a behaviorally oriented treatment modality was a new experience for me, and I found it to be both ideologically comfortable and practically valuable. I now feel able to use a variety of measures to complete a behavioral assessment as well as to plan and implement an individualized social skills training program based on this assessment. Results of the programs were generally positive, indicating that I was able to be effective with all of the children to some degree. The WPBIC results are not so consistent, and I feel this reflects the fact that I was less effective in working with the children's environments than I should have been. A more programmed involvement of nurses, child care workers, teachers, and parents would have increased the effectiveness of the intervention significantly. Change which does not generalize to the natural environment will have little effect on the child's life and is not likely to be sustained. The specifics of the involvement is somewhat different for each setting, and I feel this variety of experience has been helpful to me. In the future when I use social skills training I will have more sensitivity to the needs of the different settings, and will therefore be more able to establish an appropriate program of prompting and reinforcement with the people in the natural environment.

APPENDICES



SCALE

	1	2	3	4	5
1. Complains about others' unfairness and/or discrimination towards him.	.3				
2. Is listless and continually tired.					2
3. Does not conform to limits on his own without control from others.			1		
4. Becomes hysterical, upset or angry when things do not go his way.	.3				
5. Comments that no one understands him.				1	
6. Perfectionistic: Meticulous about having everything exactly right.			.2		
7. Will destroy or take apart something he has made rather than show it or ask to have it displayed.				.3	
8. Other children act as if he were taboo or tainted.					4
9. Has difficulty concentrating for any length of time.			1		
10. Is overactive, restless, and/or continually shifting body positions.			.2		
11. Apologizes repeatedly for himself and/or his behavior.					2
12. Distorts the truth by making statements contrary to fact.	.1				
13. Underachieving: Performs below his demonstrated ability level.			1		
14. Disturbs other children: teasing, provoking fights, interrupting others.			2		
15. Tries to avoid calling attention to himself.		1			
16. Makes distrustful or suspicious remarks about actions of others toward him.	.2				
17. Reacts to stressful situations or changes in routine with general body aches, head or stomach aches, nausea.					3
18. Argues and must have the last word in verbal exchanges.	.1				
19. Approaches new tasks and situations with an "I can't do it" response.			1		
20. Has nervous tics: muscle-twitching, eye-blinking, nail-biting, hand-wringing.					3
21. Habitually rejects the school experience through actions or comments.	.1				
22. Has enuresis. (Wets bed.)					1
23. Utters nonsense syllables and/or babbles to himself.				4	
24. Continually seeks attention.			1		
25. Comments that nobody likes him.				2	
26. Repeats one idea, thought, or activity over and over.				4	
27. Has temper tantrums.	.2				
28. Refers to himself as dumb, stupid, or incapable.				3	
29. Does not engage in group activities.		2			
30. When teased or irritated by other children, takes out his frustration(s) on another inappropriate person or thing.	.2				
31. Has rapid mood shifts: depressed one moment, manic the next.	.4				
32. Does not obey until threatened with punishment.	.1				
33. Complains of nightmares, bad dreams.					1
34. Expresses concern about being lonely, unhappy.				.3	
35. Openly strikes back with angry behavior to teasing of other children.	.3				
36. Expresses concern about something terrible or horrible happening to him.					1
37. Has no friends.		4			
38. Must have approval for tasks attempted or completed.	.1				
39. Displays physical aggression toward objects or persons.	.1				
40. Is hypercritical of himself.				1	
41. Does not complete tasks attempted.			1		
42. Doesn't protest when others hurt, tease, or criticize him.		3			
43. Shuns or avoids heterosexual activities.				3	
44. Steals things from other children.					1
45. Does not initiate relationships with other children.		4			
46. Reacts with defiance to instructions or commands.	.1				
47. Weeps or cries without provocation.					1
48. Stutters, stammers, or blocks on saying words.				1	
49. Easily distracted away from the task at hand by ordinary classroom stimuli, i.e. minor movements of others, noises, etc.			1		
50. Frequently stares blankly into space and is unaware of his surroundings when doing so.			1		

	+		+		+		+		=	
Scale 1		Scale 2		Scale 3		Scale 4		Scale 5		Total
Score		Score		Score		Score		Score		Score



### Semantic Differential

Mean factor scores were based on the following scales (see below); the totals were summed across all scales with high loading on each factor, and a mean was then calculated.

#### Dimension

Evaluative	Cruel/kind, dirty/clean, unpleasant/pleasant, bad/good.
Conduct	Easily disciplined/difficult to discipline, obedient/disobedient, helping/not helping, responsible/irresponsible, cooperative/obstructive.
Lack of Aggression	Irritable/easy-going, impatient/patient, demanding/not demanding, jealous/not jealous, prone to tantrums/not prone to tantrums, prone to anger/not prone to anger.
Relaxed	Emotional/objective, fearful/not fearful, fluctuating/stable, tense/relaxed, anxious/nonchalant, nervous/placid, excitable/calm.
Submissiveness	Timid/adventurous, dependent/independent, weak willed/strong willed, submissive/dominant.
Intelligence	Subject to distraction/able to concentrate, slow/quick, ineffective/effective, meaningless/meaningful, subjectively inferior/self confident, dull minded/intelligent, poor memory/good memory
Hostile	Depressed/happy, distrusting/trusting, pessimistic/optimistic, colourless/colourful, aloof/responsive, boring/interesting, cold/warm, introverted/extroverted, not loving/loving, unsociable/sociable.

circle mark each statement in the following way:

If the statement describes how you usually feel, put a check (✓) in the column, "Like Me."

If the statement does not describe how you usually feel, put a check (✓) in the column "Unlike Me."

There are no right or wrong answers.

	<i>Like Me</i>	<i>Unlike Me</i>
I spend a lot of time daydreaming.	_____	_____
I'm pretty sure of myself.	_____	_____
I often wish I were someone else.	_____	_____
I'm easy to like.	_____	_____
My parents and I have a lot of fun together.	_____	_____
I never worry about anything.	_____	_____
I find it very hard to talk in front of the class.	_____	_____
I wish I were younger.	_____	_____
There are lots of things about myself I'd change if I could.	_____	_____
I can make up my mind without too much trouble.	_____	_____
I'm a lot of fun to be with.	_____	_____
I get upset easily at home.	_____	_____
I always do the right thing.	_____	_____
I'm proud of my school work.	_____	_____
Someone always has to tell me what to do.	_____	_____
It takes me a long time to get used to anything new.	_____	_____
I'm often sorry for the things I do.	_____	_____
I'm popular with kids my own age.	_____	_____
My parents usually consider my feelings.	_____	_____
I'm never unhappy.	_____	_____
I'm doing the best work that I can.	_____	_____
I give in very easily.	_____	_____
I can usually take care of myself.	_____	_____
I'm pretty happy.	_____	_____
I would rather play with children younger than me.	_____	_____

27. I like everyone I know.	_____	_____
28. I like to be called on in class.	_____	_____
29. I understand myself.	_____	_____
30. It's pretty tough to be me.	_____	_____
31. Things are all mixed up in my life.	_____	_____
32. Kids usually follow my ideas.	_____	_____
33. No one pays much attention to me at home.	_____	_____
34. I never get scolded.	_____	_____
35. I'm not doing as well in school as I'd like to.	_____	_____
36. I can make up my mind and stick to it.	_____	_____
37. I really don't like being a boy—girl.	_____	_____
38. I have a low opinion of myself.	_____	_____
39. I don't like to be with other people.	_____	_____
40. There are many times when I'd like to leave home.	_____	_____
41. I'm never shy.	_____	_____
42. I often feel upset in school.	_____	_____
43. I often feel ashamed of myself.	_____	_____
44. I'm not as nice looking as most people.	_____	_____
45. If I have something to say, I usually say it.	_____	_____
46. Kids pick on me very often.	_____	_____
47. My parents understand me.	_____	_____
48. I always tell the truth.	_____	_____
49. My teacher makes me feel I'm not good enough.	_____	_____
50. I don't care what happens to me.	_____	_____
51. I'm a failure.	_____	_____
52. I get upset easily when I'm scolded.	_____	_____
53. Most people are better liked than I am.	_____	_____
54. I usually feel as if my parents are pushing me.	_____	_____
55. I always know what to say to people.	_____	_____
56. I often get discouraged in school.	_____	_____
57. Things usually don't bother me.	_____	_____
58. I can't be depended on.	_____	_____

GIRLS' FORM



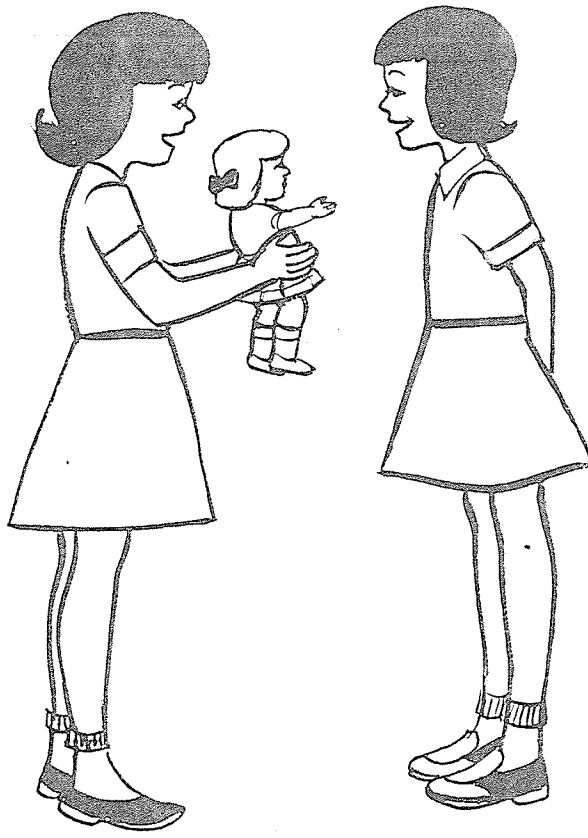
# Primary Self-Concept Inventory

Developed by:

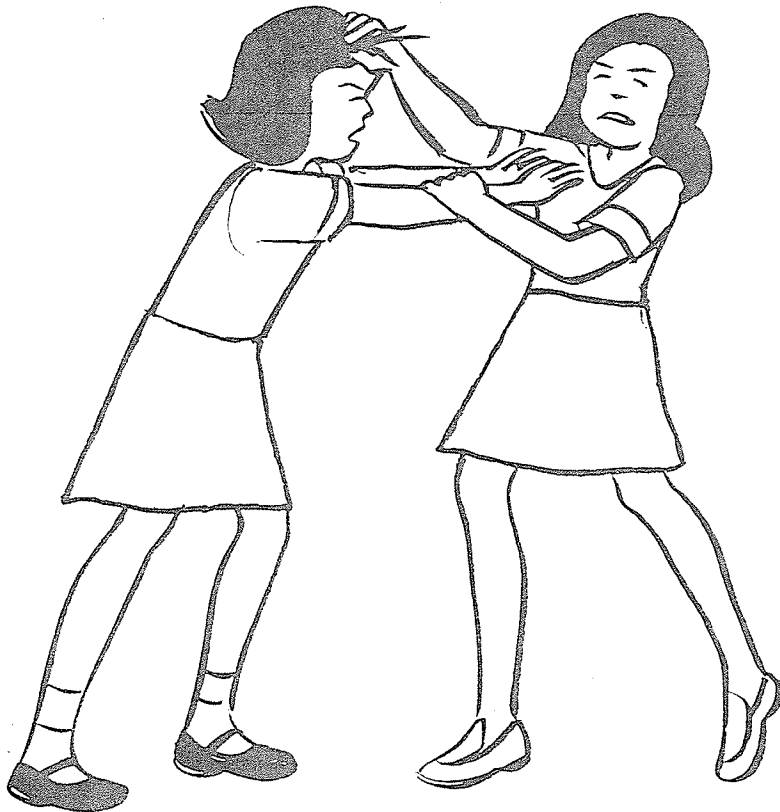
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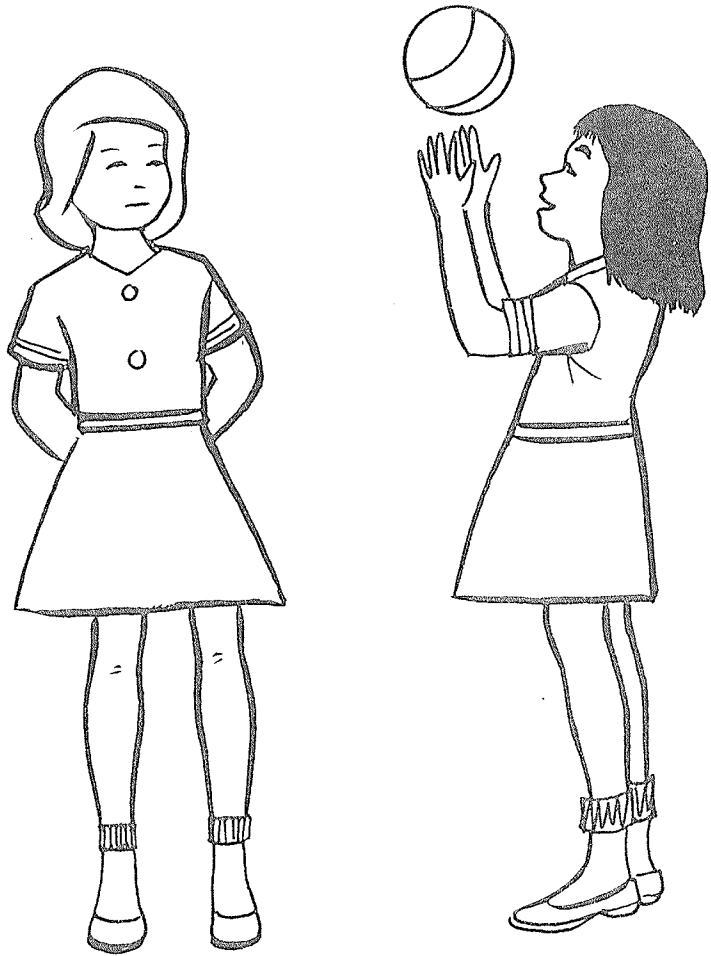
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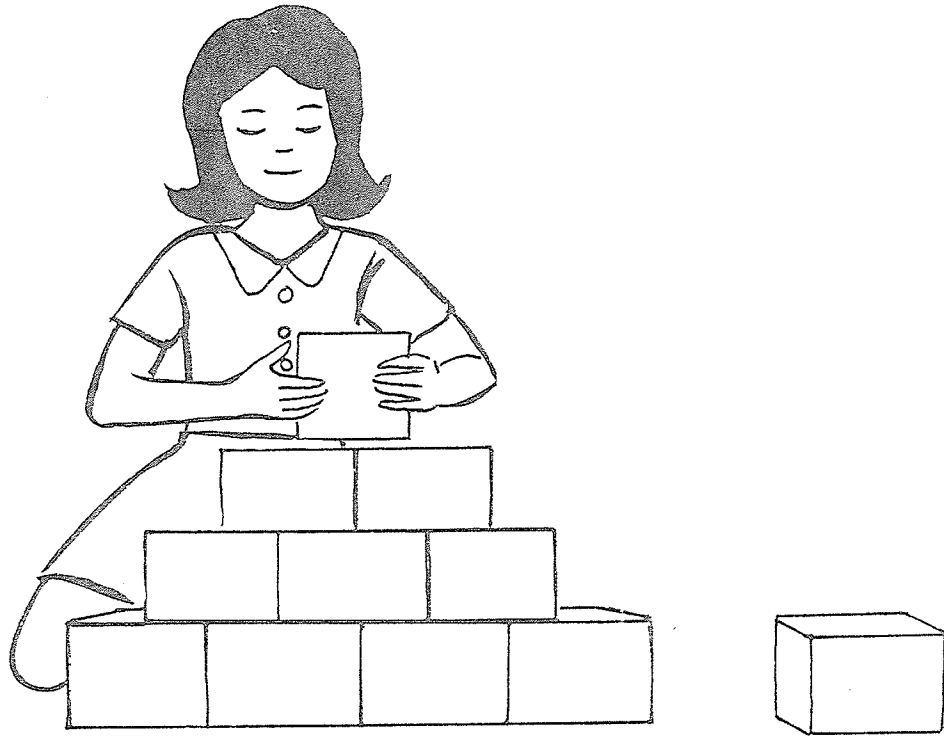
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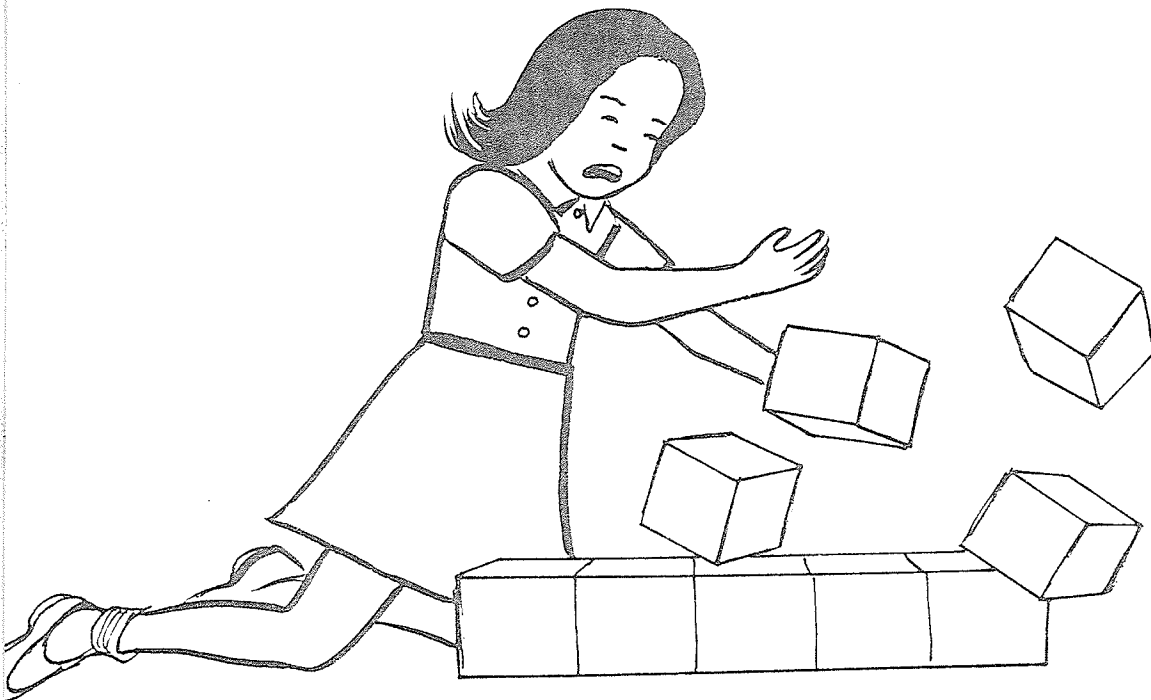
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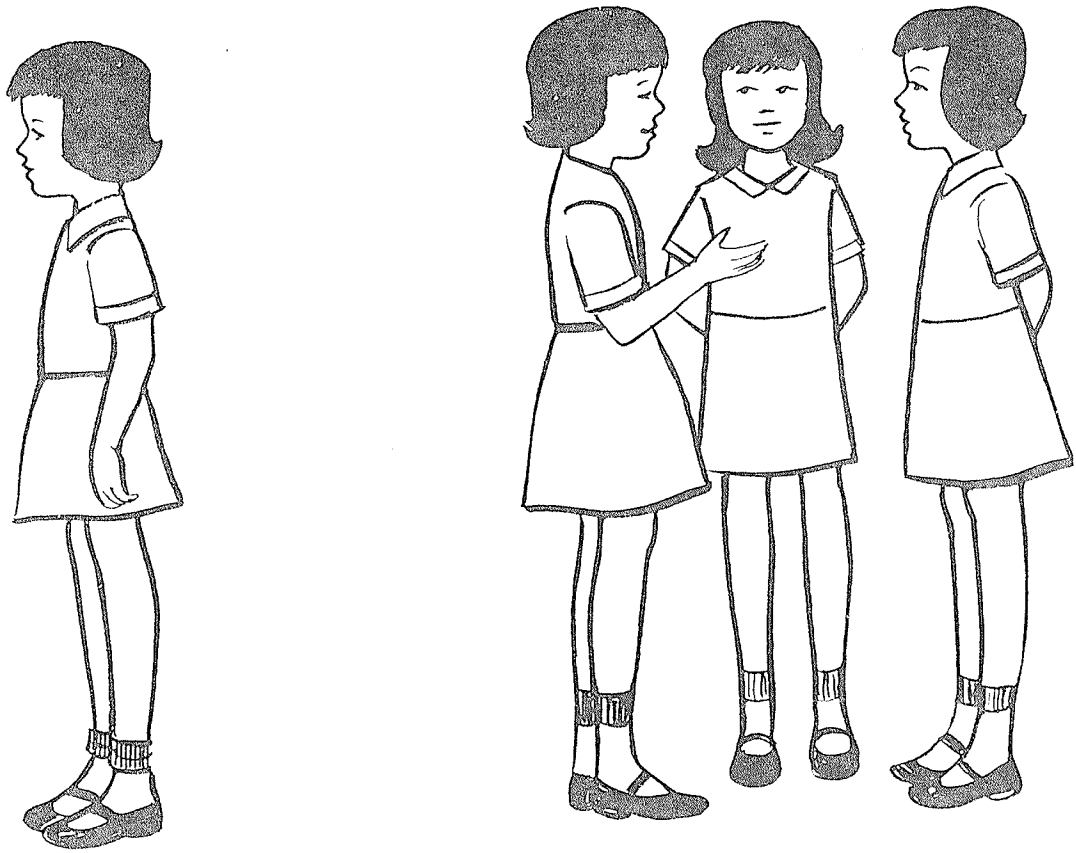
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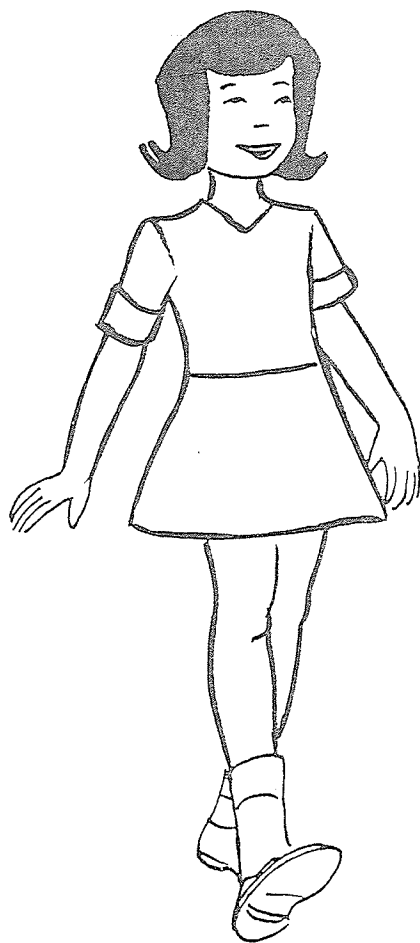
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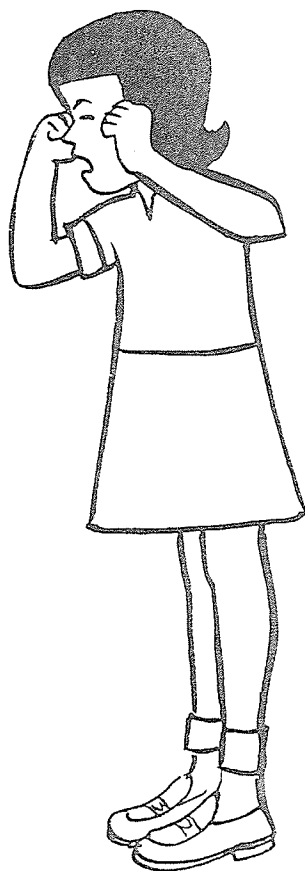
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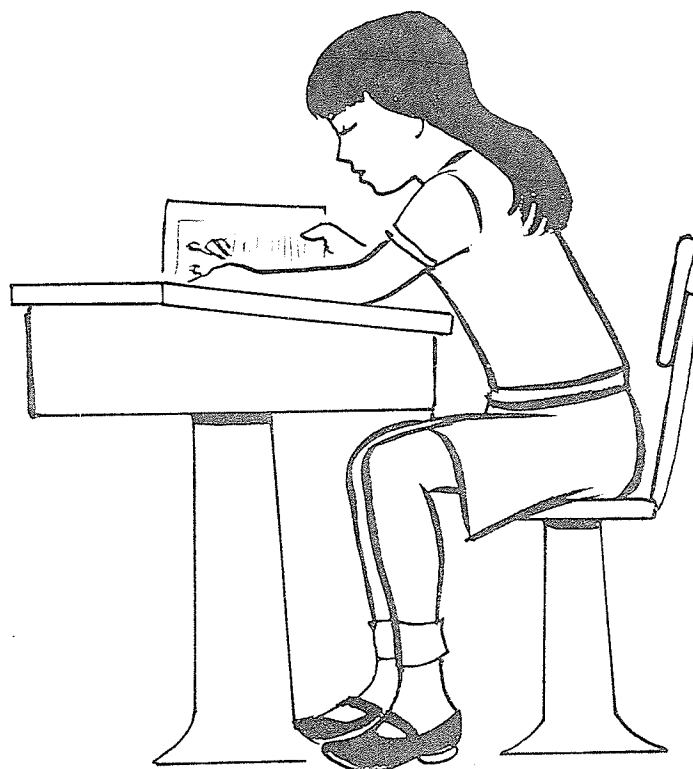
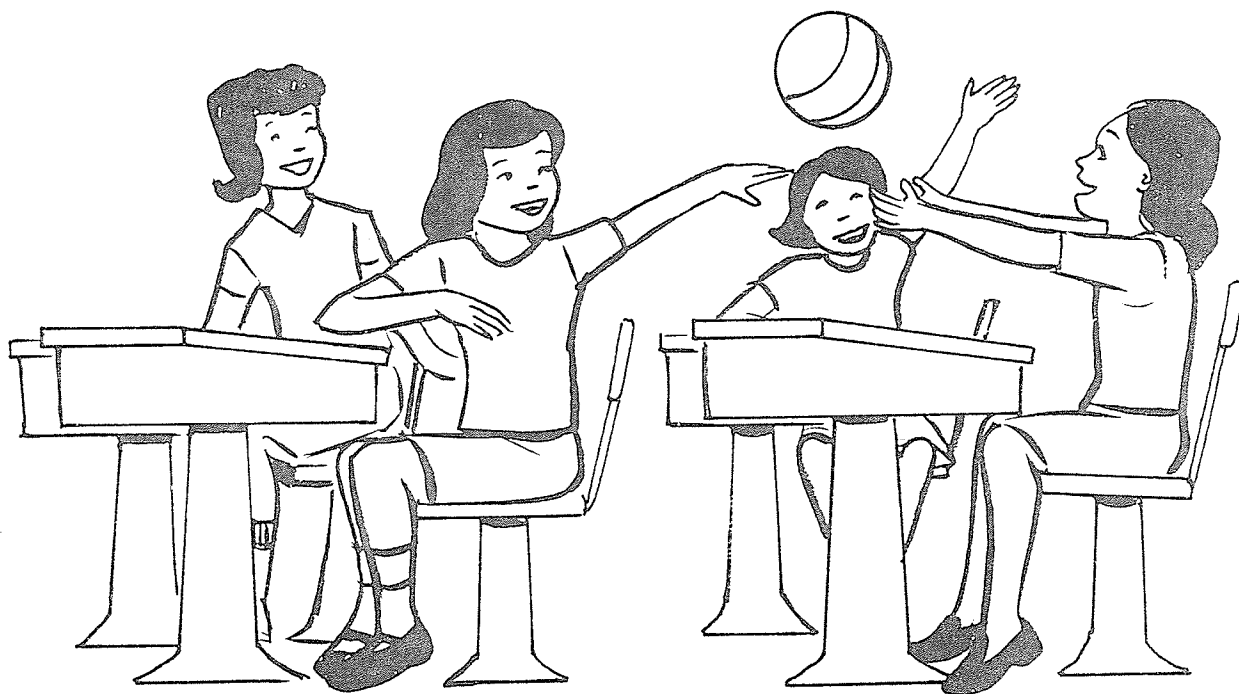
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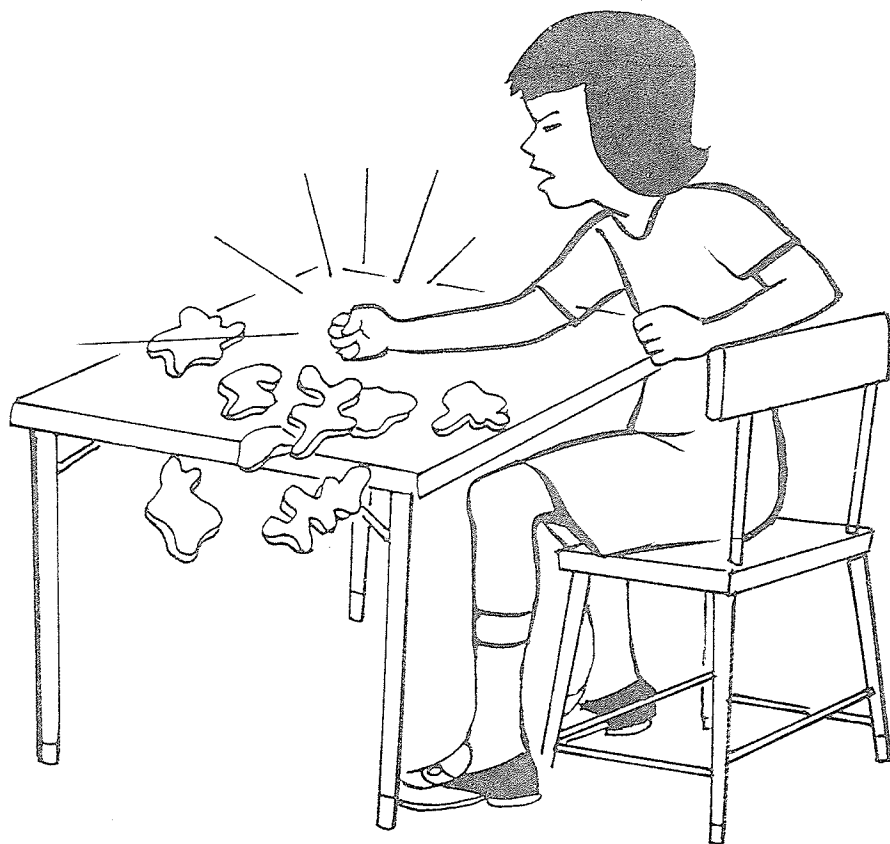


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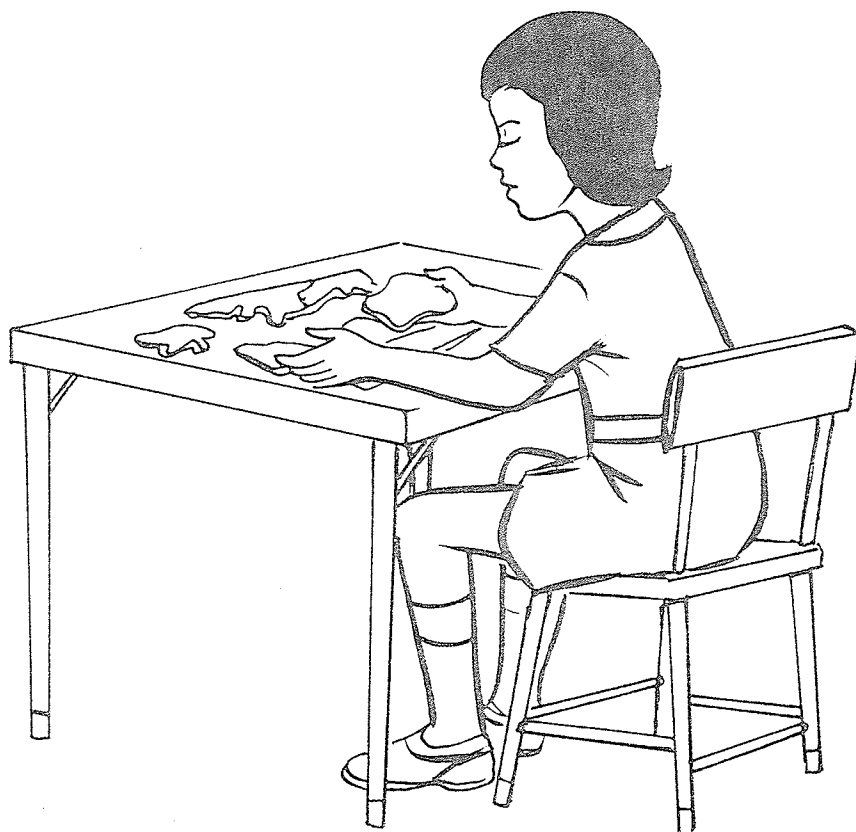


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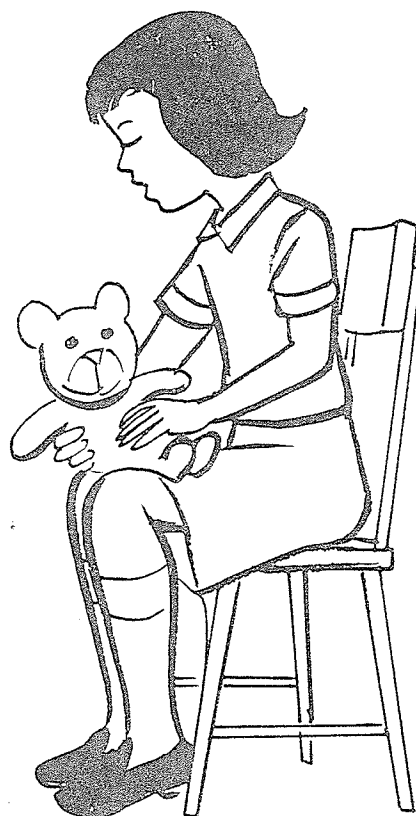
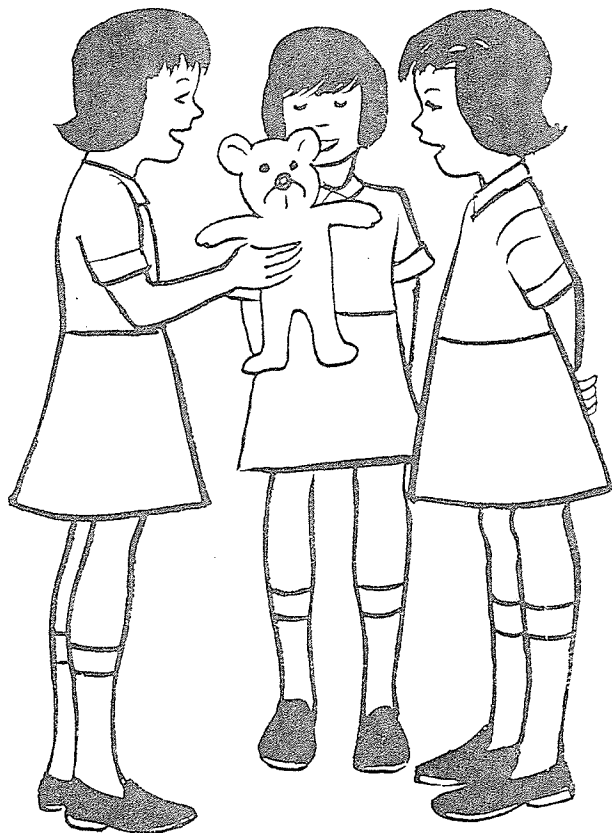


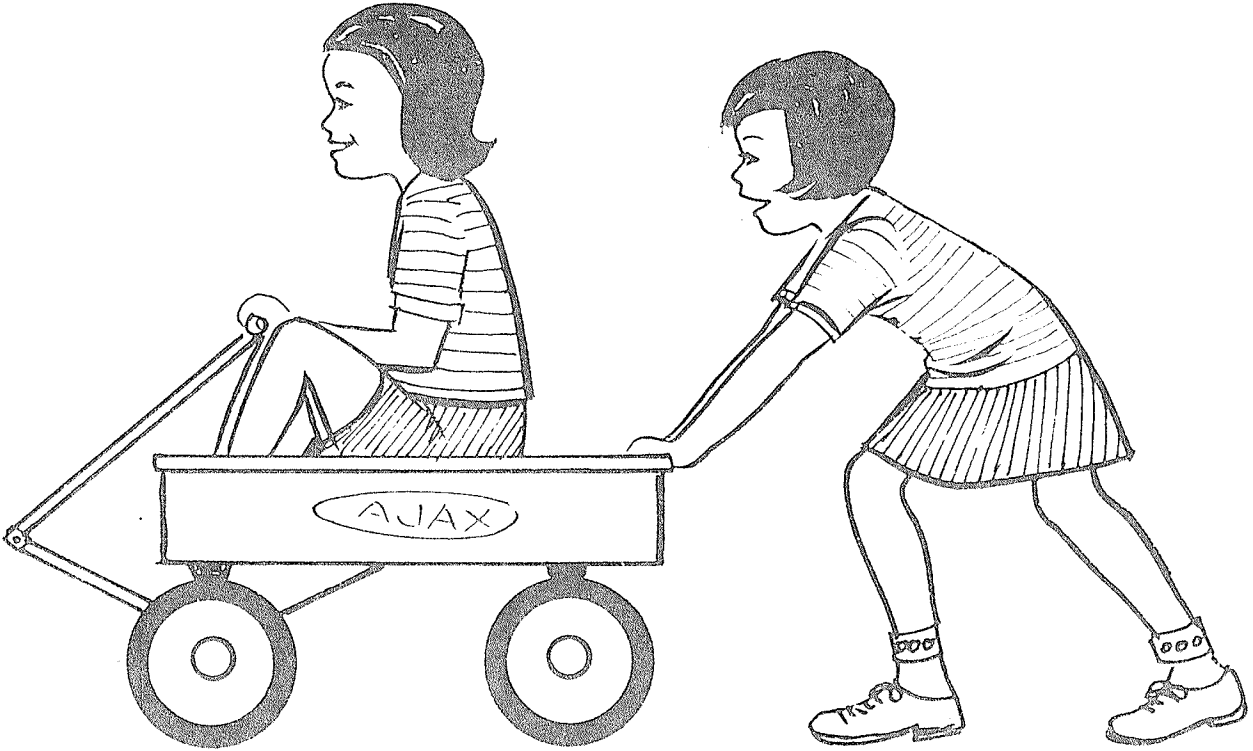


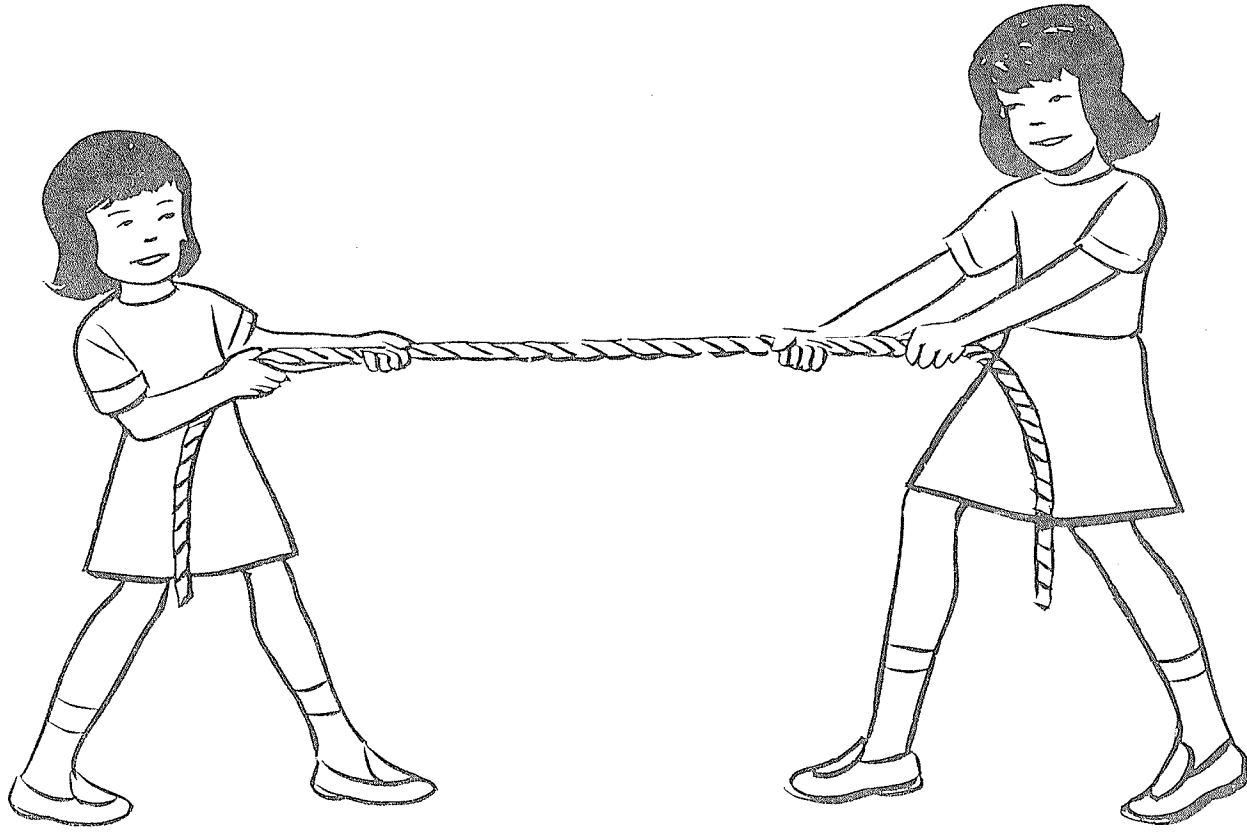
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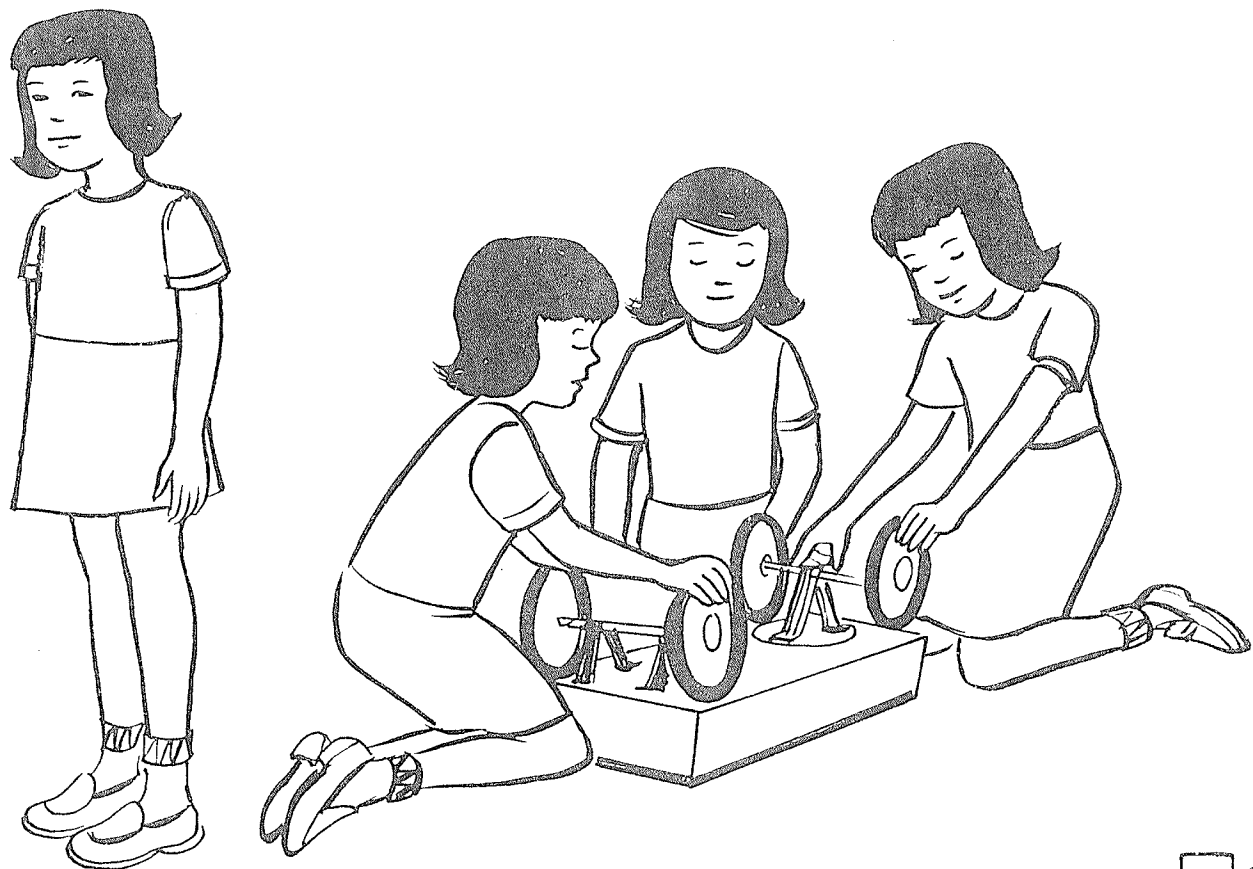
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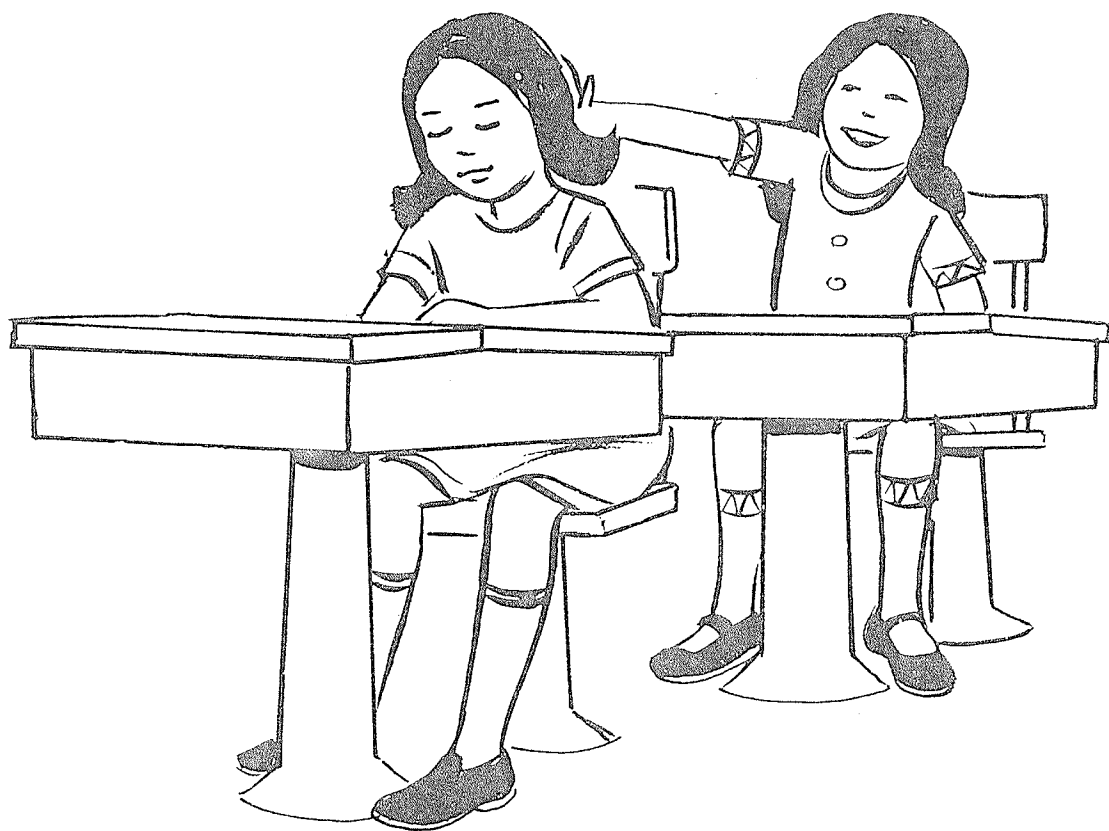




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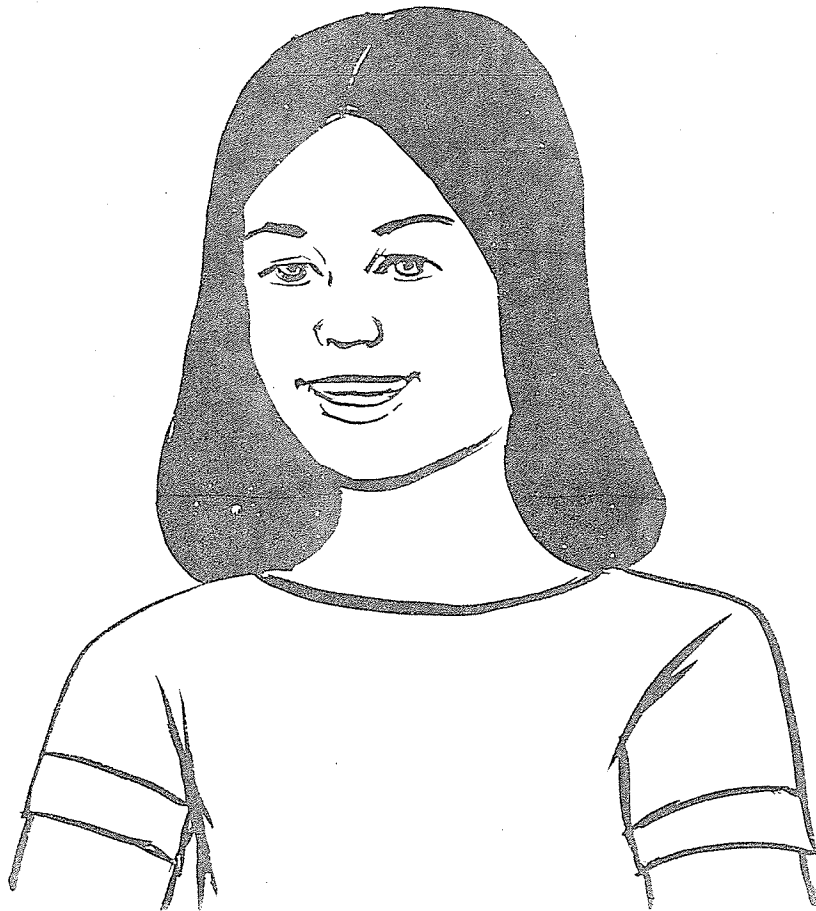
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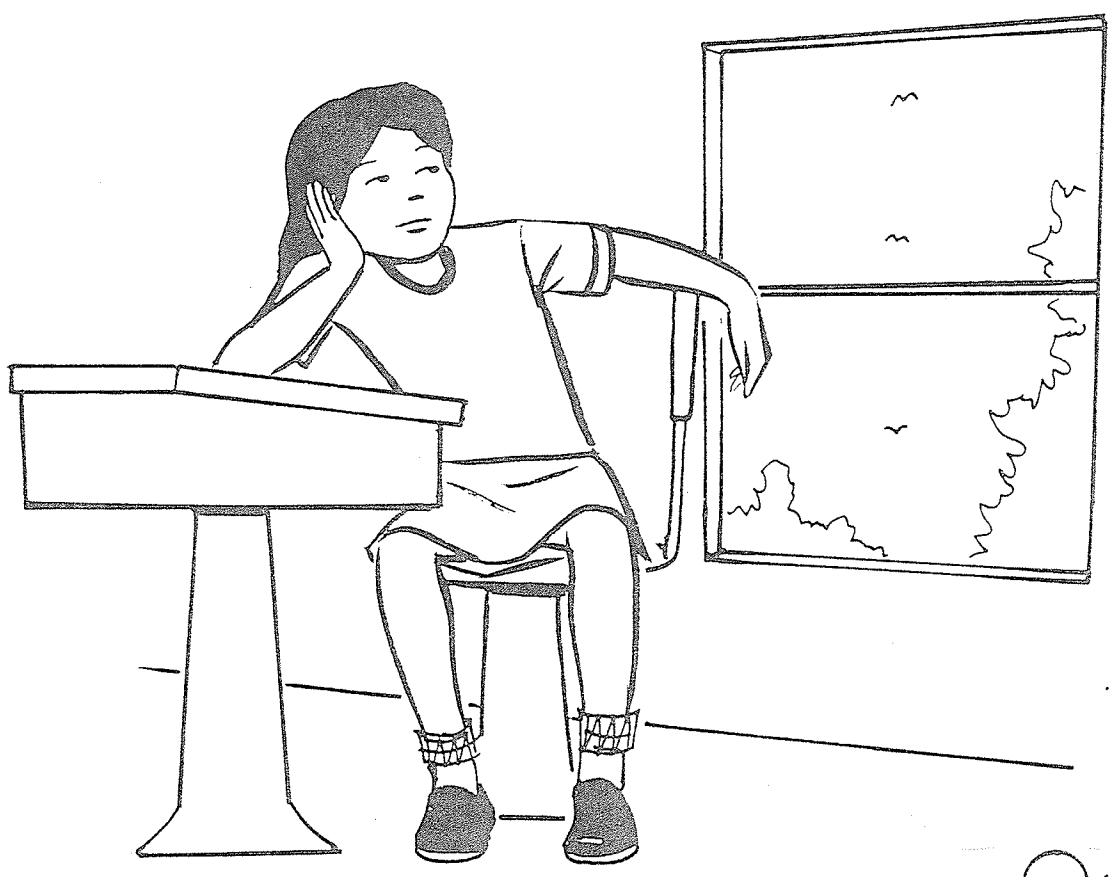
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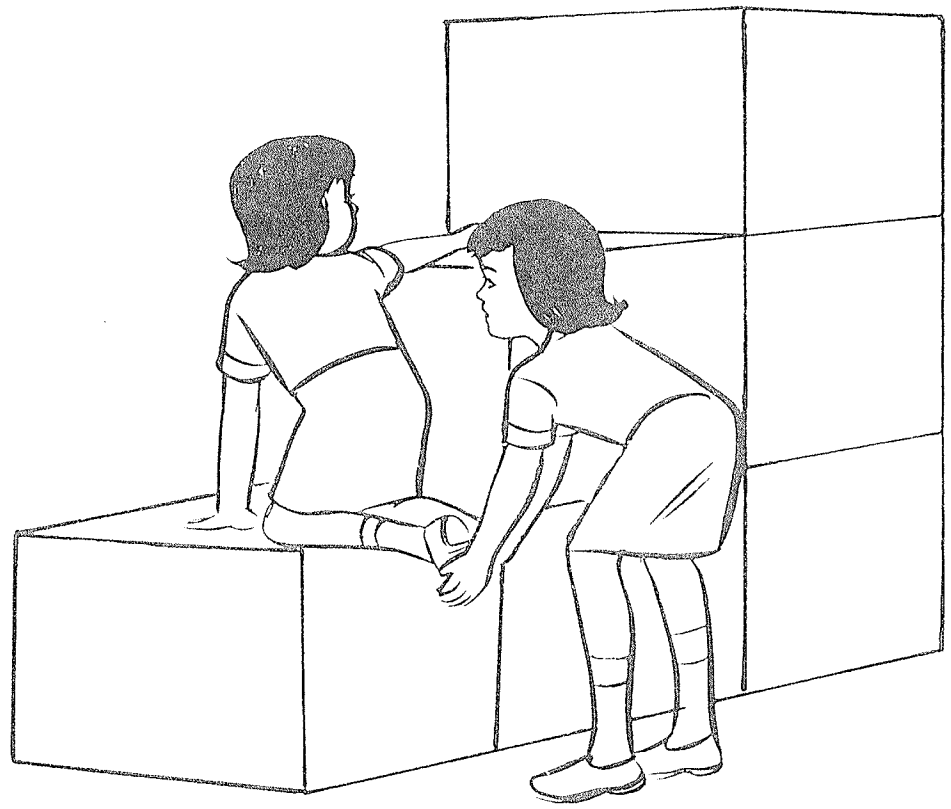


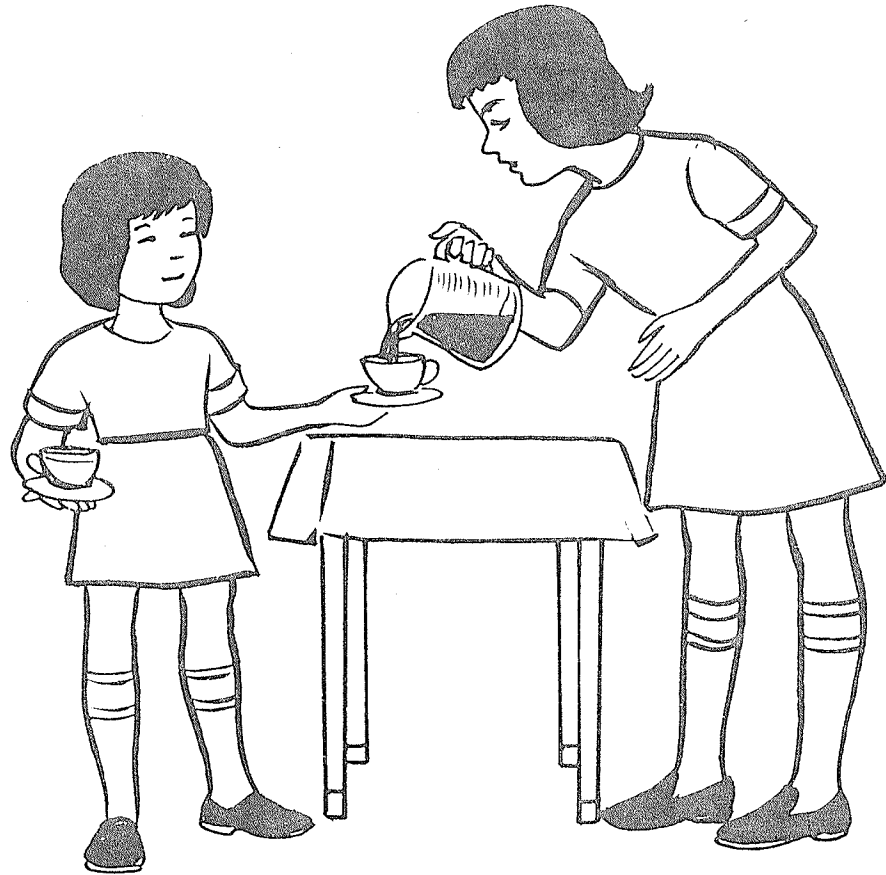
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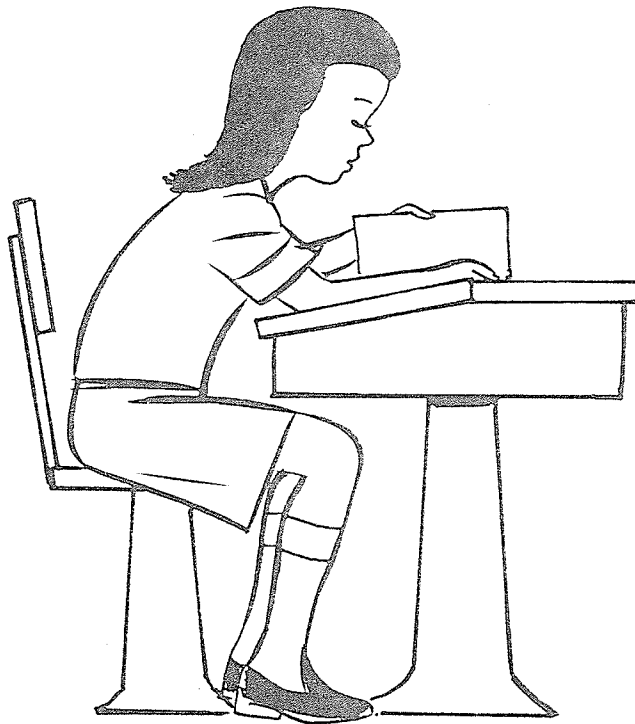


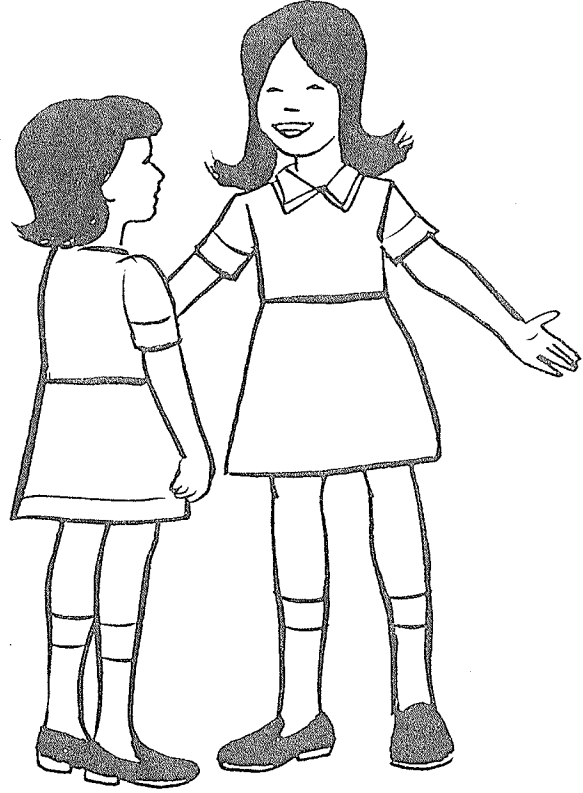
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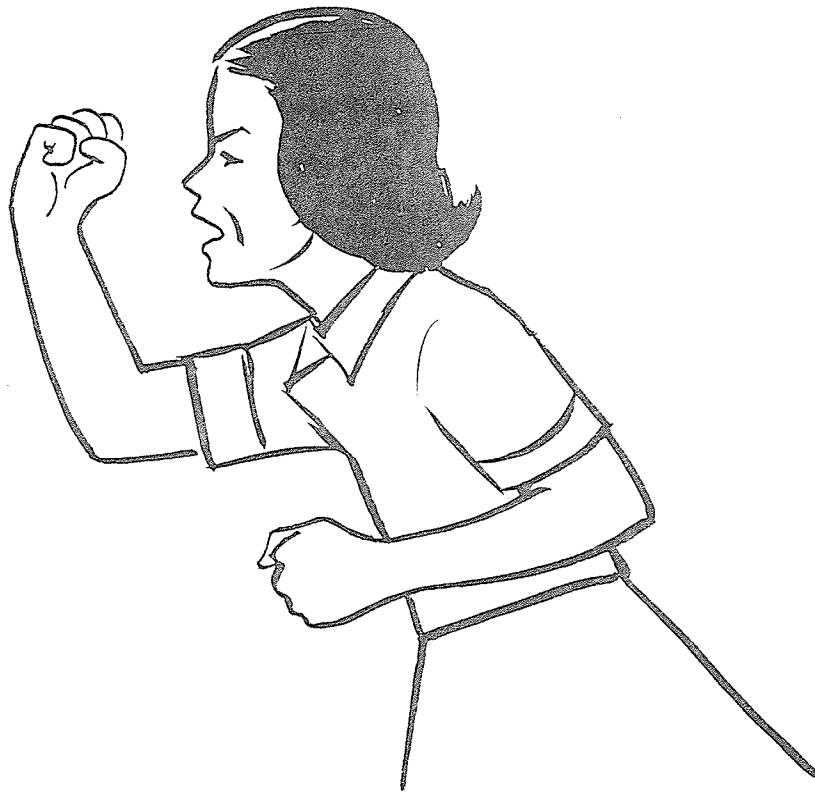




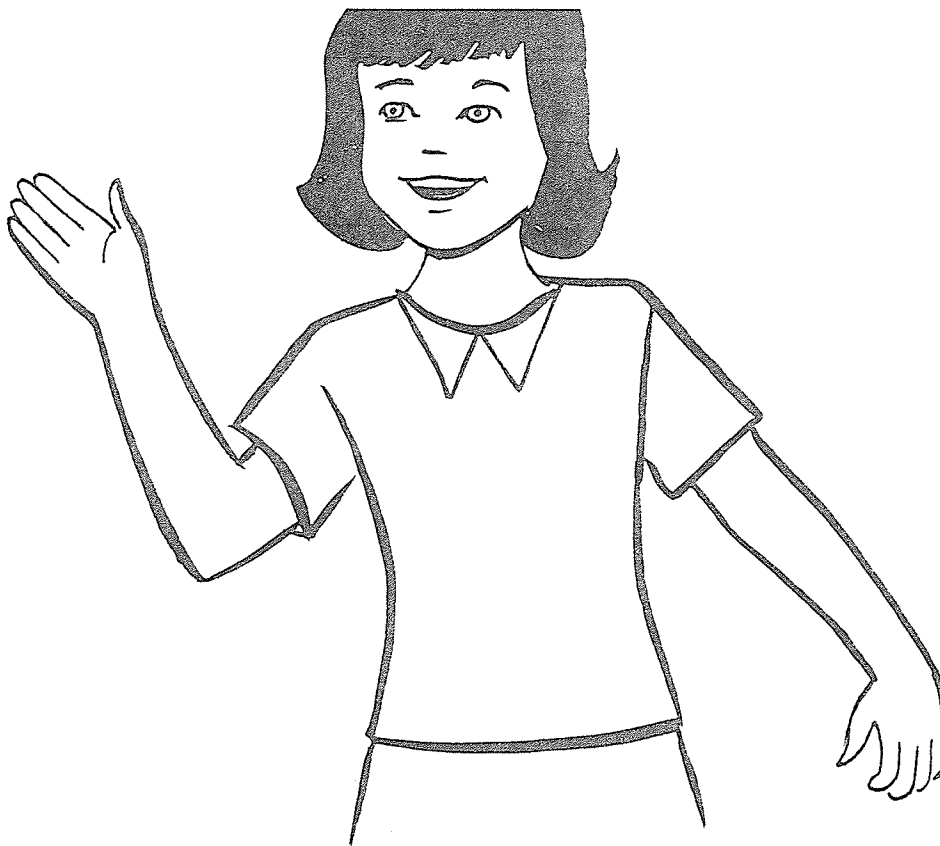




□ 19



○ 20



○ 20

Name \_\_\_\_\_ Date \_\_\_\_\_

Birthdate \_\_\_\_\_ Grade \_\_\_\_\_ Teacher \_\_\_\_\_

City \_\_\_\_\_ School \_\_\_\_\_

	<u>SCORE</u>	<u>ITEM NUMBER</u>
Factor I	_____	10, 16, 18
II	_____	5, 13, 20
Domain I	_____	
Factor III	_____	4, 8, 11
IV	_____	9, 15, 19
Domain II	_____	
Factor V	_____	3, 7, 17
VI	_____	6, 12, 14
Domain III	_____	
TOTAL	_____	

from Spence, 1980

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**TEST OF PERCEPTION OF EMOTION FROM FACIAL EXPRESSION**

Name:..... Age:..... Date of Birth: .....

Date of Test:..... Test Administrator: .....

**Instructions**

Place the card with the ten photographs in front of the subject, so that he is able to see all the faces clearly. Then explain the purpose of the test . . . 'Each of these faces shows a different feeling or emotion. I am going to say the name of a particular feeling and I would like you to show me which face shows that feeling. Is that clear? Now look carefully at all the faces one by one and show me which face looks . . . happy.'

If the subject fails to respond, guesses or fails to scan all the faces then repeat the instructions. For the remaining emotions, present them in the following order, simply saying, 'Now show me . . .'

	SCORE
(a) happy, pleased	
(b) disgusted, sickened	
(c) puzzled, confused, thinking	
(d) neutral, blank, not showing anything	
(e) angry, cross	
(f) frightened, afraid	
(g) sad, miserable	
(h) surprised	
(i) self-satisfied, pleased with themselves	
(j) bored, fed-up	

For all emotions score the first response made.

**SCORING KEY**

Score: — CORRECT RESPONSE 1

INCORRECT RESPONSE 0

QUESTION	a	b	c	d	e	f	g	h	i	j
CORRECT RESPONSE	2	6	7	9	1	5	3	8	10	4

TOTAL SCORE:



1



2



3



4



5



6



7



8



9



10

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**TEST FOR PERCEPTION OF EMOTIONAL EXPRESSION  
FROM POSTURE CUES**

Name:..... Age:..... Date of Birth: .....

Date of Test:..... Test Administrator:.....

**Instructions**

The card showing the figures should be placed in front of the subject. The instructions are then given... 'Show me which person is...'. If the correct figure is pointed to, then this is scored as correct on the score sheet. It is important that the administrator does not provide the subject with visual cues as to the correct answer. If the wrong figure is pointed to, or if the subject does not know the answer, then this is scored as an error for that figure on the score sheet. The first definite answer should be taken as the one to be scored. The subject should not be given excessive help in making his decision.

The instructions are repeated for all figures in the following order:—

F. J. G. A. H. B. I. C. D. E.

	EMOTIONAL EXPRESSION	SCORE
F	Sad, depressed	
J	Rejecting, doesn't want you	
G	Angry, furious	
A	Puzzled, thinking	
H	Shy	
B	Happy, excited	
I	Indifferent, gives up	
C	Self-confident, cocky	
D	Sneaking, suspicious	
E	Welcoming, friendly	
TOTAL SCORE		

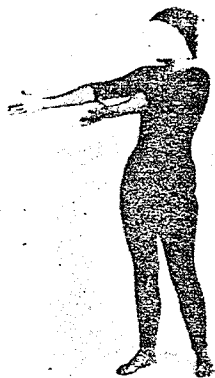
Score: — CORRECT RESPONSE 1  
INCORRECT RESPONSE 0



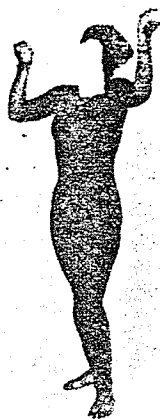
A



C



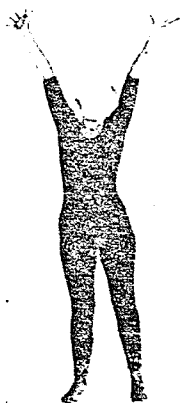
E



G



I



B



D



F



H



J

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from Spence, 1980

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**PERCEPTION OF EMOTIONAL EXPRESSION FROM GESTURE CUES**

Name:..... Age:..... Date of Birth: .....

Date of Test:..... Test Administrator: .....

**Instructions**

The following method is suggested for assessing the ability to perceive the meaning of gesture cues. You may wish to develop your own method along similar lines.

The administrator should sit facing the subject. The instructions are then given. . . 'I am going to show you some gestures or actions and I would like you to tell me what I am feeling or trying to tell you. I will show you the action and then give you a choice of five feelings. You have to tell me which one I was trying to show. Is that clear? Now, I am going to put on a face mask, so that you can't see my face while I'm doing the actions.'

At this point, the administrator puts on a face mask (for example, a stocking). 'Now, watch carefully while I show you the gestures or actions.' The administrator then demonstrates the first gesture. . . fist shaking. The choice is then given, 'What am I trying to tell you? Am I happy, angry, telling you to be quiet, showing you something, or worried?'

The first response made is the one to be scored. The instructions are repeated for the remaining gestures in the following order: —

GESTURE	CHOICE	CORRECT RESPONSE	SCORE
Fist shaking	Am I happy, angry, telling you to be quiet, showing you something, or worried?	Angry	
Beckoning	Am I bored, frightened, telling you to come here, agreeing with you, or disgusted?	Telling you to come here	
Warning	Am I warning you about something, happy, surprised, pleased with you, or sad?	Warning you about something	
Head shaking	Am I frightened, bored, telling you to come here, warning you, or disagreeing, saying 'No'?	Disagreeing, saying 'No'.	
Rejecting hand wave	Am I disagreeing, telling you to go away, showing you something, worried or sad?	Telling you to go away	
Stamping foot	Am I happy, pleased, being firm and rather angry, telling you to be quiet, or afraid?	Being firm and rather angry	
Pointing	Am I showing you something, angry, sad, disgusted, or telling you to go away?	Showing you something	
Finger to mouth	Am I warning you, frightened, bored, being firm, or telling you to be quiet?	Telling you to be quiet	
Head nodding	Am I disagreeing, being firm, agreeing and saying 'yes', angry, or worried?	Agreeing and saying 'yes'	
Clapping	Am I sad, pleased with something, digusted, telling you to be quiet, or disagreeing?	Pleased with something	
TOTAL			

CORRECT RESPONSE 1  
 INCORRECT OR NO RESPONSE 0

## CONVERSATION PROBE

(from Whitehill et al, 1980, page 219)

The Conversation Probe served as the major dependent measure for the present study. It consists of four, common interpersonal situations which present the child with the possibility to meet someone, to begin conversation, and to maintain conversation for a specified time period. Two of the scenes involve a same-sex partner and two involve an opposite-sex partner. An attempt was made to include situations that subjects were likely to encounter with other children at school. Similarity between scenes and typical daily encounters was expected to facilitate the subjects' ability to respond as they might in the natural environment. Two of the scenes were used as training items for all subjects. The remaining comprised the generalization scenes. Listed below are the four scenes of the Conversation Probe.

*Training scenes*

**Male model:** You are asked by the teacher (child's name), to work on a puzzle with several of your classmates, none of whom you know well. As the kids are coming together, you realize that you have never worked closely with any of them before, especially that one boy in the back of the room who seems to be looking in your direction...

**Female model:** Outside on the playground during recess (child's name), you notice that several children are getting together to play kickball. Although you have never played kickball with this group of children before, you really feel like playing. As you walk closer to the group, one of the girls makes a motion in your direction...

*Generalization scenes*

**Male model:** There is a new boy in your class (child's name), and this is his first day at school. He does not know anyone and looks lonely. You wish he felt happier. He sits down near you and looks at you...

**Female model:** It is lunch time (child's name), and there are not many seats available in the cafeteria. You finally find one next to the girl you have wanted to meet for several weeks. As you approach the one empty seat, she looks up at you...

The initial assessment consisted of three administrations of the entire Conversation Probe. The procedure described for pre-treatment assessment was the same as the procedure for all other probe administrations. In general, the subject was instructed to respond as realistically as possible to situations of the Conversation Probe. The following directions were read to each subject:

Hi (child's name). We are going to play a special kind of game now. From in here I am going to read a description of a situation that might occur at school; these are common, ordinary situations that you might find happen to you all the time. Now (child's name), after I read the description of this situation I would like you to begin a conversation about the situation with either Cindy or Doug (role models), who will be playing the parts of classmates of yours in the situation. I would also like you to *continue the conversation* until I tell you to stop. OK?

Now, I realize that Cindy and Doug are not really your classmates, and that you are not really in the situation I will describe. However, I would like you to *imagine* yourself in the situation as closely as possible, and imagine that Cindy and Doug really are your classmates. Do you think you can do that?

One more thing. In all cases you are to have a conversation with *either* Cindy *or* Doug, but *not with both of them*. And please remember to continue the conversation until I tell you to stop. OK?

Let's try this practice scene:

You are having difficulty with math these days (child's name), and would like to ask one of your classmates for help. One day, while in line for lunch, you notice that you are standing in front of Sally, the class math whiz...

Following the practice scene, probe sessions were conducted as follows: (1) the narrator read a description of a conversation; (2) the subject began conversation with one of the role-models; (3) the role-model responded in a way to facilitate a conversation; (4) after 1 min the conversation was stopped. Subjects' responses to all four Conversation Probe scenes were videotaped three times per week for 3 weeks. Retrospective ratings were made for three components of conversational skill, two accessory components, and for overall conversational ability.

BEHAVIORAL ASSERTIVENESS TEST FOR CHILDREN  
(from Bornstein et al, 1977, page 186)

*Female Model*

1. *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."

2. *Narrator:* Imagine you need to use a pair of scissors for a science project. Betty is using them, but promises to let you have them next. But when Betty is done she gives them to Ellen.

*Prompt:* "Here's the scissors, Ellen."

3. *Narrator:* Pretend you loaned your pencil to Joannie. She comes over to give it back to you and says that she broke the point.

*Prompt:* "I broke the point."

4. *Narrator:* "Imagine you're about to go to Art Class when Cindy asks you if she can use your desk while you're gone. You agree to let her use it, but tell her that you'll need it when you get back. When you come back from Art, Cindy says she still needs to use your desk.

*Prompt:* "I still need to use your desk."

*Male or Female Model*

5. *Narrator:* Your class is going to put on a play. Your teacher lists the parts, asking for volunteers. She reads a part you like and you raise your hand. But (Steve/Sue) raises (his/her) hand after you and says that (he/she) would like to get the part.

*Prompt:* "I want to play this part."

*Male Model*

6. *Narrator:* You're playing a game of kick-ball in school and it's your turn to get up. But Bobbie decides he wants to get up first.

*Prompt:* "I want to get up."

7. *Narrator:* Imagine you're playing a game of four squares in gym. You make a good serve into Barry's square. But he says that it was out and keeps the ball to serve.

*Prompt:* "It's my turn to serve."

8. *Narrator:* You're in school and you brought your chair to another classroom to watch a movie. You go out to get a drink of water. When you come back Mike is sitting in your seat.

*Prompt:* "I'm sitting here."

9. *Narrator:* Imagine you're standing in line for lunch. Jon comes over and cuts in front of you.

*Prompt:* "Let me cut in front of you."

## Analogue Assessment from Rinn et al, 1979b

1.	<p><b>NARRATIVE:</b> You are having trouble working the divisions in Mathematics. A friend sitting next to you is really smart! She says,</p> <p><b>PROMPT:</b> "Did you work all the division problems?"</p> <p>Making simple request</p>
2.	<p><b>NARRATIVE:</b> The girl next to you looks exceptionally nice today, especially her hair. She says,</p> <p><b>PROMPT:</b> "I just got my hair done, do you like it?"</p> <p>Praising and complimenting others</p>
3.	<p><b>NARRATIVE:</b> You have lived in Huntsville prior to moving to Decatur, but find that you like Decatur better. The student next to you says,</p> <p><b>PROMPT:</b> "Decatur is the worst place in the world to live!"</p> <p>Disagreeing with others</p>
4.	<p><b>NARRATIVE:</b> You haven't received your spelling test back yet. Your friend sitting next to you says,</p> <p><b>PROMPT:</b> "Look at my spelling paper; I made 100 A+!"</p> <p>Praising and complimenting others</p>
5.	<p><b>NARRATIVE:</b> Your teacher has given you two tickets to Point Mallard to go swimming. She knows how you like swimming. You want to go but not by yourself. You meet a friend and he (she) says,</p> <p><b>PROMPT:</b> "Are you going swimming today?"</p> <p>Making simple request</p>

## Analogue Assessment from Rinn et al, 1979b

6.	<p><b>NARRATIVE:</b> You took the weekly spelling test. You really studied hard. When you got your spelling paper back, you have an "A." Your friend comes up to you and says,</p> <p><b>PROMPT:</b> "Boy! How did you spell all those words? I could spell only half of them. You sure are smart."</p> <p>Accepting compliments</p>
7.	<p><b>NARRATIVE:</b> You and your friends are watching Decatur High School play football. The referee calls a bad call against the other team. Your friend says,</p> <p><b>PROMPT:</b> "Hey, that was really a bad call by the referee."</p> <p>Agreeing with another's opinion</p>
8.	<p><b>NARRATIVE:</b> Your best friend called and told you that he was moving to S.W. Decatur. He will no longer be going to Somerville Road School. He has been in your class ever since kindergarten. A friend walks up and says,</p> <p><b>PROMPT:</b> "Hey, did you hear about our friend moving?"</p> <p>Feeling statement (Sadness)</p>
9.	<p><b>NARRATIVE:</b> You are wearing your new clothes. They were given to you for your birthday. While doing board work, a classmate turns to you and says,</p> <p><b>PROMPT:</b> "Wow! That outfit is really sharp. You look great. I wish that I owned an outfit like that."</p> <p>Accepting compliments</p>

## Analogue Assessment from Rinn et al, 1979b

10.	<p><b>NARRATIVE:</b> The principal, Mr. Masterson, announces no school on Friday. The student next to you says,</p> <p><b>PROMPT:</b> "Isn't that great?"</p> <p>Feeling statement (Happiness)</p>
11.	<p><b>NARRATIVE:</b> You and your friends are starting a club. You have thought of a good name, "The Champs." Your friend turns to you and asks,</p> <p><b>PROMPT:</b> "Do you have a name?"</p> <p>Expressing opinion</p>
12.	<p><b>NARRATIVE:</b> You have just returned from Spring Vacation. You have lost your spelling book. Your friend is looking at you and says,</p> <p><b>PROMPT:</b> "How are you doing?"</p> <p>Making simple request</p>
13.	<p><b>NARRATIVE:</b> Your favorite teacher tells the class that she will give a test in science tomorrow. Everyone is griping because her tests are hard. Someone says to you,</p> <p><b>PROMPT:</b> "I think we ought to tell her we don't want to take her old test, don't you?"</p> <p>Expressing opinion</p>
14.	<p><b>NARRATIVE:</b> You really like your teacher. She is your favorite teacher. A boy in your class says,</p> <p><b>PROMPT:</b> "This teacher is the worst in history."</p> <p>Disagreeing with others</p>
15.	<p><b>NARRATIVE:</b> Your teacher gave a pop quiz, and the class had not studied. It is a quiz on multiplication tables. One of your classmates says,</p> <p><b>PROMPT:</b> "I don't think that was fair of the teacher to give a test on times when we have not studied."</p> <p>Agreeing with another's opinion</p>

REFERENCES

- Allen, K. E., Benning, P. M. and Drummond, T. "Integration of normal and handicapped children in a behavior modification pre-school: A case study". Paper presented at the Third Annual Conference on Behavior Analysis in Education, Lawrence, Kansas, 1972.
- Allen, K.E., Hart, B., Buell, I. S., Harris, F. R. and Wolf, M. M. "Effects of social reinforcement on isolate behavior of a nursery school child". Child Development, 1964, 35, 511-518.
- Asher, S. R. "Coaching socially isolated children in social skills". Paper presented at the annual meeting of the Association for Advancement of Behavior Therapy, Atlanta, December, 1977.
- Asher, S. R., Markell, R. A. and Hymel, S. "Identifying children at risk in peer relations: A critique of the rate-of-interaction approach to assessment". Child Development, 1981, 52, 1239-1245.
- Asher, S. R. and Parke, R. D. "Influence of sampling and comparison processes on the development of communication effectiveness". Journal of Educational Psychology, 1975, 67, 64-75.
- Baer, D. M., Wolf, M. M., and Risley, T. R. "Some current dimensions of applied behavior analysis". Journal of Applied Behavior Analysis, 1968, 1, 91-97.
- Bandura, A. Principles of Behavior Modification, New York, Holt, 1969.
- Barclay, J. R. "Interest patterns associated with measures of social desirability". Personnel and Guidance Journal, 1966, 45, 56-60.
- Baron, D. "Personal-social characteristics and classroom social status: A sociometric study of 5th and 6th grade girls". Sociometry, 1951, 14, 32-41.
- Barrett, David E. and Yarrow, Marion Radke. "Prosocial behavior, social inferential ability, and assertiveness in children". Child Development, 1977, 48, 475-481.
- Beck, S., Forehand, R., Wells, K.C. and Quante, Q. "Social skills training with children: An examination of generalization from analogue to natural settings". Unpublished manuscript, University of Georgia, 1978.
- Becker, W. C. "The relationship of factors in parental ratings of self and each other to the behavior of kindergarten children as rated by mothers, fathers, and teachers". Journal of Consulting Psychology, 1960, 24, (6), 507-527.

- Bellack, A. S. and Hersen, M. "Social skills training". Behavior Modification: An Introductory Textbook, New York, Oxford University Press, 1977.
- Bellack, A. S., Hersen, M. and Turner, S. "Role-play tests for assessing social skills: Are they valid?" Behavior Therapy, 9, 448-461, 1978.
- Bonney, M. E. and Powell, J. "Differences in social behavior between sociometrically high and sociometrically low children". Journal of Educational Research, 1953, 46, 481-495.
- Bornstein, Mitchell R., Bellack, Alan S. and Hersen, Michael. "Social skills training for unassertive children: A multiple baseline analysis". Journal of Applied Behavior Analysis, 1977, 10, 183-195.
- Bornstein, M., Bellack, A. S. and Hersen, M. "Social skills training for highly aggressive children". Behavior Modification, 4, (2) 1980, 173-186.
- Bouchard, Marc-Andre, Wright, J., Mathieu, M., Lalonde, F., Bergeron, G. and Toupin, J. "Structured learning in teaching therapists social skills training: Acquisition, maintenance, and impact on client outcome". Journal of Consulting and Clinical Psychology, 1980, 48 (4), 491-502.
- Bower, S., Matea, E. and Anderson, R. "Assertive training with children". Elementary School Guidance and Counseling, 1976, 8, 236-245.
- Breiner, J. and Forehand, R. "An assessment of the effects of parent training on clinic-referred children's school behavior". Behavioral Assessment, 3, 31-42, 1981
- Brown, D. "Factors affecting social acceptance of high school students". School Review, 1954, 62, 151-155.
- Buell, J., Stoddard, B., Harris, F. R. and Baer, D. M. "Collateral social development accompanying reinforcement of outdoor play in a pre-school child". Journal of Applied Behavior Analysis, 1968, 1, 167-173.
- Calpin, J. P., and Cinciripini, P.M. "A multiple baseline analysis of social skills training in children". Corrective and Social Psychiatry and Journal of Behavior Technology, Methods and Therapy, 1980, 26 (4) 172-178.
- Calpin, J. P. and Kornblith, S. J. "Training aggressive children in conflict resolution skills". Paper presented at the Annual Meeting of the Association for the Advancement of Behavior Therapy, Chicago, 1978.

- Campbell, J. D. and Yarrow, M. R. "Perceptual and behavioral correlates of social effectiveness". Sociometry, 1961, 24, 1-20.
- Charlesworth, R. and Hartup, W. W. "Positive social reinforcement in the nursery school peer group". Child Development, 1967, 38, 993-1003.
- Chittenden, Gertrude, E. "An experimental study in measuring and modifying assertive behavior in young children". Monographs of the Society for Research in Child Development, vol. VII, No. 1, (Serial no. 3).
- Clifford, E. "Social visibility". Child Development, 1963, 34, 799-808.
- Combs, M. L. and Lahey, B. B. "A cognitive social skills training program." Behavior Modification, 5, (1), 1981, 39-60.
- Combs, M. L. and Slaby, D. A. "Social skills training with children". Advances in Clinical Child Psychology, Vol. 1, ed, Lahey, B. B. and Kazdin, A. S., New York, Plenum, 1977.
- Cooke, T. P. and Apolloni, T. "Developing positive social-emotional behaviors: A study of training and generalization effects". Journal of Applied Behavior Analysis, 1976, 9, 65-78.
- Coopersmith, S. The Antecedents of Self-Esteem. Freeman, San Francisco, 1967.
- Cowen, E. L., Pederson, A., Babigian, H., Izzo, L., and Trost, M. A. "Long-term follow-up of early detected vulnerable children". Journal of Consulting and Clinical Psychology, 1973, 41, 438-446.
- Curran, James P. "Comments on Bellack, Hersen and Turner's paper on the validity of role-play tests". Behavior Therapy, 9, 462-468, 1978.
- Curran, J. P. and Mariotto, M. J. "A conceptual structure for the assessment of social skills". Progress in Behavior Modification, volume 10, 1-37, Academic Press, Inc. 1980.
- D'Amico, W. "Revised Rathus Assertiveness Scale for Children, Grades 3 - 8". Marblehead, Mass: Educational counseling and consulting service, 1976.
- Durlak, J. A. and Mannarino, A. P. "The social skills development program: Description of a school-based preventive mental health program for high risk children". Journal of Clinical Child Psychology, 1977, 6, 48-52.
- Eisler, R. M., Miller, P. M. and Hersen, M. "Components of assertive behavior". Journal of Clinical Psychology, 1973, 29, 295-299.

- Eisler, R. M. Hersen, M., Miller, P. M. and Blanchard, E. B. "Situational determinants of assertive behavior". Journal of Consulting and Clinical Psychology, 1975, 43, 330-340.
- Elkind, D. "Piaget's conceptions of right and left: Piaget replication study IV". Journal of Genetic Psychology, 1961, 99, 269-276.
- Evers, W. and Schwatz, J. "Modifying social withdrawal in pre-schoolers: The effects of filmed modelling and teacher praise". Journal of Abnormal Child Psychology, 1973, 1, 248-256.
- Evers-Pasquale, W. L. "The peer preference test as a measure of reward value: Item analysis, cross-validation, concurrent validation and replication". Journal of Abnormal Child Psychology, 1978, 6, 175-188.
- Evers-Pasquale, W. and Sherman, M. "The reward value of peers: A variable influencing the efficacy of filmed modelling in modifying social isolation in pre-schoolers". Journal of Abnormal Child Psychology, 1975, 3, 179-189.
- Feffer, M. and Gourevitch, V. "Cognitive aspects of role-taking in children". Journal of Personality, 1960, 28, 384-396.
- Filipczak, J. Archer, M. and Friedman, R. M. "In school social skills training: Use with disruptive adolescents". Behavior Modification, 4 (2), 1980, 243-263.
- Flavell, J. H., Botkin, R. T., Fry, C. L., Wright, J. W. and Jarvis, D. E. The Development of Role-Taking and Communication Skills in Children. New York, Wiley, 1968.
- Forehand, R. and Atkeson, B. M. "Generality of treatment effects with parents as therapists: A review of assessment and implementation procedures". Behavior Therapy, 8, 575-593, 1977.
- Foster, S. L. and Ritchey, W. L. "Issues in the assessment of social competence in children". Journal of Applied Behavior Analysis, 1979, 12 (4), 625-638.
- Garfield, S. L. "Research on the training of professional psychotherapists". In A. Gurman and A. Razin (Eds) The Therapist's Contribution to Effective Psychotherapy: Empirical Assessment, N.Y., Pergamon, 1977.
- Getsen, E. L. "A Health Resources Inventory: The development of a measure of the personal and social competence of primary grade children". Journal of Consulting and Clinical Psychology, 1976, 44 (5), 775-786.

- Gittelman, Martin. "Behavior rehearsal as a technique in child treatment". Journal of Child Psychology and Psychiatry, 6, 1965, 251-255.
- Golan, Naomi, Treatment in Crisis Situations. Free Press, N.Y., 1978.
- Goldsmith, J. B. and McFall, R. M. "Development and evaluation of an inter-personal skill-training program for psychiatric in-patients". Journal of Abnormal Psychology, 1975, 84, 51-58.
- Goodwin, S. F. and Mahoney, M. D. "Modification of aggression through modelling: An experimental probe". Journal of Behavior Therapy and Experimental Psychiatry, 1975, 6, 200-202.
- Gottman, J. M. "Toward a definition of social isolation in children". Child Development, 1977, 48, 513-517.
- Gottman, J., Gonso, J. and Rasmussen, B. "Social interaction, social competence, and friendship in children". Child Development, 1975, 46, 709-718.
- Gottman, J., Gonso, J. and Schuler, P. "Teaching social skills to isolated children". Child Development, 1976, 4, 179-197.
- Green, K. D. and Forehand, R. "Assessment of children's social skills". Journal of Behavioral Assessment, 2 (2) 1980, 143-159.
- Greenwood, C. R., Walker, H. M., Todd, N. M., and Hops, H. "Pre-school teachers assessments of social interaction: Predictive success and normative data". Report No. 26, Eugene Center at Oregon for Research in the Behavioral Education of the Handicapped, University of Oregon, Eugene, Oregon, 1976.
- Greenwood, C. R., Walker, N. M. and Hops, H. "Issues in social interaction/withdrawal assessment". Exceptional Children, 1977, 43, 490-499.
- Gresham, F. M. "Validity of Social Skills Measures for Assessing Social Competence in Low Status Children: A Multivariate Investigation". Developmental Psychology, 198, 17 (4), 390-398.
- Gresham, F. M. and Nagle, R. J. "Social skills training with children: Responsiveness as a function of peer orientation". Journal of Consulting and Clinical Psychology, 1980, 48, (6), 718-729.
- Gronlund, H. and Anderson, C. "Personality characteristics of socially accepted, socially neglected and socially rejected junior high school pupils". in J. Seidman (Ed) Education for Mental Health Cromwell, N. Y., 1963.
- Gross, A. M., Brigham, T. A., Hopper, C. and Bologna, N. C. "Self-management and social skills training with pre-adolescent and

- delinquent youths". Paper presented at the Annual Meeting of the Southeastern Psychological Association, New Orleans, Louisiana, 1979.
- Guinoured, D. E. and Rychlak, J. F. "Personality correlates of sociometric popularity in elementary school children". Personnel and Guidance Journal, 1962, 40, 438-442.
- Harper, G. F. "Relationship of specific behaviors to the academic achievement and social competence of kindergarten, first and second grade children". Unpublished doctoral dissertation. Kent State University, 1976.
- Hartup, W. W. "Peer interaction and social organization" in P. H. Mussen (Ed.) Psychology (Vol. 2) N. Y., Wiley, 1970.
- Hartup, W. W., Glazer, J. A., and Charlesworth, R. "Peer reinforcement and sociometric status". Child Development, 1967, 38, 1017-1021.
- Heimberg, R. L., Montgomery, D., Madsen, C. H., and Heimberg, J. S. "Assertion training: A review of the literature", Behavior Therapy, 1977, 8, 953-971.
- Herjanic, B., Herjanic, M., Brown, F. and Wheatt, T. "Are children reliable reporters?" Journal of Abnormal Child Psychology, 3 (1) 1975, 41-48.
- Hersen, M. "Limitations and problems in the clinical application of behavioral techniques in psychiatric settings". Behavior Therapy, 10, 65-80, 1979.
- Hersen, M. and Bellack, A. S. "A multiple baseline analysis of social skills training in chronic schizophrenics". Journal of Applied Behavior Analysis, 1976, 9, 239-245.
- Hersen, M., Eisler, R. M., Miller, P. M., Johnson, M. B. and Pinkston, S. G. "Effects of practice, instructions and modelling on components of assertive behavior". Behavior Research and Therapy, 1973, 11, 443-451.
- Hops, H., Fleischman, D. H., Guild, J. J., Paing, S. C., Wahler, H. M. and Greenwood, C. R. "Peers (program for socially withdrawn children)" Center at Oregon for research in behavioral education for the handicapped. Center on human development, University of Oregon, 1978.
- Hymel, S. and Asher, S. R. "Assessment and training of isolated children's social skills". Paper presented at the biennial meeting of the Society for Research in Child Development, New Orleans, March 1977.

- Izard, Carroll E. The Face of Emotion. Meredith Corporation, New York, 1971.
- Johnston, M. K., Kelley, C. S., Harris, F. R., Wolf, M. M. and Baer, D. M. "Effects of positive social reinforcement on isolate behavior of a nursery school child". Unpublished manuscript, University of Washington, 1964.
- Kazdin, A. E. "Assessing the clinical or applied importance of behavior change through social validation". Behavior Modification, 1, (4), 1977, 427-451.
- Kazdin, A. E. "Drawing Valid Inferences from Case Studies". Journal of Consulting and Clinical Psychology, 1981, 49, (2), 183-192.
- Kazdin, A. E., Matson, J. L. and Esveltd-Dawson, K. "Social skill performance among normal and psychiatric in-patient children as a function of assessment conditions". Behavioral Research and Therapy, 1980, 19, 145-152.
- Killer, M. and Carlson, P. "The use of symbolic modelling to promote social skills in pre-school children with low levels of social responsiveness". Child Development, 1974, 45, 912-919.
- Kirby, F. D. and Toler, H. C. "Modification of pre-school isolate behavior: A case study". Journal of Applied Behavior Analysis, 1970, 3, 309-314.
- Klaus, R. A. "Interrelationships of attributes that accepted and rejected children ascribe to their peers". Unpublished doctoral dissertation, George Peabody College for Teachers, 1959.
- Kohn, M. and Clausen, J. "Social isolation and schizophrenia". American Sociological Review, 1955, 20, 265-273.
- La Greca, A. M. "Social skills training with elementary school students: A skills training manual. Journal Supplement Abstract Service, American Psychological Association, Document. M S 2194.
- La Greca, A. M. and Mesibov, G. B. "Social skills intervention with learning disabled children: Selecting skills and implementing treatment". Journal of Clinical Child Psychology, 8, 3, 1979, 234-241.
- La Greca, A. M. and Mesibov, G. B. "Facilitating interpersonal functioning with peers in learning-disabled children". Journal of Learning Disabilities, 14 (4), 1981, 197-199, 238.

- La Greca, A. M. and Santogross, D. A. "Social skills training with elementary school students: A behavioral group approach". Journal of Consulting and Clinical Psychology, 1980, 48 (2), 220-227.
- Laughlin, F. "The peer status of sixth and seventh grade children". Bureau of Publications, Teachers College, Columbia University, 1954.
- Lesser, G. S. "The relationship between various forms of aggression and popularity among lower-class children". Journal of Educational Psychology, 1959, 50, 20-25.
- Linguist, G. W. and Parr, G. D. "Assertiveness training with children". Texas Tech Journal of Education, 1978, 5 (1), 37-44.
- Mager, R. F. and Pipe, P. Analyzing Performance Problems. Belmont, California, Fearson, 1970.
- Maloney, D. M., Harper, T. M., Braukman, C. J., Fixsen, D. L., Phillips, E.L., and Wolfe, M. M. "Teaching conversation-related skills to pre-delinquent girls". Journal of Applied Behavior Analysis, 1976, 9, 371.
- Marshall, R. J. and McCandless, B. R. "A study in prediction of social behavior of pre-school children". Child Development, 1957, 28 148-159.
- Matarazzo, R. G. "Research on the teaching and learning of psychotherapeutic skills". Handbook of Psychotherapy and Behavior Change eds. A. E. Gerin and S. L. Garfield, John Wiley, N. Y., 1971.
- Matarazzo, R. L. "The systematic study of learning psychotherapy skills". In S. L. Garfield and A. E. Gerin (Eds) Handbook of Psychotherapy and Behavior Change (2nd Ed.) N. Y., John Wiley, 1978.
- Matson, J. L., Kazdin, A. E., and Esveldt-Dawson, K. "Training interpersonal skills among mentally retarded and socially dysfunctional children". Behavioral Research and Therapy, 1980. 18, 419-427.
- Matson, J. L., Esveldt-Dawson, K., Andrasik, F., Ollendick, T. H., Petti, T. and Hersen, M. "Direct, observational, and generalization effects of social skills training with emotionally disturbed children". Behavior Therapy, 11, 552-551, 1980.
- Maxwell, G. M. and Pringle, J. K. "The development of a social skills unit". New Zealand Psychologist, 9, 1, 1980, 35-37.

- Michelson, L. and Dilorenzo, T. M. "Behavioral assessment of peer interaction and social functioning in institutional and structured settings". Journal of Clinical Psychology, July, 1981, 37 (3), 499-504.
- Michelson, L. and Wood, R. "Development and evaluation of an assertive training program for elementary school children". Paper presented at the Annual Meeting of the Association for the Advancement of Behavior Therapy, Chicago, 1978.
- Michelson, L. and Wood, R. "Behavioral assessment and training of children's social skills". Progress in Behavior Modification, vol. 9, Academic Pres, Inc., 1980.
- Minken, N., Braukmann, C. J., Minken, B. L., Timbers, B. L., Timbers, G. D., Fixsen, D. L., Fixsen, B. J., Phillips, D. L., Wolf, E. L. and Wolf, M. M. "The social validation and teaching of correctional skills". Journal of Applied Behavior Analysis, 1976, 9, 127-139.
- Moore, S. G. "Correlates of peer acceptance in nursery school children". In W. Hartup and N. Smothergill (Eds). The Young Child: Reviews of Research Vol. I, Washington, D. C., National Association for the Education of Young Children, 1967.
- Moore, S. R. and Undergraff, R. "Sociometric status of pre-school children as related to age, sex, nurturance, giving, and dependence". Child Development, 1964, 35, 519-524.
- Morris, H. H. "Aggressive behavior in children: A follow-up study". American Journal of Psychiatry, 1956, 112, 991-997.
- Morrison, R. L. and Bellack, A. S. "The role of social perception in social skill". Behavior Therapy, 12, 69-79, 1981.
- Muma, J. R. "Peer evaluation and academic performance". Personnel and Guidance Journal, 1965, 44, 405-409.
- Northway, M. L. "Outsiders: A study of the personality patterns of children least acceptable to their age mates". Sociometry, 1944, 7, 10-25.
- Nowicki, S. and Strickland, B. R. "A Locus of Control Scale for Children". Journal of Consulting and Clinical Psychology, 1973, 40 (1), 148-154.
- O'Connor, R. D. "The relative efficacy of modelling, shaping and the combined procedures for the modification of social withdrawal". Journal of Abnormal Psychology, 1972, 79, 327-334.

- O'Connor, R. D. "Modification of social withdrawal through symbolic modelling". Journal of Applied Behavior Analysis, 1969, 2, 15-22.
- Oden, S. and Asher, S. R. "Coaching children in social skills for friendship making". Child Development, 1977, 48, 495-506.
- Ollendick, T. H. and Hersen, M. "Social skills training for juvenile delinquents". Behavioral Research and Therapy, 1979, 17, 547-554.
- Palmer, P. The Mouse, the Monster and Me. San Luis Obispo, California, Impact, 1977.
- Patterson, G. R. Families: Applications of Social Learning to Family Life. Champaign, Ill., Research Press, 1971.
- Patterson, G. R. "The aggressive child: Victim and architect of a coercive system". In E. J. Mash, A. Hamerlynck and L. C. Handy (Eds), Behavior Modification and Families, New York, Brunner/Mazel, 1976.
- Patterson, G. R. and Reid, J. B. "Reciprocity and coercion: Two facets of social systems". In C. Neuringer and J. D. Michael (Eds), Behavior Modification in Clinical Psychology, New York, Appleton - Century-Crofts, 1970.
- Phillips, E. L., Phillips, A. E., Wolf, M. M. and Fixsen, D. L. "Achievement place: Development of the elected manager system". Journal of Applied Behavior Analysis, 1973, 6, 541-561.
- Phillips, J. S. and Ray, R. S. "Behavioral approaches to childhood disorders". Behavior Modification, 4 (1), 1980, 3-34.
- Pinkston, E. M., Reses, N. M. LeBlanc, J. M. and Baer, D. M. "Independent control of a pre-school child's aggression and peer interaction by contingent teacher attention". Journal Behavior Analysis, 1972, 6, 115-124.
- Porterfield, D. V. and Schliching, G. R. "Peer status and reading achievement". Journal of Educational Research, 1961, 54, 291-297.
- Rathus, S. A. "A thirty item schedule for assessing assertive behavior". Behavior Therapy, 1973, 4, 398-406.
- Reardon, H. B., Hersen, M., Bellack, A. S. and Foley, J. M. "Measuring social skill in grade school boys". Journal of Behavioral Assessment, 1979, 1, 87-105.

- Rich, A. R. and Schroeder, H. E. "Research issues in assertiveness training". Psychological Bulletin, 1976, 83, 1081-1096.
- Rinn, R. C. and Markle, A. "Modification of social skill deficits in children". Research and Practice in Social Skills Training, A. D. Bellack and M. Hersen, eds, New York, Plenum, 1979a.
- Rinn, R. C., Priest, M., Barnhart, D. L., and Markle, A. "Validation of an analogue measure of social skills in children". Manuscript submitted for publication 1979b, quoted in Rinn and Markle (1979a).
- Robbins, L. N. Deviant Children Grown-up. Baltimore, Williams and Wilkins, 1966.
- Roff, M. "Childhood social interaction and young adult bad conduct". Journal of Abnormal Social Psychology, 1961, 63, 333-337.
- Roff, M. "Some life history factors in relation to various types of adult maladjustment" in M. Roff and D. Ricks (Eds). Life History Research in Psychopathology, Minneapolis, University of Minnesota Press, 1970.
- Roff, M., Sells, B. and Golden, M. M. Social Adjustment and Personality Development in Children. University of Minnesota Press, Minneapolis, 1972.
- Ross, D. M., Ross, S. A. and Evans, T. A. "The modification of extreme social withdrawal by modelling with guided participation". Journal of Behavior Therapy and Experimental Psychiatry, 2, 273-279, 1971.
- Rothenberg, B. B. "Children's social sensitivity and the relationship to interpersonal competence, intrapersonal comfort, and intellectual level". Developmental Psychology, 1970, 2 (3), 335-350.
- Sagotsky, G., Wood-Schneider, M., and Konop, M. "Learning to co-operate: Effects of modelling and direct instruction". Child Development, 1981, 52, 1037-1042.
- Shilling, C. S. "The relationship between the assertive behavior of parents and the behavior of their children". American Journal of Family Therapy, 7, 3, 1979, 59-64.
- Smith, G. H. "Sociometric study of best-liked and least-liked children". Elementary School Journal, 1950, 51, 77-85.

- Spence, A. J. and Spence, S. H. "Cognitive changes associated with social skills training". Behavioral Research and Therapy, 1980, 18, 265-272.
- Spence, S. H. Social Skills Training with Children and Adolescents.: A Counsellors Manual. NFER, Windsor, 1980.
- Spence, S. H. "Validation of social skills of adolescent males in an interview conversation with a previously unknown adult". Journal of Applied Behavior Analysis, 1981, 14, 159-168.
- Spence, S. H. and Marzillier, J. S. "Social skills training with adolescent male offenders: 1. Short term effects". Behavioral Research and Therapy, 1979, 17, 7-16.
- Spence, S. and Marzillier, J. S. "Social skills training with adolescent male offenders: II. Short-term, long-term and generalized effects". Behavioral Research and Therapy, 1981, 19, 349-368.
- Spence, A. J. and Spence, S. H. "Cognitive changes associated with social skills training". Behavioral Research and Therapy, 1980, 18, 265-272.
- Spivak, G. and Shure, M. B. Social Adjustment of Young Children. Jossey-Bass Publishers, San Francisco, 1974.
- Staub, E. "The use of role-playing and induction in children's learning of helping behavior". Child Development, 1971, 42, 805-816.
- Strain, P. S. "An experimental analysis of peer social initiations on the behavior of withdrawn pre-school children: Some training and generalization effects". Journal of Abnormal Child Psychology, 1977, 5, 445-455.
- Strain, P. S., Shores, R. E. and Kerr, M. M. "An experimental analysis of 'spill-over' effects on the social interaction of behaviorally handicapped pre-school children". Journal of Applied Behavioral Analysis, 1976, 9, 31-40.
- Strain, P. and Timm, M. "An experimental analysis of social interaction between a behaviorally disordered pre-school child and her classroom peers". Journal of Applied Behavior Analysis, 1974, 7, 583-590.
- Ullman, C. A. "Teachers, peers and tests as predictors of adjustment". Journal of Educational Psychology, 1957, 45, 257-267.
- Vaal, J. J. and McCulloch, J. "The Rathus Assertiveness Schedule: Reliability at the junior high school level". Behavior Therapy, 1975, 6, 566-567.

- Van Hasselt, V. B., Hersen, M. and Bellack, A. S. "The validity of role-play tests for assessing social skills in children". Behavior Therapy, 12, 202-216, 1981.
- Van Hasselt, V. B. Hersen, M., Whitehill, M. B., and Bellack, A. S. "Social skills assessment and training for children: An evaluative review". Behavioral Research and Therapy, 17, 413-437, 1979.
- Wahler, R. G. "Some structural aspects of deviant child behavior". Journal of Applied Behavior Analysis, 1975, 8, 27-42.
- Walker, H. M., Street, A., Garret, B., Hops, H., Crossen, J. and Greenwood, C. R. "Reprogramming environmental contingencies for effective social skills (RECESS): Consultant manual". Center at Oregon for Research in the Behavioral Education of the Handicapped, University of Oregon, Eugene, Oregon, 1978.
- Whitehill, M., Hersen, M. and Bellack, A. S. "Conversation skills training for socially isolated children". Behavioral Research and Therapy, 1980, 18, 217-225.
- Whiteside, C. L. "Assertiveness training as a short-term treatment method with juvenile first offenders". Unpublished doctoral dissertation, University of New Mexico, Albuquerque, 1976.
- Winett, R. A. and Winkler, R. C. "Current behavior modification in the classroom: Be still, be quiet, be docile". Journal of Applied Behavior Analysis, 1972, 5, 499-504.
- Wolf, M. M. "Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart". Journal of Applied Behavior Analysis, 1978, 11, 203-214.
- Wood, R. and Michilson, R. "Assessment of assertive behavior in elementary school children". Paper presented at the Annual Meeting of the Association for Advancement of Behavior Therapy, Chicago, 1978.
- Wright, J., Mathieu, M. and McDonough, E. "An evaluation of three approaches to the teaching of a behavioral therapy". Journal of Clinical Psychology, 1981, 37 (2) 326-335.
- Wright, J., Horlick, S., Bouchard, C., Mathieu, M. and Zeichner, A. "The development of instruments to assess behavior therapy training". Journal of Behavior Therapy and Experimental Psychiatry, 1977, 8, 281-286.

- Yardley, K. M. "Social skills training - a critique". British Journal of Medical Psychology, 1979, 52, 55-62.
- Yarrow, M. R., Scott, P. M. and Waxler, C. Z. "Learning consideration for others". Developmental Psychology, 1973, 8, 240-260.
- Young, L. L. and Cooper, D. H. "Some factors associated with popularity". Journal of Educational Psychology, 1944, 35, 513-535.