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A NARROWER BAND TYPOLOGY OF REJECTED AND NEGLECTED CHILDREN DERIVED FROM MULTIPLE SOURCES

By

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ABSTRACT

A NARROWER BAND TYPOLOGY OF REJECTED AND NEGLECTED CHILDREN DERIVED FROM MULTIPLE SOURCES

By

William Kerry Miller

Recent social skills intervention studies have suggested the utility of classifying socially unaccepted children into groups of socially rejected and socially neglected children. These studies suggest that many of the neglected children improve with the passage of time whereas most of the rejected children retain their rejected status. The purpose of this study was to assess children who have been identified by the most common method of determining social unacceptability and to determine whether they make up a heterogenous group. It was hypothesized that children would comprise subgroups of those who have behavioral adjustment problems and those who do not. It also was hypothesized that children with behavioral adjustment problems on the Achenbach Child Behavior Checklist and/or the Conners' Teacher Questionnaire would show different patterns such that children scoring high on the Internalizing Broad Band Syndrome on the Achenbach Child Behavior Checklist would be categorized as socially neglected children and children scoring high on the Externalizing Broad Band Syndrome on the Achenbach Child Behavior Checklist would be categorized as socially rejected children.

From a subject pool of 353 third- and fourth-graders, 68 children from the lowest third [as assessed through "play-with" and "work-with" roster and rating measures] served as subjects. Instruments included: roster and ratings indicating "play with" and "work with" preferences; "like best" ratings; the Class Play; the Conners' Teacher Questionnaire, the Achenbach Teacher Questionnaire; the Interpersonal Checklist (completed by 38 parents). Factor analysis and person-cluster scores were computed. Eight person-cluster profiles were formed and described. Interpretation of these profiles indicates a heterogenous population of socially unaccepted children. Furthermore, the most commonly used method of identifying these children also appears to include a group of average profile children. Future research is needed in regard to instrument development for detailed classification of narrower band typologies.

THIS DISSERTATION IS DEDICATED TO

MY FAMILY

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My partner in life, Cathleen, has given to me more than she will ever know. Without her, I would not have achieved the richness of life that is mine. As such, my achievements are not mine alone, I share them with my wife, Cathleen.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

Longitudinal research has indicated that children with disturbed peer relationships and social interactions are at risk for school failure, delinquency, and later development of adult adjustment difficulties. Given that these children have been identified as an at-risk population, clinical researchers have developed early intervention strategies to prevent maladaptive development. A major type of intervention strategy is social skills training. Although there are a number of criticisms that can be made of these intervention studies, one of the most important criticisms is the issue of subject selection. As Wanlass and Prinz (1982) indicate nearly all of the intervention studies have used a heterogenous group of subjects. Recent social skills intervention studies (e.g., Csapo, 1983a, 1983b; Tiffen and Spence, 1986) have suggested the utility of classifying socially unaccepted children into groups of socially rejected and socially neglected children. These studies suggest that many of the neglected children improve with the passage of time whereas most of the rejected children retain their rejected status (e.g., Csapo, 1983a, 1983b; Tiffen and Spence, 1986).

The purpose of this study will be to compare methods of subject selection for social skills training programs and to reliably identify and characterize the sub-groups of children shown to have poor peer group relationships.

In order to gain an understanding of the children receiving social skills training, the following hypotheses will be addressed:

1. Children identified by the most common method [from school based intervention studies] as socially unaccepted will be found to be a heterogeneous group including at least one sub-group being identified as having behavioral adjustment problems and another identified as not having behavioral adjustment problems.
2. Of the children in the sub-group identified as having behavioral adjustment problems:
   (a) those children categorized as socially neglected children will be found to score high by their teachers on the Internalizing Broad Band Syndrome of the Achenbach Child Behavior Checklist.
   (b) those children who are categorized as socially rejected children will be found to score high by their teachers on the Externalizing Broad Band Syndrome of the Achenbach Child Behavior Checklist.

Review of the Literature

Longitudinal research has indicated that children with disturbed peer relationships and social interactions are at risk for school failure, delinquency, and later development of adult adjustment difficulties (Kohn, 1977; Roff, Sells, and Golden, 1972; Cowen, Pederson, Babigian, Izzo, and Trost, 1973; Janes and Hesselbrock, 1978; Robbins, 1966). Given that these children have been identified as an at-risk population, clinical researchers have developed early intervention strategies in attempts to prevent maladaptive development. A major type of intervention strategy is social skills training. Types of social skills training programs include adult social reinforcement (Allen et al, 1964; Hart et al, 1968; Baer and Wolf, 1970; Hops et al, 1979), token reinforcement (Hops et al, 1979; Csapo, 1983b), symbolic modeling (O'Connor, 1969; O'Connor, 1972; Evers and Schwarz, 1973; Keller and Carlson, 1974; Evers-Pasquale and Sherman, 1975; Jakibchuk and Smeriglio, 1976; Gottman, 1977; Gresham and Nagle, 1980), modeling-plus-reinforcement procedures (O'Connor, 1972; Evers and Schwarz, 1973; Walker and Hops, 1973; Allen et al, 1976), interpersonal problem solving (Shure and Spivack, 1972; Spivack and Shure, 1976), and direct tuition of social interaction techniques (Chittenden, 1942; Ross et al, 1971; Gottman, Gonso, and Schuler, 1976; Oden and Asher, 1977; Hops et al, 1979; Whitehall, Hersen and Bellack, 1980; LaGreca and Santogrossi, 1980; Gresham and Nagle, 1980; Ladd, 1981; Paine et al, 1982; Csapo, 1983a; Csapo, 1983b; Tiffen and Spence, 1986).

Social skills training programs differ not only in regard to the type of training provided, but also in regard to the age of the child. Two major classifications are training programs designed for preschool-aged children (Chittenden, 1942; Allen et al, 1964; Hart et al, 1968; O'Connor, 1969; Baer and Wolf, 1970; Ross et al, 1971; O'Connor, 1972; Evers and Schwarz, 1973; Keller and Carlson, 1974; Evers-Pasquale and Sherman, 1975; Jakibchuk and Smeriglio, 1976; Gottman, 1977;) and training programs aimed at elementary-school-aged children (Walker and Hops, 1973; Allen et al, 1976 Hops et al, 1979; Whitehall, Hersen and Bellack, 1980; LaGreca and Santogrossi, 1980; Gresham and Nagle, 1980; Ladd, 1981; Paine et al, 1982; Csapo, 1983a; Csapo, 1983b; Tiffen and Spence, 1986). The focus in this review will be on the latter population.

The longitudinal studies and most of the intervention studies mentioned above seem to have made an implicit assumption regarding causal relationships. A model of this assumption is shown in the flow chart below:

Poor Social Skills Knowledge	-->	Poor Social Skills Enactment	-->	Poor Peer Interaction Type	-->	Poor Adult Adjustment

This chart indicates that deficient social knowledge or understanding has a causal impact on peer interaction which results in poor peer interactions. Finally, poor peer interactions lead to poor adult adjustment level. From this model then, one can see that if

intervention is aimed at increasing social skills knowledge and social skills enactment, then this could eventually prevent poor adjustment in adulthood. Also, according to this implicit model, no other factors are involved. However, an examination of the longitudinal risk research and the developmental literature reveals that there is at least one major classification dichotomy in differentiating types of children with peer difficulties.

The longitudinal risk studies of Roff, Sells & Golden (1972) and Cowen, Pederson, Babigian, Izzo, & Trost (1973) found that children described as aggressive and rejected by their peers were more at risk for serious maladjustment in adult life than were children described as shy or ignored by their peers. This would indicate that type of peer interaction may be an important causal factor that needs to be added to the model described in the flow chart above.

Social Status Classifications and Implications for Interventions

There have been three major ways of categorizing children on the basis of social status classifications. One method has been based on positive and negative peer nominations (Rolf, Sells, and Golden, 1972; Tiffen and Spence, 1986). Children nominate three peers they like least and three peers they like most. From these nominations, scores are derived indicating a social preference score for each class member and a social impact score. The social preference score is the standardized (z score) "like-most" minus the standardized "like-least". The social impact score is the sum of the standardized "like-most" and the standardized "like-least". From these scores six types

of children's status are derived: (1) Rejected status - scoring less than -1.0 on the social preference, less than 0 on the "like most" and greater than 0 on the "like least"; (2) Neglected status - scoring less than -1.0 on the social impact, less than 0 on the "like most" and less than 0 on the "like least"; (3) Controversial - scoring greater than 1.0 on the social impact, greater than 0 on the "like most", and greater than 0 on the "like least"; (4) Average status - scoring between .5 and -.5 on the social preference, and scoring between .5 and -.5 on the social impact; (5) Popular status - scoring greater than 1.0 on social preference, greater than 0 on "like most" and less than 0 on like least; (6) Other status - All children who do not fit the classifications listed above are categorized as other.

A second method is the technique called the "class play" (Cowen, Pederson, Babigian, Izzo, and Trost, 1973). Children nominate peers for 20 hypothetical roles in a play: 10 positive roles and 10 negative roles. The social status classification yielded from this is negative social status and positive social status. Other classifications are possible and are defined through factor and cluster analysis.

A third technique is the roster and rating sociometric technique (Oden and Asher, 1977; Gresham and Nagle, 1980; LaGreca and Santogrossi, 1980; Ladd, 1981; Csapo, 1983a; Csapo, 1983b). Children rate every member of the class on a 5-point scale. A score of 1 indicates a classmate with whom the child does not like to work or play; a score of 5 indicates a classmate with whom the child likes to work or play. After summing the ratings received by each class

member, the students whose total scores are in the lower third for the class are designated as unaccepted. This yields a social status classification of Accepted vs. Unaccepted. In general, the lower third of a classroom is considered to have low acceptability.

The developmental literature investigating peer relations (specifically sociometric status) also has categorized children as having different types of peer relationship difficulties. The five different classifications reported in the literature are: (1) Popular; (2) Average; (3) Controversial; (4) Neglected; (5) Rejected (Coie, Dodge, & Coppotelli, 1982). Of these five classifications, the two most relevant categories to social skills training intervention research are the last categories - Neglected and Rejected. Behavioral descriptions of Neglected Children are: low peer interaction; withdrawal; low aggression; low visibility (Dodge, Coie, & Brakke, 1982; Markell and Asher, 1984). Behavioral descriptions of Rejected Children are: high aggression; higher peer interactions than neglected children; high disruption levels; high off-task behaviors; low attention span (Dodge, Coie, & Brakke, 1982; Coie, Dodge & Coppotelli, 1982; Asher, 1983; Coie and Dodge, 1983; Dodge, 1983; Dodge et al., 1983; Dodge, Murphy & Buchsbaum, 1984; Markell and Asher, 1984; Dodge and Somberg, 1987). Coie and Dodge (1983) found that children who are classified in the Popular, Average, and Controversial Groups showed the least stability in peer group classification over a 5 year span. When children classified in these groups changed peer status they were likely to be found in one of

these three, as compared to other groups. For example, it was extremely unlikely for popular or average children to later be classified as neglected or rejected over the 5 year period. Children classified in the Controversial Group have been found to move in one of two directions; they either become popular or rejected. The highest stability over a 5-year-span was for the rejected and neglected children with the rejected children showing the greatest stability. Of the 12 rejected children in the longitudinal study by Coie and Dodge (1983) only 1 had changed to a positive status in 5 years. The neglected children who showed a change in status were likely to become average or popular children rather than rejected children. This pattern (rejected kids to remain rejected; neglected children to improve in status) was so dramatic that Coie and Dodge (1983) suggested that intervention need not be given to neglected children due to the fact that "neglected children are quite likely to move toward a more positive social status (average or popular) with the simple passage of time and without intervention" (Coie and Dodge, 1983, page 280).

Another developmental study that would be in support of focusing intervention on the rejected rather than the neglected child investigated antecedent behaviors and group entry strategies in children joining unfamiliar groups (Coie and Kupersmidt, 1983). This study found that children classified as being rejected in their classrooms received the same classification within three meetings of an unfamiliar group. Children classified as neglected in their

classrooms, however, were likely to receive a more positive social status classification in the unfamiliar group.

The issues discussed above may shed some light on the outcomes reported by social-skills training studies. For example, in the investigation by Oden and Asher (1977), which had one-year post intervention follow-up (the longest reported in this literature), half of the subjects in the coaching intervention group had improved in social status to the point of the mean for the class. The remaining subjects in that condition were significantly below the mean. It also was noted that 1 of 7 children in an "attention-placebo" group and 1 of 7 in the control group achieved social status above the classroom mean. The subjects selected in this procedure were selected on the basis of being the three lowest rated (lowest accepted) children in the classroom based on a roster and rating sociometric scale. This scale did not differentiate rejected versus neglected children and consequently these subjects would most likely be a combination of rejected, neglected and controversial children. It cannot be determined how many of the children in the experimental and control groups were rejected or neglected. Thus, exact predictions cannot be made. However, it seems reasonable to infer that the four children from the experimental group that did not improve to the level of the classroom mean may have been rejected children. Further, it seems reasonable to infer that the two children showing improvement without intervention may have been neglected children who have improved over the passage of time.

This line of reasoning also may be used to explain discrepancies in the results of other social skills training studies (Walker and Hops, 1973; Allen et al, 1976; Hops et al, 1979; Whitehall, Hersen and Bellack, 1980; LaGreca and Santogrossi, 1980; Gresham and Nagle, 1980; Ladd, 1981; and Paine et al, 1982) which did not differentiate between children of different social status classification.

Three recent studies have assessed social status classification (directly or indirectly) in conjunction with a social skills training intervention. Csapo (1983a) studied severely socially withdrawn/isolated children. Subjects in her study were third-grade students selected on three criteria: low social acceptance (roster and rating sociometric); low rates of observed positive social interaction in the classroom; a score of 2 or more points above the mean on the social withdrawal subscale of the Walker Problem Behavior Checklist (WPBC). Csapo began her study with 18 classrooms (approximately 324 students). One-hundred-eight subjects met the first two criteria; the last criteria reduced this number to 30. Csapo implies that her procedure has differentiated neglected from rejected children. Although, Csapo does not directly indicate that she was excluding rejected children, a detailed look at her methodology shows that her procedure was most likely sensitive in selecting a group of neglected (socially isolated) children. Csapo excluded aggressive children and children showing clinical signs of social withdrawal.

The results of Csapo's intervention program showed that the experimental group improved in sociometric rating from pretest to four-week follow-up. However, unlike other studies (Oden and Asher,

1977; LaGreca and Santogrossi, 1980) the attention-placebo group and the no-treatment control group made no progress. However, the four-week follow-up period may not be a long enough period of time to allow improvement by the neglected children in regard to their peer status. A one-year follow-up study may have led to different results. An alternate hypothesis might be that with the stricter classification of socially isolated/withdrawn children, Csapo might have identified a sub-group of neglected children that are in the clinically abnormal range and therefore require intervention for improvement.

In a second study, Csapo (1983b) investigated social skills training with rejected children. Once again three criteria were used to select subjects: low social acceptance (roster and rating sociometric); low rates of observed positive social interaction and high rates of observed negative social interaction in the classroom; high rankings of negative social behaviors and low rankings of positive social behaviors on the social behavior subscale of the Social Behavior Rating Scale (SBRS). Six boys met these criteria. The following differences between these children and the children reported in Csapo's (1983a) study were noted: (1) The withdrawn/isolated children had nearly zero observed socially negative behaviors whereas the rejected children (by definition) had high rates; (2) The withdrawn/isolated children scored below average in the observed behaviors of leading and asking questions whereas the rejected children scored nearly average. It should be noted that in addition to social skills training, Csapo also used individual and

classroom token reinforcement. Due to the fact that the classroom members were reinforced when the identified child improved in prosocial behaviors, this may have artificially increased the sociometric ratings at follow up when compared to studies that have not used group reinforcement procedures. With this caveat, the results indicate that the intervention was successful in increasing positive sociometric ratings. However, it should be noted that none of the children in the experimental intervention procedure of either of Csapo's studies obtained an average post-intervention peer sociometric rating.

A third study directly addressed the issue of differential treatment effects in social skills training interventions with neglected vs. rejected children. Tiffen and Spence (1986) selected subjects on the basis of sociometric status (positive and negative nominations). Five children were selected from each of 10 classrooms: at least two who received the highest rejected ratings and at least two who received the highest neglected ratings. The results indicated that the treatment or attention-placebo did not significantly affect peer acceptance from pretest to follow-up for the rejected children. However, both the treatment and attention-placebo groups of neglected children significantly improved from pretest to posttest and from pretest to follow-up. It is interesting that the no treatment control neglected children showed no pretest to posttest improvement but made significant pretest to follow-up improvement. In fact, at follow-up there was no significant difference between all three isolate groups. This supports the suggestion by Coie and Dodge (1983) that neglected

children improve over time without intervention whereas rejected children do not. Thus, with this information, it seems likely that the general assumption in the flow chart, that all children with poor peer interactions have the same risk for attaining poor adult adjustment level, is not necessarily true. The model needs to be changed to indicate that the type of peer interaction or social status classification (neglected versus rejected) differentially impacts on risk for poor adult adjustment level. Therefore, although there are a number of criticisms that can be made of these intervention studies, such as experimental design, outcome measures, lack of follow-up, failure to use control groups, (for critical reviews see Conger and Keane, 1981; Ladd and Mize, 1983; Hops, 1982; Wanlass and Prinz, 1982), one of the most importance criticisms is the issue of subject selection (Wanlass and Prinz, 1982; Coie and Dodge, 1983; Coie and Kupersmidt, 1983; Asher and Dodge, 1986; Tiffen and Spence, 1986) and the failure to control for social status classifications.

As Wanlass and Prinz (1982) indicate nearly all of the intervention studies have used a heterogeneous group of subjects. In addition to social status classification as a causal factor, the results from Csapo (1983a) and Tiffen and Spence (1986) imply the need to consider another causal factor in the model: the absence or presence in childhood of a behavioral adjustment problem. That is, in Csapo's (1983a) study, the subjects were neglected "clinically abnormal" children requiring intervention whereas in the Tiffen and Spence (1986) study the majority of the neglected children may have

been shy and withdrawn when compared to peers but they were not abnormal in a clinical sense (e.g., as judged by mental health professionals or teachers) and they were not necessarily in need of intervention to improve peer interaction.

Behavioral Adjustment Problems

From the review of studies, it appears evident that some children with disturbed peer relationships also have behavioral characteristics associated with three DSM-III behavioral adjustment problems: (1) Attention Deficit Disorder with or without Hyperactivity; (2) Conduct Disorder Undersocialized, Aggressive and Unaggressive (Antisocial Personality); (3) Social Withdrawal. It also seems evident that a subgroup of children with disturbed peer relationships may, indeed, be described as shy or bossy but may not have a behavioral adjustment disorder and thus are in the "normal range" (Wanlass and Prinz, 1982).

In his review of factor analytic approaches to classifying behavioral adjustment problems, Achenbach (1982) describes a hierarchical classification system. At the top of the hierarchy are broad band categories. There are two types of broad band syndromes, Internalizing Syndromes and Externalizing Syndromes. Examples of problems falling under the Externalizing category are Attention Deficit Disorder and Conduct problems. An example of a problem that would be classified as an Internalizing Syndrome would be Social Withdrawal. Achenbach considers these classifications as narrow band syndromes. Reliability has been found to be poorer with narrow band classifications than with the broad band classifications.

Achenbach's (1982) classification system may have considerable utility in investigating the social skills literature. That is, the frequency, duration and intensity of their behaviors may result in many rejected children being characterized by their teachers as having externalizing problems and many neglected children could be characterized as having internalizing problems. There also might be a large group of neglected and rejected children whose CBCL scores do not warrant a label of "behavioral adjustment problems". Applying this logic to the Csapo (1983a; 1983b) studies, one might conclude that subjects in the Csapo (1983a) study were Internalizing and that subjects in the Csapo (1983b) study were Externalizing. In the study by Tiffen and Spence (1986), some subjects may have had behavioral adjustment problems, either Internalizing or Externalizing, and other subjects may not have had behavioral adjustment problems. In comparing the Csapo studies and the Tiffen and Spence study, subjects without behavioral adjustment problems might have responded relatively quickly to intervention or to no intervention at all whereas subjects with behavioral adjustment problems may have required intensive treatment and made fewer gains. While using a broad band categorization may be helpful in identifying those children that need intensive or non-intensive interventions, the use of narrow band categorizations also may be warranted in designing specific intervention programs. Thus, the intervention program for an Attention Deficit Disorder child with peer relation difficulties (rejected) might differ from the intervention program designed for a rejected child with a Conduct Disorder even though both are

Externalizing Syndromes. For example, an intervention program for the child classified as Rejected and having a Conduct Disorder may include several of the following interventions: parent training groups in behavior management, filial therapy to enhance the parent-child relationship, social skills training for the child, psychodynamic play therapy or reality therapy, and/or strategic family therapy. The child classified as having an Attention Deficit Disorder may be provided with some or all of the interventions listed above but also might be considered for treatment through stimulant medications, and individual or group cognitive behavioral impulse control therapy.

In designing intervention programs, especially where there are financial constraints, it might be useful to be able to identify those children that will require intensive and/or more differing interventions and those that require less intensive or fewer or no interventions at all.

The reasoning regarding the possible influence of childhood behavioral adjustment problems on childhood peer interactions is rather speculative at this point. In none of the social skills studies reviewed has the presence of childhood behavioral adjustment problems been assessed. Before speculating on the possible causal pathways that may be associated with childhood behavioral adjustment problems, the prevalence of these problems must be assessed in both neglected and rejected children.

Objective of the Study

The objective of this study was to examine the issue of traditional methods of subject selection for social skills training programs and to develop a narrower band typology of Neglected and Rejected children. Given the preceding literature review it is likely that intervention programs have included a heterogeneous group of children, all considered to be experiencing peer group difficulties but these difficulties might emerge from different etiologies and have different characteristics. Therefore, the following conceptual hypotheses will be addressed in this study:

Conceptual Hypothesis 1. Children identified by the most common method from school based intervention studies as socially unaccepted will be found to be a heterogeneous group. Of the children identified as eligible for social skills intervention by means of a roster and rating sociometric (lowest third of the classroom) one sub-group will be identified as having behavioral adjustment problems as determined through a standardized assessment measure (Child Behavior Checklist and Connor's Teacher Questionnaire) completed by the teacher. Another sub-group will be identified as not having behavioral adjustment problems through the CBC and Connor's Questionnaire completed by the teacher.

Conceptual Hypothesis 2. Some children in the sub-group identified as having behavioral adjustment problems on the CBC and CTQ will show the following patterns: (a) some children categorized as socially neglected children will score high on the Internalizing Broad Band Syndrome. (b) other children categorized as socially rejected children will score high on the Externalizing Broad Band Syndrome.

In addition, parents characterizations of their children's interpersonal behaviors (from the Interpersonal Check List, Leary, 1957) and peer perceptions from Class Play data may add to the internal consistency of the typology or clusters hypothesized above.

CHAPTER 2

METHODS

Subjects

The subjects were boys and girls in grades 3 and 4 in the Lakeview School District (Battle Creek, Michigan). The initial subject pool was 353 students (153 girls and 200 boys) from 15 classrooms. Of this subject pool 239 had parental permission to participate and rated their peers using the classroom roster. Four children's names were stricken from the classroom rosters before ratings were done at the request of their parents. One-hundred-nineteen subjects (those receiving roster and rating scores in the lowest third for each classroom) were selected for full data analyses. Of these 119 subjects, the parents of 68 gave their informed consent and full data analysis was possible. This group of 68 subjects (28 girls and 40 boys) is referred to as the Selected-Sample-Participant group. The 51 students whose parents did not give consent are referred to as the Selected-Sample-Nonparticipant group. The majority of children were white, middle-class children living in a suburban school district.

Subject Recruitment

Subjects were recruited through the Lakeview school district in Battle Creek, Michigan. The primary investigator contacted the superintendent of the district and received permission to attend a meeting of the grade school principals in the district. After learning the details of the study, the principals agreed to discuss the possibility of participation with the 3rd and 4th grade teachers. The teachers agreed to participate and they distributed the informed consent materials to the parents via their children (see Appendix A). Since previous research reported the effectiveness of an incentive program in returning signed consent forms (Juenemann, 1986), principals were asked if they would allow an incentive plan. Two principals agreed and students in their schools were told that they would be given a treat if 90% of the forms were returned with a signature indicating that a parent had seen the consent form. No classroom reached this criterion.

Data Collection

Questionnaires were completed in one group session scheduled during the school day at the teacher's convenience. The session lasted approximately 30 minutes. Children were given the instructions outlined in Appendix B. Before participating each child signed an "Assent Form". They were asked to complete (1) a roster and rating assessing with whom they like to play; (2) a roster and rating assessing with whom they like to work; (3) a nomination questionnaire

asking them to name three classmates that they like best; (4) a 14-item Class Play questionnaire in which they, as "directors", nominate classmates for various roles. Children were identified only by their first names and the first initial of their last name (e.g. "John S").

From the roster and rating data, the investigator selected one-third of the children from each classroom with the lowest scores. The first name and first initial of the last name of each of these subjects was placed on the Child Behavior Checklist - Teacher's Form and the Connor's Teacher Questionnaire. The questionnaires were distributed to the teachers. Teachers were instructed to complete questionnaires only for those students whose parents had indicated that the child could participate. The instructions for each of teacher questionnaires were printed on the questionnaires and were self-explanatory. Data from nine teachers were collected by the primary investigator on the last day of school. Business-reply envelopes were given to the remaining teachers. All teachers had returned their questionnaire packets within one month.

A selected subject's name was placed on the Interpersonal Check List answer sheet and mailed with a computer scoring pencil to their parents' homes. A pre-addressed, stamped return envelope was included to return the questionnaire to the investigator. Instructions for completing the questionnaires were printed on the questionnaires and were self-explanatory. Thirty-eight of the 68 parents who were mailed the ICL completed it and mailed it back. No follow-up letters were mailed to the parents who did not return the ICL. In retrospect, one can speculate that a follow-up letter may have increased parent

participation and therefore future studies by the investigator will employ a parental follow-up letter.

Instruments

Roster and Ratings

The sociometric procedures that were used are those which were recommended by Singleton and Asher (1977) and by Asher and Dodge (1986). The first procedure (Singleton and Asher, 1977) is the Roster and Rating assessment. With this procedure children are given classroom rosters and are asked, "How much do you like to play with this person at school?" for each same-sex person on the roster. They are instructed on how to put their response on the five-point rating scale that goes from 1 ("I don't like to) to 5 ("I like to a lot"). After completion of this "Play-With" form, the procedure is repeated with the following question: "How much do you like to work with this person at school?". Once again the child is asked to rate each classmate. The sum of each child's same-sex "play with" and "work with" ratings were computed. Then for each classroom, 33% of the class with the lowest sum score was selected.

This procedure has been shown to be stable across time (Asher, Singleton, Tinsley & Hymel, 1979) and is used in most of the recent school based intervention studies (Oden and Asher, 1977; LeGreca and Santogrossi, 1980; Gresham and Nagle, 1980; Whitehall et al, 1980; Ladd, 1981; Csapo, 1983a; Csapo, 1983b). This also has the advantage of not requiring children to make overtly negative ratings of their

classmates; overtly negative rating procedures are often objectionable to school officials and to parents.

The second sociometric procedure was that recommended by Asher and Dodge (1986) and is a combination of a roster and rating procedure and a positive nomination procedure. This procedure was used in order to identify "rejected" from "non-rejected" peer-unaccepted children. The difference between the first and second sociometric procedures is that the second procedure assesses cross-sex "Play-With ratings. For the purpose of this study children were given one "Play With" Roster and Rating questionnaire during the 30-minute group session. They had a complete roster of their classroom and made same-sex and cross-sex ratings. However, in order to use the same-sex ratings for the Singleton and Asher (1977) procedure, same-sex ratings were extracted.

The primary reason for cross-sex ratings in the Asher and Dodge procedure is due to their finding that data from this procedure increase the identification of rejected sociometric status children. The second part of the Asher and Dodge (1986) procedure requires children to select three children from the entire class roster whom they "like best". Thus, for this study, children were asked to select three classmates that they like best from the class roster.

In using this full procedure to identify rejected vs. non-rejected children, the total number of positive nominations make up the "like most" score and the total number of #1 ratings ("I don't like to") substitute for the "like least" score. Scores are derived indicating a social preference score for each class member and a social impact score. The social preference score is the standardized

(z score) "like-most" minus the standardized "like-least". The social impact score is the sum of the standardized "like-most" and the standardized "like-least".

The two advantages of using this full procedure are that it does not require negative nominations (name 3 children you don't like) and that it correctly identifies over 90% of children classified as rejected by use of the negative nomination procedure (Asher and Dodge, 1986).

The disadvantage of using this procedure is that it over-identifies 10% of children as rejected and is not able to reliably classify neglected, popular, average, and controversial status types. Thus this procedure can be used only to identify rejected vs. non-rejected children but cannot classify further the non-rejected children.

The selection of the Asher and Dodge (1986) procedure was made due to the assumption by the primary investigator that the use of this method would increase the likelihood of school districts allowing access to their students and would help gain approval from the human subjects committee. Due to the ages of the subjects, it was decided that referring from a class roster to a computer scoring sheet may be too difficult. Therefore, class rosters were taped over the three computer sheets used in the ratings described above. Rosters were removed after the testing session. Children were provided with scoring pencils. However, checks of the data showed that many children did not press hard enough for their scores to be read by the

scanner. Therefore, every dot was blackened before scanning. [This procedure was followed with teacher questionnaires and parent questionnaires also].

The lowest peer rating from the "Play-With" questionnaire and a "Like-Best" raw score were converted to z-scores using the classroom mean and the classroom standard deviation. These standard scores were then used to compute the variables, "Social Preference" and "Social Impact". These two variables were then computed to z-scores.

The Class Play

A variation of the Class Play (Bower, 1960) also was used. Through factor analytic procedures, Newcomb and Bukowski (1983) reduced the original 20 parts in Bower's Class Play to a variation which had 14 parts. The Class Play procedure requires the subject to select one classmember from the full class roster for each of 14 parts in a hypothetical class play (see Appendix C). The roles in the class play have been analyzed and broken into four factors: aggression, observable prominence, school competence, and immaturity (Newcomb and Bukowski, 1983). The directions asked the children to pretend that s/he is the "director" of a class play. As director s/he assigned one classmate from the class roster for each of fourteen parts. Further, any child could be selected for more than one part.

Nominations for class play roles were tallied and raw scores were summed according to the four variables: Aggression, Observable Prominence, School Competence, Immaturity. In addition, a summation score, Total Nominations, and a differential score, Positive

Nominations minus Negative Nominations, were computed. These scores were transformed to z-scores.

The Child Behavior Checklist

The 113 item Child Behavior Checklist - Teacher Form (Achenbach and Edelbrock, 1983) was completed by teachers for subjects in the Selected-Sample-Participant group. This instrument has been reported to have good test-retest reliability (.89) and has been shown to differentiate clinic referred and non-clinic referred children (Edelbrock and Achenbach, 1984). The narrowband subscales are: Anxious, Social Withdrawal, Unpopular, Self-Destructive, Obsessive-compulsive, Inattentive, Nervous-overactive, and Aggressive. The wide band subscales are: Internalizing and Externalizing.

Nine variables were derived from the Achenbach, each variable representing a subscale on the instrument. Variables are: Anxious, Social Withdrawal, Unpopular, Self-Destructive, Inattentive, Nervous-Overactive, Aggressive, Internalizing, and Externalizing. It should be noted that the Achenbach is standardized by sex and different items make up the variables for boys and for girls. After raw score totals were obtained, the Achenbach scoring system was used to convert the scores to T-scores.

Conners' Teacher Questionnaire

The 10-item Conners' Teacher Questionnaire (Conners, 1969) also was completed by the teachers. Acceptable reliability and validity data are reported for this instrument (Conners, 1969). A raw score of 15 and above on the hyperactive subscale is in the Attention Deficit

Disorder range. Written instructions are included in the questionnaire and are self-explanatory.

Two variables were derived from the Conners' Teacher Questionnaire. The 10 questions were summed to provide a "Total" score. Then a dichotomous variable to indicate A.D.D. was derived based on Conners' scoring method.

Interpersonal Check List

The Interpersonal Check List (Leary, 1957) is a 128 item questionnaire regarding perceptions of interpersonal behaviors and characteristics. It has been used to assess personality with adults and level of group cohesion in families, psychotherapy groups, and management groups. Leary (1957) reports adequate reliability and validity data for these purposes. However, this study will not be using this instrument for these purposes but rather to see if parents' perceptions of their child's behavior and characteristics add to the internal consistency and conceptual definitions of discovered clusters (narrower-band typologies). Therefore, the reported reliability and validity data will not be applicable to this study.

Based on Leary's (1956, 1957) coding system, the 128-questions in the ICL are divided into 16 groups. Pairs of these 16 groups form eight variables. The 8 variables form four major variables which then form two summary scores. It should be noted that items were weighted by their listed "intensities" ranging from a 1 to a 4 according to Leary's weightings.

Analysis of Data

Questionnaire responses were scanned by a computer scanner and placed onto tapes. The scores were then transferred from the tapes to the Cyber 750 mainframe computer system at Michigan State University.

Variables from the different instruments were merged into a file for cluster analysis. The BCTRY program was used to run a V-Empirical Factor Analysis. From this, a revised set of clusters was obtained and a revision analysis was run. Finally, the resulting clusters were used to generate individual person-cluster profiles.

CHAPTER THREE

RESULTS

Sample Characteristics

In order to determine whether there were differences between children in the "Selected Sample - Participant" and the "Selected Sample - Nonparticipant" groups, multivariate analyses of variance were performed across 11 variables (Social classification variables and Class Play variables). Results indicated no significant differences between groups on any of these variables, $F(11,101)= .615$.

In order to determine whether analyses would be influenced by the sex of the subject, multivariate analysis of variance was performed on the data provided by the 239 children who completed the roster and rating measures and the Class Play regarding the initial sample (353 children). Results of the MANOVA indicated that there was a significant sex difference, $F(11,341) = 5.06$, $p < .001$. A review of the cell means for each variable suggested that the significance may be due to one instrument, the Class Play. Therefore, univariate analysis of variance was performed on this instrument to further delineate the source of the significance. In order to reduce the chance of Type I errors, the level of significance for these analyses was set at .01 rather than .05. The results from these analyses showed that significant sex differences occurred on the "Aggression"

and "Observable Prominence" scales of the Class Play (respectively, $F(1,351) = 14.93$, $p < .001$; $F(1,351) = 12.94$, $p < .001$. In both cases, males received higher scores on these variables than females. One possible explanation for the sex difference found for "Observable Prominence" would be that more boys than girls served as raters and made same-sex nominations for prominent class-play roles. In order to test this explanation, a 2 X 2 Chi Square analysis (Raters X Sex) was performed; no significance was found χ^2 (1,N=353) = 1.84. Thus, it may be that children nominate more frequently boys for both prominent roles as well as for aggressive roles. No sex differences were found on the "School Competence" and "Immaturity" subscales of the Class Play (respectively, $F(1,351) = 1.96$; $F(1,351) = 2.86$.

Multivariate analysis of variance techniques were used to investigate possible sex differences in the Selected-Sample Participant group. Given the number of instruments completed for these participants, separate MANOVAS were run for each instrument. Once again, the level of significance was lowered to .01 since several analyses were being run. These analyses showed no significant sex differences: Conners', $F(10,46) = 1.34$; Achenbach, $F(9,58) = .849$; Leary, $F(16,19) = .631$; Social Status Classification Variables, $F(5,62) = .359$; Class Play, $F(6,61) = 2.31$.

Defining Clusters and Person-Cluster Profiles

A cluster analysis was performed using standardized scores from Lowest Peer Rating, Like Best Peer Nomination, Social Impact and Social Prominence as well as a dichotomous Rejected/Not Rejected item.

The six standardized Class Play subscales, nine standardized subscales from the Achenbach, Conner Summary score, and dichotomous A.D.D/Non-A.D.D item based on the Conner also were included in the cluster analysis. Complete data sets were obtained on the variables listed above. Variables based on the ICL Parent Questionnaire were not included in the cluster analysis because data were obtained from only 56% of the sample.

Results from a V-Empirical Factor Analysis generated a 5-cluster solution. Table 1 describes the variables and indicates the source of each variable. The internal reliabilities and item memberships for each cluster are shown in Table 2. It should be noted that three variables were excluded by the BCTRY program (default settings) from membership in any of the five clusters due to low loadings. These factors are subject sex, school competence (from the Class Play) and immaturity (from the Class Play). Through further review of results of the V-Analysis it was determined that the "Social Impact" variable from the Social Classification group should be excluded from Cluster 5 membership (although it met the default criterion it had a low correlation) and retained in Cluster 1. The next step in the BCTRY analysis was to use the revised clusters to run a Key Cluster Analysis in order to reestablish internal consistency. Internal reliabilities for the revised clusters are shown in Table 3. The correlation of raw cluster scores with one another is shown in Table 4 (unities on diagonal) and in Table 5 (communalities on diagonal). It can be seen that the highest positive relationship between clusters is found between Cluster 3 and Cluster 4.

Table 1: Description of Variables in the Revised Clusters

CLUSTER	EXPANDED VARIABLE NAMES	SOURCE
Cluster 1:	Rejection Cluster	
LPR	Standardized Lowest Peer Rating	Play With
SOCPR	Standardized Social Preference (Reflect)	Play With/Like Best
SOCIM	Standarized Social Impact	Play With/Like Best
REJECT	Rejected Social Classification	Play With/Like Best
Cluster 2:	Controversial Cluster	
TOTNOM	Standardized Total Nominations	Class Play
ZAG	Standardized Aggressive Nominations	Class Play
POSNEG	Stan. Positive Minus Negative Nominations (Reflect)	Class Play
OBPROM	Standardized Observable Prominence	Class Play
Cluster 3:	Internal Cluster	
INTERN	Internalizing Subscale	Achenbach
WITHDR	Social Withdrawal Subscale	Achenbach
INATT	Inattentive Subscale	Achenbach
ANX	Anxious Subscale	Achenbach
Cluster 4:	External Cluster	
TOTAL	Total Score on Conners'	Conners
AGGRES	Aggressive Subscale	Achenbach
EXTERN	Externalizing Subscale	Achenbach
NERVAC	Nervous-Overactive Subscale	Achenbach
DESTRU	Self-Destructive Subscale	Achenbach
UNPOP	Unpopular Subscale	Achenbach
CONNER	Indication of Attention Deficit Disorder	Conner
Cluster 5:	Acceptance Cluster	
SOCPR	Standardized Social Preference	Play With/Like Best
REJECT	Rejected Social Classification (Reflect)	Play With/Like Best
LB	Standardized Like Best Nomination	Like Best

Table 2: Cluster Structure for V-Factor Analysis

	Variables	Oblique Fact. Coeff.	Reliability Coefficient (Based on Defining Factors)**
CLUSTER 1 REJECTION	*LPR	1.0071	.9666
	*SOCPR	-.8955	
	*REJECT	.7855	
	*SOCIM	.7764	
CLUSTER 2 CONTROVERSIAL	*TOTNOM	1.0877	.8992
	*ZAG	.9809	
	*POSNEG	-.6448	
	*OBPROM	.4732	
CLUSTER 3 INTERNAL	*INTERN	.9620	.8859
	*WITHDR	.8938	
	*INATT	.6396	
	*ANX	.6149	
CLUSTER 4 EXTERNAL	*TOTAL	.9917	.9247
	*EXTERN	.8179	
	*AGGRES	.7946	
	*NERVAC	.7852	
	*CONNOR	.7519	
	DESTRUC	.6433	
	UNPOP	.6034	
CLUSTER 5 ACCEPTANCE	*LB	.9817	.9311
	*SOCPR	.7922	
	*REJECT	-.5492	
	*SOCIM	.1072	

* indicates a defining factor for that cluster

** Cluster 4 reliability coefficient is .9301 when non-defining factors are included.

Legend: See Table 1 for full variable names

Table 3: Cluster Structure for Revised Clusters

	Variables	Oblique Fact. Coeff.	Reliability Coefficient
CLUSTER 1 REJECTION	*LPR	.9923	.9789
	*SOCPR	-.9020	
	*SOCIM	.8118	
	*REJECT	.7803	
CLUSTER 2 CONTROVERSIAL	*TOTNOM	1.0861	.9003
	*ZAG	.9795	
	*POSNEG	-.6497	
	*OBPROM	.4733	
CLUSTER 3 INTERNAL	*INTERN	.9666	.8825
	*WITHDR	.8927	
	*INATT	.6304	
	*ANX	.6147	
CLUSTER 4 EXTERNAL	*TOTAL	.9075	.9293
	*AGGRES	.8542	
	*EXTERN	.8425	
	*NERVAC	.7543	
	*CONNER	.6887	
CLUSTER 5 ACCEPTANCE	*SOCPR	.9879	.9247
	*REJECT	-.7458	
	*LB	.7346	

* By definition, all factors included in the revised cluster structure analysis are defining factors.

Legend: See Table 1 for full variable names

Table 4: Intercorrelations of Raw Cluster Scores - Unities on Diagonal

	CLUSTER 1 REJECTION	CLUSTER 2 CONTROVERSIAL	CLUSTER 3 INTERNAL	CLUSTER 4 EXTERNAL	CLUSTER 5 ACCEPTANCE
CLUSTER 1 REJECTION	1.0000				
CLUSTER 2 CONTROVERSIAL	.2140	1.0000			
CLUSTER 3 INTERNAL	.2555	.1121	1.0000		
CLUSTER 4 EXTERNAL	.4413	.3382	.5327	1.0000	
CLUSTER 5 ACCEPTANCE	-.7839	-.1870	-.2018	-.3709	1.0000

Table 5: Intercorrelations of Raw Cluster Scores - Communalities on Diagonal

	CLUSTER 1 REJECTION	CLUSTER 2 CONTROVERSIAL	CLUSTER 3 INTERNAL	CLUSTER 4 EXTERNAL	CLUSTER 5 ACCEPTANCE
CLUSTER 1 REJECTION	.9789				
CLUSTER 2 CONTROVERSIAL	.2009	.9003			
CLUSTER 3 INTERNAL	.2375	.1000	.8825		
CLUSTER 4 EXTERNAL	.4209	.3093	.4824	.9293	
CLUSTER 5 ACCEPTANCE	-.7459	-.1706	-.1823	-.3439	.9247

Clusters 3 and 4 both are composed of subtest scales from the Achenbach Child Behavior Checklist which are indicative of behavioral problems. However, items on Cluster 3 appear to indicate Internalizing difficulties (problems involving cognitive and affective experiencing) whereas items on Cluster 4 appear to indicate Externalizing difficulties (problems involving social relationships). The relationship shown in the intercorrelation matrix seems to indicate that the problems are not quite as independent as their labels suggest.

The five clusters were used to form a typology and to assign subjects to a particular type based on similarity of profile. A score on each of the 5 clusters was computed for each subject and standardized as a T-score. Using the OTYPE program on BCTRY, each individual was located in five-dimensional space. As Tryon and Bailey note:

> "Conceptualized in this fashion, the problem of forming a typology of a group of individuals on scores on many attributes is a simple one in principle: one writes a computer program to represent the individuals as a swarm of points in a hyperspace of scores and to locate within the swarm regions of high density; there are as many types as there are regions of high density in the space of scores." (Tryon and Bailey, 1970, p. 137) .cp 3

The O-Analysis generated 8 profile types which were given the following names: Profile Type 1 - Severely socially wthdrawn; Profile Type 2 - Neglected without behavioral indicators; Profile Type 3 - Rejected with moderate behavioral indicators; Profile Type 4 - Neglected with behavioral indicators; Profile Type 5 - Average profile; Profile Type 6 - Controversial/Rejected; Profile Type 7 - Controversial/Nonrejected; Profile Type 8 - Severely rejected.

The profile-type means and standard deviations are presented for each cluster in Table 6. These means are graphically represented in Figure 1. Although the profile types do seem distinctive, interpretation of Type 1 and Type 6 must be made with caution since few subjects were assigned to each of these types (2 subjects and 3 subjects respectively). Table 6 also shows the number of subjects in each cluster and provides a descriptor which is based on the interpretation of the profiles found in the section entitled, "Interpretation of the Results".

Parent Data Analysis

A chi square analysis was performed to determine whether there was a difference in the children's profiles obtained through OTYPE cluster analyses between those parents who filled out and mailed back the ICL and those who did not. No differences were found through this analysis, χ^2 (7,N=63) = 6.751. Since the parent questionnaires that were returned seem to be representative of the sample, multivariate analysis of variance was used to determine whether the Leary instrument was useful in distinguishing between profile types. The MANOVA indicates no significant relationship between the Leary subscales (Dominant, Submit, Love, Hostile) and the 8 profile clusters, F(24,112) = .7566.

Table 6: Profile Type Means and Profile Type Standard Deviations

PROFILE 1: SEVERELY SOCIALLY WITHDRAWN n = 2

	Means	Standard Deviations
Cluster 1 - Rejection	38.1985	.8580
Cluster 2 - Controversial	45.9208	.0942
Cluster 3 - Internal	80.6478	4.7706
Cluster 4 - External	47.7234	.4471
Cluster 5 - Acceptance	56.6004	1.2066

PROFILE 2: NEGLECTED W/O BEHAVIORAL INDICATORS n = 19

	Means	Standard Deviations
Cluster 1 - Rejection	45.2744	4.0434
Cluster 2 - Controversial	45.3606	2.7588
Cluster 3 - Internal	42.5262	2.6713
Cluster 4 - External	42.7324	2.4387
Cluster 5 - Acceptance	53.2658	3.5179

PROFILE 3: REJECTED WITH MODERATE BEHAVIORAL INDICATORS n = 12

	Means	Standard Deviations
Cluster 1 - Rejection	59.0741	4.3531
Cluster 2 - Controversial	46.3005	4.0458
Cluster 3 - Internal	46.7344	5.5474
Cluster 4 - External	51.1661	7.8976
Cluster 5 - Acceptance	39.0422	2.7664

PROFILE 4: NEGLECTED WITH BEHAVIORAL INDICATORS n = 10

	Means	Standard Deviations
Cluster 1 - Rejection	42.1725	2.8653
Cluster 2 - Controversial	45.4828	3.4359
Cluster 3 - Internal	53.6344	4.7461
Cluster 4 - External	52.8324	4.2192
Cluster 5 - Acceptance	55.7809	3.8547

Table 6 (cont'd)

PROFILE 5: AVERAGE PROFILE n = 6

	Means	Standard Deviations
Cluster 1 - Rejection	39.2703	3.1156
Cluster 2 - Controversial	43.9664	3.4258
Cluster 3 - Internal	44.7926	4.3441
Cluster 4 - External	41.8525	1.3696
Cluster 5 - Acceptance	67.1540	7.9224

PROFILE 6: CONTROVERSIAL-REJECTED n = 3

	Means	Standard Deviations
Cluster 1 - Rejection	57.5365	1.3714
Cluster 2 - Controversial	69.2086	7.7472
Cluster 3 - Internal	46.1989	4.9959
Cluster 4 - External	48.5864	.7520
Cluster 5 - Acceptance	38.4474	.6301

PROFILE 7: CONTROVERSIAL-NONREJECTED n = 6

	Means	Standard Deviations
Cluster 1 - Rejection	47.3686	5.0917
Cluster 2 - Controversial	64.8124	4.2343
Cluster 3 - Internal	49.8946	5.6590
Cluster 4 - External	48.0200	4.2120
Cluster 5 - Acceptance	53.8970	2.3691

PROFILE 8: SEVERELY REJECTED n = 6

	Means	Standard Deviations
Cluster 1 - Rejection	68.6799	4.7912
Cluster 2 - Controversial	55.0646	7.7103
Cluster 3 - Internal	63.7747	7.5617
Cluster 4 - External	57.5391	3.4350
Cluster 5 - Acceptance	35.8572	3.3305

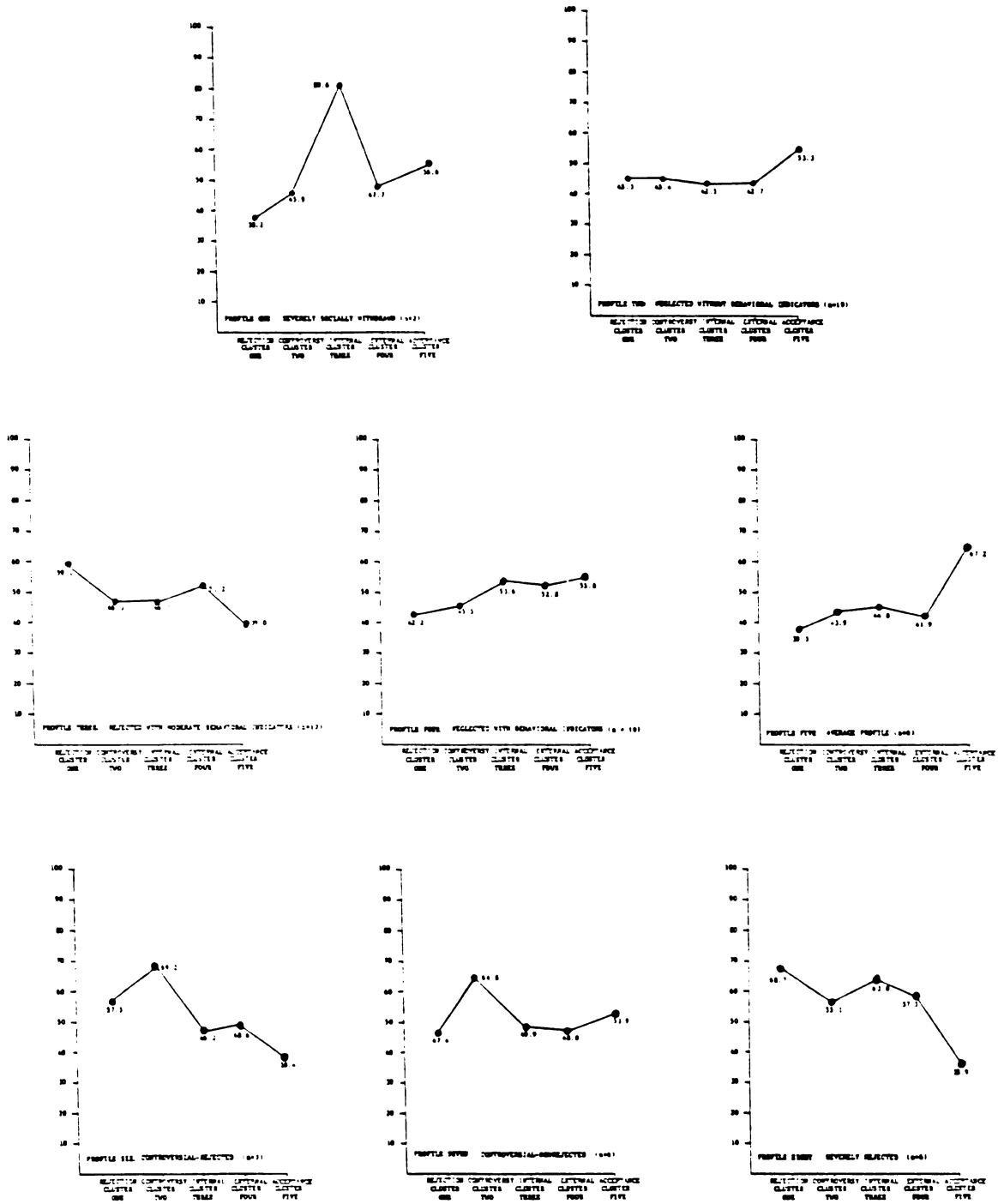

Figure 1: The Eight Profile Types

Interpretation of Results

Description of the Five Clusters

The items in Cluster 1 are variables from the Social Classification group. As defined, the higher the score on this cluster the more likely the child has rejected status. Therefore, Cluster 1 will be referred to as the Rejection Cluster. The polar opposite of the Rejection Cluster is Cluster 5, which also consists of variables from the Social Classification group. Higher scores on Cluster 5 indicate greater peer acceptance. Thus, Cluster 5 is labelled the Acceptance Cluster.

The variables in Cluster 2 are from the Class Play. This is an interesting group of variables in that they comprise both positive and negative attributes. As can be seen in Table 1, subjects scoring high on this cluster would be described as receiving a high number of nominations for roles in the Class Play but the nominations are for both positive and negative roles. Specifically, negative nominations come from the Aggression Factor on the Class Play (eg., "mean, cruel boss", "picks on smaller kids", "causes a lot of trouble in class"). The positive nominations come from items in the Observable Prominence Factor (eg., "very good looking", "team captain", "good at sports"). Overall, the person scoring high on this factor has more negative nominations than positive nominations. Cluster 2 seems to be reflective of the social classification type designated controversial. As noted in the Introduction, controversial children receive positive and negative peer ratings; over time they tend to drift either to

rejected or popular/average peer status (few become neglected children). Therefore, Cluster 2 is called the Controversial Cluster.

Cluster 3 variables are from the Achenbach Child Behavior Checklist. The Anxious, Withdrawn and Internalizing Subscales are represented; these are Internalizing Scales on the Achenbach. In addition, the Inattentive Subscale, which is from the Externalizing Scale on the Achenbach, loaded on this cluster. Overall, Cluster 3 seems to represent behavioral problems directed inward. Thus, this cluster will be referred to as the Internalizing Cluster.

Three variables on Cluster 4 are subscales from the Externalizing Scale of the Achenbach Child Behavior Checklist. These are the Aggressive Subscale, the Nervous/Overactive Subscale, and the Externalizing Subscale. Two other subscales of the Achenbach, Unpopular and Self-Destructive, also are members of Cluster 4. In addition, two variables on Cluster 4 are from the Conners' Teacher Questionnaire. The first variable represents the subject's total score on the 10 questions on the Conners' Teacher Questionnaire; the second variable indicates whether or not the subject would be labelled Attention Deficit Disorder using Conners' scoring criteria. Overall, Cluster 4 represents behavioral problems directed outward and thus, Cluster 4 will be named the Externalizing Cluster.

Interpretation of Person-Cluster Profiles

An important dimension in the person-cluster profiles is the distinction between rejected and non-rejected children. First,

profiles of the rejected children will be considered and then the profiles of the non-rejected children will be reviewed.

The rejected children are found in Profiles 3, 6, and 8. Profile 3 is the first rejection profile (see Figure 2). These twelve subjects scored moderately high to high on the Rejection Cluster and very low on the Acceptance Cluster. Their scores were average for the lower-third group on the other three clusters. These subjects' mean scores on the Achenbach subscales are 55.5T on Externalizing, 59.6T on Aggressive, 58.8T on Nervous-Overactive, 59.6T on Self-Destructive and 52.9 on Internalizing. It should also be noted that 5 of the 12 subjects would be classified as Attention Deficit Disordered on the Conner scale. This pattern suggests that these children are not only rejected, they also are impulsive, overactive and somewhat aggressive. However, besides the 5 A.D.D children, no other children in this cluster showed elevations in the clinical range (above 69T). Thus, this profile type is labelled, "Rejected with moderate behavioral indicators".

The three children showing Profile 6 scored moderately high to high on the Rejection Cluster and very low on the Acceptance Cluster (see Figure 3). They are extremely high on the Controversial Cluster and average on the remaining two clusters. While receiving above average nominations in their classes for items on the Observable Prominence Factor in the Class Play (eg., good looking, good at sports, team captain) these children received nominations on the Aggression Factor that were approximately three standard deviations above the mean. Examples of the items that these children scored

high on would be picks on smaller kids, causes trouble and mean, cruel boss. Children showing Profile 6 had more negative nominations than positive nominations. Thus, although they did receive nominations for Observable Prominence, these were overshadowed by the Aggressive nominations. This group's mean scores on the Achenbach subscales were 62T for Aggression, 58.6T for Inattentive, 60 for Externalizing and 50.6 for Internalizing. There were no subjects in this group with T-scores in the clinical range. Thus, Profile 6 is seen as fitting the Controversial social status classification since they are seen as having primarily negative attributes but also have positive attributes. Thus, this profile type is labelled, "Controversial-Rejected".

The six children in Profile 8 are the most severely rejected children. They are the highest on the Rejection Cluster and the lowest on the Acceptance Cluster (see Figure 4). Five of the children have scores on the Achenbach that are in the clinical range and two of these five children would be considered A.D.D. based on their Conners' scores. Their mean Achenbach scores are: Internalizing, 65.3; Anxious, 62.8; Withdraw, 69.3, Inattentive, 69.6; Externalizing, 65; Self-Destructive, 65.1; Nervous-Overactive, 65.3. In general, these children would be seen as immature, aggressive, socially withdrawn, anxious, inattentive, and impulsive. The descriptor label "Severely Rejected" is used for this profile.

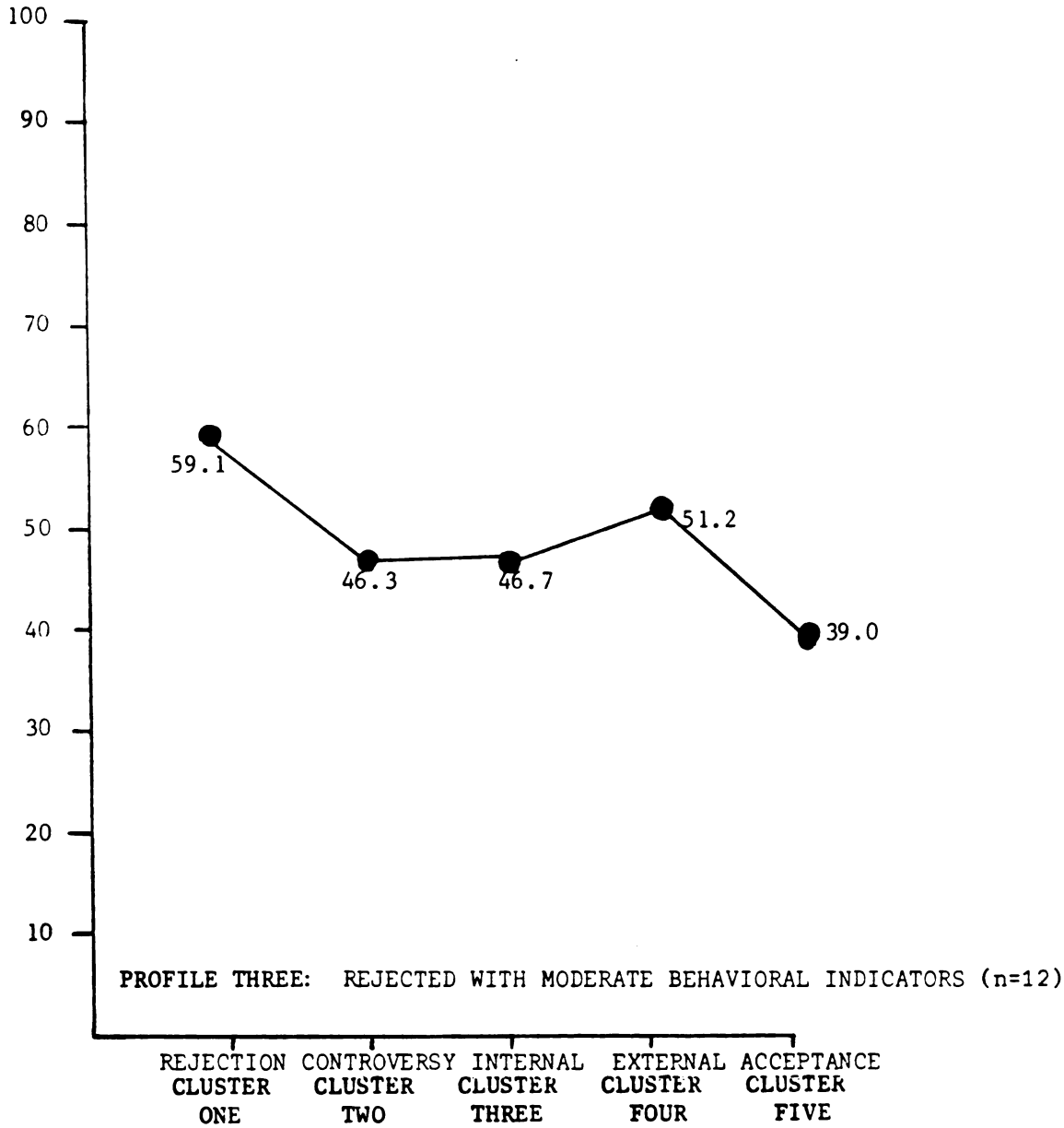

Figure 2: Mean Cluster Scores for Profile Three

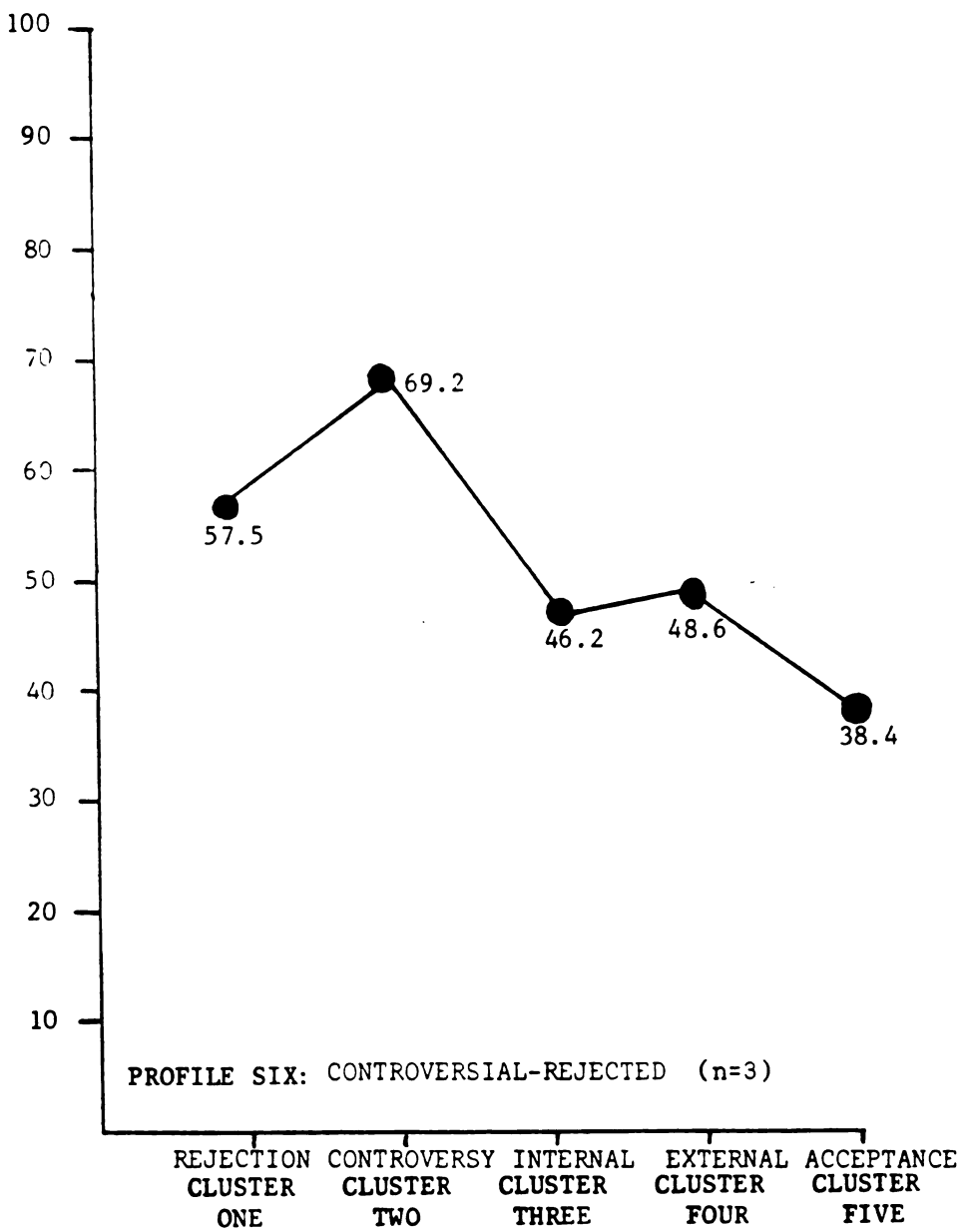

Figure 3: Mean Cluster Scores for Profile Six

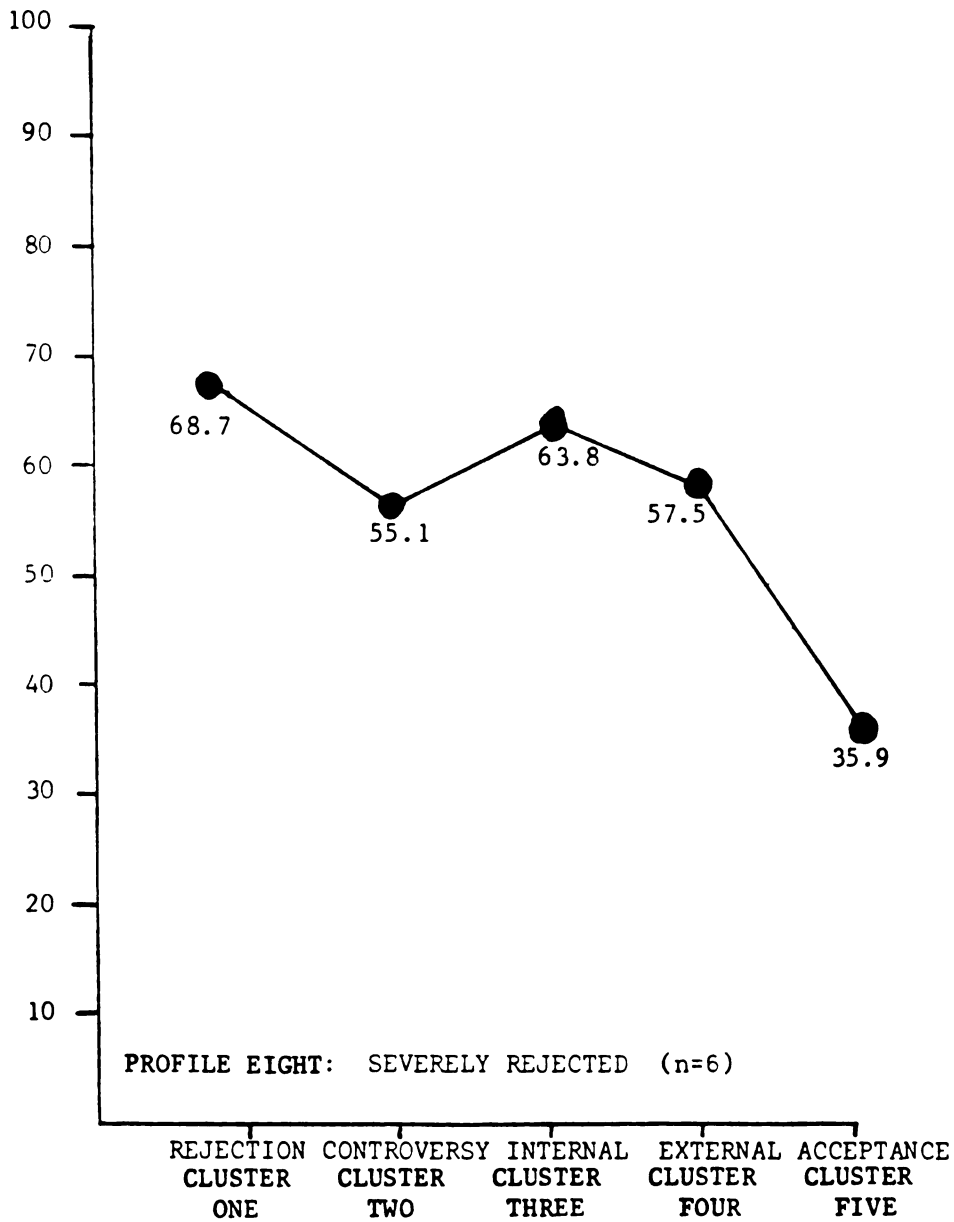

Figure 4: Mean Cluster Scores for Profile Eight

The remaining five profiles are made up of children who are not rejected by their peers with one of the profiles indicating a selection error (taking the lower third is too inclusive as hypothesized). Profile 5 shows that the six children comprising it are very high on the Acceptance Cluster, very low on the Rejection cluster, and low on the three remaining clusters (see Figure 5). They appear to be children who would be in the Average Social Status Classification. Therefore, this profile is called the "Average Profile".

Profiles 1, 2, and 4 are made up of non-rejected children. As indicated in Figure 6, Profile 1 subjects' scores are very low on the Rejection Cluster, and about average for the lower-third sample on the Acceptance Cluster. Thus, they do not seem to be strongly disliked by their peers, nor strongly affiliated with them. Scores on the Controversial and Externalizing Clusters are average for this sample. However, these subjects show extremely high scores on the Internalizing Cluster. Looking at the Achenbach subscale T-scores that make up the clusters, these subjects' mean scores on Anxiety, Withdrawal and Internalizing are 82T, 78T, and 80T. These scores are above the ninety-eighth percentile and are far out of the normal range. These scores coupled with a low standard score on Like Best nomination would be indicative of severe social withdrawal. As stated earlier, caution needs to be used in the interpretation of Profile 1 due to the fact that two subjects make up the cluster. However, given a lower-third sample size of 68, it seems reasonable to expect only 2 children to show this pattern of a severe clinical disorder. This profile type is labelled "Severely Socially Withdrawn".

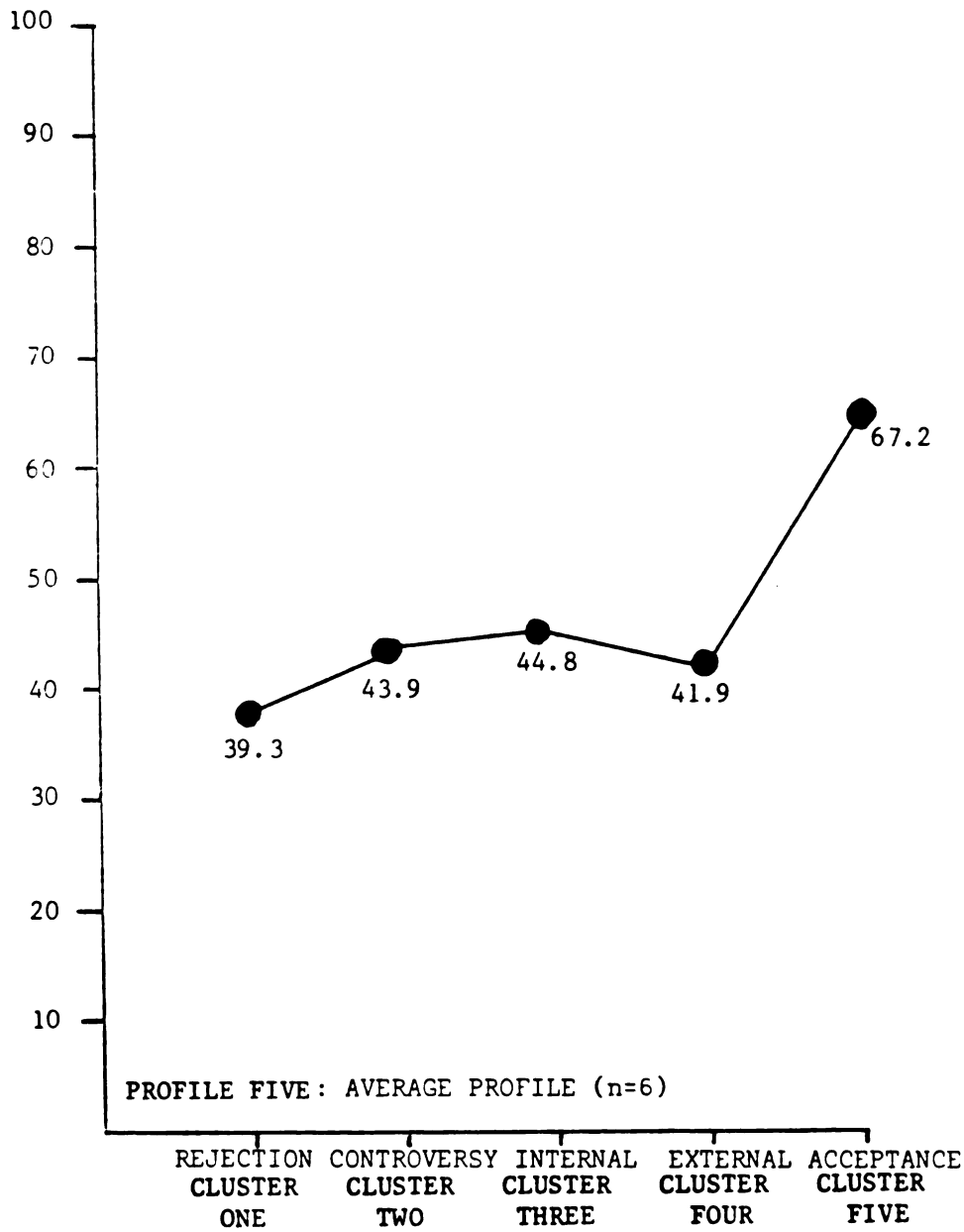

Figure 5: Mean Cluster Scores for Profile Five

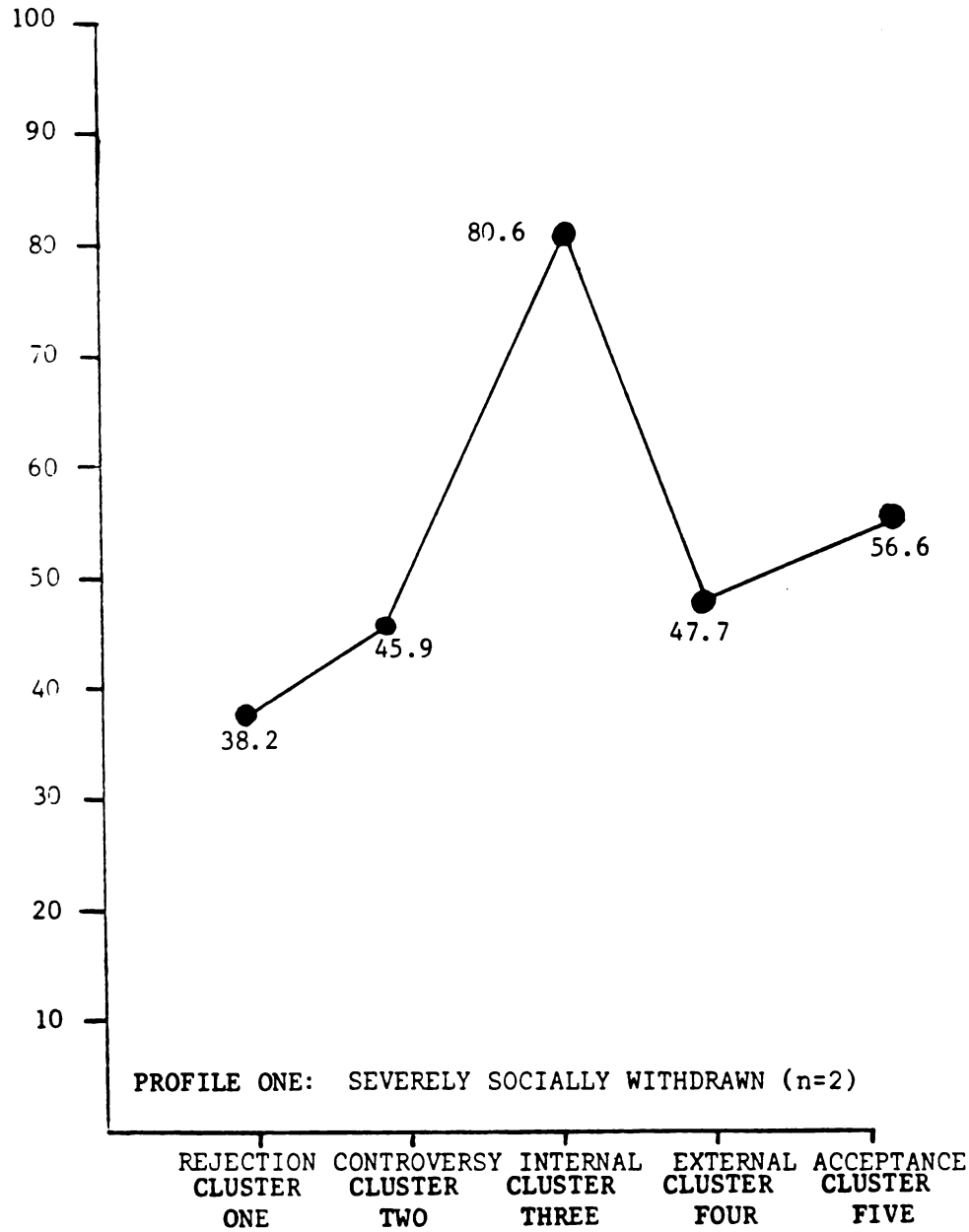

Figure 6: Mean Cluster Scores for Profile One

The largest number of children (n=19) are found in Profile 2. As can be seen in Figure 7, this profile shows the least variation between clusters. But the absence of variation lends a clue to its interpretation. This flatness of the profile coupled with neither disliking nor liking by peers seems to represent a pattern of the Neglected Child Social Status Classification. As Asher and Dodge (1986) indicate the derivation of the neglected social status classification by means of the lowest peer rating method accurately classifies only 57% of the children it should. In applying the formula for classifying neglected children to subjects in this profile, five subjects clearly fit the pattern and seven subjects nearly match the pattern. With these indicators it seem that this profile does represent the neglected child. Thus, this profile is called, "Neglected without behavioral indicators".

The ten children in Profile 4 are low on the Rejection Cluster and average on Acceptance. They also are average on the Internalizing and the Externalizing Clusters (see Figure 8). Of these 10 children, three children score in the Attention Deficit Disorder range on the Conners'. There also are a few scores on the Achenbach scale that are in the clinical range, although this is not the predominant pattern. These subjects' mean scores on the Achenbach scales are: Internalizing, 60T; Anxiety, 61.5T; Withdrawn, 62.1T; Inattentive, 62.7; Externalizing, 60.9T; Nervous-Overactive, 62.8. While these children are somewhat elevated on the Internalizing and Externalizing Clusters, their scores on the social classification variables indicate that they are not distinctive to their peers. The descriptor for

Profile 4 is "Neglected with behavioral indicators". Once again, in using Asher and Dodge's (1986) method for classifying neglected children, four of the ten children in Profile 4 fit the pattern and four other children are very close to the pattern. In addition, Asher and Dodge (1986) classified 16% of their total sample as neglected. In applying this 16% factor to the present sample, one might predict that 16% of the 357 subjects in the Full Sample would be neglected; this would lead to 57 children being classified as neglected. However, since 43% of the Selected Sample did not participate, then it would be expected that 25 of the 57 would not be included in this sample. Therefore, interpolating from the results of Asher and Dodge, one would predict 32 neglected children in the Selected Sample-Participant group. This is quite similar to the 29 total children from Profile 2 and Profile 4.

Six children are in Profile 7 which is labelled "Controversial - Not Rejected". Children in this profile have high scores on the Controversial Cluster and average scores on the other four clusters (see Figure 9). What seems to distinguish subjects in this profile from Profile 6 (Controversial-Rejected) are lower scores on the Aggression Factor on the Class Play and on the Aggression subscale of the Achenbach, and lower scores on the Externalizing subscale of the Achenbach. It seems that the higher aggressiveness in the Profile 6 subjects may be the contributing factor in their gaining rejected peer status whereas subjects in Profile 7 are not rejected. Thus, there seem to be two controversial groups: one group is rejected by their

peers and the other group is not rejected. Using Asher and Dodge's (1986) figures one would predict 11 Controversial Social Status subjects in the present sample. This is very similar to the number found in this study; 9 subjects make up Profiles 6 and 7.

Finally, four subjects were not placed in any cluster by the O-Analysis program because they did not fit into the profiles described above.

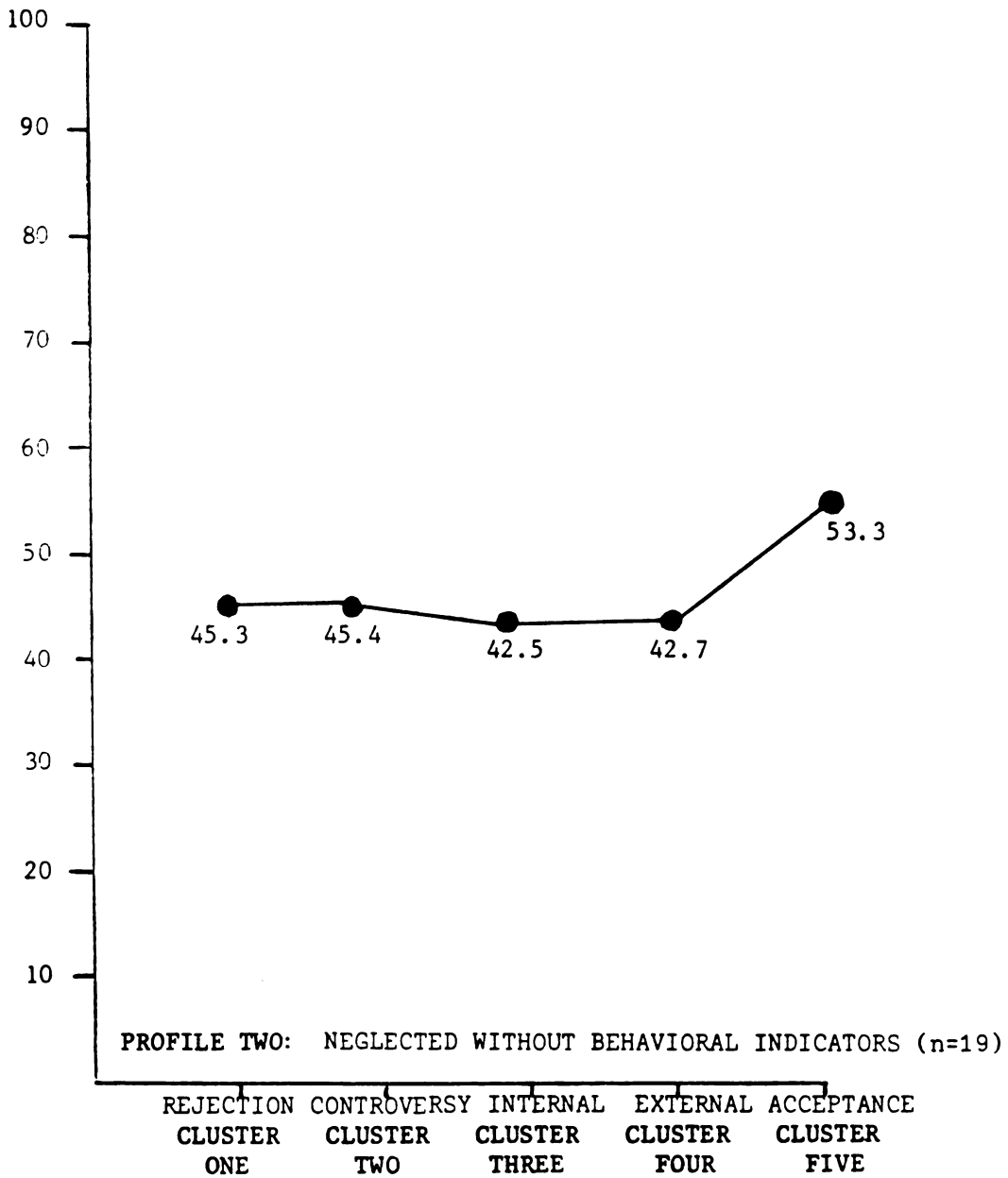

Figure 7: Mean Cluster Scores for Profile Two

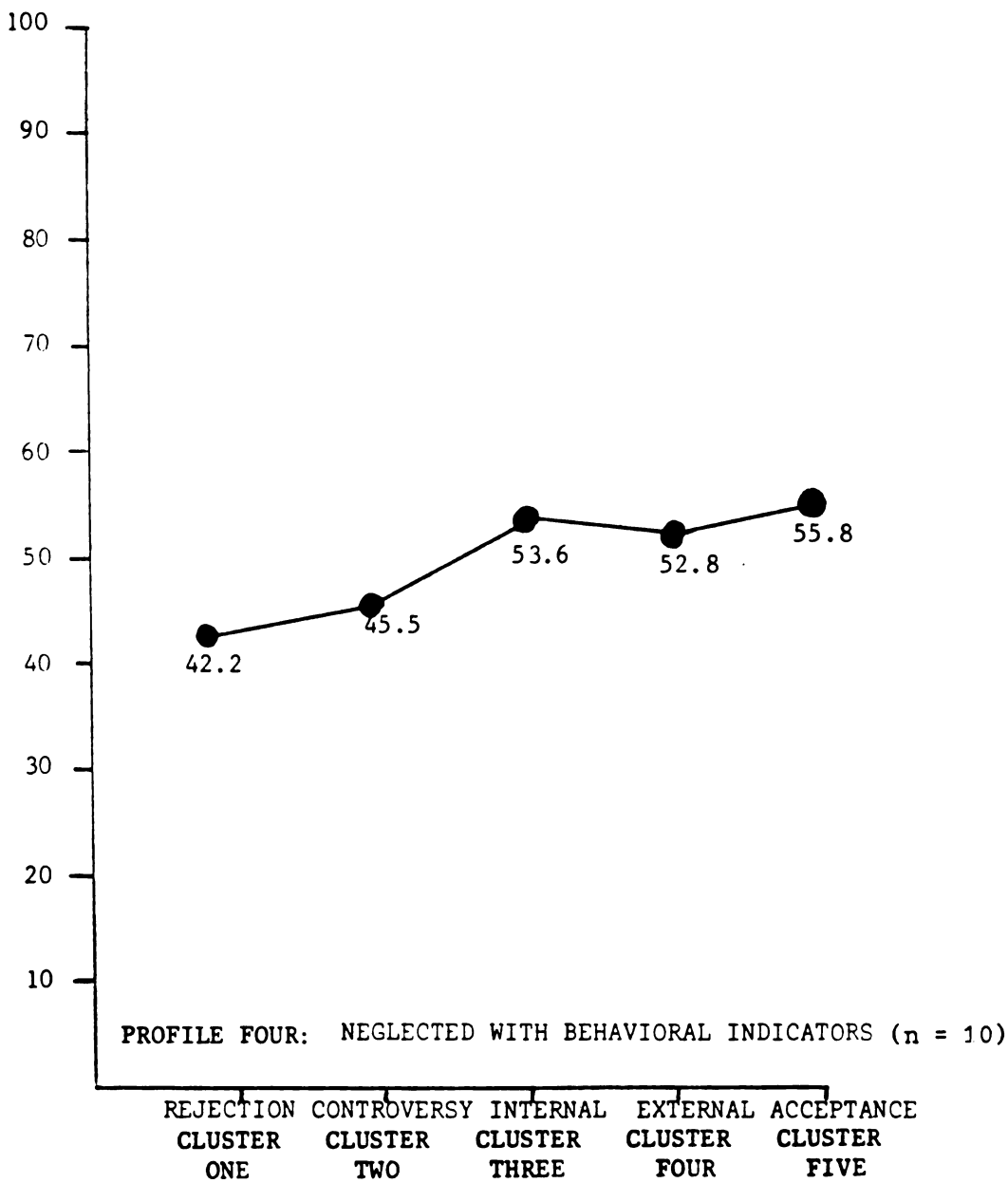

Figure 8: Mean Cluster Scores for Profile Four

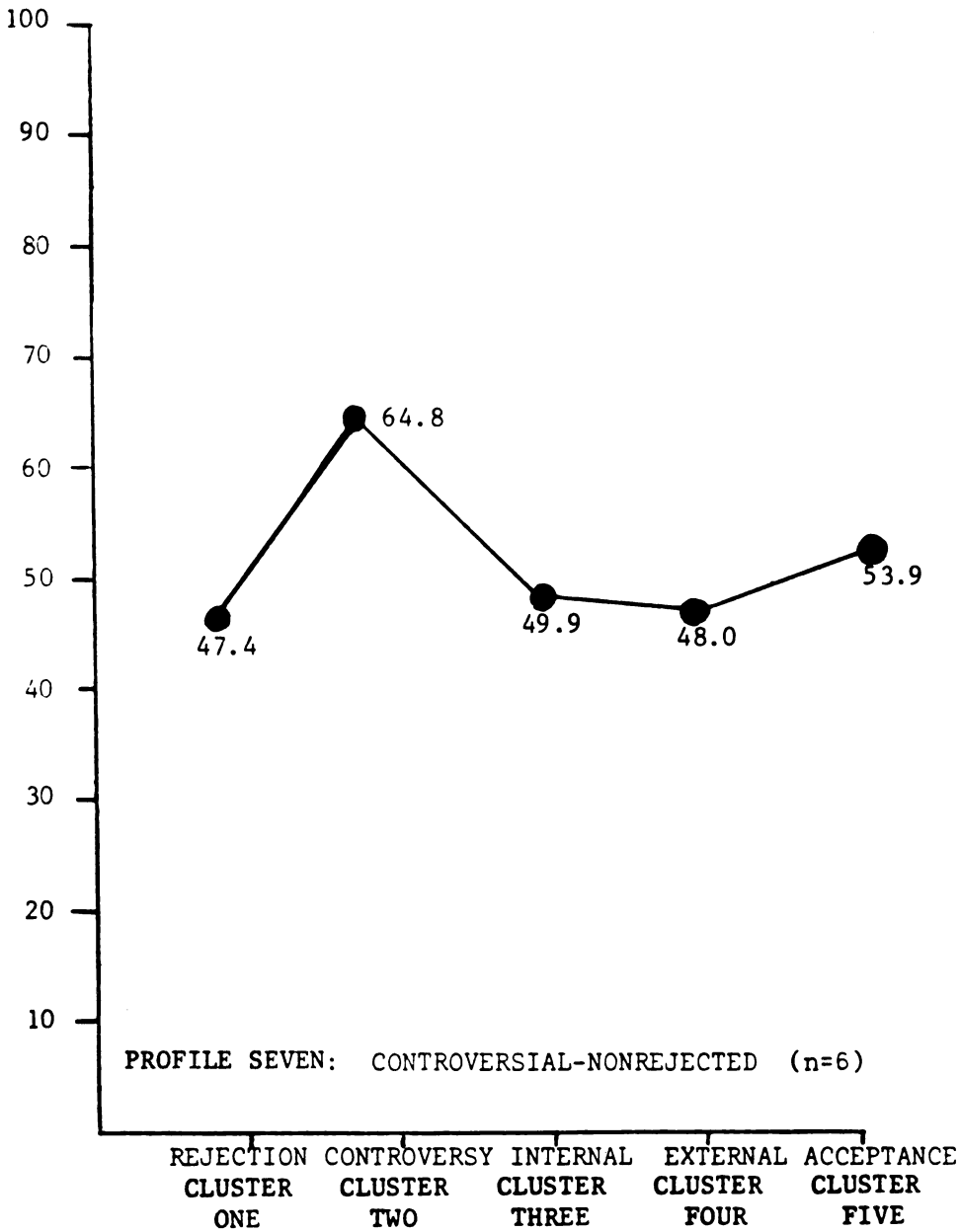

Figure 9: Mean Cluster Scores for Profile Seven

CHAPTER 4

DISCUSSION

As has been reported previously (Wanless and Prinz, 1982), socially unaccepted children are a heterogeneous group of subjects. Wanless and Prinz (1982) indicated that the differences stem from a rejected vs. neglected classification dichotomy. The major finding of the current study was that within each classification of children (rejected and neglected) there were at least two other sub-groups of children: those with behavioral adjustment problems and those without behavioral adjustment problems. In fact, eight distinct profile types were generated indicating greater heterogeneity among socially unaccepted children than had previously been reported. However, due to the small sample size of this study and small number of subjects in 2 profile types (profile one, n = 2; profile six, n = 3) the reliability of the 8 specific profile types is in question. Future research will be needed to address this question. The major finding, on the other hand, indicates that the model of implicit assumptions discussed in the Introduction needs to be revised to include the presence or absence in childhood of behavioral adjustment problems as possible causal factors. Of course, the nature (direction, strength, and under what conditions) of the causal pathways remains unanswered.

After reviewing the conceptual hypotheses, implications for the direction of future research investigating the nature of the causal pathways between the causal factors will be discussed.

Review of Conceptual Hypotheses

The first conceptual hypothesis stated that when children are identified by the most common method (lower third on roster and rating sociometric) as socially unaccepted, they will be a heterogeneous population. Results of the study indicate that children in Profiles 1, 3, 4, and 8 do have behavioral difficulties as determined by teachers. Children in Profiles 2, 5, 6, and 7 do not have behavioral difficulties.

The second conceptual hypothesis considered the types of behavior problems demonstrated by socially rejected or socially neglected children. It was hypothesized that socially rejected children would score high on the Externalizing Scale of the Achenbach as rated by their teachers and that children categorized as socially neglected would score high on the Internalizing Scale of the Achenbach when rated by their teachers. Although this hypothesis was not supported, different types of behavioral adjustment problems were found. Profile 1 was comprised of children who showed extreme social withdrawal and had a high Internalizing score but they did not show the pattern of social neglect. Children in Profile 8 were highly rejected but had moderately high scores on both the Externalizing Scale and on the Internalizing Scale on the Achenbach. Teacher ratings on the

Achenbach did not seem to discriminate these extreme groups in so far as demonstrating a narrower-band typology of socially unaccepted children.

Implications for Future Research

While this study indicates that type of social status classification and presence or absence in childhood of a behavioral adjustment disorder are important factors to be considered, it does not specify the relationship between these factors and poor social skills knowledge, poor social skills enactment, and poor adult adjustment. Theories of social cognitive development have implications for the direction future research could take in investigating the nature of relationships between these causal factors. The following questions arise from these implications:

(1) Do children experiencing poor peer interactions also show a developmental delay in social cognitive processes (e.g., role-taking)?

(2) If not a specific developmental delay, is the basis for the poor peer relations due to the fact that the behavioral adjustment disorders exhibited by some children may be inhibiting previously attained social cognitive processes? That is, can a behavioral adjustment disorder prevent a child from processing information in as efficient a manner as developmentally possible, thus leading to a social-cognitive deficit.

(3) If not a specific developmental delay, is the basis for poor peer relations due to performance factors rather than to social-cognitive deficits? Are these possible performance factors different for children with or without behavioral adjustment disorders?

As for the first question: Do children experiencing poor peer interactions also show a developmental delay in social cognitive processes (e.g., role-taking)? Selman (1980) found that clinically institutionalized socially unaccepted children were roughly two years behind matched peers (matched for age and IQ) in their social cognitive development. However, in another study in which teacher evaluations of appropriate social behavior were correlated with stages of social cognitive development, significant correlations were found between positive teacher evaluations and higher stages of social cognitive development, but negative teacher evaluations and the social cognitive stages were not significantly correlated (Selman, 1980). The subjects were from two groups: normal and clinical. Selman (1980) interpreted these results as indicating that prosocial behavior is dependent on adequate stage of social cognitive development, whereas negative social behaviors are not necessarily due to lower stages of social cognitive development. Due to the uncertain relationship between stage of social cognitive development and social behavior suggested by Selman's research, one cannot conclude that children with poor peer interactions are delayed in their development

of social cognitive processes. As will be seen, other theories suggest alternate explanations. Further research is necessary to clarify this issue.

If not a specific developmental delay, is the basis for poor peer relations due to the fact that the behavioral adjustment disorders exhibited by some children may be inhibiting previously attained social cognitive processes? Or, can a behavioral adjustment disorder prevent a child from processing information in as efficient a manner as developmentally possible, thus leading to a social cognitive deficit. (Or, possibly both simultaneously?) The social cognitive theory proposed by Flavell et al (1968) indicates that if a child is unable to use appropriate attentional strategies then inappropriate social behavior may occur. Dodge's (1986) model of social cognitive processing provides the most detailed explanatory system for this question. According to Dodge, incompetent social behavior may be due to attention, memory and effort difficulties in the encoding process (Step 1), due to biased (overattribution of hostile intentions) heuristic decision rules in the interpretation of encoded cues (Step 2), due to failure to generate novel solutions, non-aggressive solutions during the response search process (Step 3), due to failure to evaluate probable effectiveness or failure to take into account probable consequences during the response evaluation process (Step 4), or due to difficulty monitoring the solution during the enactment process (Step 5).

If not a specific developmental delay, is the basis for poor peer relations due to performance factors rather than to social-cognitive

deficits? Are these possible performance factors different for children with or without behavioral adjustment disorders? Flavell et al (1968) noted that children can have prosocial and antisocial goals. These can be independent of level of social cognitive development. A child who has poor peer relations due to aggressive acts may be realizing his/her intended goals and performing in exactly the intended manner. In fact, a high level of social cognitive development may aid in the use of covert aggressive strategies. Thus, one need not assume a social-cognitive deficit is present simply because a child has poor peer relationships. In addition, Dodge (1986) states that unconscious goals can influence performance. However, he does not explain how this occurs. This issue seems particularly important when children with behavioral adjustment disorders have competing and conflicting motives, such as when a child wants a companion and yet is fearful of being rejected. The use of psychological defenses by children with behavioral adjustment disorders also may produce ambivalent or unconscious motivations. This could occur when a child uses denial of aggressive impulses and seems surprised by having a reputation as a bully. Children without behavioral adjustment disorders, such as those showing learned helplessness patterns of behavior, also may have poor peer relations due to performance factors rather than due to social cognitive deficits. These children may avoid social situations in which they perceive themselves as having been failures in the past. Performance factors and social-cognitive deficits are not mutually exclusive. The

children showing learned helplessness may have learned not to attend to new and relevant cues that would in fact have improved performance.

Thus, the social cognitive models suggest two more possible causal factors for poor peer interactions, cognitive developmental limitations (developmental delays) and learned helplessness response style. In addition, these theories indicate that depending on the type of social status classification (neglected versus rejected) and the types of behavioral adjustment problems present, the causal relationships between the factors may vary. Future research needs to be conducted in order to specify the nature of the causal relationships. This may best be done from a longitudinal approach, especially in order to define the causal relationships associated with the process of change and with the "passage of time". Once these relationships become more defined then the next step for research is to determine if intervention programs need to be modified dependent on the social status classification of the child and the absence or presence of a behavioral adjustment problem (and perhaps, type of problem if one is present). That is, in children with Behavioral Adjustment problems, is it necessary to provide intervention to address simultaneously the social skills deficits and the Behavioral Adjustment problem or is only one intervention approach necessary?

In addition, future research needs to re-examine the implicit assumption that poor childhood peer interactions have a causal impact on poor adult adjustment. It seems particularly important that this research is conducted longitudinally and that the possible presence of behavioral adjustment problems be included as a factor to be studied.

Depending on the outcome of this research, the strength of the causal relationships between behavioral adjustment problems, childhood peer interactions and adult adjustment level, and decisions as to whether to focus intervention on behavioral adjustment problems versus focusing on social skills deficits may be better made.

In the past decade there has been a tremendous growth in the number of school-based intervention studies as well as developmental studies looking into the determinants of social status classifications. Refinement and future development of narrower-band typologies holds the promise of greater acceptance and behavioral adjustment of many children.

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APPENDICES

APPENDIX A

May 1987

Dear Parents:

The Lakeview Public School administrators and teachers are participating with social scientists at Michigan State University in the gathering of information regarding how peer relationships affect social, emotional and school adjustment. Mrs. Hagberg, School Principal, of the Prairieview Elementary School, has kindly agreed to allow us to write to you for permission for your child to help us. First, we are asking you to help by allowing your child to participate in the study.

We feel that the information that is gathered will be useful to educators and parents in planning group learning experiences and to professionals in helping children be more successful in their encounters with other children. Few, if any, previous studies have obtained the type of information that we will be collecting from three separate sources (children, teachers, and parents), and so the results of this study will be the most comprehensive possible. However, if some parents are unable to complete the brief parent questionnaire, the information gathered from participating children and teachers will still be valuable.

Children will be asked to complete questionnaires during one thirty-minute group session conducted at school and supervised by researchers from Michigan State University. Before they participate in the study, the children will be given a brief explanation and their agreement to participate will be requested. Children who agree to participate will be asked who their friends are, how much they like to play and work with other class members, and their choices of classmates for each of 14 "parts" of a hypothetical "class play". Past studies with these questionnaires indicate that the children find these questionnaires fun to complete and their teachers have suggested that learning to complete forms like these is a good learning experience.

In addition, teachers will be asked to describe their perceptions of the behavior of a small group of the children. INFORMATION FROM THE CHILDREN AND TEACHERS WILL BE GATHERED IN SUCH A WAY THAT WE WILL NOT KNOW THE LAST NAMES OF THE CHILDREN, THEREBY PROTECTING THEIR AND YOUR PRIVACY.

Parents of a small group of children also will be asked to complete a brief questionnaire regarding their perceptions of their children's behavior and characteristics. If you are chosen, we hope you will help us. This questionnaire will be mailed to the parents' home address and will have an addressed, stamped, return envelope enclosed. The questionnaire usually can be completed in 10 minutes.

The purpose of this letter is to inform you of the study and to request permission for your child to participate. THE RESULTS OF YOUR CHILD'S PARTICIPATION WILL BE STRICTLY CONFIDENTIAL AND ALL INFORMATION WILL BE ANONYMOUS. You are, of course, free to request additional explanations of the study at any time, both you and your child have the right to withdraw from the study at any time if you desire to do so.

We hope you will agree to your child's participation in the project. Please fill out and sign the attached form to indicate whether or not you agree to your child's participation. Please return this form to you child's teacher as soon as possible.

If you have any questions, please contact your principal or Kerry Miller. Your cooperation is deeply appreciated.

Sincerely,

William Kerry Miller, M. A.
Michigan State University
(517) 353-9166

MICHIGAN STATE UNIVERSITY
Department of Psychology

DEPARTMENTAL RESEARCH CONSENT FORM

1. I have freely consented for my child to take part in a scientific study being conducted by: Kerry Miller under the supervision of: Dr. Gary Stollak, Professor of Psychology.

   This research will require that my child
   a) read a list of classmates first names and first initial of last names and indicate how much s/he likes to play or work with each classmate. For each classmate my child will circle the number on an answer sheet which best reflects her/his level of liking to play and work with that classmate.
   b) indicate three classmates s/he likes best by circling a number on a separate answer sheet corresponding to those three classmates.
   c) pretend s/he is the "director" of a hypothetical "class play" and indicate which classmates s/he would select for each of 14 parts in the play. For each part my child will circle the number on a separate answer sheet that corresponds to the selected classmate.

   I understand that my child will be asked to complete the above questionnaires during one thirty-minute group session conducted at my child's school and supervised by researchers from Michigan State University.

   I understand that my child's teacher may be asked to complete 2 questionnaires regarding her/his perception of my child's behavior.

   I understand that I may be asked to complete a 10-minute questionnaire regarding my child's interpersonal behaviors.

2. I understand the above explanation that has been given to me and what my child's participation will involve.

3. I understand that my child and I are free to discontinue participation in the study at any time without penalty.

4. I understand that the results of the study will be treated in strict confidence and that information my child and I provide will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.

5. I understand that my participation in the study does not guarantee any beneficial results to me or to my child.

6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Child's Name:_____ Parent(s) Signature(s):_____

Today's Date:_____ _____

Parent's Address:_____

I would like a copy of the results _____Yes____No

PLEASE HAVE YOUR CHILD RETURN THIS SLIP TO SCHOOL TOMORROW

PERMISSION SLIP

This study has been explained to me and I am willing to participate in it.

My name is _____

My teacher's name is_____

MICHIGAN STATE UNIVERSITY

DEPARTMENT OF PSYCHOLOGY
PSYCHOLOGY RESEARCH BUILDING

EAST LANSING · MICHIGAN · 48824-1117

[Date]

[Parent(s) Names]
[Street Address]
[City], MI [Zip]

Dear [Parent(s) Names]:

Thank you once again for allowing [Child's Name] to participate in the M.S.U. study. Now, we are asking parents to complete a brief questionnaire regarding their perceptions of their children's behavior and characteristics.

We would appreciate your participation in this project. The enclosed questionnaire usually can be completed in about 10 minutes. We are requesting that the mother or primary caregiver in the family answer the questions.

Once you have filled in the questionnaire, please place the answer sheet and pencil in the return envelope and place the envelope in the mail. No postage is required.

I would like to thank you in advance for your consideration of this request.

Sincerely,

William Kerry Miller, M.A.

Enclosures

APPENDIX B

APPENDIX B

Data Collection Instructions

After the experimenter introduced himself as a social scientist and gave a brief description of the types of questionnaires that the children would be completing, the children were asked to sign an assent form. After these forms were signed the following specific instructions were given:

> "At the top of your packet you should see a questionnaire that looks like this [experimenter held up appropriate questionnaire] with a blue 'PLAY' on the top of it. Does everybody see this? What I would like you to do is look at the circles on each line with the numbers on them, 1 through 5. This is one of the tools that social scientists use and it is like a thermometer. Thermometers measure temperature and this tool measures how much you like or dislike something. The number 1 dot means, 'I don't like to'. The number 2 dot means, 'I kind of don't like to'. The number 3 dot means, 'Neutral'. Neutral means it is not that you dislike it, or like it, it's kind of inbetween, in the middle. The number 4 dot means, 'I kind of like to'. The number 5 dot means, 'I like to a lot'. So we can make sure you know how to use this tool I want to give you a few examples. I am going to name five different kinds of food and I want you to tell me the number that you would give to tell me how much you like or don't like each one. The five foods are spinach, potatos, carrots, strawberries and watermelons."

The experimenter then asked, "What number would you give spinach?" He called on children with their hands raised and listened to the numbers they gave to describe their liking/disliking of spinach. Before moving on to the next food type the experimenter asked at least one child to give the verbal meaning associated with the number by asking, "What does that mean"?

Then the experimenter asked, "What number would you give potatos?" He called on children with their hands raised and listened to the numbers they gave to describe their liking/disliking of potatos. Before moving on to the next food type the experimenter asked at least one child to give the verbal meaning associated with the number by asking, "What does that mean?".

The experimenter asked, "What number would you give carrots?", and called on children with their hands raised and listened to the numbers they gave to describe their liking/disliking of carrots. Before moving on to the next food type the experimenter asked at least one child to give the verbal meaning associated with the number by asking, "What does that mean?".

The experimenter asked, "What number would you give strawberries" He called on children with their hands raised and listened to the numbers they gave to describe their liking/disliking of strawberries. Before moving on to the next food type the experimenter asked at least one child to give the verbal meaning associated with the number by asking, "What does that mean?".

The experimenter then asked, "What number would you give watermelon. He called on children with their hands raised and listened to the numbers they gave to describe their liking/disliking of watermelon. The experimenter asked at least one child to give the verbal meaning associated with the number by asking, "What does that mean?". The experimenter made sure that every child reported his/her feelings about at least one food. Then the examiner explained how to fill in the "Play-With" questionnaire.

> "Now that you all understand how to use this tool what I would like you to do is look at the list of names on the answer sheet. Starting here [experimenter indicated line with the name of Classmate #1] I would like you to tell me how much you like to play at school with each person on the list. Examples of playing at school are recess, free time before class, and time on the playground. Use the pencil I handed out and color in the dots completely. Now begin."

The experimenter walked up and down the aisles making sure the children did not leave any blank answers and making sure that they gave only one response per classmate. The experimenter also answered any questions that came up. When the experimenter observed that a few children were finished, he made the following announcement,

> "When you have completed this questionnaire please turn it face down and wait until the instructions for the next questionnaire are given."

Once it was determined that all subjects had completed the questionnaire, instructions were given for the "Work With" roster and rating sociometric. These instructions were:

> "On this questionnaire you see the same names as you did on the first questionnaire but this time I would like you to tell me how much you like to work at school with each person on the list. Examples of working at school are doing a math assignment, doing a science project, reading, or going to the library during school together."

Once again, the examiner walked down the aisles and answered any questions that the children asked. When the children began to finish the "Work-With" questionnaire they were instructed to turn it over on their desk. When the last child finished, the instructions for the "Like-Best" questionnaire were given.

"This time what I would like you to do is choose 3 classmates from the list that you like best. Blacken in the 'number 5' dot next to each of the 3 children's names. So on this questionnaire there should only be 3 dots blackened in, each dot next to the name of the 3 children you like best. "

The examiner walked down the aisles and answered any questions that the children asked. When the children began to finish the "Like-Best" questionnaire they were instructed to turn it over. When the last child finished, instructions for the Class Play were given.

"We would like you to pretend that your class is going to have a play, and that you have been chosen as the director. As the director, you must think of the boy or girl in your class who can best play each part. You can pick any boy or girl from the list of children in your classroom. On the line next to each part, print the first name and first initial of the last name of the boy or girl who you think could best play the part."

Then the examiner read each of the 14 roles making sure that the children responded to each role. Once all 14 roles had been read and responded to the examiner collected all the materials and thanked the children and the teacher for their cooperation in the study.

APPENDIX C

CLASS PLAY INVENTORY

We would like you to pretend that your class is going to have a play, and that you have been chosen as the director.

As the director, you must think of the boy or girl in your class who can best play each part. You can pick any boy or girl from the list of children in your classroom.

On the line next to each part, print the first name and first initial of the last name of the boy or girl who you think could best play the part.

Anna A.
Bobby B.
Catherine C.
Daniel D.
Evan E.
Frances F.
Gloria G.
Howard H.
Imogene I.
Joshua J.
Katrina K.
Leonard L.
Marissa M.
Natalie N.
Opal O.
Quenton Q.
Robert R.
Samantha S.
Timmy T.
Victor V.
William W.
Yancy Y.
Zachary Z.
Andrew A.
Betty B.

_____ 1. Someone who is liked by everybody.

_____ 2. Someone who is often afraid and who acts like a little kid.

_____ 3. Someone who tries to help everybody.

_____ 4. Someone who is mean, cruel boss.

_____ 5. Someone who is good at sports.

_____ 6. Someone who is stuck-up and thinks they are better than everybody else.

_____ 7. Someone who should be class president.

_____ 8. Someone who is selfish.

_____ 9. Someone who is smart and usually knows the answers.

_____ 10. Someone who causes a lot of trouble in class.

_____ 11. Someone who acts as team captain.

_____ 12. Someone who acts sad.

_____ 13. Someone who is very good looking.

_____ 14. Someone who picks on smaller kids.