ISSUES IN THE ASSESSMENT OF SOCIAL COMPETENCE IN CHILDREN

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Recent interest in children's social competence has been prompted by findings of correlational and retrospective studies that indicate a positive relationship between early social adjustment problems of children and their adjustment later in life. To date, the assessment methodology in the area has pursued two directions: (1) sociometric measures (peer nomination and peer rating scales), which have provided the major means of identifying the socially competent child, and (2) direct observation, principally employed in the specification of socially competent behaviors. The current uses and the inherent assets and limitations of both strategies are discussed along with suggestions for enhancing current data collection methods. Issues concerning the definition of social competence, generalizability of current findings, and social norms are also examined.

DESCRIPTORS: assessment, social skills, sociometric status, observation, children

A major focus of research and intervention in child psychology in recent years has been the development of procedures designed to enhance the social functioning of children in interactions with peers and adults. This interest has been prompted by the results of a number of correlational studies comparing children's early social competence with later adjustment in life. It has been found that socially incompetent children are more likely to drop out of school (Ullmann, 1957), become juvenile delinquents (Roff, Sells, and Golden, 1972), underachieve academically, and exhibit high levels of physical and verbal aggression (McCandless, 1967). Similarly, several retrospective studies of adult psychiatric patients (*e.g.*, Pritchard and Graham, 1966; Watt, Stolurow, Lubinsky, and McClelland, 1967) have indicated that those patients diagnosed as schizophrenic, sociopathic, and/or mentally deficient frequently have psychiatric records dating from early childhood.

Two additional, related influences on the development of the social competence movement in child psychology have been skills training and preventive approaches to mental health. With the advent of behavior therapy came a clearer focus on the specific behaviors that are presumed

to be associated with social adjustment in children. Thus, when the National Institute of Mental Health and the Joint Commission of Mental Health of Children began to emphasize prevention rather than remediation in mental health (*e.g.*, Goldston, 1977), skills training programs started to gain popularity in schools and mental health settings.

Recent reports of the results of teaching social skills to children have claimed success in modifying a variety of social behaviors presumably related to social adjustment in childhood (*e.g.*, Cooke and Apolloni, 1976; Keller and Carlson, 1974). A closer look at the assumptions underlying these investigations reveals questions and ambiguities related to both the definition and assessment of social competence with children. The purposes of this paper are to discuss current problems in the concept of social competence and to examine critically the available

The authors gratefully acknowledge the helpful comments of Barry Edelstein, Rosemary Nelson, and the JABA reviewers on an earlier version of this manuscript. Reprints may be obtained from Sharon Foster, Psychology Department, West Virginia University, Morgantown, West Virginia 26506.

strategies for assessing social skills in clinical outcome research with children.

Social Competence: Issues in Definition

Before addressing issues related to the assessment of social competence in children, a more basic question must be raised. Given the myriad of methods currently available for assessing problem behavior in childhood, why add yet another construct, that of "social competence"? The breadth of the term threatens to encompass all interpersonal interactions, thus becoming a convenient generalization that communicates little or no specific information about child behavior (Zigler and Trickett, 1978). Children labeled as "hyperactive," "aggressive," "withdrawn," even "autistic," all could be characterized as "socially incompetent," at least in some situations. Why then provide yet another potentially overly inclusive label?

If "social competence" becomes merely a label used for classification in ordering children along a continuum, this criticism is indeed well founded. The value of a label depends on its utility (Zigler and Trickett, 1978). Its utility, in turn, depends on the manner in which the construct groups the phenomena it encompasses. For the purposes of discussion, let us define socially competent behavior as those responses which, within a given situation, prove effective or, in other words, maximize the probability of producing, maintaining, or enhancing positive effects for the interactor.

The conceptual and research implications of this definition are several, and differ from those produced by earlier methods of viewing child problems. These earlier approaches, behavioral and otherwise, focused heavily on negative child behavior, either excesses or deficits. In contrast, the concept of social competence embraces positive as well as negative aspects of children's social behavior. This emphasis on positive adaptive behavior echoes Goldiamond's (1974) call for a constructional approach to therapy, characterized by building positive behavioral

repertoires rather than solely eliminating undesirable responses.

Positive social behavior has not been totally ignored in the behavioral approach; behaviorally oriented child psychologists have stressed the importance of training incompatible responses in cases of behavioral excesses (such as aggressiveness and hyperactivity). However, they have seldom attempted to establish *which* of a myriad of incompatible responses are most effective. The definition above implies not only that a variety of potentially "competent" behaviors are possible, but also that these responses must be evaluated in terms of their social impact within the particular situation of interest. Thus, for example, rather than assuming that any non-aggressive behavior would be a suitable incompatible response to teach an aggressive child, the entire gamut of different nonaggressive responses is viewed as differentially effective, depending upon the situational parameters. Investigation of the differential effectiveness of pro-social incompatible responses would be useful for remediation of a constructional nature (Goldiamond, 1974) as well as for prevention.

This kind of investigation extends the focus of study beyond individual responses *per se* to antecedents and consequences of social behavior. Perhaps because extreme behavioral excesses and deficits, such as fighting and social isolation, are easily quantified via frequency or duration measures, earlier approaches have often ignored these factors. The assessment of qualitative differences among a range of social behaviors, however, demands an emphasis not only on child behavior, but also on the situational parameters of those behaviors, such as the time and place, and the behavior of other individuals prior to the occurrence of the target response. Grabbing a toy, for example, may be an adaptive response if a child's possessions have been taken by another without permission. The same response will be socially inappropriate if the toy belongs to another child. Rating both responses as though they were equivalent would mask salient

aspects of the social context, thus limiting the social validity of the data.

Furthermore, the short- and long-term effects of particular responses are critical to the determination of "competent" behavior. The effects encompass peer and adult reactions to the behavior of interest, including public (motoric and verbal) and private (cognitive and affective) responses. In the example above, the immediate behavioral consequence of grabbing the toy may be the same in both situations (the child gets the toy), but other effects may be quite different. The first response may be labeled by the other child as legitimate, the second as "grabby" or unfair. These labels will in turn influence future responding to the child who took the toy.

Thus, the concept of social competence can lead to more positive and more conceptually rich analyses of children's social behavior than have resulted from past approaches. There is yet another advantage to admitting "social competence" to the range of phenomena addressed by child clinical psychologists. A label, diagnosis, or category of behavior disturbance should both contribute to the choice of treatment strategy and relate to crucial long-range indices of adjustment. Not only does social competence rated during preschool predict academic achievement in elementary school (Kohn, 1977), but Cowen, Pederson, Barbikian, Izzo, and Trost (1973) found that social factors assessed in childhood were the only measures that discriminated adults who were referred for mental health problems from those who were not. In contrast, measures of childhood absenteeism, teacher ratings, grade point averages, IQ, self-concept, and anxiety scores failed to differentiate the two groups.

Given that social competence seems a worthwhile focus of study, particularly in regard to prevention and intervention efforts, an assessment methodology is necessary. To date, this methodology has pursued two separate but related directions: (1) sociometric assessment, most often used to identify the socially competent *vs.* incompetent child, and (2) behavioral

observation, employed in the specification of the behaviors that comprise adaptive social functioning in children.

Sociometric Assessment

Peer-nomination sociometrics. Sociometric measures are the most commonly used methods of identifying the socially competent child, and of attempting to establish a child's social status relative to other children in a group. The peer-nomination technique developed by Moreno (1934) is perhaps the most common of these. Typically, children are asked to name their best friend(s) and/or the peers with whom they would most like to play and/or work. A child's sociometric score is then computed based on the number of nominations that child receives in each category. Traditionally, this technique has required children to write the names of their nominations. However, by supplying a class list, the possibility of a child not being nominated because of a momentary lapse in the rater's memory is avoided (Asher, Note 1).

McCandless and Marshall (1957) have developed a variation of sociometric techniques which makes them more applicable to younger, pre-reading children. Each child is individually presented with a poster to which snapshots of peers are mounted. The investigator inquires (a) who the child's best friend is; (b) with whom the child would most like to play; and (c) with whom the child would most like to work. The child then merely names or points to the nomination for each category. Investigators have reported test-retest reliabilities ranging from .32 to .78 when the picture-board was used with preschoolers (Hartup, Glazer, and Charlesworth, 1967; Moore and Updegraff, 1964). Concurrent validity has also been indicated by demonstrating positive relationships between sociometric ratings of best friends and frequencies of observed interaction with those friends, as well as with teacher ratings (Marshall and McCandless, 1957).

Negative peer nominations have been used sometimes in combination with the above strategies to differentiate children at the low end of the peer-acceptance continuum (Dunnington, 1957; Hartup *et al.*, 1967; Moore and Updegraff, 1964). When negative nominations are used, children are asked to identify those peers whom they would not choose as playmates or workmates. This strategy differentiates the social isolate (*i.e.*, the child who is ignored by peers and receives few positive or negative nominations) from the child who is actively disliked (*i.e.*, the child who receives many negative nominations). Many of the test-retest reliabilities using peer nominations have been based on summary scores including negative nominations. In fact, Dunnington (1957) found that test-retest reliabilities were substantially lowered when only positive nominations were included. However, it also appears that different behaviors are correlated with positive and negative nominations (Hartup *et al.*, 1967), thus limiting the possible inferences from and meanings of a single score combining the two.

Sociometric measures have several assets. Psychometrically, they have demonstrated at least moderate test-retest reliability (*e.g.*, Dunnington, 1957; McCandless and Marshall, 1957; Moore and Updegraff, 1964); and concurrent validity with teacher judgments frequently, but not always, yields significant correlations (*e.g.*, McCandless and Marshall, 1957). The predictive validity of sociometric data has already been discussed (*e.g.*, Cowen *et al.*, 1973). These instruments can provide a useful way of assessing children's social impact on those around them—*i.e.*, the general consequences of their social interactions. Assuming that producing a positive impact on one's peers is desirable, sociometric devices can be used to identify children at the high and low ends of the continuum for research purposes, to investigate the specific variables that discriminate the two groups. They can also be used to identify "rejected" or "unaccepted" children for further assessment and treatment.

With these assets come additional considera-

tions and limitations on the use of sociometrics. One potential problem arises from varying group sizes. That is, the number of nominations a child receives depends on the number of raters making an assessment. If three nominations are collected from a small group in response to the question, "Who are your three favorite playmates?" more children are likely to receive extreme scores than if three nominations are collected from a larger group (Kane and Lawler, 1978). This is particularly relevant for across-classroom comparisons and for repeated measures (pre-post) assessments, when children could be absent during one of the assessment sessions. When the number of choices allowed is restricted, Kane and Lawler (1978) suggest that the number of potential choices be proportional to the size of the group.

A second consideration is that reliability and validity data with the peer-nomination approach have been collected almost exclusively with preschoolers. Generalizability of these findings is unclear. Third, the utility of sociometric assessment is limited in that it does not establish the *nature* of the problem or, in the case of the socially competent child, the nature of the asset. Because it does not specify assets or deficits, the sociometric approach to social competence assessment lends itself to classification rather than to direct intervention. Similarly, as posttreatment outcome measures, sociometric instruments indicate only that others' perceptions have changed, but they fail to indicate the specific factors that contributed to that change. Fourth, the kinds of biases which can influence sociometric ratings have only begun to be investigated. For example, Oden and Asher (1977) found that identifying and providing special attention to socially isolated children apparently does not produce changes in peer ratings in the absence of active treatment, indicating that these ratings do not fluctuate with placebo aspects of intervention. Other experimental parameters that could influence sociometric measures but have not been investigated include repeated use (Asher, Note 1), instructional set, and the amount of adult

and/or peer surveillance while filling out the measure.

All of these limitations point to our restricted knowledge of the specific parameters that contribute to differences in sociometric status and presumably to social competence. This will be discussed more fully in the section on observational measures which follows.

One of the major empirical assets of sociometric measures lies in their predictive validity. However, different sociometric questions yield different responses. Gottman, Gonso, and Rasmussen's (1975) factor analysis of sociometric ratings revealed that questions related to friendships (*e.g.*, "Who would you like to play with?" "Who really likes you?") formed one factor. Questions more related to task-oriented behavior ("Who would you like to work with?") formed another. In a social skills training study, Oden and Asher (1977) found that although ratings of the targeted children as playmates changed as a function of intervention, the ratings as "workmates" or as best friends did not. In the light of these findings, it is possible that different questions and/or ratings are differentially predictive of later adjustment. Unfortunately, sometimes earlier validity studies do not provide indices of *which specific* ratings were used as predictors. Is it sufficient for a child to be chosen as a playmate, or must the child also be a "best friend" if maximal later social adjustment is desired?

A further consideration in sociometric assessment lies in the use of negative nominations. This poses potential ethical problems in that it "contradicts the adult's usual disposition to discourage children from making blatant, rejecting statements about their companions" (Moore, 1967, p. 285). Thus, being asked to identify disliked peers might well serve as a stimulus for group members to increase their negative interactions with these unpopular children. This criticism has yet to be empirically substantiated, however. (See Asher, Note 1, for an anecdotal report of his failure to find this negative impact.)

Given these limitations, sociometric tech-

niques are probably not sufficient as the sole method of assessing the outcome of social skills training. Nonetheless, they are useful both for screening and for socially validating behavior change that is also measured more directly (*cf.* Kazdin, 1977). At this point, they are perhaps best utilized for research purposes in identifying populations for further study and as outcome measures when accompanied by direct observational data that assess those behaviors that are targeted for intervention.

Peer-rating scales. The rating scale sociometric (Roistacher, 1974) is similar to the peer-nomination sociometric measure. In this measure, the child answers questions such as "How much would you like to play with this person?" for every child in the group. With older children, this usually takes the form of a five-point Likert-type scale and is often accompanied by a class roster, for reasons already mentioned (Asher, Note 1). It has been successfully adapted for use with preschoolers by simplifying it to a three-point scale, anchored by faces (smiling, neutral, and frowning), and combining it with the picture-board sociometric described previously (Asher, Note 1). Test-retest reliabilities for rating of play and work preferences have yielded median correlations of .82 and .84, respectively, with third- and fourth-graders (Oden and Asher, 1977).

One advantage of this method is that every child is rated by each peer. Consequently, the child's status with each group member is more evident. This technique allows a more fine-grained analysis of the data than does the nomination method (Asher, Note 1). For instance, Singleton and Asher (1977) reported that the white children in their study rated their black peers higher as potential playmates than as workmates, a finding that might not have emerged had children only chosen their favorites in both categories. This technique also avoids the problem of varying group sizes inherent in peer-nomination techniques.

A measure with characteristics of both peer-rating and peer-nomination measures is the

Pupil Evaluation Inventory, devised by Pekarik, Prinz, Liebert, Weintraub, and Neale (1976). Each child is given 35 items to be rated, listed vertically on a sheet of paper. The names of each child in the class are listed horizontally and the child places an "X" below the name of each child that meets the item description, *e.g.*, "Those who make fun of people". This measure was administered to children in grades 1 through 9. Factor analysis revealed three principal factors: aggression, withdrawal, and likability. The likability factor contains items most related to commonly used sociometric questions. Test-retest reliability, internal consistency, and concurrent validity (comparisons with teacher ratings) ranged from satisfactory to high for the likability factor, particularly for children in grades 1 through 6.

This measure has the advantage of including several behavioral descriptors among its items. Thus, it taps both peers' affective responses to and their perceptions of other children. However, corrections for different group sizes are problematic with the likability dimension, principally because the number of choices permitted is unconstrained. Willingham (1959) pointed out that simply dividing the number of nominations each child receives by the total number of raters (the method used by Pekarik *et al.*) produces a negative correlation between the standard deviation and group size and is thus an overcorrection. He offers an alternative which is suitable for those peer nomination items which are supposedly based on a single underlying factor. These presumably would include peer ratings of specific behaviors such as "can't sit still" or "gives dirty looks." However, friendship choices (and the related choices of favorite workmates and playmates) appear to represent several different kinds of behavior (Hartup *et al.*, 1967) and should not be corrected using this formula. Because the likability scale of the Pupil Evaluation Inventory contains both kinds of items, the use of this scale as a sociometric measure is a problem when groups differ in size.

Peer ratings, as opposed to sociometry, can

overcome the limitation of not specifying behavioral correlates of sociometric status (Kane and Lawler, 1978), and could be designed to use peers to describe how group members stand on specific, externally anchored characteristics. However, because peer assessment has been used so infrequently, general reliability and validity characteristics of peer rating scales used with children have not been thoroughly assessed to date. With adult peer ratings, both reliability and concurrent validity, *i.e.*, comparison with a more objective criterion measure, are generally lower than with peer nominations (Kane and Lawler, 1978). In addition, some questions, of course, are more appropriately asked via nomination, *e.g.*, "Who is your best friend?"

The potential ethical constraints of negative peer nominations are shared by peer ratings of socially undesirable behaviors. Despite these limitations, the use of peers to assess the behavior of group members descriptively, rather than simply to rank group members, warrants further investigation as a potential means of augmenting peer nominations as a pre-post treatment outcome measure.

Behavioral Observations

Behavioral observations have been employed extensively in the assessment of social functioning and less often to identify the socially incompetent child. Direct observation has several advantages. First, when observational code categories refer to individual behaviors (*e.g.*, hitting) rather than global constructs (*e.g.*, aggression), they produce objective data requiring minimal inference about what the data represent. Second, reliability of observational data is largely under experimenter rather than subject control and can be enhanced with code refinements and good observer training. Third, many of the biases that influence the reliability of observational data have been investigated and steps to minimize such potential problems as inflated reliability estimates and observer drift are available (Johnson and Bolstad, 1973; Kent and Foster, 1977). Fourth, the utility of observational data for pre-

cisely specifying treatment effects is obvious. Finally, observational data are the behavioral "bottom lines" for establishing functional relationships among antecedent conditions, social behaviors, and interpersonal consequences.

Despite these important assets, not all data from observational codes have been equally informative. Limitations in data gathered from behavioral observation have principally resulted from the design and the use of coding systems, rather than from observational methods *per se*.

One of the most pervasive problems in observational research in social competence has been in the definition of the "socially competent" behaviors to be observed. Initial attempts to enhance social functioning in children simply defined behaviors *a priori* as supposed indices of "social competence" based on high face validity. Many early investigators chose frequency of interaction as their main criterion for identification of "incompetent" children as well as their dependent variable in assessing treatment effects (Keller and Carlson, 1974; O'Connor, 1969, 1972; Walker and Hops, 1973). For example, based on teacher reports of low-frequency interactions, O'Connor (1972) treated children who were observed to interact with peers during 15% or fewer of the time-sampled intervals. In a later study, Keller and Carlson (1974) treated children who had been rated by teachers as being low interactors and who were observed interacting with peers during 50% or fewer of the time-sampled intervals.

The importance of frequency of interaction, however, has not been validated empirically. A child's rate of interaction has not been shown to correlate with sociometric status (Deutsch, 1974; Gottman, 1977; Jennings, 1975). Thus, the concurrent validity of frequency of interaction is at most equivocal. Furthermore, intervention studies using frequency of interaction as a dependent variable have failed to verify empirically the critical behaviors then selected for training. Consequently, the behaviors emitted by the trained children have either appeared to be unchanged (Keller and Carlson, 1974; Gottman,

Gonso, and Schuler, 1976) or have become less rather than more socially appropriate. Walker, Greenwood, Hops, and Todd (1976), for instance, reported a positive correlation between increased frequency of interaction and amount of superficial conversation. Kirby and Toler (1970) reported increases in aggressive as well as cooperative behavior as a function of their intervention.

At the very minimum, an observational code that presumably taps critical social behaviors must be able to discriminate groups of children, *e.g.*, liked *vs.* disliked, grouped on the basis of a meaningful criterion. Even when studies have broken overall interaction rate into more specific categories, assessing mere frequency of the category has often been insufficient to document this kind of discriminative validity. Antisocial and pro-social behaviors, globally defined, did not discriminate the referred from the unreferred child in a study by Wodarski (1977). Similarly, Oden and Asher (1977) observed an unpopular child playing with a moderately popular child using experimental games and compared their behavior with that of two popular children engaged in the same tasks. Frequencies of task-participatory, uncooperative/rejecting, task-oriented, and peer-oriented/supportive behaviors were equivalent for the two groups of third- and fourth-graders.

Of course, it could be argued that the experimental analogue situations employed in these two studies rather than the category content *per se* failed to produce the desired discriminations. It is equally possible that the observational codes chosen were not sensitive enough to capture differences between the populations. Another possibility is that the wrong behaviors were selected. A recent study by Cox, Gunn, and Cox (Note 2) suggests that both latter possibilities may have been the case. They compared the videotaped behavior of 16 identified behavior problem children (fourth-, fifth-, and sixth-graders) with 16 nonidentified children in role-played situations with an adult confederate. Three of four nonverbal behaviors discriminated

the two groups, as did a variety of specific verbal statements (*e.g.*, argumentative/denial statements, requesting another's reason).

The observational data from these studies are more relevant than those of earlier studies to training the socially isolated child to be more like accepted peers. One reason may be the specificity involved in response definitions, particularly in those of Cox *et al.* (Note 2). Unfortunately, more fine-grained analyses of the differential effectiveness of specific behaviors within specific situations remain to be done. For example, when one child takes another's toy, is grabbing the toy back a more effective response than telling the teacher or asking for the interloper to return the item? Observational codes have barely begun to specify common behavioral alternatives exhibited by children in particular interactional situations (Cox *et al.*, Note 2). Situational parameters and the effects of differential responding on other children and adults—both integral components of socially competent behavior—have been virtually ignored. Experimental studies to examine the functional effects of different behaviors in particular situations are essential in order ultimately to describe socially effective behaviors that can be incorporated into training programs.

These studies point to a critical fact. Simply defining and observing a social behavior does not ensure that the behavior is critical to adaptive social functioning, *i.e.*, has social validity. Such social validation is largely lacking in current observational data. Similarly, some studies have grouped topographically different behaviors under a global label without providing empirical evidence that either the grouping or the label is valid. For example, Hartup *et al.* (1967) measured "positive social reinforcement," and included attention, approval, affection, personal acceptance, submission, and giving objects under this label. Gottman *et al.* (1975) also measured "positive reinforcement," but provided only two examples of the measured behaviors (approval and compliance). Both these studies involved the creation of behavioral constructs which may

or may not have been comparable, despite their similar names. In these and similar cases, the psychometric concept of construct validation should apply, but to date it has been virtually ignored in the observational exploration of childhood social competence.

Thus, investigators using observational measures must begin to validate those behaviors used to assess social skills. To do so, important social behaviors must be empirically enumerated. Several recent studies have begun to do this, using the strategy of identifying criterion groups ("skilled" *vs.* "unskilled," "popular" *vs.* "unpopular") by choosing several children at the extremes of classroom sociometric ratings. Observations of the two groups are then compared to identify critical variables that differentiate the two groups. Hartup *et al.* (1967), for example, demonstrated that the number of positive nominations received by a child was significantly correlated with his or her frequency of dispensing "socially reinforcing behaviors." It was not, however, correlated with frequency of dispensing negative reinforcement (such as non-compliance, interference, derogation, and attack). Conversely, peer rejection, *i.e.*, number of negative nominations, was found to correlate with frequency of dispensing negative but not positive reinforcement. Gottman *et al.* (1975) compared third- and fourth-graders who were frequently chosen as "best friends" with infrequently chosen peers. The first group of children dispensed a marginally significantly higher rate of positive reinforcers than did the latter group. Rates of negative reinforcement did not differ. Despite the fact that the two studies did not include the same behaviors in "positive" and "negative" reinforcement categories, the results of both imply that the behavioral predictors of membership in accepted, rejected, and ignored sociometric groups may be different.

This strategy has proven quite useful for preliminary investigation of behaviors presumably related to adaptive social functioning. Despite this, it has had some limitations. First, perhaps because of univariate statistics employed, the

correlations produced between a variety of social behaviors and sociometric ratings in studies of the 1950's have ranged from low to moderately high (Hartup, 1970). Based on these data, it is impossible to ascertain which variables contribute most or in what combination to children's membership in the criterion groups. With the availability of multivariate statistics, variables can be combined and weighted to provide greater information about their relationship to the criterion. Discriminant analyses, for example, can be used to determine the combination of behaviors that maximally differentiates the target groups. MANOVA can be employed to test hypotheses of differences among groups with multiple unweighted variables (see Gottman *et al.*, 1975, for an example). Factor analyses can assist in grouping individual responses that are empirically related (*e.g.*, Kohn, 1977). The exploration and use of these statistical methods are encouraged to increase precision analysis of the complex phenomena of social competence.

A more fundamental limitation of this research strategy follows directly from its use of sociometric ratings as presumed indices of the degree of socially competent behavior children exhibit. The implicit assumption underlying this approach is that behavior *per se* affects children's social status. In actuality, there appear to be a number of nonbehavioral variables which are also related to peer acceptance (Asher, Oden, and Gottman, 1977). One of the most widely investigated is physical attractiveness. Children as young as kindergarten age have already begun to adopt social values regarding different body types, *e.g.*, disdain for chubbiness (Lerner and Gellert, 1969). Impressive evidence exists related to the development of what Berscheid and Walster (1974) refer to as "the physical attractiveness stereotype." Even in nursery school children, differences in facial attractiveness are reliably discriminated (Dion, 1973). Judgments of facial attractiveness at age 7 correlate highly with adults' judgments (Cross and Cross, 1971). Dion and Berscheid (cited in Berscheid and Walster, 1974), found that nursery schoolers

consistently rated their unattractive male peers as less popular than their attractive counterparts using picture-board sociometric measures. Very young (4.4 to 5.4 years) unattractive girls were significantly more popular than their attractive peers. However, with age, the popularity of unattractive girls declined while that of their attractive counterparts increased. By age six, attractive girls were significantly more popular than unattractive girls.

Although these results indicate that the relationship between sociometric status and physical attractiveness is not consistent, certainly these data, underscored by the results of studies with adult subjects (Berscheid and Walster, 1974), highlight the importance of physical attractiveness as a social variable. Coupled with the rather moderate correlations sometimes found between various social behaviors hypothesized to be related to sociometric status (Hartup, 1970; Moore, 1967), the evidence suggests that sociometric measures assess a construct that is determined by more than socially competent behavior. However, the fact that sociometric ratings do change as a function of behavioral intervention (Oden and Asher, 1977) implies that behavioral variables play some role in sociometric status. This role is far from clearly specified, however.

Clearly, a child's overt social behavior is only one part of a large set of variables, including physical attractiveness, body type, reputation, and special skills such as sports ability (Asher *et al.*, 1977), that could influence how children are rated by other children. It is quite probable that both behavioral and nonbehavioral variables interact not only in their influence on sociometric status but also in the development of socially competent behavior. With physical attractiveness, this may well be the case. Investigators have found that mothers interact less with unattractive newborns than with more attractive neonates (Parke, 1978). If this finding held consistently through early childhood, it would imply differential socialization for the two groups of children, pre-

sumably favoring the social development of attractive children. The interaction of the parameters that influence the development as well as the assessment of socially competent behavior warrants further investigation.

Social Competence Assessment:

General Issues and Future Directions

The study of children's social competence is in its infancy. To date, most studies in this area have been correlational in nature. As with any new area of research, correlational data must be gathered before possible causal relationships can be investigated. Thus, even though indices of early social adjustment may predict later contact with the mental health profession, one cannot assume that increasing children's social competence necessarily decreases the probability of incurring problems later in life. Additionally, the percentage of socially incompetent children who actually become maladjusted adults is unclear. Further research, especially longitudinal in nature, is needed before we make causal inferences about the relationship between social incompetence and psychological difficulties in children or adults.

Even if causal inferences are ignored and one simply examines the body of literature that exists on the correlates of social acceptance, several issues arise. One of these is generalizability of results across age groups. Nursery school children have been the subjects of a major portion of existing research. Few studies have examined the behavior of elementary school children, and fewer have looked at adolescents. Preliminary findings of Gottman and Parkhurst (Note 3) reveal that the verbal behavior of children between the ages of 2 and 5 interacting with their best friends differed from that of dyads between the ages of 5 and 9. More important, the differences were qualitative and counter-intuitive. The potential for developmental or age-related changes in socially competent behavior cannot be ignored. If data were gathered on large samples of "normally skillful" children across age levels, these norms could

serve as the bases for interventions (Cox and Gunn, Note 4). In so doing, though, the nature of the peer group must be clearly specified. It is likely that socially competent behavior varies not only with age but also with socioeconomic status, racial or ethnic subculture, sex, and geographic locale.

Related to generalizability across age groups is a lack of data regarding children's social behavior in different settings. Schools have provided the environments for gathering the bulk of existing observational data. Yet children spend an equal number of hours outside of school interacting with parents, siblings, and neighbors. Children's social relationships with adults have rarely been studied, except in the contexts of parenting and conduct disorders in the home. Assessment of social behavior outside the school will ultimately be necessary to yield information relevant to the familial influences on the development of interactional skills, although it may not be as directly related to children's classroom friendships as data based on classroom behavior.

Another major issue in the assessment of childhood social competence relates to its uses. It is probably valid to assume that the major uses of such assessment will be for planning and evaluating treatment and prevention programs aimed at enhancing the social interactions of children. The short-range effects of this are obvious and positive. However, the long-range effects are less clear. A careful analysis of the criteria used in such programs is important for several reasons. Implicit in this paper has been the assumption that socially unskilled children should be trained to behave similarly to their more accepted peers. This "matching to norm" approach has potential problems. Depending upon the age and peer group of the child being trained, peer standards of socially acceptable behavior may vary considerably from those of society. It is folly to train an adolescent to behave in a way that is more accepted by peers if the behavior of those peers is unacceptable to society as a whole (e.g., delinquent). An equally

foolish approach is one which totally ignores peer standards by defining social competence in children according to middle-class adult standards. As Cox and Gunn (Note 4) have pointed out, the likelihood of taking the latter approach and teaching children to behave as "miniature adults" is quite high given the present lack of both developmental norms and the fine-grained definition of effective behavior mentioned earlier. Despite the empirical base of the "matching to norm" approach, the choice of criterion responses for training must ultimately involve an evaluation of both short- and long-term consequences for the child.

The choice of criterion responses for social skills enhancement will have societal implications as well. Some researchers have already warned of the pitfalls of modifying behavior to fit the *status quo*. As Winett and Winkler (1972) point out, "inappropriate behavior [in the classroom] has been consistently defined as behavior that interferes with order, quiet, and stillness" (p. 499). Consequently, they maintain that behavior modification has often worked to support the *status quo* rather than to change it. It could be argued that social competence training does the same thing. Do we really want to train our children to behave in socially acceptable ways when many of our social mores are based on antiquated ideas of age, sex, and race roles? Value judgments cannot be avoided in selecting "socially effective" behaviors to be trained, and they require that clinicians carefully balance adult and peer judgments with the societal implications of their decisions.

Training children to behave in more socially desirable ways (whether these are defined by their own peer group or by society in general) raises yet another concern. The findings of Hartup *et al.* (1967) and Gottman *et al.* (1975) point to the importance of providing positive reinforcers to peers. This suggests teaching children to be aware of the impact they have on others, and to be sensitive to peer approval, disapproval, and popularity. It is important in so doing to avoid laying the foundations for over-

conformity or for the unreasonable needs for social approval that can be seen in overly socialized, unhappy adults. Major targets of Ellis' Rational Emotive Therapy, for example (Ellis, 1978; Ellis and Harper, 1975), are irrational self-statements regarding an overemphasis on the positive social evaluations of others. Such undesirable side effects can probably be avoided with careful planning of a social skills training package, but their potential should not be overlooked.

Research cannot ignore these concerns. In addition, future research on factors related to social competence will profit from both broadening and focusing its scope. Breadth will accompany two major research directions. The first is an increased emphasis on the development of age- and culture-specific, empirically based definitions of socially competent behavior. The second involves more extensive examination of both behavioral and nonbehavioral components of sociometric status. This will require the use of more complex statistical methods than those previously employed, as well as the development of conceptual models to integrate findings from related yet diverse data sources.

Increased clarity of focus in defining behavioral correlates of social competence will result from more detailed functional analyses of children's responses, *i.e.*, evaluation of potential responses to particular common social situations encountered by children of different age groups. This approach will require several steps. Common situations must be empirically enumerated. Potential responses must be similarly specified. These steps could be accomplished via naturalistic observation. Evaluation of the impact of different responses to particular situations on other children can then be assessed. This could be accomplished easily by using experimental designs with analogue situations, thus avoiding the difficulties in interpreting correlational research. For example, children could be asked to rate videotapes of other children's behavior. An alternate strategy would involve role playing their reactions to different responses presented by

an experimental confederate, either *in vivo*, or via audiotape or videotape. Nonbehavioral parameters that influence the differential effectiveness of particular responses, such as physical attractiveness and classroom reputation, could also be manipulated in similar ways.

A more thorough understanding of the social mores existing at various ages and socioeconomic levels will have several beneficial long-range consequences. Such an understanding is an important first step in designing social skills interventions with children that have empirical as well as face validity. It could also contribute to critical examination of the *status quo* of societal norms. Armed with the knowledge gained via functional analyses, we might succeed in changing some of the questionable criteria by which social judgments are made as well as training children to be more effective in their social interactions.

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Received 2 November 1978.

(Final Acceptance 24 July 1979.)