*THE EFFECTS OF A CLASSROOM MANAGER ROLE ON THE
SOCIAL INTERACTION PATTERNS AND SOCIAL STATUS
OF WITHDRAWN KINDERGARTEN STUDENTS*

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We examined the effects of assigning a classroom manager's role on the frequency of social interactions and the sociometric standing of three withdrawn kindergarten students. Results showed that when the three socially withdrawn students were placed in the manager's role they substantially increased the frequency of their positive social initiations during free-play time, were the recipients of many more positive and significantly fewer negative social bids from their peers, were rated more favorably by their classmates on a sociometric rating scale, and were selected more frequently as best friends by their peers. In addition, follow-up data suggested partial maintenance of treatment effects when students no longer occupied manager positions.

DESCRIPTORS: social behavior, children, social status, kindergarten

Children who rarely engage their peers in social interactions typically have been described as socially withdrawn. There is evidence to indicate that unless remedial efforts are undertaken, the problems of many socially withdrawn children may persist into adulthood. For example, longitudinal research has indicated that these children are overrepresented in groups of individuals who become school dropouts (Ullman, 1957), are later labeled as delinquents (Roff, Sells, & Golden, 1972), have mental health problems as adults (Cowen, Pederson, Babyan, Izzo, & Trost, 1973), and are the recipients of bad-conduct discharges from the military (Roff, 1961). More recently, researchers have indicated that gains in cognitive skills (Perret-Clement, 1980), improved communicative competence (Guralnick, 1981), and the acquisition of important social skills such as sharing, ap-

propriately responding to aggression, and adequate sex role behavior (Hartup, 1983), may be facilitated via successful peer interactions. For these reasons, researchers have become increasingly interested in the development of interventions for improving the social responsiveness of withdrawn children toward their peers.

Significant among the intervention strategies designed to improve the interpersonal functioning of socially withdrawn children have been those that involve the use of contingent adult reinforcement (Allen, Hart, Buell, Harris, & Wolf, 1964; Baer & Wolf, 1970; Hart, Reynolds, Baer, Brawley, & Harris, 1968), use peers as behavior change agents (Odom & Strain, 1984; Strain, Shores, & Timm, 1977), use group-oriented contingencies (Walker & Hops, 1973; Weinrott, Corson, & Wilchesky, 1979), are based on social-cognitive problem solving (Shure & Spivack, 1978; Spivack, Platt, & Shure, 1976; Spivack & Shure, 1974, involve symbolic modeling (Keller & Carlson, 1974; O'Connor, 1969, 1972), and/or social coaching (Gresham & Nagle, 1980; Ladd, 1981; Oden & Asher, 1977). Although most of these investigations have shown positive results, they have, for the most part, reported transient, setting-specific sociometric and/or behavioral changes (Strain, 1981).

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In addition, these interventions have demanded significant amounts of teacher time. Only one study was identified in which minimal teacher effort was required to successfully alter the social interactions of a preschool child. Kirby and Toler (1970) instructed a 5-year-old boy to solicit choices of candy from his peers and to then distribute the candy to them prior to a free-play period. The child's peer interactions increased markedly while the intervention was in effect. The authors speculated that the child, although being paired with a primary reinforcer, had acquired reinforcing properties and his classmates were more inclined to interact with him.

We expanded the above rationale by placing socially withdrawn children into leadership roles as class "managers," in which they were required to direct their peers in activities that had previously been designated as being highly preferred by the class. It was anticipated that by placing withdrawn children in "status" positions and making them the dispensers of preferred activities, their positive peer interactions would be increased and new friendships would be formed.

METHOD

Subjects and Setting

The study was conducted in a regular kindergarten classroom at the College Learning Laboratory on the campus of the State University of New York College at Buffalo. The learning lab school consists of regular and special classrooms arranged in multigrade learning clusters.

The target classroom contained 16 children ranging in age from 4 years 3 months to 5 years 11 months, one teacher, and an instructional assistant. Three children (one male, age 4 years 5 months, and two females, ages 4 years 4 months and 4 years 3 months) were identified as being socially withdrawn on the basis of direct observations of free-play interactions, teacher rankings of social isolation and withdrawal, and peer sociometric assessment. Withdrawn children were the recipients of the fewest "best friend" nominations and negative ratings from their peers, and were rated by their teachers as being the least frequently

engaged in social interactions with their peers. Preliminary observations of the target subjects and their classmates during free play (i.e., 5 consecutive days) confirmed teacher and peer ratings by yielding the lowest rates of social interactions in the classroom. In addition, these preliminary observations also provided normative data on the interaction patterns of the other children. The mean number of positive interactions was 17.85 (range, 2.3–32.12) while the mean number of negative interactions was 3.8 (range, 1.3–10.25). An examination of target students' school records revealed no history or presence of significant developmental problems.

The study was conducted Monday through Friday within the kindergarten cluster. The classroom environment was similar in appearance to a typical kindergarten and contained several activity areas (i.e., block area, "barbershop," "shoe store," pet area, sandbox, and a work area containing three small tables and chairs). Data were collected each day during the 20-min free-play sessions. During this time, children were free to move about the classroom and play with classroom toys or peers. The only restriction was that they could not leave the classroom without teacher permission.

Behavioral Measures

Social interactions between the three target subjects and their peers were assessed via an observational system similar to the one developed by Strain and Timm (1974). Four basic categories of social behavior were recorded: (a) Positive vocal-verbal: all verbalizations directed to another student except shouting, screaming, whining, or other utterances accompanied by gestures indicative of negative, rejecting behavior, (b) Positive motor-gestural: touching with hand or hands, hugging, holding hands, waving; all cooperative responses involved with sharing a toy or materials, (c) Negative vocal-verbal: screaming, shouting, crying, whining, tattling, or other utterances accompanied by gestures indicative of negative, rejecting behavior, and (d) Negative motor-gestural: hitting, punching, kicking, "nonplaying" pushing or pulling, grabbing objects from peers.

Social behaviors were coded as to whether they occurred as initiated or responded events in an interaction sequence. Initiated social behavior included all vocal-verbal or motor-gestural behaviors that occurred either 3 s before or after another's designated social behavior. Responded behaviors included all vocal-verbal or motor-gestural behaviors occurring within 3 s following another child's social behavior. Previous research (Tremblay, Strain, Hendrickson, & Shores, 1981) has found the 3-s criterion for discriminating initiated from responded behavior to be a valid index. Vocal-verbal and motor-gestural behaviors were then combined and later analyzed collectively as either positive or negative social events.

The social behavior of each target subject was recorded daily during the 20-min free-play period. Behaviors were recorded continuously within 10-s interval blocks; thus, absolute frequency of occurrence data was obtained. Each social behavior was coded as having been produced by either the target subjects or any of their peers, and as having occurred as an initiated or responded event in an interaction sequence.

The target subjects were observed each day by one of two observers. Each child was observed in predetermined order for 1 min each, thereby yielding an average of approximately 6 min of observation data per day.

Observer Training and Reliability

Two undergraduate students served as observers. Four weeks prior to beginning the investigation, the observers were provided with manuals describing both observation procedures and operational definitions of relevant social behaviors. The observers then met for 5 days with the first author to review details of the coding system and to practice using it. Observers were kept blind as to the purpose of the study. Preexperimental training sessions were held in the target classroom over the next 10 days.

Interobserver agreement was calculated on an interval-by-interval basis. Agreement was calculated by dividing the sum of target behaviors and corresponding topographic features recorded in

agreement by that number plus the number recorded in disagreement, then multiplying by 100. Occurrence and nonoccurrence agreement percentages were computed separately. Observers were required to achieve reliability coefficients exceeding 85% for 5 consecutive days with each other and the first author prior to formal data collection.

Subsequent reliability checks were conducted randomly during 25% of the observation sessions. With the reliability checks distributed evenly across treatment conditions, agreement coefficients for each observer ranged from 80% to 97% and 83% to 96%, respectively, for the occurrence of all targeted social behaviors. Agreement coefficients for the nonoccurrence of social behaviors ranged from 85% to 100% and 93% to 100% for the two observers.

Sociometric Assessment

Sociometric assessment, which is based on global ratings of an individual by his or her peers, has been suggested as one of several outcome measures to evaluate the effects of interventions that promote children's social competence (Gresham, 1981a). Two types of sociometric assessment were used in this study: peer ratings and peer nominations.

The social status of all children ($N = 16$) in the kindergarten classroom was assessed using a variation of the How I Feel Toward Others assessment device (Agard, Veldman, Kaufman, & Semmel, 1978). Each child in the class was asked to describe how he or she felt about each classmate by marking one of four faces: (a) a smiling face (labeled "friend"), (b) a straight-line mouth (labeled "OK"), (c) a frowning face (labeled "don't like"), and (d) a question mark (labeled "don't know"). After rating each classmate, students were also requested to identify their "best friend."

The sociometric assessments were administered individually in a quiet hallway adjacent to the classroom. Children were told that the purpose of this task was to learn something about children's friendship patterns, and that their responses would be kept a secret. Each child was then presented with a picture of the first classmate to be rated. The child was asked to point to one of the four

faces on the rating scale that best indicated how he or she felt about the pictured classmate. Undergraduate examiners recorded the child's response and presented the picture of the next child to be rated. After all classmates had been rated, the child was shown pictures of every peer and was asked to point to his/her best friend. A star was placed next to that child's name on the data sheet. Sociometric assessment was conducted five times (during baseline, treatment, and follow-up phases) over the course of this investigation, and examiners' assignments to students were counterbalanced to minimize the possibility of biasing effects.

Following the initial sociometric assessment, children were also asked to name activities and toys that they enjoyed most in their classroom. From these items, lists of preferred activities and toys were developed. These preferences were later used for assigning duties to the "classroom manager."

Experimental Procedures and Design

A multiple-baseline design across subjects was implemented to determine if the assignment of a "manager" role would influence the interpersonal attraction and interaction patterns of three socially isolated children. During baseline, all subjects were observed interacting in the free-play setting without any experimenter-manipulated changes in the routine. The teacher monitored the play activities and offered ideas, but generally did not prompt the children to engage in social interactions. Following a 5-day baseline, the teacher announced to the class that she had selected a new helper (Brendan) in the classroom. She then called Brendan to the front of the class and awarded him a large "manager" button to wear for the next 2 weeks. His "job" consisted of leading and/or directing the class in previously-rated, highly-preferred activities, which included directing the feeding of the class guinea pig, collecting milk money and taking lunch count, ringing the bell for clean-up time, and handing out the "keys" to the barber shop and shoe store areas. Prior to beginning school each day, the teacher reviewed the manager's duties with the target child and the rest of the class. In addition, a picture board depicting the manager's ma-

jor tasks was displayed in front of the classroom to prompt the target child not to forget an assignment. This was the first time the teacher had used a student in the "manager" role.

Brendan remained the classroom "manager" over the next 10-day period. On Day 16, the teacher complimented Brendan publicly on the "great job" he had done as manager and suggested that the entire class applaud him for his efforts. The teacher then announced that Ilene would be the new manager for the next 2-week period. Procedures used with Subject 2 were identical to those described previously. Following 2 weeks under Ilene's management, the same procedures were implemented with Subject 3, Linda.

The class "manager" role was discontinued following Linda's tenure. Follow-up measures (i.e., observation and sociometric assessment) were conducted 4 weeks later to examine any potential maintenance effects of the intervention.

RESULTS

Social Interaction Changes

We analyzed social interaction data to reflect both the quantity (number of interactions per session) and quality (positive and/or negative) of interactions. In addition, we analyzed data according to whether interactions were initiated by the target subject (target-initiated) or by peers toward the targets (peer-initiated). Social interaction data for the three target children are depicted in Figure 1. Baseline data revealed that all three children rarely engaged in social interactions. When Brendan assumed the role of class manager, the frequency of his positive social contacts during free time rose dramatically. He tripled the number of positive social initiations he made toward others, and he was the recipient of almost seven times as many positive social contacts initiated by his peers. Negative social interactions (both target- and peer-initiated) remained at their very low levels. No noticeable changes occurred in the social interaction patterns of either Ilene or Linda at this time.

Treatment effects were replicated with Ilene and Linda during their "terms" as class manager. Sub-

Figure 1. Total number of positive and negative social behaviors exhibited by target subjects and their class peers across all experimental conditions and follow-up.

stantial increases in positive social contacts were noted for both target- and peer-initiated behaviors. Also, reductions in the frequency of both types of negative social contacts between the target children and their peers were observed.

Data for Brendan and Ilene revealed decreases in the quantity of positive social interactions when they no longer served as managers. However, the frequency of their positive social contacts remained above initial baseline levels while negative contacts remained below baseline levels. Follow-up assessment revealed partial maintenance of treatment effects across all three subjects.

Interestingly, anecdotal comments of the target children's parents and teacher suggested that additional changes in the children's behavior occurred as a result of their involvement in the project. Parents reported that their children were more eager to go to school and were very excited to tell them about everything that happened while they were managers. The classroom teacher similarly noted that the children were less reluctant to "shy away"

when others approached them, and that they seemed to enjoy school much more.

Sociometric Changes

The number of "best friend" nominations and sociometric ratings for the three socially isolated target subjects across each experimental condition are shown in Table 1. During the initial baseline, the three target subjects were the recipients of a combined total of one "best friend" nomination. For the most part, however, they tended to be viewed favorably by their classmates in that the majority of peers rated them as friends, while very few students gave them "don't like" ratings. Following 2 weeks of the initial implementation of the manager's role with Brendan, the scales were readministered. Data revealed that Brendan was now chosen as best friend by three peers, and six additional classmates listed him as a friend on the rating scale. No noticeable changes were observed in the sociometric rating patterns of the two remaining target subjects.

TABLE 1
Number of "Best Friend" Nominations and Sociometric Ratings for Brendan, Ilene, and Linda Across Experimental Conditions

Target Subject	Category	Baseline 1	Intervention	Baseline 11	Follow-up
Brendan	* Best Friend	0	3	3	3
	Friend	8	14	14	13
	OK	6	0	1	2
	Don't Like	0	1	0	0
	Don't Know	1	0	0	0
Ilene	* Best Friend	1	1	3	3
	Friend	9	8	12	12
	OK	2	4	3	3
	Don't Like	3	3	0	0
	Don't Know	1	0	0	0
Linda	* Best Friend	0	0	0	2
	Friend	8	7	8	11
	OK	3	3	3	3
	Don't Like	3	3	3	0
	Don't Know	1	2	1	1

* Nomination

Following Ilene's tenure as class manager, the scales were administered again. At this time, two additional peers selected Ilene as best friend, and four more children increased their ratings of her over their previous evaluations. It is interesting to note that no substantial changes occurred in the sociometric ratings of Subjects 1 or 3. This suggests that in Brendan's case, previously acquired sociometric improvements were being maintained even though he no longer occupied the manager's role. No noticeable improvements in children's ratings of Linda indicated no significant repeated measurement effect.

Sociometric assessments were conducted for the fourth time immediately after Linda served as class manager. There were two additional selections of Linda as best friend, an increase of four friend ratings, and a reduction of three "don't like" ratings. The final sociometric assessment, conducted 4 weeks after the termination of the study, re-

vealed maintenance of treatment effects across all three target subjects.

DISCUSSION

Results of our investigation indicated that when three socially withdrawn students were placed in a class manager role they substantially increased the frequency of their positive social initiations during free-play time, were the recipients of many more positive and significantly fewer negative social bids from their peers, were rated more positively by their peers, and were selected more frequently as best friends by their peers. Additionally, follow-up data suggested partial maintenance of treatment effects when students no longer occupied manager positions.

These results extend in several ways the findings of previous investigations, which showed that the sociometric status and/or social interaction pat-

terns of withdrawn children can be enhanced via environmental manipulation (Conger & Keane, 1981; Gresham, 1981b; Odom & DeKlyen, in press; Strain & Kerr, 1981). First, we used multimethod assessment strategies in attempting to identify target students as socially withdrawn. Teacher rankings of children's social interaction rates, as well as peer nominations and ratings, were used to identify a small group of students who interacted quite infrequently with their classmates. Subsequent preliminary observations revealed that these children were, in fact, the least frequent interactors in their particular classroom. The use of multimethod assessment strategies has more often been the exception than the rule in intervention programs for the socially withdrawn, and has received considerable support in recent reviews of assessment and treatment approaches for social withdrawal (Gresham, 1983; Odom & DeKlyen, in press).

Second, procedures were implemented within the existing structure of a regular kindergarten classroom. As such, it differed from previous interventions in which substantial changes in teacher attention (Allen et al., 1964; Baer & Wolf, 1970; Hart et al., 1968), peer initiations (Odom & Strain, 1984; Strain et al., 1977), group contingencies (Walker & Hops, 1973; Weinrott et al., 1979), or routinely scheduled activities (O'Connor, 1969, 1972; Strain, 1981) were required to bring about increases in the social behavior of withdrawn children. This intervention required little teacher time, did not remove either target children or peers from ongoing activities for systematic training, and involved relatively few changes in the existing classroom routine. The study identified an existing classroom practice that may be systematically "tapped" to derive social benefits for infrequent interactors. The intervention also may have served a secondary function in that it helped the teacher with many tasks that had previously been her sole responsibility. It seems reasonable to assume that an intervention strategy requiring relatively few changes in classroom routine while simultaneously reducing teacher duties would be viewed favorably by consumers (Witt, Elliot, & Martens, 1984).

Finally, most behavioral strategies designed to improve the interpersonal functioning of socially withdrawn children have failed to provide evidence of either maintenance effects or changes in both sociometric status and social interaction rates (Greenwood & Hops, 1981; Odom & DeKlyen, in press). This investigation, while producing only short-term partial maintenance effects, did demonstrate rather clear improvements in targets' sociometric status and interaction patterns as a result of their assuming the role of class manager.

Although improvements in the social functioning of withdrawn students are clearly evident in this study, the factors responsible for producing such changes are less obvious. One plausible explanation is that the manager position increased the "visibility" of target subjects among their peers by placing them in situations where it was necessary for them to make some social contact. The behaviors associated with these roles may have served as discriminative stimuli for social interaction. Although activities such as collecting milk money, taking lunch count, ringing the bell for clean-up time, etc., were routine class occurrences, it is possible that many of the peer group members had never seen their withdrawn classmates engage in such valued behaviors. Therefore, the present intervention may have provided peers with an initial opportunity to "sample" their classmates' pro-social behaviors.

A second related possibility is that not only were these withdrawn children made more visible, but also that they were placed into leadership positions. That is, they were put in charge of classroom activities that the entire class previously selected as highly preferred. Since leadership skills are frequently cited as favorable characteristics in the personal attraction literature (Lott & Lott, 1974), it is likely that individuals who are given the opportunity to lead their group in highly preferred activities would come to be viewed more favorably by their peer group. Lott & Lott (1974) further suggested, and Strain (1981) demonstrated empirically, that interpersonal attraction is enhanced when an individual's behavior is directly instrumental in another child's acquisition of a positive

consequence. Other researchers have found that appointment as team captains became the most requested and seemingly powerful source of reinforcement in studies involving peer monitors (Carden Smith & Fowler, 1984). In this study, one of the manager's functions was dispensing "keys" so students could play in the "barber shop" and/or "shoe store." The manager was thus one of the major sources of reinforcement in the classroom.

Finally, another plausible explanation is that the withdrawn children in this investigation simply manifested performance, as opposed to social skill, deficits (Gresham, 1981, 1983; Odom & DeKlyen, in press). That is, they all possessed adequate skills for successful interpersonal functioning, but for some reason (e.g., anxiety, prior history of little reinforcement for social interaction, etc.) they failed to display these behaviors. Once they were placed in situations requiring social contact, however, they may have entered into what Baer and Wolf (1970) have described as a "natural community of reinforcement." As a result of having their initiations responded to favorably, they may have increased the rate at which they approached their classmates. This may account for the fact that social interaction rates remained above baseline levels even though subjects no longer occupied manager positions.

Future research endeavors may take a number of directions. For example, additional replications of the present results across grade levels and manager roles would provide additional support for assigning these positions as possible social change procedures. The notion of having children identify activities that they enjoy and that also aid the teacher, and then assigning children to lead the class in those endeavors, possesses great potential for combining goals in behavioral interventions. We suspect, however, that most classroom helper positions would hold appeal primarily for younger children.

More attention also must be focused on the manager role as an independent variable. What components of this role are responsible for improved interpersonal functioning? Is it simply the increased visibility of the withdrawn youngster, or

is it his/her role as dispenser of reinforcement that resulted in more favorable sociometric ratings? Similarly, would this role lead to improved interpersonal functioning if the student's duties involved teacher-selected as opposed to student-selected activities? It is clear that what occurs while the target subjects are in the manager role is responsible for whatever changes are found in subsequent social contacts. An experimental analysis of the manager and peer behavior must be undertaken if the process responsible for such changes is to be identified.

Finally, future investigations should examine the long-term effects of the present intervention. This study conducted only a 1-month follow-up with observations restricted to free-play periods. Therefore, it is not entirely clear whether such improvements generalize to other social situations or are maintained over the course of an entire school year. If generalization and maintenance effects across the school year are not realized, perhaps "booster sessions" via reassignment of withdrawn children to these roles in other settings would be a feasible alternative.

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