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Elaine S. Gershman

Donald S. Hayes

University of Maine - Main, donald.hayes@umit.maine.edu

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Differential Stability of Reciprocal Friendships and Unilateral Relationships among Preschool Children

Elaine S. Gershman and Donald S. Hayes
University of Maine, Orono

The goal of the study was to determine whether reciprocal friendships among preschool children are more stable over extended time intervals than are unilateral relationships. Thus, preschoolers named and cited reasons for liking their two closest friends in an initial testing session and again in a 4- to 6-month follow-up. Mutual friendships were also verified through observation of free play in the classroom. Although only one unilateral relationship remained constant across the two testing sessions, two-thirds of the reciprocal relationships remained stable. In terms of the bases cited for liking, significant differences were evident between reciprocal and unilateral relationships for the dimensions of general play and common activities. The findings are discussed in terms of Cooney and Selman's (1978) stage model, which assumes that friendship during early childhood is highly transitory.

The development of interpersonal relations among children has been a topic of interest for many years (see Hartup, 1970). Recently, one facet of such development, the evolution of children's friendship, has received considerable attention by researchers. In fact, several stage models have now been proposed (Bigelow, 1977; Cooney & Selman, 1978; Selman & Selman, 1979) which describe qualitative changes in the cognitive bases of friendship. Also existing within this literature, however, is the recurring notion that friendship among young children is quantitatively impoverished compared to that among older children and adults.

In particular, it has been suggested that friendship during the preschool years is highly unstable and very transitory. For example, in summarizing research on social relations, Bee (1981) describes the friendship groups of preschool and primary grade children as highly "fluid" and as having "a relatively short existence" (p. 347). A more

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formal statement of this instability notion has been outlined by Selman in his stage theory of friendship (Cooney & Selman, 1978; Selman, Jaquette, & Lavin, 1977; Selman & Selman, 1979). In the first level of his model (encompassing ages 3 to 5), Selman describes friendships as "momentary" in nature, suggesting that whomever a child is playing with at a given point in time is conceptualized as his or her best friend. Thus, like Bee (1981), Selman assumes preschoolers' friendships to be highly unstable and transitory.

It seems to us, however, that the empirical basis underlying this notion is not as compelling as it could be. Although Selman's model has done much to clarify how children conceptualize ideal relationships, the theory is based on interview data solicited after subjects viewed videotapes of hypothetical friends interacting. The content of these interviews was structured around six issues, two of which included friendship formation and friendship termination. However, it is not clear that Selman's subjects actually answered questions about how long they thought friendships normally last, nor was an assessment made of the longevity of actual friendships held by the subjects. For these reasons, Selman's assumption of instability warrants further consideration.

Research that has attempted to assess directly the stability of interpersonal relations among young children has yielded mixed findings. Much of the initial work in this area involved the successive administration of sociograms designed to evaluate popularity rather than friendship per se. Within this popularity literature, one set of findings has reflected exceedingly low levels of stability (e.g., test-retest correlations ranging from .01 to .30) across intervals varying from several weeks (Lippitt, 1941) to nine months (Bronfenbrenner, 1944). Other studies have reported moderate stability (e.g., test-retest correlations ranging from .41 to .76) across 20-day (McCandless & Marshall, 1957) to 5-month (Hartup, Glazer, & Charlesworth, 1967) periods. More recently, Asher, Singleton, Tinsley and Hymel (1979) reported a reliable sociometric measure for preschool children demonstrating stability of interpersonal relationships over a 4-week interval.

Although some of the variability in the research just cited is due to differences in the administration and scoring of sociograms (see Asher et al., 1979; McCandless & Marshall, 1957), two additional facts make it difficult to evaluate friendship stability based on this literature. First, popularity and friendship really reflect different constructs, since even an unpopular child can have a close friend. Second, it is possible that friendship stability varies with the type of relationship that exists among peers. Recently, Hayes, Gershman,

and Bolin (1980) documented the existence of both reciprocal friendships (i.e., one in which two children named each other as best friends) and unilateral relationships (i.e., nonmutual nominations) among preschoolers. Besides demonstrating that different dimensions underlie the two types of relationship, it was also observed that reciprocal friends spent approximately 78% of their time interacting with each other during play sessions conducted 3 weeks after testing. Given these findings, Hayes et al. (1980) speculated that reciprocal friendships may be more stable and long-lasting than unilateral ones. In accord with this notion, Schaivo and Soloman (Note 1) found preschool children to maintain friendships across a 3-month summer vacation period, but only when their parents encouraged mutual home visits and other interactions among members of each dyad.

In our judgment, consideration of the stability of preschool friendship is important for several reasons. First, existent data are far from clear in demonstrating the length of time that friendships normally last during this period. If the stability notion outlined above is correct, it may be that Hartup and McCandless's subjects consisted primarily of reciprocal friends, whereas the bulk of the preschoolers tested by Lippitt or Selman completed sociometric ratings or clinical interviews with unilateral relationships in mind. Neither the sociometric nor the interview studies have considered the stability of peer relationships in terms of the reciprocity issue. Second, certain stage models of friendship (i.e., Selman & Selman, 1979) may underestimate the consistency with which pairs of preschool friends interact, thereby misinterpreting the manner in which an important aspect of early peer socialization normally occurs. Finally, little is known about the type of child who might develop stable relationships during this period, which is information that could be important for predicting later social adjustment.

For these reasons, a longitudinal study was conducted to examine the stability of preschoolers' friendships. Given earlier findings (Hayes et al., 1980; Schaivo & Soloman, Note 1), it was expected that reciprocal relationships would be maintained more frequently across a 6-month interval than would unilateral ones. An issue of secondary concern was whether the dimensions that children offered in justification of their friendships would also remain more stable for reciprocal than unilateral relationships. It should be noted, however, that there is little empirical or theoretical basis for a prediction of this type, since current stage models of friendship (Bigelow, 1977; Selman & Selman, 1979) do not assume major changes in the dimensions of friendship during the preschool years.

On a purely logical basis, it might be expected that even stable relationships change and "mature" during the course of a year.

METHOD

Subjects

Thirty-seven preschool children ranging from 34 months to 61 months of age (mean CA = 50 months) served as subjects. All were enrolled in one of three classes of the Child Study Center at the University of Maine, Orono. The sample included 20 females and 17 males, all of whom were Caucasian and came from middle-class homes.

Testing Procedure

Each child was taken individually to a research area and asked to name his/her two closest friends at school. In keeping with previous research (Hayes et al., 1980), the concept of best friend was clarified as "someone you like more than anyone else," and the second close friend was described as "someone you like a whole lot." Peer choices were limited to classmates in order to ensure that subjects would recall characteristics about actual children. The names were recorded in the order given, with Category A designated as the friend listed first and Category B as the friend listed second. After the children had named their two best friends, subjects were asked to point to their pictures on a class roster to verify each friend's identity. For both categories A and B, each child was then asked: "Why is ___ your best friend? Why do you like ___ more than anyone else?" or "Why is ___ your friend? Why do you like ___ a whole lot?" The order of providing reasons for liking each friend was counterbalanced, with half of the children describing their A choice first and the remaining subjects justifying their B choice first. Two follow-up questions (e.g., "Can you tell me more reasons why you like ___?") were asked for each category in order to solicit full descriptions about each peer.

The initial testing (Phase 1) was done during the fall semester, approximately 4 weeks after the children had first enrolled in the preschool. It was assumed that by this time children would have had the opportunity to learn each others' names and to establish friendships. To verify that the reciprocal relationships specified in the laboratory existed outside of that situation, two naive experimenters observed the behavior of the children during two separate 30-minute play sessions in the preschool. Conducted approximately 2

weeks after the laboratory assessment, these observation sessions were held during free play periods involving the entire preschool. Each observer was given the name of one member of a pair of children who had named each other as best friends in the laboratory. The observer then coded that subject's activities in terms of a solitary-parallel-cooperative play designation, as well as recorded the children with whom the subject interacted. The observers did not know who the targeted child had named as a best friend. The play designation in conjunction with the subject interaction log was coded for alternate 30-second intervals during each session. Within each interval, the observers judged whether the predominant activity was solitary, parallel, or cooperative in nature. The criteria for classifying subjects as reciprocal friends were that they (a) name each other in the laboratory and (b) spend at least 50% of their time interacting with each other during free play. The latter criterion was assessed for the entire observation period and not merely on the basis of time spent in cooperative or parallel play alone.

The same testing procedure and observation of free play used in the fall were repeated at the end of the spring semester. In order to reduce the probability that children would rotely repeat the same choices made in the fall, each child was tested by a new experimenter in a different research room during Phase 2. The experimenters used in Phase 2 were naive regarding the friendship selections made by subjects during Phase 1, as were the observers who coded free play. Interobserver reliabilities for free play during Phase 1 and Phase 2 were .86 and .93, respectively.

To ascertain the cognitive bases for both reciprocal and unilateral relationships, verbatim responses to the laboratory questions were coded by two independent raters using the friendship dimensions developed by Bigelow and LaGaipa (1975). All responses provided by subjects were coded by each rater. The intercoder reliabilities (cf. Kazdin, 1975, p. 271) across both phases ranged from .78 to .92.

RESULTS

Of the 37 children tested in Phase 1, 22 were identified as reciprocal friends. That is, 11 pairs of children named each other as best friends in the laboratory and were observed to spend 55% to 72% of their time interacting with each other during free play. Within this pool of mutual friends, six pairs reflected A-A relationships (i.e., both members were named as first choice) and five pairs represented A-B choices (i.e., one member was a first choice and

TABLE 1. Percent of Subjects Citing Dimensions for Liking According to Peer Category: Phase I and II Combined

<i>Dimension</i>	<i>Peer Type^a</i>	
	<i>Reciprocal Friends</i>	<i>Unilateral Relationships</i>
Propinquity	28%	30%
Common Activities	56%	30%
General Play	84%	63%
Reciprocity of Liking	24%	15%
Helping: Friend Gives	8%	4%
Sharing: Friend Gives	8%	0%
Evaluation	4%	7%

^aIn order to be consonant with previous research by Hayes et al (1980), only first-choice (A-A) reciprocal friendships are reported.

the other was a second choice). No child was represented more than once as an A-A or A-B reciprocal pair. Likewise, no child was represented more than once in a unilateral relationship. Therefore, children were either in the reciprocal or in the unilateral group, but never in both. The remaining 15 friendships were judged to be unilateral, since neither their first nor second choices were reciprocated.

During the 4- to 6-month interval separating phases 1 and 2, two children changed classes, breaking up two reciprocal friendships identified in Phase 1. This subject attrition limited the possible number of mutual relationships that could be tested in the spring to nine pairs. In terms of stability, 12 of these original 18 reciprocal subjects named the same best friend in Phase 2 as in Phase 1 and once again showed reciprocity of friendship. Moreover, observation of their behavior in the preschool revealed that they spent 60 to 70% of their time interacting with their mutual friend during free play. Thus, 66% of the reciprocal sample maintained a stable relationship with a close or best friend across the academic year. In contrast, only one of the 15 unilateral relationships remained stable from Phase 1 to Phase 2. In accord with the hypothesis outlined earlier, a Fisher Exact Test ($p = .01$) demonstrated that significantly more stable relationships existed among reciprocal friendships than among unilateral friendship choices.

As can be seen in Table 1, the dimensions cited most frequently by children as bases for liking friends were similar to those reported in earlier research (Hayes, 1978; Hayes et al., 1980; Raupp, Note 2). General play, common activities, and propinquity were cited most frequently, with significant differences (one-tailed tests) evident be-

tween reciprocal and unilateral friends for the dimensions of play, $\chi^2(1) = 2.75$, $p < .05$, and common activities, $\chi^2(1) = 2.89$, $p < .05$. In order to be consonant with prior research (Hayes et al., 1980), the preceding analysis was restricted to A-A reciprocal pairs. When A-B reciprocal pairs were analyzed in conjunction with the A-A pairs, the differences reported were still evident. In terms of possible changes in the bases of friendship across the academic year, little variation was associated with the frequency with which dimensions were cited by reciprocal or unilateral children during Phase 1 and Phase 2.

DISCUSSION

The major findings of this research are in accord with the hypothesis outlined earlier. Most importantly, reciprocal friendships were more often maintained across the 6-month period than were unilateral relationships. Because the data for mutual friends suggest a relatively long lasting type of relationship, the stage model proposed by Cooney and Selman (1978) may need revision to account for this type of stability. Although we do not mean to imply that the relations held by reciprocal friends at the preschool level necessarily last as long as those held by older children, it does not seem adequate to conceptualize all friendships at this age as reflecting "momentary physical playmates" (Selman et al., 1977). On the other hand, the data for unilateral relationships are in accord with Selman's model in suggesting that certain types of relationships among preschoolers may be short-lived.

The present findings also extend earlier reports of relatively stable popularity ratings among preschoolers (e.g., Asher et al., 1979; Hartup et al., 1967). As they are usually reported, popularity scores obscure individual peer choices by subjects. They also do not necessarily reflect actual friendships among individuals. Thus, the present findings augment earlier sociometric reports of stable peer relationships (a) by demonstrating that actual friendships (even among children who might be rated as unpopular by most peers) do last across extended time periods, and (b) by verifying that only a particular type of relationship (i.e., a reciprocated one) tends to show temporal stability.

The present findings may also help clarify inconsistent results of prior sociometric research which has examined the stability of children's relations with peers (i.e., Hartup et al., 1967; Lippitt, 1941; McCandless & Marshall, 1957), beyond methodological explanations given by Asher et al. (1979). Because these researchers did not re-

port the number of reciprocal choices shown by subjects, it is possible that variations in stability could have been associated with disproportionate numbers of mutual or unilateral relationships in their subject samples. In fact, we have found the percent of reciprocal friendship to vary somewhat from class to class.

The rationales offered for friendship confirm earlier findings (Bigelow, 1977; Hayes, 1978; Raupp, Note 2) in demonstrating that the dimensions of general play, common activities, and propinquity comprise major bases of friendship among preschool children. It is also the case that Hayes et al. (1980) differentiated unilateral and reciprocal relationships in terms of general play, common activities, and evaluation. Findings of the current study replicate this result for two of the three dimensions: play and common activities. It is unclear why a reliable difference was not obtained along the evaluative dimension and further research is needed to determine whether reciprocal and unilateral relationships can be discriminated on this basis.

Although the point has been made previously (Hayes et al., 1980), these findings reaffirm the need to incorporate reciprocity as a criterion for detecting friendship among young children. In this case, however, evidence in support of the notion comes from differences in the temporal stability of the two types of relationship, as well as from differences in the underlying cognitive bases. It is important to note that a large number of researchers who have examined friendship in young children (Bigelow, 1977; Reisman & Shorr, 1978; Selman & Selman, 1979) have not verified the mutuality of the relationships they have studied. Additional research may be warranted to evaluate the degree to which the trends reported in these studies hold for both categories of peers.

It is also important to note that these data do not verify a causal relationship between stability and friendship type. That is, the reciprocity factor may be only an index variable for other mechanisms that promote longevity of friendship. The data do suggest, however, that attention to the unilateral-reciprocal dimension eventually may help clarify the nature of early friendship patterns among young children.

In terms of practical significance, there is evidence that, for older children, factors such as self-esteem, personal adjustment, and chronic anxiety are associated with acceptance and liking by peers (see Hartup, 1970). It may be that preschoolers who develop stable, mutual friendships early in life tend to maintain this type of relationship across age and show higher levels of social competence during the grade school and adolescent years. If so, then reciprocity of friendship might provide an early predictor of later social skills. It

should be emphasized, however, that much additional research of a longitudinal nature is needed before such conclusions are clearly warranted.

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