

The Influence of Play Style
on the Friendship Choices of Preschool Children

by

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(ABSTRACT)

Play has been found to be an important variable in the friendships of preschool children. Recent research on play styles has provided some evidence that children demonstrate stable individual differences in their play behavior. The purpose of the present study was to examine the relationship between individual differences in play style and the friendship choices of preschool children. The subjects were 31 preschool children ranging in age from 3-9 to 5-4. Based on ratings obtained from head classroom teachers, the children were classified as patterners, dramatists, or mixed players. Children were individually interviewed to ascertain their friendship choices.

Pearson product-moment correlations indicated there were no significant relationships between the subjects' play styles and the play styles of their most preferred and least preferred friends. Nonsignificant correlations were also found between the subjects' play styles and the average of the play style ratings of their three most preferred and

three least preferred friends. These findings indicate play styles do not influence the friendship choices of preschool children. Problems with the techniques used to assess play style and friendship choices were cited as possible contributors to the nonsignificant findings. It was also suggested that since preschool children have been found to emphasize social comparison and the establishment of areas of similarities when interacting with friends, play styles may not be an important factor in their choice of friends.

Two issues related to children's play styles and friendship patterns became evident in this study. One issue deals with the identification of play styles. The results of this study indicated a rating scale can be used to reliably classify children by play style. The second issue deals with the stability of preschool children's friendships. Stability was demonstrated in the children's individual friendship choices over a 6 week period. Examination of the data indicated that frequency of contact and length of interaction are important factors contributing to the stability of preschool children's friendships. Contrary to past research, these findings indicate the friendships of preschool children can be stable if the children are in a setting which permits frequent and consistent interaction over time.

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THE INFLUENCE OF PLAY STYLE ON THE FRIENDSHIP CHOICES OF
PRESCHOOL CHILDREN

Past research indicates play is an important variable in the friendships of preschool children. For example, it has been found that preschool children tend to conceptualize friends as playmates with whom they play and share common activities (Furman & Bierman, 1983; Hayes, 1978). Rubin (1980) has suggested that similarities in play style or tempo may be the basis for friendship among preschool children. Recent research on play styles has provided some evidence of individual differences in children's play behavior. However, individual differences in play style have not previously been examined as possible influential variables relative to the friendships of preschool children. Based on these findings and assumptions, it appears that individual differences in play style could possibly influence the friendship choices of preschool children. Thus, the purpose of this study was to examine the relationship between individual differences in play style and the friendship choices of preschool children.

Most major theoretical perspectives of play assume that the development of imaginative play follows an object-dependent to object-independent progression. However, recent research has provided some suggestive

evidence that equally sophisticated players demonstrate individual differences or styles relative to the object dependence or independence of their play (Wolf & Grollman, 1982). In a preliminary analysis of data from Harvard's Project Zero, Shotwell, Wolf, and Gardner (1979) and Wolf and Grollman identified two distinct types or styles of players: "patterners" and "dramatists". These preschool children have displayed individual differences in play style that are independent of changes due to development, capability, or context.

Shotwell et al. (1979) and Wolf and Grollman (1982) found that patterners, or object-dependent children, directed their attention to the "object world" and did not typically use play materials in a social or communicative manner. They seemed to devote a large portion of their play to exploring the physical properties and uses of play materials. For example, the patterners often interrupted the flow of their symbolic play themes to investigate some object or event that had captured their attention. Additionally, their symbolic play was characterized by respect for and interest in the qualities of objects. For example, once a child used a crayon as a "nail" while playing carpenter, she continued to respect this designated categorization by referring to crayons as nails even when moving on to new play activities. Patterners were found to make these types of object substitutions on the basis of physical realism or similarity.

Thus, while a crayon could be a nail, a ball with it's different physical characteristics could not serve as a suitable substitute for a nail for patterners.

On the other hand, dramatists, or object-independent children, were found to carry out their symbolic play by using materials merely as props in social interaction. Unlike patterners, it was found that dramatists were reluctant to end or leave fantasy themes and tended to direct their efforts toward the maintenance of these themes. Their play was not characterized by frequent breaks or reality-based object substitutions, but by the spontaneous formation of a series of outlandish object substitutions as the plot of the fantasy theme unfolded.

It has been suggested that some children may characteristically display aspects of both styles of play without demonstrating a preference for one particular style (Fein in Shotwell et al., 1979, p. 145). This group of children, referred to as "mixed" players (Sutton-Smith in Shotwell et al., p. 127), have received limited research attention. In fact, Gardner (in Shotwell et al., p. 145) raises an empirical question as to whether, in a large group of children, one would only be able to identify patterners and dramatists or if some mixed players would also be found.

Shotwell et al. (1979) and Wolf and Grollman (1982), due to their small and homogeneous sample, caution against strong conclusions being drawn from their work at this time. Their

recognition of this limitation is prudent since their data resulted from a series of intensive experimenter-child interactions with only 4 female subjects. However, other researchers have also found individual differences in children's play behavior. In fact, as noted by Sutton-Smith (in Shotwell et al., 1979, p. 127), the behavior of dramatists is very similar in form to that displayed by the "imaginative" players described by Singer, Hutt, and others.

Given the tentative nature of the conclusions of Shotwell et al. (1979) and Wolf and Grollman (1982), the present study aimed to provide additional information to their findings by using a different classification technique with a larger sample of both male and female children. Specifically, play style classification was done through the use of teacher ratings of children's play behavior rather than the long-term observations of child-adult interactions as used by Shotwell et al. (1979) and Wolf and Grollman. Thus, this study was designed based on the assumption that preschool children could be reliably classified as patterners, dramatists, or mixed players. The primary purpose of this investigation was to examine if play style influences children's choice of friends.

This study was designed to investigate four major hypotheses. First, based on the work of Shotwell et al. (1979) and Wolf and Grollman (1982) indicating play styles are stable characteristics which are expected to influence

behavior in a variety of areas, it was hypothesized the two major play styles of patterner and dramatist would influence a child's choice of most preferred friends. A positive relationship was expected to exist between the subjects' play styles and the play styles of their most preferred friends. Specifically, it was hypothesized that patterners would choose other patterners as their most preferred friends while dramatists would choose other dramatists as their most preferred friends.

Second, based on Wolf and Grollman's (1982) assertion that the predilections of patterners and dramatists result in a disability or avoidance of the opposite style, it was hypothesized the two major play styles of patterners and dramatists would influence a child's choice of least preferred friends. A negative relationship was expected to exist between the subjects' play styles and the play styles of their least preferred friends. Specifically, it was hypothesized that patterners would be least likely to choose dramatists as friends and dramatists would be least likely to choose patterners as friends.

Third, based on the statement by Shotwell et al. (1979) that play style remains stable over time, it was hypothesized that children's choices of most preferred and least preferred friends, relative to their individual play styles, would remain stable over time. Although the individual children named by a child as most preferred and least preferred

friends may not be the same over time; it was hypothesized that the choice of most preferred and least preferred friends, based on play style, would remain stable over a 6 week period. Specifically, it was hypothesized that dramatists would choose dramatists and patterners would choose patterners as their most preferred friends at both time 1 and time 2, even though the specific children identified may differ at these two times. It was also hypothesized that for the choice of least preferred playmates patterners would choose dramatists and dramatists would choose patterners at both time 1 and time 2.

Fourth, given that mixed players have been described as displaying the characteristics of both major play styles, it was hypothesized that mixed players would not show a systematic preference for or avoidance of either of the two major styles of players. Additionally, it was hypothesized that mixed players would not show a systematic preference for or avoidance of other mixed players since the combination of play styles for individual mixed players might vary.

Method

Subjects

The subjects for this study were 31 children, 16 girls and 15 boys, between the ages 3-9 and 5-4 (mean age = 4-6; SD = 4.66 months). All children were enrolled in two

preschool classrooms at a university laboratory school. Informed consent was obtained from parents prior to each child's participation in the study (see Appendix C).

Play Style Assessment

Materials. An experimenter-designed rating form was used to determine each child's play style (see Appendix D for the Teacher Rating of Play Style). The play behaviors included on this form were drawn from behavioral descriptions of the two styles of players as reported by Shotwell et al. (1979) and Wolf and Grollman (1982). The rating form contained the descriptions of 10 pairs of contrasting play behaviors. For each of the 10 pairs of behaviors, one description was characteristic of the play typically displayed by patterners while the other description was typical of dramatists. On this form, teachers were requested to indicate for each of the 10 pairs of play behaviors the one that was most characteristic of a given child.

Data collection. The head teachers were asked to rate each child in their classrooms. The decision to use head teachers' ratings in grouping the children by play style was based on the fact that the head classroom teachers have had extensive experience with preschool children and are thus familiar with a wide range of play behaviors. Furthermore, the head teachers were familiar with each individual child's play behavior over time. They have had the opportunity to observe each child playing with peers in diverse settings and

using a variety of materials daily for approximately a 6 month period. Familiarity over time could be an important factor in being sensitive to play styles. Gardner (in Shotwell et al., 1979, p. 151) has proposed that stylistic differences in play can be best identified under conditions which permit extensive and varied contacts between observers and children.

On the teacher rating form, an arbitrary score of 1 was assigned to each patterner-type response and an arbitrary score of 2 was assigned to each dramatist-type response. These scores were summed to yield a total score for each subject. Given that the rating form contained 10 items on which a child could receive a 1 or a 2, the possible total scores ranged from 10 to 20. Children whose ratings fell in the middle portion of this range (scores 14-16) were classified as mixed players since they were rated as displaying equal or nearly equal proportions of dramatist or patterner play behavior. Children whose ratings fell in the lower portion (scores 10-13) and upper portion (scores 17-20) of this range were classified as patterners or dramatists respectively, since they were rated as displaying a majority of one specific type of play behavior.

Friendship Choices

Materials. A polaroid photograph was taken of each child and used as stimuli for ascertaining the children's

friendship preferences. The photographs were taken from the same distance and with the same background.

Data collection. An adaptation of the friendship interview used by Ladd and Emerson (1984) was employed to gather data regarding each child's friendship preferences. The technique was an individual interview which consisted of two phases.

In the first phase, each child was asked to correctly identify the photographs of the children in their classroom. Pictures of the children in a specific classroom were displayed on a board in random order. The experimenter introduced the task and requested the child to identify the photographs by saying, "Look at these pictures of the children in your room. I need you to help me name each picture. Whose picture is this?" This phase was employed to insure each child was familiar with the children in his or her classroom and, more importantly, to direct the subject's attention to all the children in the classroom. This was believed to be a necessary step to attenuate the influence of memory or recall biases in the children's responses to questions concerning friendship preferences.

The second phase involved ascertaining each child's individual friendship preferences. First, each child was asked to identify the most preferred friend. The experimenter requested this information by stating, "Now I want you to look at the pictures very carefully and show me

the child you like to play with the most. Remember, show me your favorite child to play with." After a photograph of a classmate was chosen, it was removed from the board and the child was then asked to point to the photograph of the second most preferred friend. The experimenter requested this information by saying, "From the pictures that are now on this board, show me who you like to play with next most. Show me your next favorite child to play with." This last statement was repeated until all the photographs were chosen. If necessary, the instructions were repeated and clarifications were offered. This method yielded a rank ordering of most preferred to least preferred friends for each child.

Procedure

The data were collected at two time periods. At time 1, head teachers were asked to independently complete the ratings of play style of the children in their classrooms during a 10 day period. Each child was individually interviewed within the same 10 day period regarding their friendship choices. This same procedure was repeated 6 weeks later at time 2.

Results

Reliability of Play Style Ratings

Internal consistency. The Kuder-Richardson formula 20 reliability coefficient (K-R 20) was used to assess the internal consistency of the teacher rating scale. The K-R 20 coefficient was .80. This indicates high internal consistency of the items on the teacher rating scale (See Appendix E for the item analysis).

Intra-rater reliability. Intra-rater reliability was assessed through the use of the Pearson product-moment correlation statistic. A moderate positive relationship, $r = .5914$, $p < .001$, was found between the ratings produced by head teachers at time 1 and time 2. This coefficient indicates that the children's play styles were perceived by the head teachers as relatively stable over the 6 week period. Hence, it can be assumed that the children's actual play styles remained stable over this period of time.

Types of Players

Based on the head teacher ratings, the following distribution of children by play styles was obtained at time 1: 8 children were identified as patterners, 12 children were identified as mixed players, and 11 children were identified as dramatists. The following distribution of children by play styles was obtained at time 2: 6 children

were identified as patterners, 7 children were identified as mixed players, and 18 children were identified as dramatists. The relationship of the play style classifications obtained at time 1 and time 2 are displayed in Table 1. These distributions, based on head teachers' ratings, were used in classifying the children for data analysis.

Insert Table 1 about here

The ratings of play style produced by head teachers placed 58% of the children in the same play style category at time 1 and time 2. At time 2, there was a stronger tendency for head teachers to rate the children as dramatists. In fact, 32% of the children received head teacher ratings which placed them in a play style category which depended on a higher arbitrary score at time 2 (see Table 1). This trend was most evident with children who were classified as mixed players at time 1 and who received ratings which classified them as dramatists at time 2. As can be seen in Table 1, this pattern was evidenced by 6 children, or 19% of the sample. This seems to indicate that head teachers were most inconsistent in their rating of mixed players.

Play Styles and Friendship Choices

Pearson product-moment correlations were used to test the hypotheses of whether there are relationships between

children's play styles and the play styles of their most preferred and least preferred friends. At time 1, a nonsignificant correlation was found between the subjects' play style ratings and the play style ratings of their most preferred friends, $r = .2370$, $p > .05$. A nonsignificant correlation was also found between the subjects' play style ratings and the average of the play style ratings of the three most preferred friends identified by each child, $r = .1224$, $p > .05$. The average score of the three most preferred friendship choices was used to insure that random or situational factors which might have influenced the first friendship choice would not obscure any potential relationship. At time 2, nonsignificant correlations were also obtained between the subjects' play style ratings and the play style ratings of the most preferred friends, $r = -.1447$, $p > .05$, as well as between the subjects' play style ratings and the average of the ratings of the three most preferred friends, $r = -.1321$, $p > .05$. The patterns of the most preferred friendship choices demonstrated by the three types of players at time 1 and time 2 are displayed in Table 2.

Insert Table 2 about here

Additional product-moment correlations indicated that there was no relationship between play style and children's

choice of least preferred friends. At time 1, nonsignificant correlations were found between subjects' play style ratings and the ratings of their least preferred friends, $r = -.0878$, $p > .05$, and the average rating of their three least preferred friends, $r = -.2888$, $p > .05$. Similarly, the time 2 data yielded nonsignificant correlations between subjects' play style ratings and the play style ratings of their least preferred friends, $r = -.1509$, $p > .05$, as well as between subjects' play style ratings and the average ratings of the three least preferred friend, $r = .0333$, $p > .05$. The patterns of least preferred friendship choices demonstrated by the three types of players at time 1 and time 2 are displayed in Table 3.

Insert Table 3 about here

Time series regression procedures were used to test the hypothesis concerning the stability of the play style category of the most preferred and least preferred friends from time 1 to time 2. It was hypothesized that although the individual children named by a child as most preferred and least preferred friends may not be the same over time, it was expected children would be consistent in choosing peers who share their play style as their most preferred friends and in choosing peers who have a different play style as their least preferred friends at both time 1 and time 2. However,

in light of the nonsignificant correlations between children's play style ratings and the ratings of their most preferred and least preferred friends at both time 1 and time 2, it was not anticipated the regression analyses would reveal any meaningful results regarding the stability of the choice of play style category across time.

The data indicated nonsignificant relationships between subjects' play styles and the play styles of both most preferred friends, $R = .1403$, $F(3, 58) = .3884$, $p > .05$, and least preferred friends, $R = .1833$, $F(3, 58) = .6725$, $p > .05$. The time effect was assessed by testing the partial regression coefficient (β) for significance. These tests indicated that time did not affect the choice of type of most preferred, $t = 1.034$, $p > .05$, and least preferred friends, $t = .0675$, $p > .05$. This indicates stability over time in the children's choice of the play style category of their friendship choices. However, this finding can be attributed to the relatively high levels of stability in children's individual friendship choices between time 1 and time 2 as displayed in Table 4.

Insert Table 4 about here

Relative to most preferred friends, the data indicated that the children tended to be stable in their individual friendship choices. As can be seen in Table 4, all the

children displayed at least one stable choice across time in terms of their three most preferred friends. Also, a relatively high percentage of the children (74.4%) included the same two children as members of their three most preferred friends at both time 1 and time 2. Approximately one-fourth of the children included the same three children as members of their three most preferred friends at both time 1 and time 2. Additionally, 48.4% of the children identified the same child as their most preferred friend at both time 1 and time 2. These findings suggest the friendships of preschool children are relatively stable. (See Appendix F for a more detailed description of the friendship preferences of the children in the individual classrooms).

The data indicated that the least preferred friendship choices of individual children were characterized by less stability than that evidenced in the most preferred friendship choices. As can be seen in Table 4, lower percentages of stability were demonstrated relative to the same one, two, or three children being identified as belonging to the three least preferred friends at both time 1 and time 2. Additionally, only 29.0% of the children identified the same child as their least preferred friend at both time 1 and time 2.

The chi-square goodness of fit test was used to assess the hypothesis that mixed players would not show a systematic preference for or avoidance of patterners, dramatists, or

other mixed players in terms of their friendship preferences. In essence, it was hypothesized their friendship choices relative to most preferred and least preferred friends would be uniformly distributed across the three categories of players. At time 1 a significant chi-square value indicated that mixed players' choice of most preferred friends deviated from this hypothesized uniform distribution, $\chi^2(2, n = 12) = 6.00, p < .05$. Inspection of the data revealed the significance was due to the fact that mixed players chose no patterners as their most preferred friends. However, the mixed players did demonstrate some uniformity by choosing 6 mixed players and 6 dramatists as their most preferred friends. A significant chi-square value was also obtained for the same analysis at time 2, $\chi^2(2, n = 7) = 8.87, p < .05$. Inspection of the data indicated the significance was due to the mixed players' tendency to choose dramatists as their most preferred friends at time 2. However, the meaning of this finding is ambiguous given the teacher's tendency to provide higher play style ratings at time 2. It is possible this result is a function of the higher teacher ratings at time 2. See Table 2 for the distribution of most preferred friends chosen by mixed players at time 1 and time 2.

Similar analyses were conducted on the least preferred friendship choices of mixed players. Nonsignificant chi-square values were obtained at time 1, $\chi^2(2, n = 12) = 3.50, p > .05$, and at time 2, $\chi^2(2, n = 7) = 5.44, p > .05$. These

analyses indicated the least preferred friendship choices of mixed players were uniformly distributed over the three play categories at both time 1 and time 2. See Table 3 for the distribution of least preferred friends chosen by mixed players at time 1 and time 2.

Discussion and Conclusions

The major hypotheses of this study focused on the relationships between a child's play style and the play styles of his or her most preferred and least preferred friends. Contrary to predictions, no relationships were found between children's play styles and the play styles of their most preferred and least preferred friends. No relationships were evident when the children's most preferred friend, least preferred friend, three most preferred friends, and three least preferred friends were considered. Thus, it is unlikely any relationships were obscured due to random or situational factors that might have influenced any one friendship choice. Several possible explanations can be offered for the lack of significant relationships.

First, the current study employed teachers' ratings in classifying children by play style. The rating scale was found to be reliable as indicated by the high internal consistency of the items. However, there are some inherent limitations to the scale as a function of being based solely

on Shotwell et al.'s (1979) and Wolf and Grollman's (1982) description of play behaviors between adults and a small sample of children. The accuracy and sensitivity of the scale might improve if these limitations were reduced. For example, efforts should be directed to improving the accuracy of the scale by eliminating those items with low correlation coefficients as identified through item analysis. Other efforts could be directed to improving the sensitivity of the scale by using more precise and refined behavioral descriptions of play as well as including the ratings of children's play behaviors with peers. Such revisions might affect the distribution of children by play style. Consequently, the relationship between children's play styles and friendship choices might emerge.

Second, the children's friendship choices obtained during the individual interview might not have been an accurate report of their typical playmates or friends. Although several studies have found preschool children's friendship nominations on sociometric tasks to be related to observational measures of peer interaction (Furman & Masters, 1980; Gottman, 1977), other studies have found only moderate or variable agreement between young children's individual peer preferences on sociometric tasks and external indices of peer preferences such as teacher judgments and behavioral observations of playmate preferences (Biehler, 1954; McCandless & Marshall, 1957). It is possible that during the

friendship interview, which was similar to a sociometric task, children selected those peers with whom they wished to play rather than those with whom they typically interact.

Third, it is possible that play styles, as defined in this study, do not play an influential role in the friendships of preschoolers. Two possible explanations of this lack of relationship can be found in the literature.

First, it is possible that even if children do demonstrate individual differences in play style, these differences may not be the determinants of preschool children's friendships. That is, other factors may be more salient in their friendship choices. For example, recent findings by Gottman and Parkhurst (1980) suggest that preschool children create a "climate of agreement" when interacting with friends. They found that younger friends (ages 2 to 4) tended to emphasize establishing common ground and focused their communications with friends on a "me too" type of social comparison. Older friends (ages 5 to 6) were more likely to engage in social contrast and characteristically emphasized individuation or the expression of differences when conversing with their friends. These findings suggest that individual differences such as play style may have greater influence in the friendships of older children.

Second, it is possible that preschool children are oblivious to play styles or other individual differences in

their friends. Preschool children have been found to conceive of friends as playmates with whom they play, have fun, and share common activities and material goods (Flavell, 1985; Furman & Bierman, 1983; Hayes, 1978). Selman (1980) has noted that preschool children appear to be unaware of the more abstract, psychological characteristics of friendships. In fact, as noted by Flavell, preschool children demonstrate no sense of either liking or disliking distinctive traits or dispositions in other children. It is not until the middle or late childhood period that children begin to view friends as individuals who possess particular traits and dispositions. This also seems to suggest that play styles may be more important in the friendships of school-age children than in the friendships of preschool children. Thus, it might prove fruitful to examine the friendships of older children to investigate if there are any relationships between play styles and friendship choices.

Two issues related to children's play styles and friendship patterns became evident in this study. One issue deals with the identification of play styles. In past research the classification of children into play styles has been accomplished through long-term observations of child-adult interactions (e.g., Shotwell et al., 1979; Wolf & Grollman, 1982) or through analysis of videotapes of children participating in laboratory tasks (e.g., Wolf, personal communication). The results of the current study

indicate a rating scale can be used to reliably classify children by play style. This indicates a rating scale may be the most effective and efficient means of assessing play style. Further research should be directed to scale refinement.

The second issue deals with the stability of preschool children's friendships. Past research has indicated the friendships of preschool children are rather transient affairs (Flavell, 1985; Selman, 1980). However, rather high percentages of stability in individual friendship choices were observed in the present sample over a 6 week period. Further examination of the data indicated that frequency of contact and length of interaction are important factors contributing to stable friendships over time. Future research efforts should be directed to examining the differences in the conceptions of friendships and the behavioral characteristics of friendships between children who have a history of interaction with a stable peer group over time and those children who lack this type of peer relationship. The results of the current study suggest such studies may produce knowledge in the area of preschool children's friendships not previously identified.

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Table 1

Play Style Classifications at Time 1 and Time 2

Play Style/ Time 1	Play Style/Time 2			Total
	Patterner	Mixed	Dramatist	
Patterner	4	2	2	8
Mixed	2	4	6	12
Dramatist	0	1	10	11
Total	6	7	18	31

Table 2

Subjects' Play Style X Play Style of the Most Preferred Friend

Subjects' Play Style	Most Preferred Friendship Choice			Total
	Patterner	Mixed	Dramatist	
	Time 1			
Patterner	1	2	5	8
Mixed	0	6	6	12
Dramatist	0	3	8	11
	Time 2			
Patterner	1	2	3	6
Mixed	0	1	6	7
Dramatist	6	1	11	18

Table 3

Subjects' Play Style X Play Style of the Least Preferred Friend

Subjects' Play Style	Least Preferred Friendship Choice			Total
	Patterner	Mixed	Dramatist	
Time 1				
Patterner	1	4	3	8
Mixed	3	2	7	12
Dramatist	2	8	1	11
Time 2				
Patterner	2	2	2	6
Mixed	2	0	5	7
Dramatist	5	9	4	18

Table 4

Stability of Friendship Choices Across Time

Number of Choices Remaining Stable	Friendship Choice	
	Most Preferred	Least Preferred
1 out of 3	100.0%	80.6%
2 out of 3	74.4%	29.0%
3 out of 3	25.8%	3.2%

APPENDIX A
LITERATURE REVIEW

APPENDIX A. LITERATURE REVIEW

This review will focus on literature relevant to the current study in the area of play style and friendship in preschool children. Overall, only a limited amount of research has been devoted to these particular topics. In general, research examining play style has been conducted by a group of researchers at Harvard University as a part of their primary interest in the development of the symbolic process. Play has been studied as one of several overt forms of this process. Although the topic of friendship has recently gained popularity, the majority of the studies have focused on the friendships of older children and adolescents. Thus, little is currently known about the friendships of preschool children, especially as related to play style differences.

Play Style

Most major theoretical views of play assume that imaginative play progresses from object-dependent to object-independent forms (Wolf and Grollman, 1982). However, recent research has suggested equally sophisticated players demonstrate individual differences or styles relative to the object dependence or independence of their play (Wolf & Grollman). Shotwell, Wolf, and Gardner (1979) and Wolf and Grollman reported

in their preliminary findings from Harvard's Project Zero that preschool children display individual differences in play style that are independent of changes due to development, capability, or context. These researchers identified two distinct types or styles of players: "patterners" and "dramatists".

Shotwell et al. (1979) and Wolf and Grollman (1982) found that patterners, or object-dependent children, directed their attention to the "object world" and did not typically use play materials in a social or communicative manner. A large portion of their play was devoted to exploring the physical properties and uses of play materials. For example, the patterners often interrupted the flow of their symbolic play themes to investigate some object or event that had captured their attention. Additionally, their symbolic play was characterized by respect for and interest in the qualities of objects. For example, once a child used a crayon as a "nail" while playing carpenter, she continued to respect this designated categorization by referring to crayons as nails even when moving on to new play activities. Patterners were found to make these types of object substitutions on the basis of physical realism or similarity. Thus, while a crayon could be a nail, a ball with its different physical characteristics could not serve as a suitable substitute for a nail for patterners.

On the other hand, dramatists, or object-independent children, were found to carry out their symbolic play by using materials merely as props in social interaction. Unlike patterners, it was found that dramatists directed their effort to the maintenance of fantasy themes. Their play was not characterized by frequent breaks or reality-based object substitutions. Rather, dramatists were reluctant to end or leave fantasy themes and were capable of spontaneously forming a series of outlandish substitutions for an object as the plot of the fantasy theme unfolded.

The data from Project Zero indicate these stylistic differences are evident by 1 year of age and are consolidated by age 2 (Shotwell et al., 1979). By age 3, it has been found that children become somewhat proficient in using both play styles (Shotwell et al., 1979; Wolf & Grollman, 1982). This dual proficiency is thought to be due to preschool children's increasing exposure and sensitivity to the play styles of peers and the proper or typical uses of various materials as well as the escalating demands requiring more varied and complex forms of symbolization. However, these researchers have also noted that children continue to maintain a preference for one particular play style and utilize it much more frequently than the alternate style. Shotwell et al. (1979) have observed that these early stylistic

distinctions continue to be present in elementary school children. Wolf and Grollman suggest that the origins of these two play styles could be due to factors such as past experience, opportunity, interest, or preference.

It has been suggested that some children may characteristically display aspects of both play styles without demonstrating a preference for one particular style (Fein in Shotwell et al., 1979, p. 145). This group of children have been referred to as "mixed" players (Sutton-Smith in Shotwell et al., p. 127). Not much attention has been devoted to this category of players. In fact, Gardner (in Shotwell et al., p. 145) raises an empirical question as to whether, in a large group of children, one would only be able to identify patterners and dramatists or if some mixed players would also be found.

Shotwell et al. (1979) and Wolf and Grollman (1982), due to their small and homogeneous sample, warn against strong conclusions being drawn from their work at this time. Their warning is prudent since their data resulted from a series of intensive experimenter-child interactions with only 4 female subjects. However, other researchers have also found individual differences in their research on children's play behavior. In fact, as noted by Sutton-Smith (in Shotwell et al., 1979, p. 127), the behavior of dramatists is very similar in form to that

displayed by the "imaginative" players described by Singer, Hutt, and others.

Friendship in Preschool Children

Theorists, teachers, and parents have all recognized the important role friendships play in the lives of children (Rubin, 1980). It has been noted that friendships are a central component in children's lives and serve as both a source of great pleasure and deep frustration (Rubin). Given this recognition of the importance of friendships by both professionals and lay people, it is surprising to note that this area of research has received inconsistent attention in the past.

Although considerable research on children's peer relationships and friendships was carried out in the 1920s and 1930s, there was a 40 year period during which these important topics were neglected. Fortunately, during the 1970s there was a resurgence of interest in investigating children's peer relationships and friendships. In recent years there has been a dramatic increase in the number of studies focusing on these topics (Lewis & Rosenblum, 1975; Rubin, 1980).

Although substantial progress has been made in the last decade in regard to children's friendships, much remains to be investigated. (Hartup, 1983; Rubin, 1980). As noted by Hartup (1983), too little is known about the various components and functions of children's

friendships. As noted previously, this is especially true of the friendships of preschool children since the majority of the research has examined friendships in school age children or adolescents (for example, Berndt, 1981; Bigelow, 1977; Bigelow & La Gaipa, 1975). Only a limited amount of research has focused specifically on the preschool period (Furman & Bierman, 1983). The findings of studies investigating preschool children's conceptions of friendship and the basis for their friendships are reviewed below.

Conceptions of Friendship. Research indicates children's definitions and expectations of friendship evolve from an early focus on common activities and shared materials to a later emphasis on concepts such as intimacy, loyalty, trust, and common interests (Damon, 1983). Hayes (1978) interviewed preschool children, ages 3-0 to 5-6, to assess the cognitive bases for liking and disliking peers. The results revealed that common activities, general play, propinquity, physical possessions, and evaluation (e.g., "she's nice") were all frequently cited as reasons for liking their best friend. Aggression, aberrant behavior, and rule violations were most commonly cited as reasons for disliking a peer.

Furman and Bierman (1983), noting that the results could be significantly influenced by preschool children's expressive skills in the interview situation, employed

three different methodological approaches to study preschool children's conception of friendship. These researchers used an open-ended interview, a picture recognition task, and a forced choice rating measure to assess the most important characteristics of friendship to preschoolers. Similar to the results obtained by Hayes (1978), common activities (which included playing together and having fun together), affection (statements of liking), support (sharing and helping), and propinquity were all salient dimensions of friendship mentioned by the preschool children.

It is interesting to note that all three methods used by Furman and Bierman (1983) yielded similar results in indicating that preschool children view common activities and affection as the most important dimensions of friendship. Furman and Bierman also found developmental changes in the conception of friendship of the 4- to 7-year-old subjects in their study. On each of their three measures emphasis on the characteristics of affection and support increased with age while physical characteristics (statements describing particular physical characteristics or aspects of appearance) decreased in importance. Similar to the results reported by Hayes, the majority of the preschool children in this study recognized common activities as an important dimension of friendship.

Common activities and play do seem to be central features in preschool children's conception of friendship. As indicated above, the majority (94% of the 4- and 5-year-olds and 97% of the 6- and 7-year-olds) of the subjects in Furman and Bierman's study mentioned common activities as an important component of friendship. Hayes compared the results he obtained with preschool children with the results Bigelow (1977) and Bigelow and La Gaipa (1975) obtained with school age subjects. He reported that it is evident that while both groups of children mentioned common activities, propinquity, and evaluation as important dimensions for friendship, only the preschool children emphasized general play and physical possessions as important dimensions of friendship. Bigelow and La Gaipa have found that starting at around grade 2, play decreases in importance relative to children's conception of friendship. Thus, the emphasis on play in the notion of friendship seems to be particular to preschool and early elementary school children.

Researchers have examined other characteristics of preschool children's conception of friendship. Whereas older children view friendships as relationships that evolve over time and include mutual sharing and intimacy, preschool children have been found to view friendships in terms of momentary interactions (Rubin, 1980). Thus, to a preschooler, a friend is "whomever one is playing with

at a particular time" (Rubin, p. 33). Furman and Bierman propose that their finding that most preschool children emphasize common activities in their conception of friendship provides indirect support for the hypothesis that young children's friendships are centered on mutual play activities.

Researchers have also examined children's descriptions of their friends. In general, the findings indicate preschool children tend to concentrate on physical attributes and activities whereas older children concentrate on psychological attributes such as interests or needs (Rubin, 1980). In fact, Selman (1980) notes that preschool children seem unaware of the more abstract, psychological characteristics of friendships.

In summary, definitions, expectations, and descriptions of friends change considerably with development. The findings have led researchers to conclude that a preschool child's conceptions about friendship are at a concrete, behavioral level (Eisenburg & Harris, 1984). Selman (1980) has suggested this reliance on concrete, behavioral conceptions such as play and common activities forms the basis for the instability of preschool children's friendships. As noted by Rubin (1980), preschool children do not have a clear conception of an enduring relationship that exists apart from specific encounters. However, with development these

conceptions evolve to a more abstract, psychological level characteristic of older children and adolescents (Eisenburg & Harris). It is believed the recognition of friendship as a stable relationship emerges only when children become aware of the more abstract and enduring concepts underlying friendships (Furman & Bierman, 1983).

The Basis of Friendships. Similarities between individuals have been assumed to be the basis for friendships (Rubin, 1980), as well as being influential in both friendship selection and maintenance (Hartup, 1983). On the other hand, it has also been noted that similarities could be an outcome of friendship in that interactions between two individuals may produce similarities in attitudes or behavior (Hartup, 1983).

Demographic similarities such as age, sex, and race have been investigated relative to children's friendships. In general, the findings indicate there is a strong tendency for friends to be the same age, sex, and race (Hartup, 1983). Although the majority of the evidence for this generalization comes from studies of older school age children or adolescents, Hartup (1983) notes that there is little reason to expect substantially different results with younger school age children. It is assumed the same generalizations would hold true with the friendships of preschool children. As noted by Rubin (1980), any nursery

school teacher will confirm that best friends tend to be the same age, sex, and race.

Behavioral and attitudinal similarities are not as consistent between friends as similarities in age, sex, and race (Hartup, 1978). For example, past research with older children and adolescents has yielded either inconsistent or modest relationships between friends in terms of intellectual capacity, academic achievement, sociability, preference for activities, educational and occupational aspirations, attitudes, and personality profiles (Hartup, 1983). The literature lacks studies focusing on such similarities in the friendships of preschool children.

Given preschool children's conception of friendship focuses on dimensions such as common activities and mutual play, broad areas of behavioral similarities would be expected to exist in preschool friends. In fact, based on his observations of children, Rubin (1980) states that children who become friends and remain friends for a period of time are likely to evidence similarities in interests and activity styles. Rubin describes the friendship of two preschool boys whose relationship appeared to be based on similar styles and tempos of play. The boys were observed to favor play which emphasized sound and motion and deemphasized conversation and role playing. Rubin believes these types of resemblances breed

friendship because they facilitate interaction and social comparison. The process of self-confirmation through social comparison has been hypothesized to be an important determinant of friendships (Duck, Miell, & Gaebler, 1980). According to Duck et al. (1980) and Rubin, the discovery of similarities between individuals leads to mutual attraction and more intimate forms of friendship.

In summary, the friendships of preschool children most likely are characterized by similarities in age, sex, and race. Additionally, it has been suggested that the friendships of preschool children may be characterized by more behavioral similarities than that evidenced in the friendships of older children. However, there is little evidence available in the literature to substantiate these claims.

Play Style and Friendship in Preschool Children

Past research indicates preschool children conceptualize friends as playmates with whom they share common activities and play (Furman & Bierman, 1983; Hayes, 1978). In fact, as noted previously, the emphasis on play in the notion of friendship seems to be particular to preschool and early elementary school children. Rubin has suggested similarities in play style or tempo may be the basis for friendship among preschool children. The research on play styles has provided evidence that children do demonstrate individual differences in their

play behavior. Based on these two lines of research, it appears possible that individual differences in play style would influence the friendship choices of preschool children.

Having friends is often thought to be a critical component of "social skillfulness" or social competence (Eisenberg & Harris, 1984). If play style is found to significantly influence the formation of friendships in preschoolers, then play style may be an important but as yet overlooked variable relative to social competence.

APPENDIX B
REFERENCES

APPENDIX B. REFERENCES

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APPENDIX C
PARENTAL CONSENT LETTER

APPENDIX C. PARENTAL CONSENT LETTER

January 28, 1985

Dear Parent:

We are conducting a research project which deals with the effect of individual differences in children's play on friendships in preschoolers. We would like to ask your cooperation in permitting your child to participate in the study.

As indicated above, we are interested in studying children's characteristic manner or style of play and friendship choices. In order to assess each child's play style we will ask you, the parent, and the classroom teacher to complete brief forms which will provide us with ratings of each child's typical play behavior. Each child's photograph will be taken and used in determining friendship patterns. Friendship patterns will be assessed through individual interviews with the children in which each child will be asked to point to pictures of activities and children they usually choose to play with during free-play time. In the past, we have found that children enjoyed participating in similar tasks.

No child will be forced to participate if he or she does not want to. Each child is free to withdraw from the study at any time and no negative consequences of any type will be experienced by children who withdraw. All information collected about individual children will be confidential. To insure confidentiality, subject numbers rather than names will be used on all materials. After the data are collected and analyzed, the results will be made available to parents through a brief written summary.

Please sign the attached form and return it to Mrs. Vogler if you give permission for your child to participate in this study. If you have any questions or concerns or wish to hear more about the study, please contact us. Thank you for your cooperation.

Sincerely,

Diane M. Horm-Wingerd

Victoria R. Fu, Ph.D.

Janet K. Sawyers, Ph.D.

Consent Form
Play Style and Friendship in Preschoolers

I acknowledge that I have been informed of the nature of this study and I understand that my child may withdraw from the study at any time. It is understood that the information will be kept confidential. I give consent for my child to participate in this study.

Name of child:

Name of parent:

Signature of parent:

Address:

Please return by Friday, February 1, 1985

THANK YOU

APPENDIX D
TEACHER RATING OF PLAY STYLE

APPENDIX D. TEACHER RATING OF PLAY STYLE

Teacher Rating of Play Style*

DIRECTIONS: For each pair of behaviors described below, please mark an X beside the one behavior that best describes the above named child's (see attached card) typical play behavior.

Please keep in mind this child's typical play behavior while reading and responding to the following statements.

CHOOSE ONE:

_____ prefers to handle and play with toys such as blocks and puzzles, arranging and rearranging the parts for a relatively long period of time

OR

_____ prefers to play make-believe or pretending games, making-up characters and situations for a relatively long period of time

CHOOSE ONE:

_____ likes games and play activities which include acting out feelings, fantasies, and imaginations

OR

_____ does not like and quickly stops games in which feelings, fantasies, and imaginations are being acted out

CHOOSE ONE:

_____ when playing with blocks or similar toys, tends to sort blocks based on size, color, and shape

OR

_____ when playing with blocks or similar toys, tends to use blocks as props or make-believe objects in pretend play. For example, pretends blocks are "applesauce" and "milk" and gives them to parent or teacher to eat.

CHOOSE ONE:

_____ when playing make-believe or pretending, the child creates non-existent people and toys which are used in acting out fantasies and imaginations. In other words, the child does not need real people or toys to carry out play. For example, when given a toy tea set and asked to make believe a friend is coming for a birthday party, the child offers to take the guest's coat - a pretend object not provided for the child.

OR

_____ when playing make-believe or pretending, the child uses real people or toys to act out fantasies and imaginations. For example, when given a toy tea set and asked to make believe a friend is coming for a birthday party, the child offers the guest forks and plates - real objects provided for the child.

CHOOSE ONE:

_____ often stops during pretend or make-believe play to handle, look at, explore, or sort toys or playthings. For example, stops a play scene which involves pouring tea for guests in favor of stacking and re-stacking the cups and saucers.

OR

_____ does not stop during pretend or make-believe play to handle, look at, explore, or sort toys or playthings. The child tends to stick to and continue with their make-believe play story.

CHOOSE ONE:

_____ is likely to use the same toy or object for many different things in make-believe or pretend play. For example, in the course of several minutes of play, the same clothespin can be used as a spoon, a pot handle, or a knife as the changing theme of pretend play requires new props or objects.

OR

_____ is unlikely to use the same toy or object for many different things even when different things are needed in pretend play. For example, after using one cylinder as a nail while playing carpenter, the child continues to call that cylinder and other similar objects a nail, even when moving on to new play activities.

CHOOSE ONE:

_____ can use a toy or object in place of anything during pretend play, even if the toy does not look anything like the real object. For example, a tiny cube block can be used as a bath towel - the child shimmies and shivers as the block is rubbed over the body.

OR

_____ tends to use a toy or object only in place of things that look somewhat alike. In other words, pretend objects used in play must look like the real object. For example, preferring to use a ruler instead of a long block as a pretend knife; not using an empty toy plate as "a piece of cake" until a small rectangular block is placed on it.

CHOOSE ONE:

_____ likes to use imaginary toys or made-up objects in pretend play. For example, easily pretends that there is batter in an empty bowl.

OR

_____ likes to use actual toys or objects in pretend play. For example, rather than pretending batter is in an empty bowl, the child prefers to place water in the bowl to be stirred.

CHOOSE ONE:

_____ when building and constructing with toys such as blocks, the child prefers to play alone. During this time, the child's attention is focused on the physical properties (for example, the color, size, shape, etc.) of the play materials or toys.

OR

_____ when playing with toys such as blocks, the child prefers to focus play on other children and adults rather than on objects or toys. In other words, the child's attention is focused on the social interactions in the play.

CHOOSE ONE:

_____ prefers to play with blocks, clay, markers, and puzzles

OR

_____ prefers to play dress-up, to fingerpaint, and to create stories

*Examples of play behavior taken from:

Shotwell, J. M., Wolf, D., & Gardner, H. (1979).

Exploring early symbolization: Styles of achievement. In B. Sutton-Smith (Ed.), Play and learning (pp. 127-156). New York: Gardner.

Wolf, D., & Grollman, S. H. (1982). Ways of playing: Individual differences in imaginative style. In D. J. Pepler & K. H. Rubin (Eds.), The play of children: Current theory and research (pp. 46-63). New York: Karger.

APPENDIX E
ITEM ANALYSIS OF TEACHER RATING SCALE

APPENDIX E. ITEM ANALYSIS OF TEACHER RATING SCALE

Table E-1

Item Analysis of Teacher Rating Scale

Item Number	Statistics		
	Number of Responses	Proportion of Responses	Correlation with Total Score
	Patterner/ Dramatist	Patterner/ Dramatist	Patterner/ Dramatist
1	11 / 20	.35 / .65	-.81 / .81
2	7 / 24	.23 / .77	-.73 / .73
3	10 / 21	.32 / .68	-.65 / .65
4	15 / 16	.48 / .52	-.67 / .67
5	12 / 19	.39 / .61	-.57 / .57
6	18 / 13	.58 / .42	-.52 / .52
7	24 / 7	.77 / .23	-.43 / .43
8	20 / 11	.65 / .35	-.43 / .43
9	12 / 19	.39 / .61	-.48 / .48
10	15 / 16	.48 / .52	-.65 / .65

APPENDIX F
FRIENDSHIP PREFERENCES

APPENDIX F. FRIENDSHIP PREFERENCES

An interesting pattern of differences was found in the stability of the friendship preferences in the two preschool classrooms used in this study. These differences are outlined below:

- 100% of the children in classrooms A and B included the same child as one of their three most preferred friends at both time 1 and time 2.
- 93.8% of the children in classroom A included the same two children as members of their three most preferred friends at both time 1 and time 2. Only 60.0% of the children in classroom B demonstrated this pattern. A test of independent proportions indicated this difference was significant, $z = 2.24$, $p < .05$.
- 37.5% of the children in classroom A included the same three children as members of their three most preferred friends at both time 1 and time 2. The corresponding percentage in classroom B was 13.3%. A test of independent proportions

indicated this difference was not significant, $z = 1.53$, $p > .05$. However, when the order the friends were identified was considered, it was found that 25% of the children in classroom A not only included the same three individual children at time 1 and time 2, but also identified these friends in the same order at time 1 and time 2. This pattern was not found in classroom B. A test of independent proportions indicated this difference was significant, $z = 2.07$, $p < .05$.

- 68.8% of the children in classroom A identified the same individual child as their most preferred friend at both time 1 and time 2. Only 26.7% of the children in classroom B demonstrated this pattern. A test of independent proportions indicated this difference was significant, $z = 2.34$, $p < .05$.
- No differences were found between classroom A and classroom B when the least preferred friendship choices were considered.

Taken together, these findings suggest that the friendship preferences of preschool children are relatively stable. Interestingly, a consistent

pattern emerged when the two classrooms were considered individually. Considerably more stability was demonstrated in classroom A than in classroom B.

A possible explanation for this difference in the two classrooms lies in the amount of interaction the children have with their peers. Classroom A meets five mornings a week while classroom B meets three afternoons a week. It is possible this difference could be responsible for the different pattern of friendship stability in the two classrooms. Also, the vast majority of the children in classroom A have been enrolled in the same preschool and have been together in the same classrooms for two or more years. The children in classroom B do not have a similar history. At time 1, these children had attended preschool together only three afternoons a week for approximately a six month period. It also seems possible this difference in the amount of past interaction could be responsible for the observed patterns of friendship preferences. Perhaps a stable history of interaction is necessary for stable friendship preferences to emerge.

Past research has indicated that the friendships of preschool children tend to be unstable (Selman,

1980). The findings of this study do not support this conclusion. In contrast, rather high rates of stability were evident in the friendship preferences of preschool children over a 6 week period. This was especially true of children in a classroom that had a recent pattern of daily interaction as well as a history of interaction over two or more years. It may be that stable friendship preferences in preschool children depend more on a stable and consistent interaction history than on their limited view of friendship, as has been proposed by other researchers. It appears logical that stable relationships would take time to develop. If the friendships of preschool children are assessed in situations which do not allow or consider the history of peer interactions over time, it is perhaps not surprising that the friendships of preschoolers have been characterized as unstable and as consisting merely of momentary interactions.

APPENDIX G
RELIABILITY MEASURES

APPENDIX G. RELIABILITY MEASURES

Play style ratings by assistant teachers and mothers were also collected at both time 1 and time 2. In each of the two classrooms, an undergraduate student who spent a relatively large amount of time with the children was asked to complete the teacher rating form on each child. Parental ratings of play style were obtained by asking each child's mother to complete the rating form. Two types of reliability, intra-rater and inter-rater, were assessed through the use of the Pearson product-moment correlation statistic.

Intra-rater reliability. The relationship of the ratings produced by head teachers at time 1 and time 2 was of special interest since these ratings were used to classify the children into the play styles. A moderate positive relationship, $r = .5914$, $p < .001$, was found between these ratings (see Table G-1). The intra-rater reliability coefficients associated with the ratings provided by parents and assistant teachers were also significant ($p < .05$) and fell in the moderate to high positive range (see Table G-1).

Inter-rater reliability. Different patterns of inter-rater reliability coefficients were found at time 1 and time 2 (see Tables G-2 and G-3). These differences in relationships between raters could be a function of the decreased frequency of interaction between assistant teachers and the children at time 2 as well as an increased awareness by mothers of their children's play styles after completing the ratings at time 1.

Table G-1

Intra-rater Reliability

Rater/Time 1	Time 2		
	Mother	Head Teacher	Asst. Teacher
	Total sample (n=31)		
Mother	.7767***		
Head Teacher		.5914***	
Asst. Teacher			.6679***
	Classroom A (n=16)		
Mother	.9269***		
Head Teacher		.6394**	
Asst. Teacher			.6009**
	Classroom B (n=15)		
Mother	.5181*		
Head Teacher		.6139**	
Asst. Teacher			.6966**

*p<.05 **p<.01 ***p<.0001

Table G-2

Inter-rater Reliability at Time 1

Rater/Time 1	Time 1		
	Mother	Head Teacher	Asst. Teacher
	Total sample (n=31)		
Mother	-	.2072	.0455
Head Teacher		-	.5214***
Asst. Teacher			-
	Classroom A (n=16)		
Mother	-	.4360*	.4861*
Head Teacher		-	.5377*
Asst. Teacher			-
	Classroom B (n=15)		
Mother	-	-.1286	-.2818
Head Teacher		-	.5756*
Asst. Teacher			-

*p<.05. **p<.01 ***p<.001

Table G-3

Inter-rater Reliability at Time 2

Rater/Time 2	Time 2		
	Mother	Head Teacher	Asst. Teacher
Total sample (n=31)			
Mother	-	.4528**	.2677
Head Teacher		-	.1892
Asst. Teacher			-
Classroom A (n=16)			
Mother	-	.5467*	.5871**
Head Teacher		-	.3391
Asst. Teacher			-
Classroom B (n=15)			
Mother	-	.4550*	-.0322
Head Teacher		-	.1123
Asst. Teacher			-

*p<.05. **p<.01 ***p<.001

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