In a study of the social ecology of preschool peer interaction, independent measures of agonism and object conflict were employed to investigate relations between dominance, competition, and prior possession of object. In addition, independent measures of affiliation and object exchanges were employed to investigate further possible relations between friendship, sharing, and prior possession of object. Subjects were 16 children between 3 and 4 years of age who were involved in free play. Six 40-minute focal samples of each child were videotaped. Videotapes were coded independently for three types of social interaction: agonism, affiliation, and object exchange. The initiating action of the focal child, the social target of the action, and the response of the target child were coded. In addition, the time of possession of the object prior to an object exchange was recorded. Findings indicated that outcomes of object conflicts and sharing were predicted by prior possession, but not by affiliation or dominance. Object use interactions were not terminated consistently to the benefit of an individual, as in dominance, or to the benefit of both individuals, as in friendship. (RH)
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Object Conflict and Sharing in the Preschool:
Further Evidence for a Prior Possession Rule

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Paper presented in poster format at the Biennial Meeting of the Society for Research in Child Development, Kansas City, MO, April, 1989. The authors wish to acknowledge the contributions of Rachel R. Rothschild, F. F. Strayer, Teresa Blicharski, and two coders at the Laboratory of Human Ethology, Montreal, Canada to the data coding reported in this paper.

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Sixteen children (2.9 to 4.2 yrs) were observed during free play. Six 40-minute focal samples for each child were collected over a 3-week period and recorded on videotape. Videotapes were coded independently for three types of social interaction: agonism, affiliation, and object exchange (conflict or sharing). The initiating action of the focal child, the social target of the action, and the response of the target child were coded. In addition, the time of possession of the object prior to an object exchange (up to two minutes) was recorded.

Outcome of object conflicts (resistance or loss) and sharing (acceptance or refusal) were predicted by prior possession, but not by affiliation or dominance. These findings support and extend previous proposals of a "prior possession" rule. They are discussed in terms of transactional rules which influence social exchanges and their implications for conceptualizing the social ecology of the preschool peer group as multidimensional.
Traditionally two dimensions of social ecology, social dominance hierarchies and friendship networks, have been standards for studying social structure. In particular, dominance relationships are identified as asymmetrical patterns of agonistic interactions between individuals and friendship relationships are identified as asymmetrical patterns of affiliative interactions between individuals (Strayer, 1980). Recently, investigators have begun to question what social rules other than dominance might govern the outcome of competitive exchanges. Bakeman and Brownlee (1982) observed instances of object conflict in groups of one-and three-year-old children. Their analyses revealed that resistance to a take attempt was predicted by dominance in the younger age group and by "prior possession" of the object by the taker in the older age group. Based on their research, they proposed that the rules governing object conflict change from rules of power, which depend on the particular individuals involved, to rules of transaction, which apply situationally to all individuals equally. In this way, object use relationships appear to be fundamentally different from either dominance relationships or friendship relationships.

Although these findings are most suggestive, in using the outcome of competitive exchanges to construct a social dominance hierarchy, Bakeman and Brownlee conflated dominance and competition, as they themselves acknowledge. Thus, their finding of the predictability of the outcomes of competitive exchanges from knowledge of dominance relationships is
artifactual, although the predictability of resistance is not. In the present study independent measures of agonism and object conflict were employed to investigate relations between dominance, competition, and prior possession of the object by the target child. In addition, independent measures of affiliation and object exchanges were employed to investigate further possible relations between friendship, sharing, and prior possession of the object by the initiating child.

METHOD

Sixteen children (8 M, 8 F; age 2.9 to 4.2 yrs.), were observed during free play at nursery school. Six 40 minute focal samples for each child were collected over a 3 week period and recorded on videotape. Videotapes were coded independently for three types of social interaction: agonism, affiliation, and object conflict/sharing.

Procedure

Agonism was coded using a combined event and sequence sampling method adapted from Strayer and Strayer (1976). Instances of competition were not included in this coding. Affiliation was coded using a combined scan and sequence sampling method adapted from Strayer (1980). Instances of sharing were not included in this coding. Object competition and sharing were coded using a combined event and sequence sampling method. The time of possession of the object by the initiating child prior to the object exchange (up to two minutes) was recorded.
Coding

Agonistic Interactions Used to Construct Dominance Hierarchy

Initiating Actions       Response Actions
Attack OR Threat -> Submission OR Turn Away OR Flight

Affiliative Interactions Used to Construct Friendship Network

Initiating Actions       Response Actions
Attention OR Signal/Gesture -> Attention OR Signal/Gesture

Object Conflict Interactions Used to Construct Competition Matrix

Initiating Actions       Response Actions
1 Take Attempt -> Object Loss OR Resistance

Object Exchange Interactions Used to Construct Sharing Matrix

Initiating Actions       Response Actions
1 Object Offer -> Acceptance OR Refusal

For coding of object conflict or exchange, initiating action could occur either with prior possession (initiator had possession of object for 2 minutes or more before action) or without prior possession.

Results

Summary of competition results (Tables 1 to 3):

- Take attempts are more likely to lead to object loss than to resistance.
- Take attempts are directed more often toward targets who have not had prior possession of the object.
- Take attempts initiated toward children with prior possession of an object are more likely to lead to resistance than to object loss.
- Take attempts initiated toward children without prior possession are more likely to lead to object loss than to resistance.
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- Take attempts are no more likely to be initiated by a dominant child than by a subordinate child.
- Dominance is not related to outcome of take attempts (resistance or loss).
- Take attempts are more likely to be initiated toward a child who is not a friend.
- Friendship is not related to outcome of take attempts (resistance or loss).

Summary of sharing results (Tables 4 to 6):
- Object offers are much more likely to lead to acceptance than to refusal.
- Offers are more often initiated by children who have had prior possession of the object.
- Offers by children with prior possession are slightly more likely to lead to acceptance than are offers by children without prior possession.
- Offers without prior possession are slightly more likely to lead to refusal than are offers with prior possession.
- Offers are no more likely to be initiated by a dominant child than by a subordinate child.
- Dominance is not related outcome of offers (acceptance or refusal).
- Offers are more likely to be directed toward a child who is not a friend.
- Friendship is not related to outcome of offers (acceptance or refusal).
Discussion

The design, coding and analysis of this study allow a direct examination of the relations between dominance, friendship and object use. In this study, outcome of object struggles (resistance or loss) and sharing (acceptance or refusal) were predicted by prior possession, but not by affiliation or dominance. Together with findings from the Bakeman and Brownlee study, this suggests that at first toddler’s object conflicts are guided by a “might makes right” rule. Later, toddler’s object conflicts are guided by a prior possession by the taker rule -- a "take back rule". Still later, object conflicts between preschool children are guided by a prior possession by the target rule -- a "possession is 9/10 of the law" rule. (Or in the preschool we observed, possession is 7/10 of the law!) Further, object exchanges between preschool children also appear to be guided by a prior possession by the initiator rule. While children seldom refuse the offer of an object, refusal is more likely if the offer comes from a child who has not had prior possession of the offered object and acceptance is more likely if the offer comes from a child who has had prior possession -- an "I’ll take it if it’s yours to give" rule.

These findings have implications for a multi-dimensional representation of preschool peer group social ecology and our understanding of the transactional rules that influence social exchanges. Object use appears to occupy a middle ground in terms of its degree of symmetry or asymmetry when compared to
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... dominance and affiliation. Object use interactions are not terminated consistently to the benefit of an individual like dominance or to the benefit of both individuals like friendship. Rather, object exchanges appear to be resolved to the benefit of one or the other participant based on situational rules of ownership. While any given exchange may terminate to the benefit of one participant, the pattern of outcome of object use interactions is not predictable from knowledge about the participants or their relationship. Thus, object use relationships, unlike friendship or dominance, are neither symmetrical nor asymmetrical, but rather are patterns of interactions that have an alternating, reciprocal or balanced asymmetry based in social rules of ownership.
References


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Frequency (and Percent) of Outcome of Object Use By Predictors

Table 1. Outcome of Object Conflicts by Prior Possession

<table>
<thead>
<tr>
<th></th>
<th>Resistance</th>
<th>Object Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Prior Possession</td>
<td>60 (24)</td>
<td>25 (10)</td>
</tr>
<tr>
<td>Without Prior Possession</td>
<td>32 (13)</td>
<td>134 (53)</td>
</tr>
<tr>
<td></td>
<td>92 (37)</td>
<td>159 (63)</td>
</tr>
</tbody>
</table>

chi square (overall) = 63.74, \( p < .0001 \)
chi square (rows) = 26.14, \( p < .001 \)
chi square (columns) = 17.88, \( p < .001 \)

Table 2. Outcome of Object Conflicts by Dominance

<table>
<thead>
<tr>
<th></th>
<th>Resistance</th>
<th>Object Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominant</td>
<td>46 (18)</td>
<td>89 (36)</td>
</tr>
<tr>
<td>Subordinate</td>
<td>46 (18)</td>
<td>70 (28)</td>
</tr>
<tr>
<td></td>
<td>92 (37)</td>
<td>159 (63)</td>
</tr>
</tbody>
</table>

chi square (overall) = n.s.
chi square (rows) = n.s.
chi square (columns) = 17.88, \( p < .001 \)

Table 3. Outcome of Object Conflicts by Friendship

<table>
<thead>
<tr>
<th></th>
<th>Resistance</th>
<th>Object Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual Friends</td>
<td>38 (15)</td>
<td>61 (24)</td>
</tr>
<tr>
<td>Non-Mutual Friends</td>
<td>54 (22)</td>
<td>98 (39)</td>
</tr>
<tr>
<td></td>
<td>92 (37)</td>
<td>159 (63)</td>
</tr>
</tbody>
</table>

chi square (overall) = n.s.
chi square (rows) = 11.19, \( p < .01 \)
chi square (columns) = 17.88, \( p < .001 \)
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Table 4  Outcome of Sharing Attempts by Prior Possession

<table>
<thead>
<tr>
<th></th>
<th>Acceptance</th>
<th>Refusal</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Prior Possession</td>
<td>65 (57)</td>
<td>5 (04)</td>
</tr>
<tr>
<td>Without Prior Possession</td>
<td>36 (31)</td>
<td>9 (08)</td>
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<tr>
<td></td>
<td>101 (88)</td>
<td>14 (12)</td>
</tr>
</tbody>
</table>

chi square (overall) = 4.24, p < .05  
chi square (rows) = 5.43, p < .05  
chi square (columns) = 65.82, p < .0001

Table 5  Outcome of Sharing Attempts by Dominance

<table>
<thead>
<tr>
<th></th>
<th>Acceptance</th>
<th>Refusal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominant</td>
<td>43 (37)</td>
<td>6 (05)</td>
</tr>
<tr>
<td>Subordinate</td>
<td>58 (50)</td>
<td>8 (07)</td>
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<tr>
<td></td>
<td>101 (88)</td>
<td>14 (12)</td>
</tr>
</tbody>
</table>

chi square (overall) = n.s.  
chi square (rows) = n.s.  
chi square (columns) = 65.82, p < .0001

Table 6  Outcome of Sharing Attempts by Friendship

<table>
<thead>
<tr>
<th></th>
<th>Acceptance</th>
<th>Refusal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual Friends</td>
<td>35 (30)</td>
<td>7 (06)</td>
</tr>
<tr>
<td>Non-Mutual Friends</td>
<td>66 (57)</td>
<td>7 (06)</td>
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<td></td>
<td>101 (88)</td>
<td>14 (12)</td>
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</tbody>
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chi square (overall) = n.s.  
chi square (rows) = 8.36, p < .01  
chi square (columns) = 65.82, p < .0001