Yours and mine: Toddlers’ talk about possessions with familiar peers

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Participants in this study were 66 British toddlers who were observed at home with familiar peers on two occasions, six months apart. The majority of toddlers spoke to their peers, with short sequences of conversation emerging after the age of 24 months. The use of possessive pronouns emerged between 18 and 24 months of age and consolidated over the next year. Toddlers who said ‘mine’ were also more likely than other children to say ‘yours.’ The use of possessive pronouns was associated with other language about the possession of objects and references to the motivational states of desire and need, suggesting a general understanding of the concept of object possession. The use of possessive pronouns was initially associated with physical aggression but children who used possessive pronouns at the first visit were significantly more likely to share objects with their peers six months later. The findings suggest that general conversational competence and the particular ability to talk about the possession of objects may facilitate positive relations with peers.

When do young children begin to converse with their peers and what do they talk about? Does their growing conversational ability promote positive social development? The aim of this paper is to examine a particular facet of toddlers’ conversations, namely, their discussion of who owns or has the right to play with particular objects. A child’s ability to converse with peers is likely to be refined in the contexts of cooperative play and conflict, with verbal statements, questions and replies being scaffolded by non-verbal actions. Thus, this paper focuses on the frequency and content of conversation as a component of peer interaction in the second and third years of life. Of particular interest is the extent to which toddlers talk about people’s possessions, including the familiar phenomenon whereby a toddler asserts that a certain object is ‘mine!’

In contrast to many other studies of early peer relationships that have observed unacquainted dyads in laboratories or larger groups of infants and toddlers in child care or playgroups (for reviews, see Eckerman & Peterman, 2004; Hay, Payne, & Chadwick, 2004), this study focuses on pairs of toddlers who know each other and spend time together in each other’s homes (see also Ross, Tesla, Kenyon, & Lollis, 1990).

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By studying children at home with familiar peers, we may be better able to detect new conversational skills that emerge as a function of the mutual adjustment required in a continuing relationship. At this age, most interaction with peers is dyadic (Ishikawa & Hay, in press) and it is therefore likely that conversation with peers first emerges in a dyadic context with a familiar companion.

In early childhood, as children’s conversational skills improve, purely behavioural ways of dealing with peers decline. For example, during the first three years, peers often struggle over the possession of objects but such conflicts decline in frequency by the time children enter primary school (Hay, 1984; Shantz, 1987). By the time they are five years old, children can generate many different strategies to settle such conflicts, including the use of prosocial behaviour, manners and pure verbal argument (Hay, Zahn-Waxler, Cummings, & Iannotti, 1992). For most children, the use of physical aggression declines over the preschool years (Tremblay & Nagin, 2005). The minority of children who continue to use physical aggression tend to be rejected by their peers (Price & Dodge, 1989). In contrast, prosocial behaviour promotes peer acceptance (Denham, McKinley, Couchoud, & Holt, 1990).

Peer rejection has long-term effects on children’s well-being (Deater-Deckard, Dodge, Bates, & Pettit, 1998; Woodward & Fergusson, 2000). Conversely, peer acceptance is a protective factor in development (Criss, Pettit, Bates, Dodge, & Lapp, 2002). Thus it is important to study the early developmental processes that reduce aggression and promote positive relations with peers. I propose that the growing ability to converse with peers—to be able to talk about possession rights and negotiate use of mutual resources—helps young children resolve their conflicts with peers in non-aggressive ways.

In the second year of life, toddlers with poorer vocabularies are more likely to use physical aggression (Dionne, Tremblay, Boivin, Laplante, & Perusse, 2003). In general, conversational competence promotes acceptance in the preschool peer group (Black & Hazen, 1990; Kemple, Speranza, & Hazen, 1992), whereas children with speech problems may meet with rejection from their peers (Meyers, 1990; Davis, Howell, & Cooke, 2002). The aim of this paper is to extend such findings by focusing more precisely on the content of very young children’s conversations. The possession of objects is a prime topic of conversation for young children. This present study explores the extent to which toddlers’ discussion of who owns what is related to aggressive and non-aggressive ways of relating to their peers.

Children’s conversations about the possession of objects rest upon a growing understanding of the relations between people and their possessions (Furby, 1978) and the acquisition of beliefs about justice and entitlement to particular resources (Ross, 1996). The explicit lessons about entitlement and justice provided by parents and teachers are supplemented by the practical lessons gleaned from disputes with siblings and peers (Dunn, 1988; Ross, 1996; Ross et al., 1990). For example, analyses of peer conflict have shown that toddlers are more likely to gain objects from their peers if they had possessed those objects earlier (Bakeman & Brownlee, 1982). When told that they might take an object home, as opposed to playing with it only in the preschool setting, children are more likely to defend that object from peers’ designs on it (Eisenberg-Berg, Haake, & Bartlett, 1981; Eisenberg-Berg, Haake, Hand, & Sadalla, 1979). By the age of 5 years, children report that a child is more likely to win a conflict if he or she had previously possessed the object of the dispute (Hay et al., 1992).

It is likely that the development of an understanding of possession rights is underpinned by more general changes in the understanding of self and other.
For example, in an experimental study of toddlers’ understanding that items (such as toothbrushes) can be owned by particular people, children under the age of 24 months performed at chance levels, whereas older toddlers clearly differentiated their own possessions from things belonging to their mothers (Fasig, 2000). Understanding that one might own certain objects was related to other dimensions of self-understanding.

Being able to draw upon this knowledge about possession rights and ownership in conversation with peers requires some advances in general language ability. When children are acquiring language, they use noun phrases to signify possession; only gradually do possessive pronouns become differentiated into a distinct class of modifier (Dale, 1972). Use of first-person pronouns precedes use of second-person pronouns (Imbens-Bailey & Pan, 1998). Furthermore, the use of the possessive form ‘my’ is sometimes substituted for the nominative ‘I’ (Rispoli, 1998).

Of particular concern here is the extent to which toddlers make reference to the peer’s as well as their own possession of objects by saying ‘yours’ and ‘mine.’ Referring to an object as ‘yours’ suggests a dawning awareness that different people are entitled to use different things. The use of possessive pronouns is also likely to be associated with other forms of speech about the use and possession of objects. For example, the verbs have and got are also used to signify the possession of an object and the verbs want and need can be used to indicate motivational states regarding the desire to possess particular objects. In this paper, associations amongst these different forms of speech about the possession of objects are examined. Interrelations amongst these forms of speech would suggest that the toddlers are developing a general understanding of the concept of possession and are not just acquiring the ability to use possessive pronouns as a particular form of speech.

In sum, the study charts the beginnings of toddlers’ tendencies to talk to their peers about their own and their peers’ possessions. A cohort-longitudinal design was used to assess change and continuity in toddlers’ use of possessive pronouns while talking to familiar peers. The design allows for exploratory analyses of the relationships between speech about the possession of objects and children’s use of aggressive and non-aggressive strategies when interacting with peers. Although toddlers begin to say ‘mine’ about the same time they begin to say ‘no’ and so talk about possessions may be seen as a similar indicator of early wilfulness and negativity (Wenar, 1982), I shall argue that the ability to talk about possession of objects is an important step in the development of socially acceptable ways of pursuing one’s self interest in the context of peer relationships.

**Method**

**Design**

A cohort-longitudinal design was used to study children’s early relationships with familiar peers (see also Hay, Castle, & Davies, 2000; Hay, Castle, Davies, Demetriou, & Stimson, 1999). Focal children at ages 18, 24 or 30 months were each observed at home with a familiar peer, with the procedure repeated again 6 months later. In this design, observations at 24 and 30 months of age were repeated in a second cohort but only the youngest cohort was observed at 18 months and only the oldest cohort at 36 months (see Tables 1, 2, 3). Because the children are seen with familiar peers, trends over time reflect a growing acquaintance with a particular peer as well as normative, age-related change. Differences between the age groups are due to all variables on which the three cohorts might differ, as well as chronological age. Any evidence of age differences that is
corroborated by evidence for significant change over time and replication across cohorts provides particularly strong support for developmental hypotheses.

Social behaviour and speech was recorded for both the focal children and their peers. Both children’s behaviour and speech was used to identify episodes of dyadic peer interaction and mutual conversation. However, because the peers ranged more widely in age and to remove statistical dependencies in the data, all developmental analyses concentrate attention on the behaviour and speech shown by the focal children whose ages at testing define the different levels of the cohort-longitudinal design.

**The focal children**

Pairs of British toddlers were observed at one child’s home in the presence of both mothers. The focal children’s names had been obtained from the age and sex registers of two general practices in south London. Families were sent a letter that explained the purposes of the research, following which appointments were made by telephone; consent for participation was obtained at the time of the first observation. The mother of the focal child was asked to recruit another mother and child (one of the focal child’s ‘best friends’). Families were offered a copy of the video record or a small remuneration.

Sixty-six focal children were observed. The youngest cohort was first observed at 18 months (M = 17.6, SD = 1.8 months) and contained 10 girls and 10 boys. The middle cohort, first observed at 24 months (M = 24.7, SD = 2.0), contained 11 girls and 11 boys. The oldest cohort, first observed at 30 months (M = 30.8, SD = 2.0), contained 12 girls and 12 boys.

When the study began, 27 focal children were firstborns without siblings (2 of those mothers being pregnant), 8 had younger siblings, 25 had older siblings and 2 had both older and younger siblings. Four children had step-siblings. At the follow-up observation, 7 additional children had younger siblings.

Of the 66 mothers of focal children, 90.9% were married to the child’s biological father. The majority of mothers (65.1%) had education beyond the basic qualifications achieved by British school pupils at age 16, whereas 34.9% had not been educated beyond that level. Fewer fathers had advanced qualifications; 41.5% had no qualifications beyond the basic level, whereas 58.5% had obtained further qualifications.

Half the mothers worked outside the home; 28.8% of the sample worked part-time and 21.2% full-time. This pattern of employment was reflected in the children’s experiences with peers. At the first observational session, only 7.6% of the children attended formal playgroups, day nurseries or nursery schools, being cared for by their parents, other relatives, nannies or childminders. By the follow-up session, 38.1% were members of formal peer groups.

Even if they were not formally cared for in peer groups, most of the toddlers had regular experience with peers. At the first observation, 47.0% of the sample spent time with at least one peer on a regular basis; by the second observation, 57.6% were regularly cared for with at least one peer. Most other members of the sample regularly met peers through informal mother-toddler groups.

**The peers**

The peer who participated in the study was a child no more than 6 months older or younger than the focal child who regularly played with the focal child. The peer’s
mother also provided written consent for the session to take place. She was offered a choice of payment or a copy of the video record.

At the first observational session the mean age of the peers was 25.6 months ($SD = 7.3$ months, range: 12–45 months). Most peers (60.3%) were the same age or older than the focal child. The average difference in age between the peers was 0.8 months ($SD = 5.2$ months). The sample of peers comprised 30 girls and 38 boys; 37 of the pairs were same-sex, 29 were opposite-sex. The peers were highly familiar. Many of the pairs of toddlers (57.8%) had known each other since birth; an additional 28.1% had known each other for at least 6 months. In three cases, the ‘peer’ nominated by the mother was actually a cousin of the focal child.

**Procedure**

Observations took place in the focal child’s home. The mother of each focal child was asked to choose a time when one of her friends with a child of similar age could visit. The procedure thus simulated an ordinary occasion in toddlers’ lives when two mothers get together with their children for lunch or tea. No experimental constraints were imposed. The mothers were asked to do whatever they would naturally do on such an occasion; if siblings or other relatives would normally be present, they were not excluded from the session.

An observer with a hand-held camera filmed the children for 45 minutes, following a period of familiarization with the camera. While filming, the observer remained silent and did not respond to the child’s overtures. The focal child was kept in view at all times. If the children drew apart, the observer followed the focal child. If the children went out into the garden in good weather, the observer followed.

The same procedure was repeated approximately 6 months later ($M = 6.9$, $SD = 0.9$ months). Six families (9.1%) were unable to schedule a second observational session. In another case, the second observation had to be ended after only 10 minutes. The same peer was present in all but 5 of the remaining cases.

**Measures**

**Peer interaction**

Dyadic interaction between the children was transcribed from the video records using the peer interaction coding system (PICS) first developed in experimental studies (Hay & Ross, 1982). The current version of the PICS was adapted for use in the home. The basic unit of analysis is the *episode*, a sequence of predefined actions and reactions parsed into alternating *moves* by each child (for details of the categories of non-verbal behaviour included in the PICS see Hay *et al.*, 2000). Episodes of interaction end with the last move preceding a period of at least 30 seconds in which no moves occur.

One of the predefined behavioural categories is ‘speech’ by one of the children. When speech occurred within an interactive move, the observer transcribed all intelligible words in the utterance. Most interactive moves that contained speech also contained a sequence of non-verbal actions.

Two independent observers transcribed the video records for 20 cases. The median percentage of agreement in identifying episodes of peer interaction was 94%. Agreement in parsing agreed-upon episodes of interaction into moves by the focal child and the peer was achieved with an intra-class correlation of .97.

In addition to providing a record of all utterances made by the children in the course of peer interaction, the PICS transcripts were also used to identify moves within each
episode that indicated aggressive and prosocial means of relating to the peer. Two behavioural categories were examined here: (1) moves in which a child showed physical aggression by grabbing on to objects held by the peer or otherwise physically assaulting the peer and (2) moves in which a child shared resources by offering or giving a toy, food or other object to the peer. The two independent observers showed significant agreement in recording these behavioural categories, $\kappa = .84$ for physical aggression and $\kappa = .86$ for shared resources.

**Coding of speech from the PICS transcripts**

Speech was recorded for both the focal child and the peer, which permitted identification of all instances of mutual conversation. However, developmental analyses of the content of the children’s speech concentrated attention on the focal children. The observers’ transcripts of the children’s speech during episodes of peer interaction were coded for (1) the use of possessive pronouns ‘my’, ‘mine’, ‘your’ and ‘yours’ and (2) other discourse about the possession of objects, including references to possession of objects (use of the verbs have/got) and motivational states concerning future access to desired objects (use of the verbs want/need). Agreed-upon moves in the PICS transcripts prepared by the two independent observers were examined for the occurrence of these categories of speech. Significant agreement was achieved for both categories: $\kappa = .76$ for possessive pronouns and $\kappa = .82$ for discourse about possession and exchange.

The primary observer’s transcript was used for all subsequent analyses. Independent transcripts of maternal and child speech from 10% of the sample were used to assess the reliability of the primary observer’s transcription of the children’s statements about possession and exchange. The majority of children’s utterances about possession transcribed by the primary observer (74%) had been recorded in precisely the same words as in the independent transcripts. In additional cases, the utterance could be identified on the independent transcript with some minor changes of wording, but still meeting the criterion for a statement about possession. Thus, 90% of the statements about possession or exchange recorded by the primary observer had also been recorded in the independent transcripts.

**Conversation**

A minimal form of conversation between the peers was identified in the primary observer’s transcripts. Within episodes of interaction, verbal exchanges were identified, which were sequences of at least two moves in which one toddler’s utterance was replied to by the peer. A focal child was deemed to be able to engage in conversation at a minimal level if at least one such verbal exchange had been recorded during a particular session. For simplicity’s sake, and in view of the main topic of this special issue of the journal, these verbal exchanges will subsequently be referred to as conversations.

**Results**

**The extent to which the toddlers talked to their peers**

Before examining the content of the children’s speech, it is important to ask whether such young children ever engage in mutual conversation. The findings suggested that the ability to engage in fluent conversation with peers emerged gradually over the course of the second and third years of life. It was very common for toddlers to try to talk to their peers with the majority using speech at each visit (Table 1). However, conversations in which one toddler spoke and the other replied were not recorded
below the age of 24 months (Table 2). The 18-month-old focal children did not participate in conversation, even when paired with older peers. At 24 months, both children might use speech but were not necessarily engaging in consecutive sequences of statements and replies. However, by 30 months, most children were capable of engaging in at least brief conversations.

Table 1. The percentage of focal children in each cohort who direct speech to the peer at each visit

<table>
<thead>
<tr>
<th>Age in months</th>
<th>18</th>
<th>24</th>
<th>30</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>70%</td>
<td>82%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>40%</td>
<td>82%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55%</td>
<td>82%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Visit 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>80%</td>
<td>100%</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Boys</td>
<td>80%</td>
<td>70%</td>
<td>89%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80%</td>
<td>84%</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>55%</td>
<td>81%</td>
<td>92%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Note. The association of age with the focal child’s speech at Visit 1 could not be tested as the pattern of expected values violated the assumptions of chi-square. There was no significant association with age cohort at Visit 2, nor any significant associations with the child’s sex at either visit.

Inspection of the transcripts revealed many instances of ‘proto-conversation,’ in which speech was responded to with an appropriate non-verbal response (e.g. one toddler saying ‘here’ and the peer accepting a proffered object) or, alternatively, one child responding with speech to a non-verbal action (e.g. one toddler reaching for a toy held by the other, who then said ‘no!’). Thus, in this developmental period, social interaction between peers incorporates both speech and non-verbal communication and so speech about the possession of objects occurred inside and outside the context of extended conversation. Therefore, the analyses that follow examine all speech about the possession of objects (use of possessive pronouns and other discourse about possession) made by the focal children during the episodes of peer interaction recorded on the PICS transcripts.

Tests for gender differences
At the first visit, 33% of girls and 21% of boys used possessive pronouns, which was not a significant difference. Six months later, 45.2% of girls but only 22.6% of boys did so, a difference that approached statistical significance. There was no significant difference in the rate with which girls and boys used possessive pronouns at either time point. The interaction between gender and time was not significant. Nor were there significant differences in girls’ and boys’ tendencies to refer to present or future possession of objects by using the verbs have, got, want or need. Consequently, most subsequent analyses were conducted on the total sample.
As expected, possessive pronouns were used significantly more often by children in the older cohorts, $F(2; 59) = 3.28, p < .05$ (Table 3). At the time of the first visit, one 18-month-old boy said, ‘That’s mine’ and one other said, ‘That’s yours, that’s yours.’ In contrast, six 24-month-olds (27.3%) and ten 30-month-olds (41.7%) used possessive pronouns. There was a significant cohort difference in the use of ‘my/mine’ (Table 3; Kruskall–Wallis $\chi^2 = 8.24, p < .01$). The oldest children were also the most likely to make reference to the peer’s property (saying ‘your/yours’) but that difference was not significant.

The cohorts did not significantly differ in pronoun use at the time of the second visit when all were in the third year of life. Nor was there a significant increase in pronoun use from the second to the third visit among children in the oldest cohort. Table 3 shows that the percentage of focal children using possessive pronouns was highest at the second visit for all groups.

### Table 2. The percentage of focal children in each cohort who participated in verbal exchanges at each visit

<table>
<thead>
<tr>
<th>Age in months</th>
<th>18</th>
<th>24</th>
<th>30</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visit 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>0%</td>
<td>36%</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>0%</td>
<td>36%</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0%</td>
<td>36%</td>
<td>71%</td>
<td></td>
</tr>
<tr>
<td><strong>Visit 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>50%</td>
<td>89%</td>
<td>82%</td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>30%</td>
<td>60%</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40%</td>
<td>74%</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>0%</td>
<td>38%</td>
<td>72%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Note. There was a significant association with age cohort at both time points: $\chi^2(2) = 10.48, p < .005$ at Visit 1 and $\chi^2(2) = 6.68, p < .05$ at Visit 2. The child’s sex was not significantly associated with participation in verbal exchanges at either visit.

### Developmental change in the use of possessive pronouns

As expected, possessive pronouns were used significantly more often by children in the older cohorts, $F(2, 59) = 3.28, p < .05$ (Table 3). At the time of the first visit, one 18-month-old boy said, ‘That’s mine’ and one other said, ‘That’s yours, that’s yours.’ In contrast, six 24-month-olds (27.3%) and ten 30-month-olds (41.7%) used possessive pronouns. There was a significant cohort difference in the use of ‘my/mine’ (Table 3; Kruskall–Wallis $\chi^2 = 8.24, p < .01$). The oldest children were also the most likely to make reference to the peer’s property (saying ‘your/yours’) but that difference was not significant.

The cohorts did not significantly differ in pronoun use at the time of the second visit when all were in the third year of life. Nor was there a significant increase in pronoun use from the second to the third visit among children in the oldest cohort. Table 3 shows that the percentage of focal children using possessive pronouns was highest at the second visit for all groups.

### Table 3. Developmental change in the number of interactive moves containing possessive pronouns

<table>
<thead>
<tr>
<th>Age in months</th>
<th>18</th>
<th>24</th>
<th>30</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mine</td>
<td>Yours</td>
<td>Mine</td>
<td>Yours</td>
</tr>
<tr>
<td><strong>Visit 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>0.05</td>
<td>0.05</td>
<td>0.36</td>
<td>0.09</td>
</tr>
<tr>
<td>$SD$</td>
<td>0.22</td>
<td>0.22</td>
<td>0.73</td>
<td>0.29</td>
</tr>
<tr>
<td><strong>Visit 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>0.37</td>
<td>0.05</td>
<td>0.76</td>
<td>0.24</td>
</tr>
<tr>
<td>$SD$</td>
<td>1.16</td>
<td>0.23</td>
<td>1.26</td>
<td>0.54</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>0.05</td>
<td>0.05</td>
<td>0.36</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Note. The finding of a peak in use of possessive pronouns at 30 months of age in the oldest cohort is replicated at the 30-month assessment for the middle cohort.
use over time; use of possessive pronouns increased in the two younger cohorts but decreased slightly in the oldest cohort. The use of possessive pronouns at 24 and 30 months was very closely replicated across cohorts.

**Consistency and continuity in pronoun use over time**

Despite the significant differences between the age cohorts, there were also significant individual differences in the use of possessive pronouns and some evidence for continuity of pronoun use over the six months of the study. The terms ‘mine’ and ‘yours’ have quite different social meanings, the latter indicating some degree of understanding that another person may own property. Previous research had suggested that use of first-person possessive pronouns develops first (Imbens-Bailey & Pan, 1998). Nonetheless, in the present study, the use of first- and second-person possessive pronouns was intercorrelated. At the time of the first visit, those toddlers who said ‘mine’ were also likely to say ‘yours’ ($r = .42, p < .01$). These tendencies were not correlated at the time of the second visit, when the use of possessive pronouns was more frequent in the sample as a whole. However, there was continuity in asserting one’s own possession of objects over time; the number of episodes in which toddlers said ‘mine’ at the first visit predicted the use of ‘mine’ six months later ($r = .25, p < .05$).

**Other references to possession**

The toddlers also talked to their peers about the possession of objects in other ways beyond using possessive pronouns. Their tendency to do so increased with age and was positively associated with the use of possessive pronouns.

**Possession of objects**

Only a minority of toddlers made reference to their own or the peer’s possession of objects by using the terms *have* and *got*. At the time of the first visit, no 18-month-old and only two 24-month-olds used these words, as opposed to eleven (45.8%) 30-month-olds. At the second visit, two 24-month-olds, seven 30-month-olds (35%) and ten (50%) 36-month-olds made reference to the possession of objects ($\chi^2 = 7.55, p < .05$). In these utterances, the children sometimes made distinctions between their own and the peer’s possessions. For example, one 30-month-old girl told the peer, ‘You can use my soap. I’ve got your soap.’

**Desire or need for objects**

At the first visit, no 18-month-old made reference to internal motivational states of *want* or *need*. However, four (18.2%) 24-month-olds and six (25%) 30-month-olds did so. By the time of the second visit, one 24-month-old, eight (40%) 30-month-olds and eight (40%) 36-month-olds used the terms *want* or *need* ($\chi^2 = 8.04, p < .05$). For example, one 30-month-old girl noted, ‘That’s Harry’s. I don’t want it, I’ve got a fork.’

**Associations with the use of possessive pronouns**

The use of possessive pronouns and references to motivational states sometimes occurred in the same utterance, for example, when a 24-month-old girl announced, ‘I want my play-dough!’ Such utterances might also include references to the possession of objects, as when a 36-month-old boy argued, ‘I need that car; I want to have that car because it is mine.’
Logistic regression was used to test for associations between statements about possession and motivational states and the toddlers’ use of possessive pronouns (Table 4), controlling for the child's age in months. The two types of statements about people’s relations with objects were entered on the first step, with the focal child’s exact age in months entered on the second step of the regression model.

Table 4. Number and percentage of children using possessive pronouns in conjunction with utterances about the possession of objects and motivational states

<table>
<thead>
<tr>
<th>Speech about possession</th>
<th>Speech about motivational states</th>
<th>Visit 1 (N = 66)</th>
<th>Visit 2 (N = 59)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No reference to possession</td>
<td>No reference to motivation</td>
<td>7 (14.6%)</td>
<td>6 (17.6%)</td>
</tr>
<tr>
<td></td>
<td>Reference to motivation</td>
<td>3 (60%)</td>
<td>3 (50%)</td>
</tr>
<tr>
<td>Reference to possession</td>
<td>No reference to motivation</td>
<td>4 (50%)</td>
<td>5 (62.5%)</td>
</tr>
<tr>
<td></td>
<td>Reference to motivation</td>
<td>4 (80%)</td>
<td>7 (63.2%)</td>
</tr>
</tbody>
</table>

Note. The table, which is condensed from the original two-way tables, presents the number and percentage of children at each visit who use possessive pronouns and also make reference to the possession of objects or motivational states.

At the time of the first visit, the toddlers’ use of possessive pronouns was significantly predicted by their tendencies to talk about motivational states (OR = 5.20, Wald statistic = 3.99, p < .05). Age alone was not a significant predictor. In contrast, by the time of the second visit, the use of possessive pronouns was significantly predicted by explicit statements about possession (OR = 4.10, Wald statistic = 4.30, p < .05). Again, age was not a significant predictor of pronoun use.

Associations with aggression and sharing

Is a toddler’s ability to talk about his or her possessions with a peer related to other dimensions of peer interaction? To address this question, partial correlations were computed to adjust for the focal child’s age (Table 5). The measures of pronoun use, physical aggression and sharing represent the number of moves within episodes of peer interaction that contained possessive pronouns, instances of physical aggression or instances of offering or giving objects to the peer. For ease of comparison, these partial

Table 5. Partial correlations between the use of possessive pronouns and other dimensions of peer interaction, controlling for the focal child’s age

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pronouns visit 1</td>
<td>.36***</td>
<td>.18</td>
<td>.17</td>
<td>-.16</td>
<td>.28*</td>
<td></td>
</tr>
<tr>
<td>2. Aggression visit 1</td>
<td>.44***</td>
<td>.25†</td>
<td>.14</td>
<td>.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sharing visit 1</td>
<td>.11</td>
<td>.26†</td>
<td>.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Pronouns visit 2</td>
<td></td>
<td>.02</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Aggression visit 2</td>
<td></td>
<td></td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Sharing visit 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>0.6</td>
<td>5.5</td>
<td>5.5</td>
<td>0.8</td>
<td>4.1</td>
<td>4.0</td>
</tr>
<tr>
<td>SD</td>
<td>1.2</td>
<td>5.8</td>
<td>7.1</td>
<td>1.5</td>
<td>5.1</td>
<td>4.3</td>
</tr>
</tbody>
</table>

* p < .10, † p < .05, *** p < .01.
correlations were computed on the subsample of 59 cases with complete data at both
time points.

At the first visit, all three dimensions of peer interaction were interrelated. Toddlers
who used possessive pronouns were more likely than other toddlers to use physical
aggression against their peers (partial correlation = .36, \( p < .01 \)). Toddlers who used
physical aggression at higher rates were also more likely to share objects with their
peers (partial correlation = .44, \( p < .01 \)). In contrast, the three dimensions of peer
interaction were orthogonal six months later, when a majority of the toddlers were
talking to their peers. Those toddlers who had used possessive pronouns during the first
visit were somewhat less likely than other toddlers to show physical aggression and
significantly more likely to share objects with their peers six months later. Further
analysis of sharing at the second visit, controlling for the focal child’s age, revealed
a significant interaction between the child’s sex and earlier pronoun use, \( F(1, 54) = 4.01, p < .05 \). The highest levels of sharing (adjusted \( M = 6.6 \) moves,
\( SD = 5.8 \)) was shown by those girls who had mastered the use of possessive pronouns
six months earlier.

**Discussion**

About 40% of toddlers could sustain conversation with a familiar peer by the second
birthday and the majority could do so by the third birthday. Thus, conversation is a
salient dimension of early peer relationships, even before most children spend time in
formal nursery classes. Because conversation is a common way of relating to peers,
children who have speech and communication difficulties may be at some disadvantage
in establishing smooth peer relations at quite an early age (see also Meyers, 1990; Davis
et al., 2002).

Conversational competence requires listening as well as speaking skills; respon-
siveness to peers’ speech promotes peer acceptance (Kemple et al., 1992). To the
extent that young peers are both engaged in a non-verbal dilemma such as a struggle
over an object, their attention may be more likely to be focused on each other’s speech.
In this study, discussions about the possession of objects constituted a prime topic of
conversation. The present findings demonstrated that the young child’s ability to
converse with peers about the possession of objects emerged in the second year of life
and consolidated over the next year. The findings complement the non-verbal evidence
that toddlers gain an increasing understanding of ownership after the second birthday
(Fasig, 2000).

It has previously been observed that first-person possessive pronouns appear sooner
than second-person ones (Imbens-Bailey & Pan, 1998). The present findings
demonstrate, however, that both first and second person possessives were observed
in the youngest cohort and toddlers who proclaimed ‘mine’ were also more likely than
other children to acknowledge that an object might be ‘yours’. This in turn suggests that
toddlers who say ‘mine’ are not simply parroting a word they have heard other children
use but are actually beginning to grasp the fact that different people own different
things. It was noteworthy that the children often used the second-person possessive
‘your’ argumentatively, when trying to convince the peer that he or she already had a
good enough resource and need not pursue any designs on the child’s own possession.

In this sample, the children used possessive pronouns appropriately to designate
ownership or at least fleeting possession of objects. No child was observed using ‘my’
instead of ‘I’ (Rispoli, 1998). However, possessive pronouns were used in utterances
that reflected the ongoing interaction between the child and a particular peer; we did not observe the use of third-person possessive pronouns during episodes of peer interaction although the children sometimes made reference to the peer’s proper name (e.g. ‘That’s Harry’s’). The toddlers’ speech to their peers revealed that they were not just acquiring a particular form of speech but rather a more general ability to discuss the possession of objects in several different ways.

The use of possessive pronouns was positively associated with the use of the verbs *have* and *got* to signify possession and was also associated with reference to their own and other people’s motivational states concerning particular toys and other desired items. The toddlers often justified their actions by making reference to their needs and desires. The associations amongst the different forms of speech about possession are compatible with the notion that a general concept of possession was beginning to emerge. In future work it would be of interest to see whether the use of possessive pronouns and verbs signifying current or future possession of objects is positively related to performance in experimental tasks that tap the understanding of ownership (Fasig, 2000), to provide further evidence of an underlying ability to understand the relationship between people and their possessions.

The observational data revealed clear associations between the toddlers’ talk about possession and the nature of their interactions with their peers. At the time of the first visit, the use of possessive pronouns was clearly linked to the use of physical aggression; both of the 18-month-olds who used possessive pronouns did so whilst grabbing toys from peers. At the first visit, the more sociable toddlers seemed to take a multifaceted approach to their peers, with possessive pronoun use and sharing both correlated with physical aggression. Six months later, these relationships were no longer significant and, indeed, the earlier use of possessive pronouns predicted sharing with peers, not aggression, a trend that was especially apparent for girls. As they grew older, the children began to seek access to the objects they desired in more sophisticated ways, for example, by asking politely, ‘Can I have some of yours?’ or by providing a justification while admonishing the peer, ‘Don’t take my record off. That’s my favourite record.’ These more socially acceptable ways of pursuing self-interest are likely to derive from particular socialization experiences with parents and siblings (Dunn, 1988; Ross et al., 1990; Ross, 1996), as well as experiences with familiar peers.

Does conversational competence and the ability to express one’s desires through speech rather than brute force promote positive social development? The present findings complement the past evidence for a general link between verbal problems and aggression (Dionne et al., 2003). During the preschool years when the frequency of aggression is declining in the population as a whole (Tremblay & Nagin, 2005), those children who cannot negotiate their conflicts with words as well as deeds are disadvantaged. If they do not develop prosocial alternatives, they may be especially likely to be rejected by their peers (Denham et al., 1990). It is important to note not just whether young children are beginning to use speech at developmentally appropriate levels, but what they actually talk about. The very familiar appearance of ‘mine!’ in the toddler’s vocabulary does not just represent the acquisition of one more speech form and should not necessarily be viewed as mere negativity. Rather, I propose that the ability to think about what is ‘mine’ and ‘yours’ marks a very early step in the development of constructive approaches to the inevitable conflicts that occur between peers.
Acknowledgements

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References


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