Communicative Intents Expressed by Parents in Interaction with Young Children.

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Communicative Intents Expressed by Parents in Interaction With Young Children

Barbara Alexander Pan, Alison Imbens-Bailey, Kendra Winner, and Catherine Snow
Harvard University Graduate School of Education

Although much attention has been devoted to lexical, grammatical, and semantic aspects of child-directed speech, less is known about its pragmatics. This paper describes a longitudinal study of the communicative intents used by parents in interaction with their 14-, 20-, and 32-month-olds (n = 52). With 14-month-olds, parents used a small core set of communicative intents. This set grew in size and sophistication with increasing child age. Comparison with children's intents showed that some commonly used parental communicative intents were rare in children's language at all three ages. As children grew older, parental use of directive intents declined and child-centered acts increased. These findings suggest that child-directed parental speech is simplified pragmatically as well as grammatically and semantically.

Hundreds of articles have been devoted to describing characteristics of maternal speech to young children. We know how child-directed speech (CDS) differs from inter-adult speech in phonetics (Bernstein Ratner, 1984), prosodic features (Ferguson, 1977), vocabulary (e.g., Mervis & Mervis, 1982), and grammatical complexity (Cross, 1977; Newport, Gleitman, & Gleitman, 1977); we also know which of these aspects are fine-tuned to the child's language level (e.g., Snow, 1977). Relatively little attention, however, has been directed to examining whether the reduction in complexity and variability that is characteristic of phonetic, lexical, and grammatical aspects of CDS also holds for the expression of communicative intents. According to Speech Act Theory (Austin, 1962; Searle, 1969), adult speakers use language for a wide variety of social
goals (e.g., to inform, to query, to promise, to request, to refuse). It is not known how many of these communicative intents are expressed in adult interaction with very young children, or whether adult expression of intents is fine tuned to the repertoire of children’s speech acts.

Why might one want to know what sorts of communicative intents are expressed by parents interacting with young children? First, such knowledge is part of the basic description of CDS. It may be that some types of communicative intents, such as requests for action and prohibitions, predominate in the speech of adults to young children, whereas others (e.g., promises, proclamations) are rare or are used by few adults. Information about the frequency of specific speech acts in speech addressed to children is relevant to investigations into the late emergence of particular speech acts in children’s own speech. Second, the relationship of children’s pragmatic and syntactic development is the subject of much discussion in the field of language acquisition, with some arguing that growth in communicative intents is the source of children’s growth in syntax and lexicon (e.g., Bates & MacWhinney, 1982; Ninio & Snow, 1988). Thus, it is of interest to know whether parents model a set of communicative intents that children then come to control productively, or whether children’s earliest communicative intents are quite different from those used frequently by parents. Third, basic descriptive work on the communicative intents of parents of normally developing children is a crucial first step in describing cross-cultural variation or variation due to child variables such as language handicaps.

The information available from the literature on pragmatic analyses of CDS is quite limited, and what is available typically categorizes parental communicative intents in rather coarse-grained and heterogeneous ways, and in ways that do not map directly onto analyses of children’s communicative intents (see Ninio, Snow, Pan, & Rollins, 1994, for a review of pragmatic analysis systems). The functional classification schemes used to analyze CDS typically include only 8 to 15 categories—far fewer than the number of communicative intents that can be distinguished and produced even by young children (Ninio & Snow, in press; Snow, Pan, Imbens-Bailey, & Herman, in press). In addition to distinguishing a wider variety of communicative intents, we have argued that a full pragmatic analysis requires differentiating a number of different levels of analysis that have typically been represented only partially in previous coding systems: (a) the ongoing social-communicative context (i.e., social interchange), (b) the speech act expressed by individual utterances, (c) the conversational move performed by an utterance, (d) and the role of the utterance in extended discourse. Thus, for example, an utterance embedded in the negotiation of an ongoing activ-
ity (social interchange) might simultaneously be a request (speech act) that is an initiation (conversational move) of a new topic (extended discourse). Many researchers have failed to distinguish among these levels, resulting in coding schemes that mix categories from different levels of analysis.

As an initial step in distinguishing these levels of analysis, we begin here with the social interchange and speech act levels. This decision reflects our view that the first criterion for successful communication is that participants share an understanding of the kind of communicative activity in which they are engaged, and that specific intents are expressed and interpreted only within that social framework. We code communicative intents with the Inventory of Communicative Acts Abridged (INCA-A), a shortened and modified version of the system developed by Ninio and Wheeler (1984) for coding the dyadic interaction of mothers and young children (see Ninio et al., 1994, for a fuller discussion of the coding scheme). Their system was based both on studies of face-to-face interaction (e.g., Goffman, 1974) that emphasized the importance of socially constructed communicative interchanges and on Speech Act Theory (Austin, 1962; Searle, 1969). Thus, in their system, communicative intent is identified and coded at two different levels—the level of the interchange and the level of the utterance. The two-tiered system allows a focus on parental intents while acknowledging that those intents are expressed in the context of jointly constructed parent-child communication. In addition, the use of a single coding system to describe the intents of both very young children and of mature speakers allows a comparison of parent/child repertoires and frequencies of use.

Research on CDS using simpler coding systems has identified a distinction between mothers who are highly directive and those who more frequently elicit conversation from children (e.g., McDonald & Pien, 1982; Olsen-Fulero, 1982). Hoff-Ginsberg (1991) found that upper-middle-class mothers produce more conversation-eliciting utterances than working-class mothers. Highly directive mothers have been found to have children with less developed language skills (Barnes, Gutfreund, Satterly, & Wells, 1983). Furthermore, mothers of children with various sorts of developmental handicaps (e.g., Down syndrome) have been consistently found to use a higher proportion of directives and fewer informatives than mothers of normally developing children (Mahoney, Fors, & Wood, 1990). High directiveness may reflect maternal attempts to maintain conversation with a child who initiates relatively little, and who is poor at maintaining attention. Akhtar, Dunham, and Dunham (1991) suggest, however, that the relevant underlying di-
mension of these style differences may be the extent to which parents follow their children's lead, rather than simply the frequency with which they issue directives. In examining parental interaction with 13-month-olds, Akhtar and colleagues distinguish between directives related to children's ongoing activity or focus of attention and those which function to lead or shift the child's attention. This distinction introduces, in effect, a two-level categorization analogous to that proposed by Ninio and Wheeler (1984). Questions left unanswered by this research include whether the extent to which parents follow their children's lead changes as children get older, or whether individual differences in maternal style are stable over periods longer than a few weeks.

Another body of research indicates that much maternal speech is closely tied in topic to child attention or activity, even when addressed to prelinguistic children (Harris, Jones, & Grant, 1983; Vibbert & Bornstein, 1989) and early-stage language learners (Tomasello & Farrar, 1986). Maternal responses contingent on the child's topic also increase with the child's age and linguistic sophistication (Hoff-Ginsberg, 1987). Topic relatedness (as measured by lexical overlap) has been shown to characterize conversation-eliciting utterances (Hoff-Ginsberg, 1986). However, topic relatedness does not constrain communicative intent. A topic-related utterance might be a directive, a request for information, a comment, or any of a number of other speech acts.

The goal of this paper is to expand the descriptive database on parental expression of communicative intents in interaction with young children and to extend previous research on parental interactional styles, focusing on the social interchange and speech act levels. Longitudinal data examine the level of parental involvement (as measured by number of communicative acts) and the repertoire of communicative intents used by parents interacting with their children at 14, 20, and 32 months. A common core of communicative intents used by all parents, the overlap in parent-child repertoire, and the changes in repertoire as a function of child age are described. The nature of individual differences in parental style is also considered.

METHOD

Participants

Parents and children were chosen from a larger sample of 100 dyads available through the MacArthur Individual Differences Project (see Snow, 1989, and Dale, Bates, Reznick, & Morisset, 1989, for descriptions of subject recruitment and background information on the original
Table 1. Background Characteristics of Sample at Three Ages

<table>
<thead>
<tr>
<th>Age in Months</th>
<th>14 (n = 52)</th>
<th>20 (n = 48)</th>
<th>32 (n = 37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child gender (M, F)</td>
<td>26, 26</td>
<td>23, 25</td>
<td>19, 18</td>
</tr>
<tr>
<td>M Child MLU (SD)</td>
<td>1.13 (0.27)</td>
<td>1.33 (0.31)</td>
<td>2.55 (0.75)</td>
</tr>
<tr>
<td>M Hollingshead scores</td>
<td>53.0 (12.4)</td>
<td>52.9 (12.7)</td>
<td>53.3 (13.2)</td>
</tr>
<tr>
<td>Child birth order (first, later)</td>
<td>34, 18</td>
<td>31, 17</td>
<td>23, 14</td>
</tr>
<tr>
<td>M parental age (SD)</td>
<td>30.0 (4.2)</td>
<td>30.2 (4.2)</td>
<td>30.4 (3.9)</td>
</tr>
</tbody>
</table>

Note. Numbers in parentheses are standard deviations.

The present sample was selected using the following criteria: English-speaking families, no evidence by age 3 of child developmental delay or hearing impairment, equal gender distribution in the sample, representation of the full range of socioeconomic status available in the original sample, families available for data collection when the child was age 5. These criteria constrained our sample to 52 families. Background information about the sample and Mean Length of Utterance for the children are presented in Table 1. Attrition from 14 to 32 months did not notably affect the composition of the sample.

Procedure

Parent-child dyads were videotaped interacting in a laboratory playroom when the children were ages 14 months, 20 months, and about 32 months. With the exception of two occasions when fathers accompanied children, all dyads were mother-child pairs.

At 14 and 20 months, spontaneous language data were collected during 5 min of free-play and subsequent play using the contents of four boxes: first a ball, then a cloth for peekaboo, next paper and crayons, and finally a book. Parents were not instructed on the duration of each activity, but were asked to have only one box open at a time, and to try to use all four boxes in about 10 min. The sessions were terminated only when the parent had tried to engage the child in all four activities. This led to variation in the duration of the videotaped session, ranging from 10 to 25 min, with greater variability at ages 14 months than at 20 months. The protocol for parent-child interaction at age 32 months also involved contents of four boxes (a picture book, crayons and paper, hand puppets, and a toy house), with no preceding warm-up period.
Transcription, Coding, and Data Analysis

Videotaped parent-child interaction was transcribed onto computer files according to the transcription conventions of the Child Language Data Exchange System (MacWhinney, 1991; MacWhinney & Snow, 1985, 1990) and verified by a second transcriber. Using the INCA-A, parent-child interaction was first segmented into communicative acts, each of which could be assigned one code on each of two levels: (a) the level of interpersonally (implicitly) agreed-upon social interchange constructed across one or more rounds of talk (e.g., whether the ongoing communicative activity involves negotiating mutual attention and proximity or discussing a joint focus of attention); and (b) the specific speech act (e.g., whether the utterance serves the purpose of requesting, thanking, or questioning). A full listing of the codes used is provided in Ninio et al. (1994). The total number of communicative acts coded was 41,113 for parents and 9,447 for children.

Reliability between two coders ranged from 79% to 90% on the social interchange level, and 81% to 89% on the speech act level. Values for Cohen’s kappa calculated on the social interchange level ranged from .74 to .88 (substantial to almost perfect agreement, according to guidelines in Landis and Koch, 1977).

Types of social interchange, speech act, and social interchange-speech act combinations produced by each speaker and their corresponding frequencies provided the basis for the quantitative and qualitative analyses described below. For purposes of comparing social interchange, speech act, and social interchange-speech act combination repertoires across subjects, only those types produced at least twice were considered.

RESULTS

Parental Involvement

Our first question was whether the level of parental involvement (as measured by communicative acts per minute) changed with child age. As we have reported elsewhere (Snow, Pan, Imbers-Bailey, & Herman, in press), the rate at which children produce communicative acts increases rapidly over the period from 14 to 32 months. As children become more communicative, one might expect parents to increase their level of involvement accordingly. Alternatively, one might expect parents to produce fewer communicative acts as children begin to take up more of the conversational load. In fact, the longitudinal data in this
Table 2. Means (and Standard Deviations) for Summary Measures of 35 Parents at Three Ages

<table>
<thead>
<tr>
<th></th>
<th>Age in Months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Communicative acts per min</td>
<td>21.0 (6.5)</td>
</tr>
<tr>
<td>Social interchange types</td>
<td>12.5 (1.7)</td>
</tr>
<tr>
<td>Speech act types</td>
<td>20.4 (4.3)</td>
</tr>
<tr>
<td>Social interchange-speech act combination types</td>
<td>36.1 (8.2)</td>
</tr>
</tbody>
</table>

Note. \( N = 35 \) at all ages.

study indicate that level of involvement for parents declined significantly, but in absolute terms rather slightly, over the age range observed (see Table 2; \( F(2, 68) = 7.96, p < .001 \)).

One might also have predicted that parents would attempt to involve children in a wider variety of communicative interactions (social interchange types), and/or direct a wider variety of speech act types to children as the children's communicative skills increase. In fact, the number of social interchange types declined over the period observed \( F(2, 68) = 4.96, p < .01 \). The number of speech acts and social interchange-speech act combinations increased between 14 and 20 months, but dropped below initial levels by 32 months (overall \( F \) for speech acts = 15.24, \( p < .0001 \); for social interchange-speech act combinations, overall \( F = 9.02, p < .0003 \); all adjacent cell means differed significantly in post hoc contrast analyses).

Repetoire of Parental Communicative Acts

Three major questions were asked about parents' repertoire of communicative acts: (a) Is there a core set of communicative acts that most parents display as they interact with their children in relatively unstructured laboratory settings, and if so, does the repertoire of parent acts change with child age; (b) are the communicative acts produced by all or most parents also the most frequently occurring types; and (c) do the parental and child repertoires of communicative acts diverge substantially. Each of these questions is dealt with in turn.

Core repertoire of parental communicative behaviors. First, we wanted to know whether parents interacting in similar settings with their young children engage in similar kinds of social interchanges. We found that all dyads in the present study engaged in a small core of social
Communicative Intents

interchange types (see Table 3 for proportion of parents engaging in each). For example, all parents in the sample, at all three ages, engaged in direct hearer's attention, negotiate immediate activity, discuss joint focus of attention, and marking. Nearly all parents also built on a joint focus of attention to discuss related, nonobservable features or topics (discuss related-to-present). For example, Christopher's mother (14 month data) responded to his attempts to turn the handle of the jack-in-the-box with "yeah, that's like your toy at home." At the two later ages, nearly all parents discussed clarification of their children's verbal acts. For example, at 20 months, Natalie's mother responded to her vocalizations and gestures with a question about her intent. She asked, "You wanna sit up there?" to confirm that Natalie's uninterpretable utterance, coupled with pointing, in fact expressed a desire to sit on a nearby chair.

Other changes in parental communicative behavior were also observed. First, many parents who engaged their children in verbal games (perform verbal moves in activity, e.g., playing peekaboo) at 14 months no longer did so at 32 months. Second, some parents who showed unsolicited attentiveness to their 14-month-olds never displayed this behavior with 20- or 32-month-olds, perhaps because older children provided more meaningful communications to which parents could respond. Third, the same parents who attempted to discuss clarification of nonverbal communication with 14-month-olds failed to do so with 32-month-olds who were producing more intelligible utterances. Finally, some parents who never engaged in discussion of the non-present with 14-month-olds started doing so by the time their children were 20 or 32 months old. This presumably is related to children's growing ability to narrate past events (Nelson, 1986; Peterson & McCabe 1983), as with Michael and his mother who discussed their trip to the lab by counting the trains and trolley buses they had ridden on that day.

Not only did all parents engage their children in a core set of social interchanges, all parents also expressed a small set of specific speech acts as they interacted with their children. This core set of speech acts is quite restricted, given the large number of speech acts used by any parent. At 14 months, this common repertoire was limited to utterances that either marked events (e.g., "uh-oh"), expressed requests or proposals, or stated propositions. At ages 20 and 32 months the set of speech acts expressed by all parents broadened to include asking wh-questions, making requests in question form (e.g., "do you want to play with this?"), stating intent (e.g., "I'm going to put this away now"), and asking yes/no questions (e.g., "does this door open?").

Table 4 completes the picture by showing the proportion of parents producing common social interchange-speech act combination types.
Table 3. Proportion of Parents Engaging in Each Social Interchange Type at Each Age

<table>
<thead>
<tr>
<th>Social Interchange Type</th>
<th>14 (n = 52)</th>
<th>20 (n = 48)</th>
<th>32 (n = 37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct hearer’s attention</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Negotiate immediate activity</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Discuss joint focus</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Marking</td>
<td>1.00</td>
<td>.98</td>
<td>.97</td>
</tr>
<tr>
<td>Negotiate mutual attention</td>
<td>1.00</td>
<td>.94</td>
<td>.54</td>
</tr>
<tr>
<td>Perform verbal moves in activity</td>
<td>.90</td>
<td>.90</td>
<td>.89</td>
</tr>
<tr>
<td>Discuss related-to-present</td>
<td>.88</td>
<td>.70</td>
<td>.27</td>
</tr>
<tr>
<td>Discuss clarification of nonverbal communication</td>
<td>.79</td>
<td>.77</td>
<td>.65</td>
</tr>
<tr>
<td>Discuss hearer’s thoughts and feelings</td>
<td>.69</td>
<td>.25</td>
<td>.30</td>
</tr>
<tr>
<td>Showing attentiveness</td>
<td>.63</td>
<td>.92</td>
<td>.95</td>
</tr>
<tr>
<td>Discuss clarification of verbal communication</td>
<td>.52</td>
<td>.48</td>
<td>.68</td>
</tr>
<tr>
<td>Read written text</td>
<td>.50</td>
<td>.60</td>
<td>.62</td>
</tr>
<tr>
<td>Discuss recent event</td>
<td>.29</td>
<td>.50</td>
<td>.57</td>
</tr>
<tr>
<td>Comfort</td>
<td>.25</td>
<td>.17</td>
<td>.14</td>
</tr>
<tr>
<td>Discuss speaker’s thoughts and feelings</td>
<td>.25</td>
<td>.27</td>
<td>.32</td>
</tr>
<tr>
<td>Negotiate future activity</td>
<td>.03</td>
<td>.04</td>
<td>.08</td>
</tr>
<tr>
<td>Negotiate possession of objects</td>
<td>.00</td>
<td>.13</td>
<td>.05</td>
</tr>
</tbody>
</table>

Only three types were produced by all parents at all three ages: stating a proposition in the context of a joint focus; marking an event; and requesting or proposing in the context of negotiating the immediate activity. Regardless of whether the focus is on the social interchange, the speech act, or the combination level, we find evidence for a small core of communicative behaviors common to all parents. This common repertoire broadens as children get older; thus, even though individual parents are not producing more different combinations as their children get older (see Table 2), they are coming to resemble each other more in the combinations they do produce. Note particularly the increase in number of parents using *wh*- and yes/no questions in the context of a wider variety of social interchanges (negotiating activities, clarifying verbal communication, directing the child’s attention, etc.).
Table 4. Proportion of Parents Producing Most Common Social Interchange-Speech Act Combinations at Each Age

<table>
<thead>
<tr>
<th>Interchange-Speech Act Combinations</th>
<th>Age in Months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14 (n = 52)</td>
</tr>
<tr>
<td>Direct hearer’s attention: request/propose</td>
<td>1.00</td>
</tr>
<tr>
<td>Discuss joint focus: state proposition</td>
<td>1.00</td>
</tr>
<tr>
<td>Marking: mark occurrence of event</td>
<td>1.00</td>
</tr>
<tr>
<td>Negotiate immediate activity: request/propose</td>
<td>1.00</td>
</tr>
<tr>
<td>Direct hearer’s attention: state a proposition</td>
<td>.92</td>
</tr>
<tr>
<td>Negotiate immediate activity: yes/no question about hearer’s wishes</td>
<td>.98</td>
</tr>
<tr>
<td>Negotiate immediate activity: state a proposition</td>
<td>.98</td>
</tr>
<tr>
<td>Direct hearer’s attention: wh-question</td>
<td>.96</td>
</tr>
<tr>
<td>Discuss joint focus: wh-question</td>
<td>.96</td>
</tr>
<tr>
<td>Discuss joint focus: yes/no question</td>
<td>.96</td>
</tr>
<tr>
<td>Negotiate immediate activity: mark occurrence of event</td>
<td>.98</td>
</tr>
<tr>
<td>Negotiate immediate activity: prohibit/forbid</td>
<td>.98</td>
</tr>
<tr>
<td>Negotiate immediate activity: state intent</td>
<td>.98</td>
</tr>
<tr>
<td>Discuss clarification of verbal communication: yes/no question</td>
<td>.63</td>
</tr>
<tr>
<td>Negotiate immediate activity: wh-question</td>
<td>.71</td>
</tr>
<tr>
<td>Discuss joint focus: answer wh-question</td>
<td>.69</td>
</tr>
<tr>
<td>Negotiate immediate activity: agree to do</td>
<td>.50</td>
</tr>
<tr>
<td>Discuss joint focus: agree with proposition</td>
<td>.60</td>
</tr>
<tr>
<td>Negotiate immediate activity: acknowledge hearer’s utterance</td>
<td>.21</td>
</tr>
</tbody>
</table>

Note. Due to space constraints, only those combination types produced by at least 95% of parents at any single observation are shown.

Frequently-occurring parental communicative behaviors. Despite the fact that all or nearly all parents (95%) engaged in this core set of communicative acts with their children, not all of the acts occurred with high frequency within a session. For example, whereas all parents marked events and most discussed topics related-to-the-present, these activities were fairly infrequent (accounting for no more than 7% and 4%, respectively, of parental acts at any age). In contrast, about 40% of all parental acts involved negotiate immediate activity, 15 to 26% in-
Table 5. Proportion of Parental Communicative Acts Accounted for by Common Social Interchange-Speech Act Combinations at Each Age

<table>
<thead>
<tr>
<th>Social Interchange-Speech Act Types</th>
<th>Age in Months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Direct hearer’s attention: request/propose</td>
<td>.04</td>
</tr>
<tr>
<td>Discuss joint focus: state proposition</td>
<td>.07</td>
</tr>
<tr>
<td>Marking: mark occurrence of event</td>
<td>.06</td>
</tr>
<tr>
<td>Negotiate immediate activity: request/propose</td>
<td>.14</td>
</tr>
<tr>
<td>Negotiate immediate activity: yes/no question about hearer’s wishes</td>
<td>.04</td>
</tr>
<tr>
<td>Negotiate immediate activity: state a proposition</td>
<td>.02</td>
</tr>
<tr>
<td>Direct hearer’s attention: wh-question</td>
<td>.02</td>
</tr>
<tr>
<td>Discuss joint focus: wh-question</td>
<td>.03</td>
</tr>
<tr>
<td>Negotiate immediate activity: prohibit/forbid</td>
<td>.05</td>
</tr>
<tr>
<td>Discuss joint focus: agree with proposition</td>
<td>.01</td>
</tr>
<tr>
<td>Negotiate immediate activity: yes/no question</td>
<td>.00</td>
</tr>
</tbody>
</table>

Note. Due to space constraints, only those combination types which accounted for at least 4% of all parental acts at one or more observations, and which were produced by at least 95% of parents at one or more observations are shown here.

a Not among child commonly-occurring acts at any of the three ages.

volved discuss joint focus, and 10 to 13% involved direct hearer’s attention. Thus, these three types of social interchanges alone accounted for the great majority of parental communicative acts. These types of interchanges may simplify the child’s task of interpreting parental intents and/or joining in those communicative activities.

Of course, interpreting an interlocutor’s communicative act involves not only discerning the general communicative activity, but also interpreting the specific intent (i.e., whether the speaker is stating a proposition, asking a question, making a request, prohibiting an action, etc.). Perhaps the relevant unit, then, for understanding the child’s task is not the social interchange level or the speech act level individually, but rather the social interchange and speech act levels in combination. While parents as a group produced more than 200 different social interchange-speech act types at each age, the subset of those which were
produced with even moderate frequency (accounting for at least 4% of all acts at each age) was again quite small (see Table 5). At each age observed, fewer than 22 types accounted for about two-thirds of all parental acts.

Divergence in parental-child repertoires. Of the 23 frequently occurring parental communicative acts shown in Table 5, 12 were not among the frequently occurring social interchange-speech act types produced by children at any age. These types are noted in the table. Some are clearly expressions of intent that one would expect of caregivers and not of children (e.g., negotiate immediate activity or approve appropriate behavior). The underrepresentation of other types in child repertoires is less easily explained. For example, both wh- and yes/no questions were rare in children’s speech, even though they occurred frequently in parental speech within a variety of social interchanges (negotiate immediate activity, discuss joint focus, direct hearer’s attention, perform verbal moves, discuss clarification of verbal communication), and despite the fact that syntactic correctness was not considered in coding (e.g., subject-verb inversion was not required). Even though parents favored the use of requests and wh-questions to direct children’s attention (“look at the bunny”; “what’s that?”), children were more likely to direct their parents’ attention by naming the object or stating a proposition (“ball”; “there’s a dolly in there”). Similarly, the use of questions about the child’s desire to engage in an activity (“would you like to color?” “wanna play ball?”), an act modeled consistently by parents at all three ages, was never adopted with any frequency by children. Finally, only parents frequently used language to mark completion of an action (e.g., “there”) or transitions in activity (e.g., “now then”).

Parental Interactional Style

Our final goal was to revisit the topic of individual differences in parental communicative style using our more detailed coding categories to distinguish between communicative acts that followed the child’s focus of attention and those which shifted the child’s attention. Additionally, we wanted to find out whether those differences were stable over time. For the following analyses, two mutually exclusive groups of parental communicative act types were identified (see Appendix). The first group included social interchange-speech act combinations that were considered unambiguously child-centered, that is, communicative acts that followed the child’s lead. This category included a variety of speech acts (statements, questions, acknowledgments) that occurred within the context of parent-child joint focus, as well as parental attempts to clarify
children’s verbal or nonverbal communicative acts, and discussions of
the child’s thoughts and feelings. The second group included parental
communicative acts that were unambiguous directives (i.e., attempts
either to direct the child’s attention to a new focus or to prohibit a
child’s behavior). In adopting this approach, we have perhaps somewhat
underestimated the proportion of acts in both categories. However, we
preferred this strategy to that of including in either category parental
utterances that were not unambiguously either child-centered or direc-
tive. About 40% of all parental communicative acts fell into one of the
two categories.

We were interested first in determining whether parents generally
adjust the frequency of directive and child-centered communicative
acts as their children grow. One might predict that parents are more
directive when their children are younger, given the children’s limited
communicative repertoire, and more child-centered as their children’s
language skills develop. In conducting these analyses, we used the
proportion of child-centered and directive communicative acts to the
total number of parental communicative acts. The mean proportions at
14, 20, and 32 months, respectively, for child-centered acts by parents
were .20, .25, and .25; the mean proportion of directive acts at the
three ages were .20, .14, and .14. A repeated measures analysis of
variance indicated that the proportion of child centered acts increased
significantly with age, overall $F(2, 70) = 4.23, p < .05$, whereas the
proportion of directive acts decreased significantly during the same
period, overall $F(2, 70) = 13.66, p < .0001$.

In order to characterize the extent to which individual parents en-
gaged in child-centered versus directive communicative acts, at each
observation the ratio of child-centered to directive acts was calculated.
Mean ratios at 14, 20, and 32 months were, respectively, 1.22, 2.07,
and 2.44. Pearson correlation coefficients were estimated to determine
the stability of individual differences in parental style across the three
ages. The ratio of child-centered to directive acts at 14 months is
strongly and positively associated with the same ratio at 20 months ($r = .52, p < .01$) and at 32 months ($r = .55, p < .001$), indicating that
individual differences among parents on this dimension are stable over
this 18-month period. That is, a parent whose typical style of interacting
with her 14-month-old is relatively child-centered continues to be pre-
dominantly child-centered as her child matures. Illustrating these two
styles of parent interaction are the following two examples of mothers
preparing to participate in book reading with their 32-month-old chil-
dren. The first mother produced 10 times more child-centered communi-
cative acts than directive communicative acts. She established the book
as a joint focus, gave feedback on her child's replies, and attempted to clarify the child's verbal attempts:

**Mother:** Let's see what are in these boxes, shall we?
**Child:** Yeah.
**Mother:** What do you think is in there [= box]?
**Child:** [Laughs]. Oh, what is that [= book]?
**Mother:** A boo(k).
**Child:** A book [laughs].
**Mother:** I wonder what's in that book.
**Child:** A rabbit.
**Mother:** A rabbit.
**Mother:** What does he [= rabbit] have?
**Child:** A duck.
**Mother:** A what?
**Child:** A duck.

In contrast, the second mother produces one and a half times as many directive communicative acts as child-centered ones. She spends much time negotiating mutual attention and proximity with her child:

**Child:** What is that?
**Mother:** Well let's see.
**Mother:** Sit on the floor. [Child turns and walks toward the middle of the room].
**Mother:** This one [= box] here.
**Mother:** Come on.
**Mother:** This!
**Mother:** Let's see.
**Mother:** Come here.
**Child:** Let's see.
**Mother:** Let's see what we've got here.

Although previous researchers have suggested that social class is associated with the extent to which parents are child-centered or directive (Hoff-Ginsberg, 1991), this was not true for our sample. There were no associations between social class as measured by Hollingshead scores and the measures of child-centered acts, directive acts, or total communicative acts.
The results of this study suggest that the reduction in complexity and variability noted in grammatical and lexical aspects of CDS holds for the pragmatic domain as well. Parents engage children in a core set of social interchanges and model a restricted set of speech acts. The existence of a core set of communicative intents in the speech of parents suggests that the parents were operating with a sense of the communicative intents that young children could understand and that were appropriate for use with them.

Of course, the core set of social interchanges and speech acts observed in this setting may not be precisely the same set one might observe under different circumstances. For example, dyads observed at home, rather than in a laboratory playroom, would be more likely to engage in negotiating co-presence. Similarly, parents interacting with children in a china shop or on a busy street might all express prohibitions or warnings of danger. Furthermore, the core set of parental intents expressed probably varies across cultures. Our finding, for example, that parents maintained a stable amount of involvement in dyadic interaction while their children’s involvement increased with age may reflect the Western notion that children—even from infancy—can be treated as conversational partners. Similarly, the preponderance of child-centered talk in many interactions reflects a Western model for interacting with children that has been referred to as “adult-lowering” (Ochs & Schieffelin, 1984). In this model, adults promote interaction by adopting the topics and activities of interest to the child. Nonetheless, to the extent that caregivers within a culture share beliefs about child-rearing and child development, the social interchanges they engage in and the speech acts they express in interaction with children should reflect that consensus. The findings reported here have provided a basis for crosscultural comparisons of communicative intents; for example, Inuit caregivers engage more frequently in negotiating mutual attention with their children and less frequently in discussing a joint focus (Hough-Eyamie, 1993).

Although parents in this sample tuned their communicative production only minimally to child age, there were more striking qualitative changes in the parental communicative repertoire as children got older. Some of these changes reflect developments in children’s communicative skills (e.g., the decrease in children’s nonverbal communication, the increase in the interpretability of their verbal acts, the emergence of child wh-questions). Others, such as the addition of discussing the non-present to the core set of parental social interchanges, probably reflect parental beliefs about children’s developing cognitive skills.
Despite the fact that the shared set of communicative intents expressed by all parents was quite small, the total pool of intents expressed by at least one parent was in fact quite large; nearly 400 different social interchange-speech act combinations were produced by parents in this sample. On average, each parent expressed 35 to 40 different intents in a given observation. Some of the communicative intents expressed by parents match those often used by children, whereas other commonly used parental acts are not acquired early by children. Neither the richness of expression by parents nor the divergence in parent-child repertoire could be captured by earlier coding schemes that distinguished only a dozen or two different communicative intents, or applied only to a narrow age range.

This study provides a foundation for investigating which aspects of maternal pragmatic systems relate to child pragmatic and linguistic outcomes for both handicapped and normally developing children. Previous research has shown that CDS containing a high proportion of directives and a low proportion of utterances that continue the child's topic is associated with slower vocabulary growth (Akhtar et al., 1991; Nelson, 1973; Tomasello & Todd, 1983). However, those directives which relate to ongoing activity may function as topic-continuing utterances in their impact on child language growth (Barnes et al., 1983). This finding suggests the importance of a two-tiered system such as ours, which allows one to distinguish between directives that are and are not related to child focus of attention. Employment of this coding scheme may also help to explain the high proportion of directives reported in maternal speech to children with handicaps by identifying the social-communicative contexts in which directives are used.

Studies of CDS in all domains have sought to describe how adult language is simplified for child language processing. One of the first things young children acquiring language must learn is to establish with a partner a mutual understanding of the social-communicative activity at hand. Early speech acts are embedded in and structured by well-practiced interactive contexts. Thus, any characterization of the communicative intents that parents model for children must include a specification of the social-communicative framework of those intents, a framework that reflects the joint construction of social reality by parent and child. Our findings demonstrate that all parents provide a core set of relatively simple social interchanges within which their children can enter into verbal communication.
REFERENCES


Appendix

**Child-Centered Social Interchange-Speech Act Types**

Discuss joint focus: State a proposition; approve a proposition; ask a wh-question; ask a yes/no question; mark an event; acknowledge hearer’s utterance

Discuss clarification of verbal communication: Ask a wh-question; ask a yes/no question; request rerun

Discuss clarification of nonverbal communication: Ask a wh-question; ask a yes/no question; state a proposition

Discuss hearer’s thoughts and feelings: State a proposition; ask a wh-question; ask a yes/no question

Show attentiveness: Exhibit attentiveness to hearer

Uninterpretable: Acknowledge

**Directive Social Interchange-Speech Act Types**

Direct hearer’s attention: Request/propose; request/propose with a question; ask wh-question; state a proposition; mark an event

Negotiate mutual attention: Call hearer by name; request/propose; prohibit/protest

Negotiate Immediate Activity: Prohibit/protest