The Development of Pragmatics:

Learning to Use Language Appropriately*

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Defining the domain of pragmatics

Pragmatics versus syntax and semantics in formal models. Broadly speaking, pragmatics is the study of the use of language in context for the purpose of communication. Thus, developmental pragmatics is concerned with the question of how a child acquires the competencies underlying the rule-governed employment of speech in interpersonal situations. The criteria applied in assessing the pragmatic success of an utterance have to do, not with grammaticality (the criterion applied within the domain of syntax) or truthfulness and interpretability (the semantic criteria), but with appropriateness and communicative effectiveness.

This demarcation of the field of developmental pragmatics is, however, far from straightforward or noncontroversial. The status of language use in the study of language is a highly vexed issue within linguistics and the philosophy of language. Indeed, the very distinction between the domain of pragmatics and those of syntax and semantics is itself theory-dependent.

The trichotomy of syntax, semantics and pragmatics originated with Morris (1938), who defined syntax as the study of the formal relations of signs to one another, semantics as the study of the relations of signs to the objects they denote, and pragmatics as the study of the relation between signs and their interpreters, i.e., the speaker and the addressee(s). This distinction between the concerns of pragmatics on the one hand and those of semantics and syntax on the other appears in various forms in the writings of many linguists and philosophers of language. It is echoed (with theory-specific distinctions of meaning) in de Saussure's (1922/1983) distinction between language and speech (la langue and la parole); in Chomsky's (1965) distinction between performance and competence; in Austin's (1962) differentiation of illocutionary and locutionary acts; in Searle's (1975) distinction between illocutionary force and propositional content and between literal and indirect speech acts (1969); in Grice's (1968; 1969) discrimination of utterer's-meaning and sentence-meaning; in Lemmon's (1966) statements vs. sentences, and so forth.

Such a principled distinction between pragmatics and semantics and syntax is the central tenet of formal linguistics. This approach is closely associated with, and mutually reinforcing of, a particular philosophical theory of linguistic meaningfulness, the so-called
truth-conditional theory of meaning, identified with such authors as Carnap (1956), Davidson (1979), or Lewis (1972). According to this theory, the sense of sentences is determined by their truth-conditions; to know the conditions under which a sentence is true is to know the meaning of the sentence. Linguistic meaning or meaningfulness is a property of sentences, largely independent of actual contexts of use (Davidson, 1979; Wiggins, 1971).

The conception of language this theory supports is one of an autonomous system of fixed symbols and of abstract rules for their lawful combination, all defined independently of their possible contexts of use. The uses people make of the meaningful sentences generated by this system are properly speaking extra-linguistic; and if these uses are rule-governed, the description of such rules belongs to a separate discipline, such as pragmatics or sociolinguistics.

Within this conception, then, the proper concern of pragmatics is the description of phenomena related to the use of meaningful linguistic forms for communicative purposes. Chief among these is the production and comprehension of speech acts--making statements, requesting, promising and the like. Other phenomena include the regulation of conversational exchange: politeness rules and other culturally conventionalized variations in speech register that convey social meaning and determine appropriateness; the control of presuppositions; and the creation of connected discourse. Linguistics proper, namely syntax and semantics, is confined to concern with the generation of meaningful utterances independent of their potential or actual context of use (cf. Gazdar, 1979; Kempson, 1975; Levinson, 1983). As Chomsky (1990) put it, 'there is no reason to single out communication among the many uses to which language is put' (p. 57).

It is however obvious even to the most extremely formalist of linguists that language contains expressions which point to contextual information rather than symbolizing some context-independent abstract concept. These expressions are the deictic or indexical elements of language: pronouns, deictic locatives such as here and there, deictic temporal terms such as today, tomorrow, verbs like come, go, bring, and the like. These expressions receive their value from the context of their use; thus, the sentences in which they are used do not have truth conditions (hence, meaning) except as a function of their situated use. Since they are bona fide lexical items, it is impossible to exclude the rules governing the use of such deictic expressions
from linguistics proper. However, the treatment of such expressions does not fit well into linguistic theories developed to deal with linguistic entities of apparently context-independent nature. It has therefore been proposed (cf. Bar Hillel, 1954; Kalish, 1967; Montague, 1968) that linguistic theory proper be complemented by a separate pragmatic component dealing with indexical or deictic expressions.

From the formalist point of view, then, pragmatics is already an ill-defined domain, best characterized by means of a list enumerating the various phenomena of inquiry (cf. Levinson, 1983). These use-related phenomena are thought by the formalist to possess varying degrees of affinity with language phenomena proper. Formalists would place on the very boundaries between linguistics and language use deictic expressions, as well as other in-between phenomena such as the grammar of units larger than a single sentence. Speech act production is only slightly more peripheral, since it involves such purely grammatical features as the control of grammatical mood, performative sentence-structure, a propositional core and so on (cf. Lyons, 1981; Searle, 1975). Further away from linguistics proper are the control of presuppositions, politeness rules, and the management of conversational exchanges, in that order. Many would claim these fall in the province of sociolinguistics rather than linguistics proper, and thus even beyond the concerns of pragmatics.

The place of pragmatics in functionalist models. However, the distinction between language and its use underlying the above demarcation of the field is not the only conceptualization possible. An alternative philosophical approach to linguistic meaningfulness with its attendant linguistic metatheory is the so-called use-conditional theory of meaning. This approach ties the concept of linguistic meaningfulness to the communicative use people make of language. The most well-known expression of this viewpoint is the later Wittgenstein's dictum that "for many expressions... to know their use is to know their meaning" (1953). According to this approach, the primitive concept from which meaning is derived is one of communication rather than one of truth: The meaning of an utterance is what a speaker has intended overtly to communicate to an addressee (Alston, 1964; Grice, 1957, 1968; Strawson, 1970).

This approach gives logical priority to utterance-meaning over sentence-meaning. The meaningfulness of utterances derives from their use in performing overtly communicative acts.
The meaning of sentences is a kind of abstraction from their occasions of use; it is their potential to be used communicatively (Allwood, 1981; Alston, 1964, 1967, 1968; Fillmore, 1971; Grice, 1969). The literal meaning of a sentence may be the meaning element common to all contexts of use, the union of all possible uses or, most probably, the most representative or prototypical use the sentence can be put to (cf. Allwood, 1981; Gibbs, 1984). Similarly, word meaning may be defined as the word's contribution to the use-potential of a sentence (Alston, 1968), or its prototypical conditions of use (Allwood, 1981).

The linguistic theory associated with this philosophical tradition emphasizes the indexical, context bound nature of all language. Semanticists working in this tradition have shown that the depiction of word meaning as a context-free conglomeration of semantic features is unable to account for such varied semantic phenomena as polysemy, contextual expressions, labeling, and misusage (eg., Anderson & Ortony, 1975; Clark & Gerrig, 1983). Adjustments designed to rescue the formal approach, such as two-stage models for the interpretation of speech-acts (e.g., Searle, 1975; Gordon & Lakoff, 1971) and of ironical and metaphorical utterances (Kintsch, 1974; Searle, 1979), have not stood up to theoretical analysis or psycholinguistic experimentation (eg., Gibbs, 1984; Dore & MacDermott, 1982; Gazdar, 1981; Lakoff, 1982; Rumelhart, 1979; Sperber & Wilson, 1981, Streek, 1980).

Linguistic theories associated with the use-conditional viewpoint are called functional rather than formal (e.g., Dik, 1978; Halliday, 1985). As a generalization, such theories see linguistic forms (words, grammar) as tools for the purpose of communication, namely, sets of subordinate units to be made use of in the construction of decipherable messages. The implicit, internalized linguistic system is thought to consist of "production rules", namely, of procedures for verbally expressing various kinds of communicative intents. Formal rules of language (syntax, morphology, lexicon) appear in this view merely to be components of such a system of production rules (e.g., Bates and MacWhinney, 1982). In the functionalist approach, the boundaries between syntax, semantics and pragmatics are blurred. What the formalists call linguistic competence proper is but a subset of the "communicative competence" needed to use language meaningfully (Hymes, 1971).

According to this viewpoint, no difference exists between pragmatics and the rest of linguistics. The goal of linguistics is to achieve an understanding of how speakers create
interpretable utterances in communicative situations. All boundaries between formal and contextual aspects of language are seen as artificial and ill-conceived; the system as a whole is completely contextual and does not possess autonomous components. If it is agreed that the task of pragmatics is the study of language use in context, and if all language is inherently contextualized, then pragmatics is the most general discipline encompassing all aspects of language.

**Pragmatics in developmental theories.** Developmental psycholinguists studying the acquisition of pragmatic competence take any of a variety of standpoints -- whether explicitly or implicitly -- on the general theoretical issue of the nature of the linguistic system. Much work in this field accepts implicitly the 'separateness' of pragmatics, and studies pragmatic development by looking at pragmatic skills more or less in isolation. Other research, though, embodies the assumption that children's initial language is best described in use-conditional terms, whatever the form and nature of the endstate linguistic system. According to this approach, a substratum of social meanings or communicative intents underlies the regularities observed in early single and multiword speech, and the young child's linguistic system consists of realization rules that connect form and function in their speech (e.g., Bates, 1976; Bates, Camaioni, & Volterra, 1975; Bateson, 1975; Benedict, 1979; Braunwald, 1978; Bruner, 1975a; Clark & Clark, 1977; Greenfield & Smith, 1976; Halliday, 1975; Nelson, 1985; Ninio, 1983; Ryan, 1974; Rogdon, Jankowsky, & Alenskas, 1977; Snow, 1979).

Among these studies taking a theoretically intermediate position one could also include studies concerned with the identification of pragmatic factors influencing language acquisition, whether or not such studies operate with an integrated pragmatically-based acquisition model. These include investigations of the interactive context of language use in early childhood (Bruner, 1983; Cazden, 1970; Chapman, 1981; Lieven, 1978a, 1978b; Snow, 1977a, 1979); studies concerned with the role of maternal input and scaffolding behavior on the acquisition of linguistic forms (e.g., Mervis & Mervis, 1988; Moerk, 1976; Nelson, 1977; Nelson, Denningier, Bonvillian, Kaplan, & Baker, 1984; Ninio, 1985; Ninio & Bruner, 1978; Sachs, Brown, & Salerno, 1976; Snow, 1972, 1977b; Tomasello & Todd, 1983); and, more marginally, studies in which an appeal is made to putative pragmatic reasons for the explanation of acquisition biases (e.g., Benedict, 1979; Stephany, 1986; Wales, 1986). Studies
focussing primarily on the interactive context of language acquisition will not be reviewed systematically here (but see Snow, 1995 in press, for a review).

A theoretically radical group of investigators do not consider the early use-conditional language as a transitory stage but explicitly adopt a use-conditional framework for the characterization of endstate language itself. On this approach, the use-based linguistic system postulated for young children is assumed to be in principle, if not in detail, isomorphic and continuous with the full-blown adult system. In the latter, as in the former, meaning is assumed to be use-conditional; the latter, as the former, is thought to consist of rules for the realization of (and comprehension of) communicative messages in verbal form. In these studies the assumption is made that the goal of developmental psycholinguistics is to explain the entirety of language acquisition as the acquisition of functionally effective tools for communication (Bates & MacWhinney, 1979; Halliday, 1975; Ninio, 1994 in press; Tomasello, 1992; Tough, 1977; van Valin, 1991). These studies adopt as their theoretical framework linguistic theories that do not acknowledge a rigid demarcation of syntax, semantics and pragmatics, such as Halliday's (1985) Systemic-Functional Grammar; Givon's (1989) Functional Linguistics; Cognitive Linguistics (e.g., Lakoff, 1990; Langacker, 1987); or Hudson's (1990) Word Grammar, a communicatively oriented dependency grammar.

The boundaries between this group of studies and the previous one are fuzzy. As long as the target population whose language development is studied are beginning speakers, the theoretical stance taken regarding the ultimate course of development seldom makes a difference in terms of research goals or methodology. There are however exceptions to this generalization; one focal controversy in the field exemplifies the pervasive presence of high-theoretical considerations in the study of early pragmatic competencies. The controversy arose from Bates et al.'s (1975) claim that, prior to the emergence of language, children perform communicative acts such as requesting by nonverbal means, and that the status of these acts is essentially identical to those of illocutionary acts. The later use of verbal means for the expression of the same kind of illocutionary intents is merely the substitution of verbalizations for prior nonverbal behaviors. Dore (1978) criticized this analysis and, relying on Searle's (1969) Speech Act Theory, argued that illocutionary acts incorporate a grammatical component which preverbal communicative acts obviously lack. Therefore, he claimed,
Prelinguistic communicative skills are necessary but not sufficient for the acquisition of linguistic communication. By themselves, developments in the pragmatic domain cannot provide an explanation for the emergence of speech; substitution of means is not the vehicle of development. Thus, for Dore, children's gradual mastery of types of communicative intents is a separate line of development from the development of language proper, the one not feeding into the other. Indeed, according to Dore, it is not only preverbal communication which is irrelevant to true illocutionary act production but also most of single-word speech; in his publications on the subject (e.g., 1975) he claims that even in true verbal utterances carrying illocutionary force, the illocutionary intent is conveyed by nonlinguistic means such as intonation, whereas the words themselves serve only as rudimentary referring expressions naming some random element of the communicative situation. Thus, Dore's studies of the development of speech act production, although superficially similar in their subject matter to Bates' investigations of early pragmatics, actually represent a different viewpoint, one that clearly differentiates between these pragmatic developments and language acquisition proper.

A relatively complete review of empirical work in the domain of pragmatics must abstract from the theoretical differences among the authors on the issues identified above. In the following, we shall review work on the phenomena that, in our view, constitute the major achievements of language learners within the domain of pragmatics, organizing our review under the following four topics:

1. The acquisition of communicative intents and the development of their linguistic expression, seen as a separate issue from the acquisition of linguistic forms and grammar in the abstract.

2. The development of conversational skills and the acquisition of rules that govern turn-taking, interruptions, back-channeling, signalling topic-relevance or topic switch, and so on.

3. The acquisition of rules of politeness and other culturally determined speech use rules.

4. The development of control over the linguistic devices that govern connected discourse, such as ways to generate cohesion across utterances within a longer discourse, to signal presuppositions, as well as procedures for organizing information into familiar genre-specific forms. We will not review those studies dealing with the acquisition of deictic forms such as
pronouns and deictic locatives which just refer to the pragmatic underpinnings of this kind of knowledge without studying directly the pragmatic aspects of its development (e.g., Charney, 1980; Chiat, 1981, 1986; Clark & Sengul, 1978; de Villiers & de Villiers, 1973; Karmiloff-Smith, 1979; Wales, 1986; Webb & Abramson, 1976).

Developing Communicative Intents and Appropriate Ways of Expressing Them

In this section we shall be concerned with two questions: first, what type of communicative intents can children express, and second, how are these intents expressed, throughout the course of development. We focus, thus, on children's entry into language via their development of control over rules of expression for speech acts.

Prelinguistic communicative abilities. Among investigators of early social behavior, there exists wide agreement that infants possess a precocious social understanding which enables them both to emit intentional communicative signals and to interpret the significance of social signals, actions and events in their environment, prior to understanding speech (Acredolo & Goodwyn, 1988; Antinucci & Parisi, 1975; Bates, 1976; Bronson, 1981; Bruner, 1975a, 1975b, 1978; Carpenter, Mastergeorge, & Coggins, 1983; Carter, 1975a, 1979; Chapman, 1981; Collis & Schaffer, 1975; de Villiers & de Villiers, 1978; Dore, 1974, 1975, 1976, 1978; Eckerman, Whatley, & Kutz, 1975; Edwards, 1978; Golinkoff, 1983; Golinkoff & Gordon, 1983; Harding, 1983; Harding & Golinkoff, 1979; Lewis et al., 1975; Lock, 1980; Moerk, 1975; Rheingold, Hay, & West, 1976; Ross & Kay, 1980; Scoville, 1984; Snow, de Blauw, & Dubber, 1982; Snyder, 1978; Sugarman-Bell, 1978; Vandell, 1977; Zinoble & Martlew, 1985). Although this assumption is occasionally attacked by skeptics (e.g., Shatz, 1982), it is supported by a long line of meticulous research into young children's interactive abilities (cf. papers in Feagans, Garvey, & Golinkoff, 1984; Lamb & Sherrod, 1981; Rubin & Ross, 1982). According to some authorities, the possession of communicative intents and the interpretation of others' intents is such a basic human capacity that there is reason to believe that it is a biological disposition or language universal (Dore, 1985; Miller, 1970; Trevarthen, 1977, 1979; Trevarthen & Hubley, 1979).

Communicative intents expressed at the preverbal stage. Even though it is widely agreed that preverbal infants use intentional vocalizations and gestures such as pointing, gazing and
giving for communicative purposes, there is a relative dearth of systematic information on the types of social meanings they express by such means. The studies that have been conducted fall into three categories. First, there are investigations documenting preverbal infants' gradually evolving participation in specific interactive contexts such as peek-a-boo (Bruner, 1975a; Bruner & Sherwood, 1976; Ratner & Bruner, 1978) or book-reading (Ninio & Bruner, 1978). Second, there have been several studies of infants' nonverbal expression of illocutionary-type speech acts in dyadic interaction with their adult caretakers. In one of the earliest studies of this kind, Bates et al. (1975) described two broad categories of preverbal precursors to verbally performed speech acts: proto-declaratives, used to direct the other's attention to a focus, the precursors of statements; and proto-imperatives, used to bring the other to do something, the antecedents of requests and other directives. Coggins and Carpenter (1981), using a more detailed typology, found the following types of pragmatic behaviors in preverbal children: requesting (object requests, action requests, information requests); greeting; transferring objects; showing off; acknowledging; answering. Carpenter et al. (1983) used 7 categories to characterize preverbal communication, including, in addition to the above-mentioned, protesting, comment on action, and comment on object. Interestingly, none of the studies in this group mentioned game-embedded meaningful behaviors of the type documented by Bruner and his collaborators among the preverbal communicative acts infants were able to control.

A third category of studies focussed on preverbal and early nonverbal communicative behaviors exhibited by infants in interaction with a peer (Bronson, 1981; Eckerman, Whatley, & Kutz, 1975; Dunn & Kendrick, 1982; Lewis, Young, Brooks, & Michalson, 1975). These studies expand the list of early social meanings communicated to include expressions of feelings including sympathy; offers and sharing; compliance and non-compliance or resistance; stage-setting, and pretend-games.

In all, infants appear to be able to control an impressive array of social meanings and to convey them to others by nonverbal means. These results provide converging evidence on the precocity of the social capacities underlying communication, and indicate that communicative exchanges may indeed serve a functional role in children's entry into language.

The continuity hypothesis. To what extent early language use is built upon the preverbal communicative system is an as yet unsettled issue. Some investigators have claimed that
children's early language is continuous with their preverbal communicative system, so that early verbalizations are acquired by a process of children's substituting conventional, verbal forms for the expression of the same communicative intents they have been expressing by nonverbal means prior to the emergence of speech (Bates, 1976; Bates et al., 1975; Bruner, 1975b, Carpenter et al, 1983; Carter, 1975a; Halliday 1975; Lock, 1980; Nelson, 1985; Ninio & Bruner, 1978). Others (e.g., Dore, 1975, 1978) have pointed out that linguistic expressions operate by the uniquely linguistic means of reference and predication, and that a fundamental discontinuity should be acknowledged to exist between preverbal and verbal communication.

Even on this view, however, there is a great measure of continuity in children's communicative behavior. In the first place, it is agreed that many of the intents children express on starting to use speech are identical to the ones previously expressed by nonverbal means. At the least, then, children master the principles of intentional communication as well as the specific social-cognitive concepts underlying some of their earliest verbal utterances before facing the task of acquiring verbal means for expressing them. Second, it is probably true that some early utterances express communicative intents which are novel and which are impossible to express by nonverbal means. These intents are emergent consequences of learning language. However, even in these cases the acquisition of forms expressing such intents is possible only because children's precocious communicative abilities at the onset of speech enable them to interpret intents that they themselves cannot express (see Dore, 1975, and Nelson, 1978, for discussions of this issue).

**Transitional phenomena.** While some research simply describes early pragmatic capacities, other studies are more process-oriented, emphasizing the role of early pragmatics in children's entry into language "proper", and proposing use-conditional theories of acquisition for early speech (e.g., Antinucci & Parisi, 1975; Bates, 1976; Bruner, 1983; Halliday, 1975; Nelson, 1978; Ninio, 1992a; Ninio & Snow, 1988; Ninio & Wheeler, 1984a). For example, Ninio and Snow (1988) proposed that the fundamental learning process by which novel linguistic forms are acquired at the onset of speech is one of pragmatic (rather than semantic) matching, by which children pair an unknown verbal string in the speech addressed to them with their interpretation of the speaker's intended communicative effect.

Various transitional communicative signals have been identified that combine nonverbal
and verbal features. Carter (1975a; 1975b; 1979), Dore, Franklin, Miller, and Ramer (1976), and Halliday (1975) have documented an intermediate developmental stage where partly conventionalized vocal signals or proto-words were used. These apparently developed by some process of environmental shaping from spontaneous expressive vocalizations and idiosyncratic communicative signals, but underwent some partial phonetic fixation so that they approximated conventional verbal forms serving similar communicative functions in adult language. (See also Ingram's 1989 discussion of Halliday's findings). Apparently, the entry into language use is a gradual and relatively protracted process rather than a sudden all-or-none phenomenon.

The pragmatics of early single-word utterances. Even though children's earliest speech uses have been extensively investigated (cf. Antinucci & Parisi, 1973; Barrett, 1981; Bates, 1979; Carpenter, et al., 1983; Dale, 1980; Dore, 1974; Greenfield & Smith, 1976; Griffiths, 1985; Gruber, 1973; Halliday, 1975; McShane, 1980; Wells, 1985), it is surprisingly difficult to give a list of the kinds of meaningful communicative acts children are able to control verbally at the onset of speech. Investigators disagree on which early speech uses should be considered bona fide communicative acts because each set of pre-theoretical assumptions leads to the a priori exclusion of a subset of speech phenomena from the domain under investigation. For example, Halliday (1975) excluded labeling and all other "language practice" from his corpora of early speech; Wells (1985) excluded from pragmatic analysis all self-addressed speech; Dale (1980) omitted from his categories of pragmatic function calling, moves in games, imitation or expressive exclamations; Dore (1974), McShane (1980), Barrett (1981), and Griffiths (1985) apparently did not regard the production of verbal moves in games true language use; and so forth. The fate of imitations is particularly illuminating. While Dore (1974), Wells (1985), and Camaioni and Laicardi (1985), for instance, have 'repeating' or 'imitating' as a type of speech act or interpersonal speech use, others studying the communicative or pragmatic meanings of early speech (e.g., Barrett, 1981; Dale, 1980; Greenfield & Smith, 1976; Griffiths, 1985; Halliday, 1975) have explicitly excluded imitations from their data base, while still others (Ninio & Wheeler, 1984b; Ninio, Snow, Pan & Rollins, 1994 in press; Snow, Pan, Herman & Imbens-Bailey, 1993) assume imitations, like fully spontaneous utterances, can express any of a variety of illocutionary intents.
An overview of the different studies discloses that the phenomenon is not a chance one: The defining characteristic of early speech uses is that they fulfill only partially the criteria defining a prototypical meaningful communicative act. These early utterances are borderline cases on one or more counts: a) the meanings they express tend to be social rather than properly speaking illocutionary, i.e., they are nonreferential, playful or ritual speech uses (Barrett, 1986; Bates, 1979; Braunwald, 1978; Bruner, 1975a; Camaioni and Laicardi, 1985; Corrigan, 1978; Dore, 1985; Greenfield & Smith, 1976; Harris, Barrett, Jones, & Brookes, 1988; Harrison, 1972; Lock, 1980; Lucariello, Kyritzis, & Engel, 1986; McCune-Nicolich, 1981; Nelson, 1985; Nelson & Lucariello, 1985; Ninio, 1992a, 1992b); b) the expressions used tend not to be of the major word classes such as verbs, nouns or adjectives, but rather, fringe members of the linguistic system such as vocatives, exclamations, interjections and the like (Benedict, 1979; Dore, 1985; Nelson, 1973; Ninio, 1993); c) moreover, even when they do express "serious" pragmatically central meanings such as requests, beginning speakers seldom use any but the most general of pro-words such as pronouns, deictic locatives, pro-verbs and the like (Barrett, 1981; Clark, 1978; Greenfield & Smith, 1976; Griffiths, 1985; Ninio, 1993; Weisenberger 1976); d) rather than being interpersonal, early meaningful speech uses are often directed at the self rather than at another person (Piaget, 1926; Vygotsky, 1978; Wells, 1985); e) lastly, rather than invariably being spontaneously produced, a significant proportion of early utterances are imitations of previous utterances by an interlocutor (e.g., Bates, 1979).

As a broad generalization, it seems that children start to use speech meaningfully by first learning those form-meaning pairings that do not necessitate a simultaneous control of many different novel principles. These speech uses will tend to be supported by familiar interpersonal contexts such as games; they will involve unmarked general forms with a wide range of applicability; and they will involve types of speech uses appropriate for a novice user of the verbal-communicative medium, e.g., imitations, language practice, and self-directed speech.

Adding up the information from the different studies of early speech mentioned above, it appears that the repertoires of specific speech acts early speakers can express verbally are not limited to a definite and recognizable subset of functional uses. Except for the obvious absence of such complex social meanings as explicit promises, predictions, declarations and the like,
most types of illocutionary acts are represented in the combined corpora of the children investigated. By contrast to the theoretically based predictions made by Dore (1975) or Halliday (1975), very young children do engage in the expression of the informative function of language; they do make statements, answer questions, confirm or disagree with a previous speaker's proposition. They may perform at a much lower level of cognition than do adults when it comes to the content discussed (i.e., most early statements concern the immediately observed rather than the distant or the abstract; most arguments regarding the truth of propositions concern the correct name to call a referent rather than more complex issues), but the pragmatic skills involved and demonstrated in the production of the relevant communicative acts are considerable. In sum, the very earliest speech uses documented in young children mirror the pragmatic diversity observed in their prelinguistic communication, while limited by the repertoire of means and meanings they can initially control.

**Developmental trends in the expression of communicative intents in the early stages of speech use.** Two major developmental trends have been identified in the expression of communicative intents in the single-word period of speech use. The first consists of children's moving from a holistic to a selective type of mapping between their intents and verbal expressions. It has been proposed by various investigators that at the onset of speech, communicative meaning is packaged into words in a holistic, undifferentiated fashion, either because the concepts underlying children's early words are themselves holistic and undifferentiated (Nelson, 1983, 1985, 1986; Nelson & Lucariello, 1985) or because of specific limitations on their intent-mapping capacities (cf. Barrett, 1978, 1986; Griffiths, 1985). According to this view, selective mapping of analyzed components of communicative intents onto verbal expressions is a later development, typically emerging in the latter part of the single-word period.

The claim that initial mapping is holistic may be found to be too restricted a characterization of children's expressive abilities even during the first period of speech use; wherever they start, though, it is clear that children acquire a more analytic style of verbal expression during the course of development. Early on, children tend to use general, unmarked, nonspecific terms (such as pronouns and other proforms) for the expression of particular communicative functions, whereas later they use a host of more specific terms (such as common nouns and
verbs) in the same communicative circumstances (cf. Barrett, 1981; Bloom, 1973; Clark, 1978; Griffiths, 1985; Halliday, 1975; Weisenberger, 1976). Around the middle of the second year, children master the principle of mapping selective elements of their intents to variable expressions encoding the specifics of the communicative situation; earlier they typically mapped their intents to a non-specific expression functioning as a keyword for a broader class of intents (Halliday, 1975; Ninio, 1992b, 1994b in press b).

The second developmental trend is children's mastery of the principle of many-to-many mapping of communicative intents to verbal expressions. It has been pointed out that at the onset of speech, children tend to use a given verbal expression in a single functional context; only later do these forms get de-functionalized (Barrett, 1983; Bates, 1976; Dore, 1985; Greenfield & Smith, 1976; Halliday, 1975; Ingram, 1971; Menn & Haselkorn, 1977; Nelson & Lucariello, 1985). Conversely, beginning speakers apparently operate with some uniqueness principle by which each type of speech function or communicative intent is to be mapped onto a single verbal expression only. The acquisition of multiple mapping rules for the same type of intent is thus a later development, occurring about the same time as the mastery of the "variable mapping" principle (Ninio, 1994b in press b). These two trends -- defunctionalization of given expressions, and the acquisition of two or more forms of mapping for the same type of speech function -- lead children from an initial one-to-one mapping of meanings to forms to the many-to-many mapping characterizing the adult linguistic system.

Individual differences in the earliest speech uses. Pronounced individual differences in the type of speech acts first acquired by various groups of children have been documented. Nelson (1973, 1975a, 1975b, 1976, 1978, and see also Della Corte, Benedict, & Klein, 1983) identified two major types of children: expressive children who first acquired expressions appropriate for the verbalization of interpersonal (i.e., regulatory, instrumental, personal and interactive) language functions, and referential children who, in addition to the interpersonal uses, used their earliest vocabulary for informative, heuristic, or mathetic speech functions as well. Referential children acquire many common nouns among their first 50 words, whereas expressive children use pronouns to refer to entities. Before turning to the different interpretations given to this phenomenon, it is worth mentioning that in later replications (e.g., Goldfield, 1987), even more than in Nelson's original sample, most children actually belonged
to an intermediate group on the dimension of expressivity/referentiality rather than exhibiting
the pure features of either type.

Nelson's interpretation of her findings has been that there exist differences of acquisition
style and of pragmatic preference for one kind of speech use. Others (e.g., Pine, 1990; Pine &
Lieven, 1990) have raised the possibility that the reported differences are of developmental
status, with expressive children lagging behind referential ones. This interpretation is
supported by the well-documented use of pronouns rather than common nouns by speakers at
the very start of language use (see above), and the finding that children start to acquire large
numbers of common nouns relatively late in the single word stage (e.g., Nelson, 1973).

Developmental course of verbal control of speech acts. Rather little work has been done
following children as they expand their repertoire of speech acts. Very young children are
clearly limited to the production of speech acts that are cognitively accessible and relatively
straightforward to express. Thus, for example, in one study we found that various sorts of
markings (greetings, transfer forms like thank you, notice forms like uh-oh) were very common
at 14 months, as were prohibitions and expressions indicating attention during discussions of
shared, present objects, whereas speech acts such as stating the speaker's intentions or
providing affirmative answers to questions only emerged at 20 months, and requesting
clarification was still marginal at 32 months (Snow, Pan, Herman & Imbens-Bailey, 1993).

A major task for developmental psycholinguists is to generate some basic developmental
norms for speech act use, if acquisition of communicative skill is to be systematically charted.
An obstacle is the rather chaotic degree of disagreement among various ways of coding speech
acts (see Ninio, Snow, Pan & Rollins, 1994 in press, for a discussion); the lack of an agreed
upon comprehensive system has led many to concentrate on subsets of speech acts, e.g.
requests (Corsaro, 1979; Ervin-Tripp & Gordon, 1986). An early attempt to do developmental
comparisons of speech act sophistication (Rollins, Pan, Conti-Ramsden, & Snow, in press)
found that specifically language-impaired children used a wider variety of speech act types than
controls matched on syntactic aspects of language production; these findings suggest that
speech act sophistication can be usefully considered separately from syntactic sophistication,
and that these two domains of language have somewhat different developmental pathways.
Development of Control over Conversational Rules

We focus in this section on the development of skills that are specific to conversation--for example, turn-taking, maintenance of topic-relevance, eliciting participation from the interlocutor, control over devices for repair, for topic initiation, for topic transition, and so on. Being an effective adult conversationalist is a difficult task precisely because it requires combining control over the semantic and syntactic processes of utterance planning, production, and comprehension with control over the pragmatic rules and procedures for turn-taking, for ensuring, maintaining, and recognizing topic relevance, for repairing misunderstandings or comprehension breakdowns, and for regulating the local system of proxemics and kinesics. Much of the prior research about adult conversation has focussed on the turn-taking system, e.g. the pioneering papers by Duncan and Fiske (1977) and by Sacks, Schegloff and Jefferson (1974), and the many later papers proposing modifications to the notion that smooth conversational exchange is a universal and ubiquitous phenomenon (see Denny, 1985, and Murray, 1985 for reviews). Other work within the conversational analysis tradition has focussed on specific conversational subsystems, e.g., the initiation (Godard, 1977; Schegloff, 1979) and conclusion of telephone conversations (Clark & French, 1981; Schegloff & Sacks, 1973). Further complexities of conversational competence emerge from analyses of specific conversational genres, e.g., ritual insults (Dundes, Leach & "zuk", 1972; Labov, 1972), service encounters (Merrit, 1976), jokes (Sacks, 1974), doctor-patient talk (Coulthard & Ashby, 1976; Mishler, 1984), and therapy sessions (Turner, 1972; Labov & Fanshel, 1978). Much has been written about the kinesic, proxemic, and gaze-control systems competent conversationalists display (e.g., Argyle & Cook, 1976; Birdwhistell, 1970; Hall, 1959; Hinde, 1972; Kendon, 1981; Key, 1975; Knapp, 1972). Attention has been directed to cultural and linguistic differences in the regulation of conversational turn-taking and the structuring of conversation events (e.g., Philips, 1976; White, 1989), and to cohesion and mechanisms for determining topic relevance (Halliday & Hasan, 1976; Kintsch & van Dijk, 1978; Tracy, 1982, 1984 and many more), though more often for monologic than for dialogic texts.

These various research efforts have given us some indication of the complex set of skills acquired as the child becomes a competent conversationalist. Like adults, children have to learn the rules of specific conversational genres, such as classroom discourse (Kluwin, 1983;
McHoul, 1978; Pride, 1969; Sinclair & Coulthard, 1975). They have to learn that the competent listener has an active role (Hess & Johnston, 1988). Conversational skill may be a particularly important determinant of peer acceptance in school-aged children (Hemphill & Siperstein, 1990). For very young children, most of whose talk occurs in conversational contexts, separating specifically conversational skills from general language skills is difficult and perhaps somewhat artificial. However, at least theoretically it is possible to identify skills that are specific to the interactive context of conversational exchange—in particular, thus, skills associated with centrally conversational tasks like 'making small talk' rather than with tasks in which information exchange or problem solving is central, and focussing on appropriateness and interactive effectiveness rather than truthfulness or grammaticality (Schley & Snow, 1992).

**Turn-taking.** It is well attested that even very young children are quite good at the turn-taking aspect of conversation, at least in dyadic situations, both with adult interactants and with peers. By the time they are producing their first words, children can typically sustain long bouts of well-timed turn alternations (Kaye & Charney, 1980, 1981; Snow, 1977a); with peers the same pattern appears by at least age three (Ervin-Tripp, 1979; Keenan & Klein, 1975). Deaf children acquiring American Sign Language follow similar patterns of development in learning these discourse strategies; Prinz and Prinz (1985) found that deaf children successfully achieved coherency across a multiplicity of sign strings through turn taking, remediating interruptions, obtaining the attention of the addressee, handling topics, and establishing and maintaining eye contact. Young children's turn-taking is subject to many more disruptions of order than is that of adults, however, and children under age five typically use rather primitive, nonverbal strategies to enter conversations with other children (Corsaro, 1979) and with adults (Sachs, 1982). By about age four, children show some control over the use of devices like sentence-initial and or repetitive et puis (and then) as floor holders, to signal that their turn is not yet complete (Jisa, 1984/85; Peterson & McCabe, 1988).

Of course, many problems of conversational management are eased for young children by the availability of highly cooperative adult conversational partners. Thus, children's violations of some of the rules governing adult conversation are not considered particularly serious, and their frequent difficulties abiding by the Gricean maxims (Grice, 1975) of relevance and quantity are compensated for by adult willingness to engage in extensive repair. Continuation
of a conversational topic in adult-child talk is often more a function of adult responsiveness (Bloom, Rocissano & Hood, 1976) than of child topic maintenance behaviors, though improvement in topic maintenance occurs with age. Some of the violations of normal conversational responsiveness by young children may relate to deficits in their ability to comprehend implicitly nominated topics (Bacharach & Luszcz, 1979; Luszcz & Bacharach, 1983), or to other cognitive limitations on control over conversational implicature.

**Topic selection and maintenance.** When interacting with peers, children often either fail to maintain a topic (Blank & Franklin, 1980) or else use relatively primitive devices to do so. Keenan and Klein (1975), for example, analyzed conversations between twins to show that exact or partial imitation was a primary device used to maintain coherence across turns. Similarly, Garvey (1975) showed that dyads used both repetition of and ritualized variations on each others' utterances to generate conversational exchanges up through age five. It is striking in the exchanges Garvey describes that cross-turn relevance is sometimes maintained by sound-play based cohesion, rather than true topic cohesion. Reliance on imitative devices for maintaining cross-turn cohesion declined from age two to age five (Benoit, 1982). Explicit marking of cross-utterance relations with 'conjuncts' like for example, so, and anyway or with 'attitudinal' expressions like really or perhaps is extremely rare in the speech of six year olds, and twelve year olds have not achieved adult-like frequencies of these devices (Scott, 1984). This finding becomes quite important in light of the crucial role such markers are generally assumed to play in introducing nuances of politeness, deniability, and connectedness in adult conversation (Wardhaugh, 1985). Children may rely on relatively primitive devices for linking their own conversational contributions to those of their partners because of an inability to think of anything else to say. Similarly, the relatively passive role often assumed by young children in conversation with adults may derive from their ignorance of the standard, culturally determined list of topics that organizes casual conversation for adults (Kellermann, Broetzmann, Lim & Kitao, 1989).

**Individual differences in conversational skill.** Most children develop conversational skill relatively easily and automatically. Shy children may show deficits as conversationalists; Evans (1987) compared interactions of reticent children to those of non-reticent children and found that, in addition to speaking less, reticent children also engaged in less complex speech
than their peers, using shorter utterances, single topic turns, and fewer narratives and
decontextualized descriptions of non-present objects. Furthermore, there is evidence that
children with language or reading disabilities (Bryan, Donahue, Pearl & Storm, 1981;
Donahue, 1984; Donahue, Pearl & Bryan, 1980, 1983) and that mildly retarded children
(Hemphill, 1987; Hemphill & Siperstein, 1990) show problems interacting with peers that may
be traceable to lack of control over the subtleties of conversational skill. Bryan, Donahue and
their colleagues found that in unstructured conversations, poor conversationalists could 'get
along' by virtue of responding to the conversational initiatives of their more skilled peers, but
when they were made responsible for the conversation by use of an interview task their
deficiencies were revealed. Mentally retarded children showed more problems than
language-matched normally developing children with topic control, conversational
assertiveness, topic initiation and fluency, but they had few problems with topic transitions,
requests for clarifications, and replies to initiations (Hemphill, 1987). Furthermore, because
the turn-taking system for interviews is more constrained than for mundane conversations
(Greatbatch, 1988), one might expect this task to reduce the impact of difficulties with
turn-taking per se (and thus perhaps reveal other sorts of problems) as a source of
conversational ineffectiveness.

Schley and Snow (1992) found that children rated higher as conversational partners (a) used
of open-ended questions and questions contingent upon previous utterances more often, (b)
avoided silent pauses of more than a short duration, and (c) successfully elicited elaborated
responses from the adult interlocutor. Conversational skill was not related, however, to other
types of disfluencies, including word choice and grammatical self-corrections, repetitions,
interruptions, and vocal hesitations. Their findings echo those of Dorval and Eckerman (1984),
who carried out one of the few studies of age differences in conversational skill that looked at
conversations among peers. Dorval and Eckerman found large differences in the degree to
which the talk engaged in related to topics at hand, as well as in the nature of the relations
among turns. Their youngest subjects, second graders, produced the highest proportion of
unrelated conversational turns. Ninth graders were producing a substantial proportion of
factually related turns; the twelfth graders and the adults increasingly incorporated perspective
related turns (those which take into account the perspective of the person being discussed) into
their discussions. These findings extend to peer-peer conversations earlier observations by Bloom et al., (1976) on degree of relatedness in adjacent conversational turns. Bloom et al. had found the percent of children's utterances that were on the same topic as immediately preceding adult utterances and also added new information rose from 21% during stage one (MLU under 1.5, ages 19 to 23 months) to 46% at stage five (MLU above 3.5, ages 35 to 38 months). These findings suggest that one major component of development in conversation is learning to make responses related to the previous turn, while Dorval and Eckerman (1984) make clear that older children continue to improve in topic coherency and to achieve coherency in increasingly sophisticated ways. The linguistic task of achieving coherence is one children face in their narratives and in other single-party discourses, not just in conversational exchange.

Conversational skill can play a central role in a child's access to social interaction with peers (Corsaro, 1979), in determining peer acceptance (Hemphill & Siperstein, 1990), in second language learners' access to input in their target language (Krashen, 1980), and in making a positive impression on teachers and other powerful adults (Evans, 1987); clearly there is much more to be known about the factors that relate its development.

**Learning to be Polite**

Being polite involves having acquired a complex set of culturally specific rules for how other members of the group should be treated: this involves knowing how they should be addressed, what their wants, needs, and desires are, and how one's own wants, needs and desires should be expressed without violating others' rights. In a sense, serious theories of politeness are theories of all human social interaction! Starting from Brown and Levinson's (1987) model of polite interaction, it quickly becomes clear that politeness is a system that regulates what is said and how it is said in all sorts of interactions.

A developmentally early accomplishment that falls squarely within the domain of politeness is producing greetings. Brown and Levinson point out that a greeting is a face-threatening act, because it requires a response from the addressee, and because it puts the speaker's face at risk of injury, in case the greeting is not returned. Greif and Gleason (1980) document the degree of effort parents put into ensuring their children provide greetings and other formulaic markings like 'thank you'. Snow, Perlman, Gleason, and Hooshyar (1990) found that mothers of children
with Down syndrome model such forms more frequently and more exaggeratedly than parents of children developing normally, suggesting the importance attached to socialization of such responses.

Much of the work that has focussed specifically on the development of politeness in English has described within naturally occurring interactions parental modelling, explicit correction, hinting and other techniques used to teach children correct behavior (e.g., Becker, 1988, 1990). This work has in general defined the range of behaviors subsumed under the category 'politeness' rather narrowly, focussing on issues like saying please and thank you, apologizing, avoiding slang and rude words, and responding to questions but not interrupting. Observations of children growing up in Japan, though, generate far richer data about socialization for politeness, since Japanese requires specific lexical and grammatical forms in polite speech, and because Japanese politeness relies extensively on indirectness. Clancy (1986) has described how Japanese mothers explain to their children that visitors may not be expressing themselves directly, i.e., that children should offer food again after a refusal, or should stop making requests of the visitor even if the requests are complied with.

Children demonstrate quite early their sensitivity to the dimensions of power and social distance that regulate linguistic forms. For example, children as young as two are more likely to use imperatives with peers and requests to adults (Corsaro, 1979). However, full knowledge of the linguistic conventions that appropriately signal the dimensions of distance and power may take several years to acquire. Typically, for example, when induced to make requests that should be more 'polite' (e.g., addressed to an older person), young children simply add forms like please; only after about age five do they choose indirect forms (do you mind if...) or other mitigators of directness like I hate to bother you but... (Bates, 1976; Becker, 1982, 1986).

Much work that is relevant to the broad notion of politeness endorsed here has been done under the rubric 'language socialization'. Language socialization studies focus on how children learn to become effective members of their cultures, which involves acquiring the rules about how to speak in a variety of social interactive settings. Learning which members of the group require deference and which can be treated linguistically as equals, for example, is a product of language socialization, as is learning which address forms are appropriate for each category, learning how males and females talk differently, learning which are the socially valued dialect
forms, and learning to participate in speech events like doing the dozens, telling about one's day at the dinner table, taking a turn at sharing time, or making small talk. Useful examples of language socialization studies can be found in Schieffelin and Ochs (1986), Ochs (1988), Schieffelin (1990), and Goldfield and Snow (1992).

A major theme that deserves emphasis in understanding children's development of politeness is that the basic social system that politeness rules rely on is in place before the linguistic structures that express politeness are acquired. Acquiring politeness--like acquiring the effective expression of speech acts or the appropriate turn-taking and topic-maintenance behavior of mature conversationalists--presupposes a relatively sophisticated social understanding. Evidence suggests that understanding the social structure is not the child's greatest challenge in becoming polite; rather, the challenge is to acquire the varied and subtle linguistic tactics used to express the underlying social dimensions.

**Learning to Produce Connected Discourse**

In their early conversational exchanges children are exposed to and display cross-turn topic cohesion and expansion; subsequent utterances in conversation build upon earlier ones, and are interpretable because of rules governing how those cross-turn relationships are signalled linguistically. Simple examples include the use of definite articles in noun phrases for mutually identifiable referents and indefinite articles in noun phrases that introduce referents novel to the listener. Thus, once a referent (e.g., 'I saw a dog walking down the street') has been introduced into a conversation, subsequent mentions must use definite referring expressions (e.g., the dog, that creature, it). One of the skills children must develop as they get older is that of putting utterances together such that their cross-utterance relevance is clear within single-speaker productions--producing connected discourse autonomously.

In addition to connecting utterances in extended discourse forms, children must learn about the genres of connected discourse: the conventions that characterize various sorts of narratives, explanations, descriptions, and so on. Learning about these genre forms continues well into adulthood: graduate students typically require considerable training in the pragmatics of scientific written or oral presentations. The vast majority of work on the development of connected discourse has focussed on narrative, though some work on explanations,
descriptions, and school-specific forms like definitions has been done.

A major domain of pragmatic challenge children face in producing relatively autonomous discourse forms has to do with the speaker-audience relationship. In the conversational exchanges in which very young children express their communicative intents, the speaker-hearer relation is quite straightforward: there is face-to-face interaction and speaker and hearer share physical, historical, and social contexts such that the child can presume background knowledge is shared. As children get older they are increasingly asked to communicate to audiences which are distant, either physically (e.g., talking to grandma on the phone), historically (making new friends with whom no past experience is shared), or socially (talking in social roles which involve nonreciprocal relationships or unequal social status, such as patient to pediatrician, student to teacher, customer to clerk). The pragmatic skills involved in communicating effectively during such exchanges while maintaining mutual respect involve control of extremely complex linguistic devices.

**Linguistic devices that maintain cross-utterance cohesion.** In dyadic conversations, a major mechanism for maintaining cross-utterance cohesion is ellipsis (a: Where did you go? b: The movies. a: Who with? b: Harvey.) In autonomous productions, though, referential cohesive links are much more common, i.e., using pronouns or deictic elements anaphorically, repeating or paraphrasing nouns, and using clusters of nouns that have thematic relations. Children's use of these referential cohesive ties increases between ages two and three and a half (Peterson & Dodsworth, 1991), and continues to increase during the early school years (McCutcheon & Perfetti, 1982; Stenning & Mitchell, 1985). Children as young as two, though, maintained focus on particular referents quite effectively, keeping track of an average of three different referents through an average of four mentions each, in stories that averaged 12 clauses in length (Bennett-Kastor, 1983). Bennett-Kastor also found that five-year-olds had a rather sharp increase in number of referents and number of mentions, thus producing much more coherent stories. Children in this preschool age range, though, produce a fairly high proportion of ambiguous noun phrases or omit required noun phrases (Peterson & Dodsworth, 1991); while noun phrase omissions decrease between ages two and four, even school-aged children continue to introduce referents ambiguously in their oral productions and their written texts.

**Adaptations to the audience.** A first task in interaction is to determine what knowledge is
shared between speaker and audience. Young children often seem to think that listeners know more than they actually do—perhaps because the children are used to conversing with mothers, who do know quite a lot about their lives. Children's inadequacies as providers of information are particularly visible in the widely used referential communication tasks, where their failings include not demanding enough information when functioning as listener as well as not providing enough when functioning as describer (see Ricard & Snow, 1990). On the other hand, even rather young children will respond with more detail and greater specificity when told, for example, that a picture description is meant for someone who cannot see the picture being described (De Temple, Wu, & Snow, 1991; Ricard & Snow, 1990; Wu, Herman, De Temple & Snow, in press). Children as young as four will spontaneously clarify references to individuals or objects they think their interlocutors don't know, e.g. 'I told Mindy--she's a kid at my preschool...' (Sachs, Anselmi, & McCollam, 1990).

It has long been reported that children use definite articles inappropriately to introduce referents not known to the interlocutor (e.g., Karmiloff-Smith, 1979; Maratsos, 1976). This is observed almost exclusively in experimental settings, though, where the child's basis for prediction may be somewhat weak; in settings where the child has a good basis for predicting the interlocutor's state of knowledge, such errors are rare (Stevenson, 1988). Furthermore, even in adult conversation, the indefinite noun phrase is not the only appropriate form for introducing referents. In a structured setting where children aged seven to thirteen were trying to coordinate instructions from maps that differed in some details, unshared knowledge was indicated, not by using the conventional indefinite article (Turn right at a church), but using questions (Do you see the church?) increasingly as children got older (Anderson, Clark & Mullin, 1991). It seems that children from quite a young age do respond to their audience's needs, but that they do not necessarily do so in conventional ways, and that they often need help determining exactly what those needs are.

**Learning about genres and their structure.** Quite early children show linguistic differentiation between various narrative forms. For example, by the age of three they already use present indicative verbs and generic nominals and pronouns in script productions, thus distinguishing these from past experience narratives which contain specific nominals and past tense for event clauses (Hudson & Nelson, 1986; Nelson, 1986). By the age of five children
can signal fairly reliably the distinction between background information or setting and events within past experience or fantasy narratives, using progressive or perfect forms for the background information (Hicks, 1991). Children can linguistically signal movement from casual talk into fantasy narratives as young as two, and become increasingly adept at managing movement into and out of narrative talk during the preschool years (Hudson & Shapiro, 1991). Even mildly retarded children are quite good at many of these skills (Hemphill, Picardi & Tager-Flusberg, 1991).

Stories have a particular structure -- not just 'once upon a time' and 'the end,' but also the requirements of a setting or orientation session, some complicating events, a high point, a resolution, in some versions a coda or explicit statement of the moral. Anglo-American children acquire knowledge of this structure between the ages of 3 and 10 (Botvin & Sutton-Smith, 1977; Peterson & McCabe, 1983), the same age period when Japanese children learn the very different structure of three brief related episodes culturally prescribed for their narratives (Minami & McCabe, 1991). Acquisition of these culturally defined structures for various genres of narrative might seem beyond the realm of pragmatic development, but such structures ensure the communicative effectiveness of narratives; stories that deviate from the expected structure are hard to understand or to 'get the point' of.

In addition to their 'plot structure' though, narratives make their point through the inclusion of evaluations, or clauses that explicitly express the speaker's point of view about the events. Children include evaluations in their narratives from the age of three (Peterson & McCabe, 1983; Umiker-Sebeok, 1979). However, younger children tend to use certain categories of evaluations (hedges, negatives, quoted speech, and causals) relatively more than older children and adults, and to underuse the category of emotional states (Bamberg & Damrad-Frye, 1991). Furthermore, when five year olds did refer to emotional states, they tended to do so under control of specific episodes in the narrative, whereas adults referred to emotions in ways governed by the overall structure of the story--ensuring, for example, that everyone ends up happy at the end of the story!

Other language forms like definitions also have a culturally prescribed structure; Snow (1990) has studied extensively the growth in children's ability to give definitions during the age period 5 to 12, as have Watson (1985), McGhee-Bidlack (1991), and others. Many five year
olds, when asked for a definition, give a little description or narrative instead; by the age of about 10 middle class children give formal definitions that include a superordinate and a restrictive relative clause almost all the time, at least for concrete nouns. The communicative effectiveness of older children's formal definitions is often not greater than that of younger children's informal definitions; the psycholinguistic problem of casting the necessary information into the prescribed genre becomes the domain of development.

**Endpoint of Pragmatic Development**

One difference between the domain of pragmatics and most of the other domains subsumed under the topic 'language acquisition' is that the others have a fairly clear endpoint, and by late childhood or at least early adulthood learners are seen to have 'finished' the task of acquisition. Pragmatics is a domain more like the lexicon, in which continued development can occur throughout the life span. Kemper, Kynette, Rash, O'Brien, & Sprott (1989) found, for example, that elderly speakers' narratives were more memorable and effective than those of younger, middle-aged comparison groups. Continued growth in areas like politeness and communicative effectiveness is probably within the realm of possibility for most adults.

Several issues in the domain of pragmatics remain ripe for continued study. One has to do with the definition and structure of the domain itself: to what degree do the various aspects of pragmatics we have discussed together here--conversational skill, politeness, skill with connected discourse--really go together in development? Does precocious sophistication with a variety of speech acts predict better story-telling or conversational skill at later ages? Do pragmatic demands faced by older children--e.g., keeping referents straight in story-telling, or being clear about temporal relations among events--generate skills with the syntactic or morphological rules needed to be pragmatically effective?

Another relatively unexplored question has to do with the relation between acquisition of the linguistic structures that are recruited for pragmatics and of the social cognitions that underly appropriate social behavior. We have suggested that children are socially relatively precocious, though their acquisition of the linguistic rules that normally encode the social knowledge may be considerable delayed. Why are the linguistic structures so hard, if the social knowledge underlying their use is present?
Finally, of course, a major unresolved issue is the degree to which pragmatic acquisition is a motor running the system of language acquisition, or a somewhat separate (perhaps even peripheral) strand of development. Karmiloff-Smith (1979), Hicks (1991), and others have argued that increased pragmatic challenge drives children to reanalyze and extend their syntactic and lexical resources. On the other hand, high functioning children with autism can achieve quite astonishing levels of syntactic and lexical competence while nonetheless displaying severe impairments in pragmatic appropriateness, suggesting that pragmatic demands are not the only route to grammatical sophistication. In order to approach the question of how pragmatic skills relate to other domains of language, we need to develop basic developmental indices for various domains of pragmatics, as well as a database which would enable us to relate descriptors of pragmatic development to information about development in other domains.
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