**Pragmatic development**

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Pragmatics is a branch of linguistics concerned with speech use, to be distinguished from syntax and semantics that deal, respectively, with the form and meaning of sentences. Its major domain of inquiry is context-bounded language use. Studies of pragmatic development are wider in their definition of pragmatics, including all communicative uses of language in social situations; their concern is with how children acquire the knowledge necessary for the appropriate, effective, rule-governed employment of speech in interpersonal situations. Children need to learn how to use language in such a way that one's own communicative goals are achieved, without giving offense or causing misunderstanding. Studies of pragmatic development address questions regarding the age of onset of particular skills; the processes by which these skills are acquired; the factors that influence the speed and order of acquisition; and individual differences in pragmatic skill. From the rather heterogeneous list of topics addressed in the field of pragmatic development, we shall discuss deixis and other context-bound linguistic devices; speech acts; antecedents of speech act production; indirect communicative strategies and other polite forms of speech; non-literal language; humor; genre and code-switching; organization of conversations and other conversational skills; narrative; clarification requests; evidentiality markers; clarification requests; presuppositions and implicature.

Mastery of Deixis and Other Context-Bound Linguistic Devices

Among components of pragmatic skill, the most basic is the mastery of deictic elements. Most linguists see language as an autonomous system of fixed symbols and abstract rules for their lawful combination, defined independently of their possible contexts of use. Speech use is necessarily incorporated into formal linguistic theory in cases when conditions of use have a direct effect on the structure or meaning of sentences. For instance, linguistic expressions which point to contextual information rather than symbolize context-independent abstract concepts exist in every language. These expressions are the ***deictic*** or ***indexical*** elements of language: pronouns and demonstratives such as *he*, *they*, *this* and *that*, proper names such as *John* and *Springfield*, locatives such as *here* or *there,* temporal terms such as *today* or *tomorrow*, verbs like *come*, *go, bring*, and the like. Because these expressions receive different interpretations in different contexts of use, the meaning of a sentence containing them is not absolute but relative to their situated use. To deal with such context-dependent linguistic entities, linguistic theory proper is complemented by a separate pragmatic component dealing with indexical or deictic expressions. To this component belong also certain aspects of discourse structure, such as rules governing definite reference and anaphora.

The acquisition of deictic terms such as pronouns and deictic locatives reflects the operation of pragmatic factors in the acquisition of indexical forms. Deictic forms are among most children's early words. E. V. Clark summarizes the research findings by suggesting that most children use *I, you, here, there, this, that, come* and *go* by their third birthday, and more complex deictic verbs such as *bring* and *take* a few months later. At the first stage of development, use is not yet according to the full adult meaning and it takes until around the age of five to master the full contrast of *here* and *there* and *this* and *that.* The complete adult meaning of *come* and *go* and *bring* and *take* is acquired even later. In addition, D. Matthews, E. Lieven, A. Theakston, and M. Tomasello found co-referencing errors in pronoun use by children. However, in a seminal paper, R. Charney suggested that even the immature forms of personal pronoun usage demonstrates that children have adopted the “person-role hypothesis” according to which pronoun use requires identification with the stance of language-users they have heard using the terms.

A. L. Campbell, P. Brooks, and M. Tomasello investigated 2.5- and 3.5-year-old children and found that the main factor influencing their use of pronouns as referring expressions is the immediately preceding discourse, e.g., their use increased when children were answering a general question such as *What happened?* involving an unambiguous referent*.* Importantly, children did not use pronouns more when the adult modeled a pronoun rather than a noun for the target object or when they wished to avoid a difficult noun. These findings suggest that at already this young age children use pronouns to refer to already established definite referents, demonstrating that they have mastered the deictic use of indexical expressions. Other studies on this subject were done, for example, by E. Bates, N. Budwig, P. T. Chen, P. A. Hornby, B. MacWhinney, J. M. Meisel, D. Price, and J. van Kampen.

Development of Speech Acts

The pragmatic component of language includes the direct effect of speech use on the form of sentences. This implies that children have to learn how to use language properly in order to make statements, to ask questions, to request, to greet, to refuse and so on; these are the so-called *illocutionary* speech acts of A.K Austin and J. Searle. Speech acts are explicit communica­tive acts for which a speaker accepts to be held accountable. The sentences serving to carry out these acts often possess overt linguistic marking for their function, such as the imperative grammatical mood for requests and the interrogative mood for questions, performative sentence-structure, a prepositional core, and so forth. In other cases, when communicative intent is not marked by explicit linguistic markers, the form of the utterance is often shaped by the conventions of the linguistic community, such as the use of *Can you do X*? question form for indirect requests.

The verbal mastery of different speech acts monotonically increases with age, according to studies by P. Dale, A. Ninio, and C. Snow. The earliest types of speech acts mastered by children deal with establishing and maintaining a state of joint and shared focus of attention; speech acts functioning in action negotiations arise next, with acts serving discussions following. There are many recent studies on the development of speech acts in a varied class of languages, for instance M. Rivero is studying development by Spanish- and Catalan-speaking children; T. Cameron-Faulkner and T. Hickey are studying Irish- and English-speaking children; and J. Zhou is studying Mandarin-speaking children. Other languages investigated include Dutch, German, Hebrew, Italian, Japanese, Korean, Romanian and Turkish.

Antecedents of Speech Act Production

Directly relevant to the development of linguistic expression of speech acts is the roots of such skill in preverbal communication and early transitional forms of speech. J. Bruner and colleagues in a series of studies identified and described a class of interactive formats and routines within which various early speech acts emerge, for instance, the game of peek-a-boo that supports the acquisition of a verbal turn of saying *boo* as part of this game. According to the Brunerian model, the ability to carry out dyadic and triadic communication by any means is a precondition to pragmatic development in infancy.

M. Legerstee and D. Matthews studied the emergence of various modes of speech from communicative events in the first year of life, emphasizing the sharing of emotions and attention of infants with their caregivers at the start of preverbal communication.

A seminal study was carried out by E. Bates and colleagues, identifying as the roots of linguistic social communication two kinds of pre-linguistic speech acts, proto-declarative and proto-imperative. Proto-declarative pre-linguistic gestures and early utterances focus the other’s attention to objects with an intent to share the perceptual experience; they are the antecedents of later-emerging statements, questions and other forms of discussions of a joint focus of attention. Proto-imperative gestures serve to request objects or actions, serving as the antecedents of the family of speech acts comprising also of demands, orders, and the like.

In an influential study, P. M. Greenfield and J. H. Smith identified the very earliest type of utterances such as *bye-bye* and *ta* as "pure performatives", following J. L. Austin’s conceptualization. Similarly, A. Ninio found that in their earliest utterances, young children are limited to meaningful speech acts which are sustained by their own individual and discrete "language games", such as interjections, vocatives, and moves in rituals and in games. Only at a later stage of development can children master speech acts which require symbolic referential expressions and contrast among members of a symbolic category.

Development of Indirect Communicative Strategies and Other Polite Forms of Speech

Another aspect of speech use that falls under the umbrella of pragmatics are rules of politeness and other culturally determined rules for using speech, such as the use of honorifics or the correct register of addressing different addressees.

Communicative intents can be expressed in many different ways, explicit as well as indirect. Perhaps the most prominent example is provided by the family of directives; it is well known that apart from explicit orders or requests, typically couched in the imperative mood, there are various indirect ways in which the speaker can communicate the wish that some action be performed. Speakers may make a statement about their own wishes, as in *I wish I had a smart-phone*; they may express a preference for some action, as in *I would like you to leave now*; they may express a need, as in *I need a cup of coffee* or even just describe some state of affairs which the listener is meant to understand needs correction, as in *It is freezing in here*; if any of these is uttered in the right context, the addressee will "hear" it as a directive. It is clear that children need to learn to interpret and generate indirect speech acts as well as the more explicit or direct kind.

Most of the developmental work on the acquisition of indirect communica­tive strategies has concentrated on indirect requests. In a seminal study of requests for action, C. Garvey found that children as young as her younger group of 3;6-4;4 already could produce successful indirect requests for actions, although her older group of 4:7-5:7 produced a larger proportion of indirect requests. These children used adult-like strategies for expressing indirect requests, mostly asking questions about the addres­see's ability or willingness to perform an act. More infrequent strategies included questions about the addressee's reasons for *not* performing some act; remind­ers of the addressee's obligations; and requests not to forget to perform an act. An adult strategy not used by the chil­dren was asserting a wish for the addressee to perform the relevant act. Interestingly, S. M. Ervin-Tripp and D. Gordon found that the most prominent form of non-explicit request among 2 to 8 year old children was the statement of speaker's need or want, a form not reported by Garvey. In an independent study, G. Wells also found that indirect requests of the "expression of need or want" type are among the earliest and most frequent requestive forms. This difference may reflect divergent defini­tions of the domain investigated, with Garvey targeting requests for actions and the others, directives in general.

It appears that by an early age, children can vary the form of their requests according to the address­ee, following rules of pragmatic acceptability. They are aware of the desirability of using these indirect forms with addressees whose status is higher than theirs. S. M. Ervin-Tripp found that by the age of 2;6 children use indirect forms more frequently to adults than to peers. E. A. Levin and K. H. Rubin found that in dyadic interactions with peers, proportion of indirect requests is the same at 4 years as at 8 years. These findings suggest that children at a very young age control and respond to two of the basic analytic dimensions underlying polite behavior -- the social distance from and relative power of the interlocu­tor.

M. Shatz, in a study of the interpretation rather than the production of indirect requests, found that children as young as two interpret indirect requests correctly as requests for action, instead of respond­ing to their overt illocutionary force. For example, a young child hearing *Do you want to move your skates?* does not interpret this as a sincere question. Yet, child­ren's judgments of the true intent underlying various indirect forms and of their differential politeness levels become more subtle with age.

Politeness rules for speech form an integrated system with the societal regulation of interper­son­al behavior in general. To describe linguistic politeness rules, and to study how children are socialized into using them, we need to consider the totality of a culture. This is the methodology employed by such studies as the work reported in a collection by E. Ochs and B. B. Schieffelin or in studies by S. Blum-Kulka. Most studies of how children are taught to speak in pragmatically appropriate ways include background information on the social structure and familial arrange­ments of the society under study, and many provide information about social and personality development, not just about issuing directives, selecting forms of address, and other such linguistic politeness rules. There are, however, several dimensions of absolute and relative social status -- such as social distance, power, and degree of imposition -- that universally control the use of politeness forms in discourse. To answer the question how children are made aware of such factors of polite speech behavior, C. E. Snow and colleagues studied parent-child interactions in 110 families of preschool-aged children in the USA. The researchers believe that despite absence of explicit tutoring in the rules governing the use of both positive and negative politeness strategies, parent-child interaction contains sufficient information about the three dimensions of social distance, power, and degree of imposition so that children can make implicit generalizations about them.

Children’s acquisition of politeness rules has been extensively studied in a variety of languages. H. J. Ladegaard found no significant sex differences in Danish children’s politeness habits, where girls as well as boys often used an assertive, unmitigated style in their speech. This findings contrasts with findings from the USA, Japan and other cultures where girls were found to be more polite than boys in similar contexts. The researcher interprets the varying results by different patterns of socialization, emphasizing the importance of socio-cultural context and peer group influence on children’s language, as well as children’s sensitivity of contextual norms.

There are considerable cross-linguistic differences in the linguistic marking of politeness. Unlike most Western languages that have a limited amount of politeness distinctions, such as polite personal pronouns (*vous* in French, *On* and *Maga* in Hungarian, *Sie* in German, *usted* in Spanish) taking plural verb forms even when used to address a single addressee, Asian languages such as Vietnamese, Korean and Japanese employ a more complex and extensive grammatical system to express formality and politeness. For instance, Japanese has at least five levels of politeness, employing special vocabulary items and in particular honorific forms of verbs. Children can use casual conversations forms until their teens, when they are supposed to start speaking in the several registers of polite manner. Work on the acquisition of politeness rules in these languages, for example by P. Clancy, S. Ide, Y. Matsumoto, and K. Nakamura reveals that the learning of these elaborate rules is an extended process, continuing throughout the childhood years and not completely mastered even by adults.

Comprehension and Production of Non-Literal Language

Indirect requests for action are but one type of non-literal language. Non-literal language is language that when taken literally means one thing but is meant to communicate something else. Other subtypes are metaphor, irony and sarcasm. Such speech uses require pragmatic inferences which appear to develop later than other linguistic abilities. Even older children have problems understanding more complicated forms of non-literal language use. For example, 8-year-olds have the ability to understand sarcasm on the basis of intonation, but in the absence of a sarcastic intonation, they cannot normally use even the most obvious contextual cues to figure out what the speaker meant. Recent studies of this subject by N. Pouscoulous, G. Politzer, A. Bastide, E. Fillipova, and I. Noveck follow the slow development of this language skill.

Humour

Humour is yet another type of non-literal language. Children’s appreciation, comprehension and production of humour is studied by N. Akhtar, D. K. Bernstein, R. Campbell, J. Cunningham, M. Gattis, C. Gill, E. Hoicka, A. S. Masten and others. Research has found that at an age as early as 14 months, children can tell the difference between joking, pretending and sincere or literal communication. Such distinctions rely mostly on vocal and facial cues, but also on the verbal content of the relevant utterances. What children find humorous changes with children’s age. Considerable correlations are also found with level of cognitive and linguistic development.

The Mastery of Genre and Code-Switching

Code*-*switching is switching between two or more languages, or language varieties, in the context of a single conversation. Bilingual and multilingual children need to learn to choose the appropriate language to communicate with different addressees. Children also need to learn to changing the language register or level according to the needs of a listener or the requirements of the situation. For instance, they have to learn to adapt their speech to the linguistic abilities of their conversational partners in several different types of interactions: they need to learn produce “baby talk”, namely to talk differently to an infant or younger child than to an adult; or, they need to learn to produce “foreigner talk” that takes into consideration the limited linguistic skills of a non-native speaker. They should also learn to adapt their speech to the different contexts and requirements of the situation such as playtime and class-time in kindergarten. The differing registers of talk are referred to as genres; children need to learn not only their native langue but also its nuanced sub-types, registers and genres. The correct choice of genre and the timing of switching between genres is an important part of efficient communication.

Code-switching in young bilingual children has been investigated by E. Bialystok, M. Deuchar, C. S. Genishi, F. Grosjean, B. McLaughlin, and J. M. Meisel. This behavior is observed very early in bilingual children, as early as around two years of age, as documented by F. Genesee, E. Nicoladis, and by E. Lanza. By 4 years of age, older children are able to switch to “infant directed speech” with infants, as has been documented by E. Hoff-Ginsberg and W. Krueger, and by M. Shatz and R. Gelman. The context of interaction has a considerable effect on children’s choice of vocabulary, textual connectivity and other measures of language structure. Studies on this subject were done by E. Hoff, C. E. Snow and colleagues, and others. Typically, children use a richer vocabulary when engaged in joint book-reading with adults than in any other type of interaction. Children are apparently flexible users of language in the early preschool years, able to master several speech genres and switch appropriately between them when circumstances require it. During school years and later, this skill is honed to incorporate a larger variety of genres, languages and contextual adaptations.

Mastering the Organization of Conversations and Developing Other Conversational Skills

Another topic included in pragmatic development is the mastery of the organization of conversations. This involves the acquisition of rules that govern turn-taking, interruptions, back-channeling, signaling topic-relevance or topic switch, and so on. Further conversational skills involve topic selection, topic continuation and topic maintenance. Organizational skills have been studied for example by J. S. Bruner, B. Dorval, R. Charney, C. O. Eckerman, S. Ervin-Tripp, M. A. Forrester, H. Jisa, K. Kaye, E. Lieven, C. E. Snow, and more. It was found that by eight or nine months of age children are quite good at the turn-taking aspect of conversation, at least in dyadic situations with adult interactants. With peers the same pattern of turn alternations only appears by about age three. The method of achieving turn-taking has been investigated by M. C. Tice and M. C. Frank who studied young children using visual perceptual cues to anticipate turn changing in conversations. Apparently children as young as three years are able to utilize such visual and prosodic cues that adults use to anticipate the ends of turns in speakers.

The next skill to develop is maintaining a turn, namely, holding the floor. Adults tend to protect children's turns, but in peer interaction situations children must learn to hold the floor long enough to finish their own turns, a challenge that becomes greater as one's playmates become more skilled in exploiting opportunities to seize the floor. By about age four, children show some control over the use of devices like sentence-initial *and* as floor holder, signaling that their turn is not yet complete by initiating a new syntactic unit.

In interactions with peers, children are more likely to show disruption of turn-taking through engagement in private speech. One study of four-year-olds in dyadic interaction showed that almost half the segments of talk focused on one topic were monologic; however, about half these monologic segments were unsuccessful attempts to enter into dialogue.

Children often have a difficulty to initiate topic of talk due to their ignorance of the standard, culturally determined list of topics that organizes casual conversation for adults. C. Garvey pointed out that in the absence of clear-cut topics, young children's conversations often decline into word play, mutual repetitions, or other relatively contentless talk. Topic-continuation, too, may rely in young children on some non-adult device such as mutual imitation, ritualized variations on each others' utterances and sound play in order to generate continuous conversational exchanges up through age five.

Under the umbrella of conversational skills we would include also the observance of Gricean maxims sustaining the “cooperative principle” of talk. The philosopher Paul Grice defined four such maxims that enable effective communication, (a) the Maxim of Quality, namely, that speakers should be truthful; (b) the Maxim of Quantity, namely, the provision of the right quantity of information, not too little and not too much; (c) the Maxim of Relation or Relevance: speakers should be relevant and speak to the point of the exchange; (d) the Maxim of Manner: speakers should be clear, avoid obscurity of expression and ambiguity. M. Eskritt tested three- to five-year-olds to determine the age at which an awareness of Gricean maxims of Quality, Quantity and Relation emerges. The results indicated that children were initially only successful with the requirement to be relevant. In particular, the 3-year-olds did not seem to be aware of the Maxim of Quantity condition. The 5-year olds were better at this task, showing that the full mastery of Gricean maxims continues to be a developmental task throughout the childhood years.

Children also develop gradually the control over the linguistic devices used to organize discourse in ways that are cohesive and genre-specific. Studies on this subject have been carried out by E. Bates, D. Hicks, M. Maratsos, H. B. Tager-Flusberg, J. G. de Villiers, and more.

Narrative Development

Narratives are defined as extended discourse forms in which at least two different events are described such that the relationship between them (temporal, causal, contrastive, or other) becomes clear. The development of narratives has been studied extensively, in part because primitive narratives can be identified very early in children's speech, and by about age four children can produce fairly complex narratives of several different sorts.

K. Nelson studied the development of children’s mastery of scripts. A script is a narrative about what usually happens, not about any specific incident. Scripts are among the earliest organized narrative forms it is possible to elicit from children, and it has been proposed that they provide a basis for children's conceptual organization and event memory. In addition, scripts can be seen as a prerequisite to the emergence of real stories, since the latter report deviations from the normal course of events represented in a script.

Personal event narratives include both script-like responses to parental queries like *what happened in school today* and specific anecdotes about exciting, frightening, joyful, or otherwise “reportable” events. American children by the age of four or five typically organize their stories around a major event, referred to as the “high point”. S. Blum-Kulka, C. E Snow, J. M. De Temple, and D. E. Beals studied young children's conversational storytelling, narratives that are embedded within social-interaction structures, such as dinner table conversations. Personal event narratives are usually “scaffolded” by adults, who provide conversational support. A. **Sparks investigated** parent-child reminiscing, identifying the pragmatic aspects making possible this kind of talk. For personal experience narratives, the interpersonally agreed upon social activity might be reminiscing, instructing, informing, performing, persuading, and so on. The problems encountered by some children when they are asked to provide extended discourse in classroom settings may derive more from a misconstrual of the interpersonal activity being engaged in than from a lack of understanding of the rules of connected discourse.

Fantasy narratives provide the structure for much of children's play, though early fantasy play often enacts scripts (playing house, playing doctor) rather than narrative plots. Young children growing up in literate cultures are exposed to fantasy or fictional narratives through the books their parents read to them, as well as through television and films. Many children also are exposed to fantasy narratives through oral story-telling (folk tales, myths, legends); these narratives are designed for entertainment as well as for socialization in cultural norms regarding moral and social behavior, for education about group history, heroes, religious beliefs, and so on. Children certainly borrow elements from the fantasy narratives they are exposed to for their own play narratives. In American kindergarten classrooms, for example, superheroes are a recurrent theme in boys' fantasy play. V. Paley and D. Graves report that in the early school years children in many classrooms are encouraged to produce fantasy narratives, which may be dictated to an adult or written in invented or conventional spelling by the child, as a transition to reading. Other important studies on narrative development were carried out by C. Peterson and A. McCabe, and by R. A Berman and D. I. Slobin, among others.

The Control of Presuppositions and Implicature

Presuppositions are implicit assumptions about the world or background beliefs relating to an utterance and influencing its meaning. Implicature is what is suggested by an utterance without explicitly saying it. The mastery of presuppositions by young children are studied by such researchers as F. Berger, G. DeHart, B. Höhle, M. Maratsos, and N. Pouscoulous. Their findings regarding the interpretation of particle-triggered presuppositions by young children indicate that children as young as three years already perform at an adult level on such tasks.

By contrast, pragmatic inferences appear to develop later than other linguistic abilities. Findings by B. Geurts, N. Katsos, I. A. Noveck and others show that children younger than seven mostly do not understand logical implicatures. Similar findings are obtained with regards to metaphor and irony, which also require the interpretation of implicit meaning. It seems that shared presuppositions are pure pragmatic entities while implications rest more centrally on the ability to perform logical computations. Children appear to be better at pure pragmatics than at cognitive reasoning.

The Acquisition of Evidentiality Markers

Many language mark the reliability of speaker knowledge or speaker certainty by special morphemes, particles and verb-forms. T. Matsui, P. McCagg, Y. Miura, D. Wilson, and T. Yamamoto study the acquisition of evidentiality markers such as sentence-final hearsay particles in Japanese. Such epistemic particles are acquired early, by children as young as three years old. Certainty and evidentiality are encoded in Japanese both in such high-frequency, closed-class, sentence-final particles and also in low-frequency, mental state verbs. The research results suggest that children are able to make use of information encoded in the sentence-final particles earlier than information encoded in verbs, and that understanding of speaker certainty precedes understanding of quality of evidence.

The Acquisition of Clarification Requests

Children do not produce clarification requests until about two. A. Ninio found in two Hebrew-speaking samples that these are among the last types of communicative intents mastered by the children. C. E. Snow and colleagues found that child initiated requests for clarification did not emerge reliably in an American sample until 20 months. Child-initiated requests for clarification during the age range 14 to 32 months were both relatively rare and quite unsophisticated in form, mostly consisting of *Huh*? or *What?* or their Hebrew equivalents, namely, rerun requests. Slightly older children also repeat part of an utterance with questioning intonation. By 32 months children initiated many more clarification sequences but with formal means that were still mostly limited to *huh*, *what*, and repetition. More sophisticated forms of requests for clarification and confirmation are acquired only later than three years of age.

Children must also learn to respond appropriately to adult requests for clarification, which they hear from an early age in response to their own uninterpretable utterances. Again, children comprehend rerun requests earlier than are able to answer specific queries about parts of utterances. Clarification and confirmation is apparently a difficult pragmatic skill to master, probably because of its meta-interactive nature. Children are better at acquiring pragmatic skills when these concern the regulation of ongoing interaction; meta-communicative skills such as clarification of utterances require a distancing from the context which prove to be difficult at the earliest stages of development.

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**See Also:** Conversational implicature (development of); Conversational skills (development of); Discourse-pragmatics in child language; Speech acts (acquisition of); Perspective taking in communication (development of).

**Further reading**

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