

CHILD LANGUAGE ACQUISITION [Later 20c]. A term in linguistics for the process in which a child, in the course of normal development, learns a first language (or often, two or more languages). There are several methods for studying the subject. One strategy is to record samples of child speech and to analyse the emerging patterns of language which these samples display. Another is to set up experimental situations in which children are asked to carry out various tasks involving speech production or comprehension. Analysis is also carried out of the input language used by adults when they talk to children (*motherese* or *caretaker speech*) and of the nature of the interaction between them. The investigation may involve single children studied over extended periods of time (*longitudinal studies*) or groups of varying sizes, compositions, and ages studied at a particular point in time (*cross-sectional studies*).

Child development. It is commonplace to talk of 'milestones' in relation to child development in general, but this metaphor does not work as precisely for the development of speech. Sounds, grammar, vocabulary, and social linguistic skills are emerging simultaneously but at different rates, and significant progress can be made on several fronts in a matter of days. There are also many individual differences in the order of acquisition of specific features of language which need to be taken into account. However, most children appear to follow a similar path as they acquire sounds and grammatical structures, and broad similarities have been observed in relation to types of vocabulary and conversational skills. The aim of child language research is to explain the basis of this common order of emergence, allowing for the complex kinds of individual variation which are readily apparent.

Theoretical approaches. Several approaches have been applied to child language data. Certain features of the data seem to be the result of children imitating what they hear in adult speech (for example, some of the early attempts at sound patterns, and the acquisition of new words), but very little of grammatical structure is learned by simple imitation. This was early noticed by researchers, who pointed out the child coinages such as *mouses* for *mice* or *gone* for *gone* could not have been produced through a process of imitation (for adults do not say such things), but must represent the child's own

application of abstract rules already acquired. Furthermore, direct correction and coaching have very little effect, showing the important role of the child's own efforts. Various ways of explaining this internal ability were proposed, most notably Chomsky's argument that children must be credited with an innate *language acquisition device*: a set of outline principles about the way language is structured and a procedure for discovering the remainder. Investigators such as Piaget argued for the importance of relating the emergence of children's language to their underlying intellectual or cognitive development. Others stressed the importance of analysing the nature of the input presented to them by adult speakers. It is now apparent that each of these factors has a role to play in guiding the course of acquisition, but the nature of their interdependence is far from clear.

Stages of development. At a descriptive level, considerable progress has been made, especially for English, in establishing the order of emergence of sounds, grammatical structures, and (to a lesser extent) vocabulary, and determining the psycholinguistic principles involved. The focus has been on the earliest years, including the pre-linguistic period of the first year. Between birth and 12 months, several stages can be detected in a child's emerging sound-producing and perceptual abilities, beginning with a range of basic biological noises reflecting such states as hunger, pain, discomfort, and contentment (0-8 weeks), and proceeding to a stage of cooing and laughing (8-20 weeks), vocal play (20-30 weeks), babbling (20-30 weeks), and the first melodically shaped utterances (9-18 months). At around a year, first words appear, though these are not easily identified with the words of the adult lexicon, but tend to have idiosyncratic meanings and to be used as primitive sentences (*holophrases*). *Dada*, for example, said with appropriate intonation and gesture, might mean 'There's daddy' or 'Where's daddy?' or 'Pick me up, daddy'. Moreover, the word *dada* might refer at this stage not only to the male parent, but also to the female parent, or to other adults, or to certain animals, or even to objects. From 12 months, an expressive vocabulary is acquired which by 18 months is usually around 50 words in size. By that time, children understand far more words than they produce: estimates suggest three or four times as many. In the next six months, expressive vocabulary approaches 200 words, and in the third year rapidly moves into the thousands. Detailed studies of the growth in vocabulary size in older children are as yet unavailable, though several studies have been made of the processes which seem to affect children's lexical progress, such as *under-extension* of meaning, as when *dog* is used

for all animals, and *under-extension*, as when *dog* is used for one kind of dog only.

Pronunciation and grammar. Most research time has been devoted to the emergence of pronunciation and grammar. Children do not learn all their sounds in an identical order, but seem to share certain general tendencies. Most English consonants are acquired between the ages of 2 and 4 years. Moreover, within this sequence, certain important trends have been established. For example, consonants are more likely to be first used correctly at the beginnings of words, with final consonants emerging later. Several processes of simplifying pronunciation have been identified in early speech, such as the avoidance of consonant clusters (*sky* pronounced without the *s*), the dropping of an unstressed syllable (*banana* pronounced as *nana*), or the replacement of fricative sounds such as [ʃ] and [s] by plosive sounds such as [p] and [t]: for example, *shoe* as /tuz/ and *fish* as /pɪ/. During the second year, some children make great use of a process of reduplication, with the different syllables of a word being pronounced in the same way, as when (in one child) *sister* became [sisi] and *mouth* became [muzmu:]. Patterns of intonation also develop in the early years (such as the difference between stating and questioning, using the melody of the voice only), but some of the more subtle intonation patterns are still being learned as late as the teenage years, such as the difference between *I THOUGHT it would rain* (and it has) and *I thought it would RAIN* (but it hasn't).

Grammatical patterns in the early years are fairly well established for English. A stage of single-word sentences appears from just before 12 months of age until 18 months, such as *bye*, *gone*, *teddy*, and *mama*. At around 18 months, children begin to put two words together, to make simple 'telegraphic' sentences such as *dada bye*, *want car*, and *mine lorry*. Sentences increase in complexity during the third year, with more advanced features of clause structure being introduced. Clauses add extra elements, stabilizing word order, and developing a clearer subject-verb-object structure; and the hierarchical structure of a sentence develops, with phrasal complexity emerging within clauses, and ridding the sentences of their telegraphic appearance. *My daddy do kick that ball* is a typical sentence for a 2-year-old. Each of the elements (subject, verb, object) appears as more than one word (a phrase), so that the sentence now has two layers of structure. By age 3, there is still greater complexity, in the form of linked sequences of clauses, using such words as *and*, *but*, *cos* (for 'because'), and *then*.

Narratives, sometimes of great length, now make their appearance. As sentence control

develops, so more attention is paid to the more subtle aspects of grammar, such as the learning of the irregular forms of nouns, verbs, pronouns, and other parts of speech. At 3, most children are making errors in the use of certain pronouns (such as *me not like that mouse*); by 4, most such errors have been eliminated. During the early school years there are still several aspects of English grammar to be acquired, such as the rarer irregular forms, more complex patterns of sentence connection (such as the use of *although*), and the use of multiple subordinate clauses. There is evidence of grammatical development right through the primary school years until, as the teenage years approach, all that is left is the learning of more subtle aspects of grammatical style and the building up of vocabulary.

Other skills. The task of language acquisition requires more than the learning of the structural skills of sounds, grammar, and vocabulary. Children must also learn to *use* these structures appropriately in everyday situations. They need to develop conversational skills, the rules of politeness (such as when to say *please* and *thank you*), the correct use of forms of address, and how to make requests in a direct or indirect manner ('I was wondering if you could . . .'). Older children need to be able to handle such 'manipulating' features of language as *well*, *you know*, and *actually*, to learn to decode and use more subtle interactional features (such as sarcasm), and to cope with such stylistic differences as formal and informal speech. School brings an encounter with learning to read and write, though for many children considerable awareness of written language has come from reading materials at home. Finally, children have to develop a set of *metalinguistic* skills (the ability to reflect on and talk about language), through the use of a range of popular, semi-technical, and technical notions, such as *sound*, *word*, *page*, *sentence*, *capital letter*. The task of language acquisition is complex. The fact that it is largely complete by puberty makes it one of the most remarkable (if not *the* most remarkable) of all learning achievements.

See ANALOGY, BABBLING, BABY TALK, HALLIDAY, LANGUAGE LEARNING, LANGUAGE PATHOLOGY, PSYCHOLINGUISTICS, READING, SPELLING. [EDUCATION, LANGUAGE]. D.C.

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