Grammatical morphemes

In the 1960s, several researchers focused on how children acquire grammatical morphemes in English. One of the best-known studies was carried out by Roger Brown and his colleagues and students. In a **longitudinal study** of the language development of three children (called Adam, Eve, and Sarah) they found that 14 grammatical morphemes were acquired in a similar sequence. The list below (adapted from Brown's 1973 book) shows some of the morphemes they studied.

present progressive *-ing* (Mommy running)
plural *-s* (two books)
irregular past forms (Baby *went*)
possessive *-s* (Daddy*'s* hat)
copula (Mommy *is* happy)
articles *the* and *a*

regular past *-ed* (she walk*ed*)
third person singular simple present *-s* (she runs)
auxiliary *be* (he *is* coming)

Brown and his colleagues found that a child who had mastered the grammatical morphemes at the bottom of the list had also mastered those at the top, but the reverse was not true. Thus, there was evidence for a 'developmental sequence' or **order of acquisition**. However, the children did not acquire the morphemes at the same age or rate. Eve had mastered nearly all the morphemes before she was two-and-a-half years old, while Sarah and Adam were still working on them when they were three-and-a-half or four.

Brown's longitudinal work was confirmed in a **cross-sectional study** of 21 children. Jill and Peter de Villiers (1973) found that children who correctly used the morphemes that Adam, Eve, and Sarah had acquired late were also able to use the ones that Adam, Eve, and Sarah had acquired earlier. The children mastered the morphemes at different ages, just as Adam, Eve, and Sarah had done, but the order of their acquisition was very similar.

Many **hypotheses** have been advanced to explain why these grammatical morphemes are acquired in the observed order. Researchers have studied the frequency with which the morphemes occur in parents' speech, the cognitive complexity of the meanings represented by each morpheme, and the difficulty of perceiving or pronouncing them. In the end, there has been no simple satisfactory explanation for the sequence, and most researchers agree that the order is determined by an interaction among a number of different factors.

To supplement the evidence we have from simply observing children, some carefully designed procedures have been developed to further explore children's knowledge of grammatical morphemes. One of the first and best known is the so-called 'wug test' developed by Jean Berko Gleason (1958). In this 'test', children are shown drawings of imaginary creatures with novel names or people performing mysterious actions. For example, they are told, 'Here is a wug. Now there are two of them. There are two ____' or 'Here is a man who knows how to bod. Yesterday he did the same thing. Yesterday, he ____'. By completing these sentences with 'wugs' and 'bodded', children demonstrate that they know the patterns for plural and simple past in English. By **generalizing** these patterns to words they have never heard before, they show that their language is more than just a list of memorized word pairs such as 'book/books' and 'nod/nodded'.