(1981) identified developmental sequences in the acquisition of German by speakers of several Romance languages who had little or no instruction.

Subsequent research has shown that learners who receive instruction exhibit similar developmental sequences and error patterns. In the interlanguage of English speakers whose only exposure to German was in university classes in Australia, Pienemann (1988) found patterns that were similar to those of the uninstructed learners. In Chapter 6, we will discuss other studies that have investigated the influence of instruction on developmental sequences.

Grammatical morphemes

Researchers have examined the development of grammatical morphemes by learners of English as a second language in a variety of environments, at different ages, and from different first language backgrounds. In analysing each learner's speech, researchers identify the **obligatory contexts** for each morpheme, that is, the places in a sentence where the morpheme is necessary to make the sentence grammatically correct. For example, in the sentence 'Yesterday I play baseball for two hours', the adverb 'yesterday' creates an obligatory context for a past tense, and 'for two hours' tells us that the required form is a simple past ('played') rather than a past progressive ('was playing'). Similarly, 'two' creates an obligatory context for a plural *-s* on 'hours'.

For the analysis, obligatory contexts for each grammatical morpheme are counted separately, that is, one count for simple past, one for plural, one for third person singular present tense, and so on. After counting the number of obligatory contexts, the researcher counts the correctly supplied morphemes. The next step is to divide the number of correctly supplied morphemes by the total number of obligatory contexts to answer the question 'what is the percentage accuracy for each morpheme?' An accuracy score is created for each morpheme, and these can then be ranked from highest to lowest, giving an **accuracy order** for the morphemes.

The overall results of the studies suggested an order that was similar but not identical to the developmental sequence found for first language learners. However, the order the researchers found was quite similar among second language learners from different first language backgrounds. For example, most studies showed a higher degree of accuracy for plural *-s* than for possessive *-'s*, and for *-ing* than for regular past (*-ed*). Stephen Krashen summarized the order as shown in Figure 2.1. The diagram should be interpreted as showing that learners will produce the morphemes in higher boxes with higher accuracy than those in lower boxes, but that within boxes, there is no clear pattern of difference.

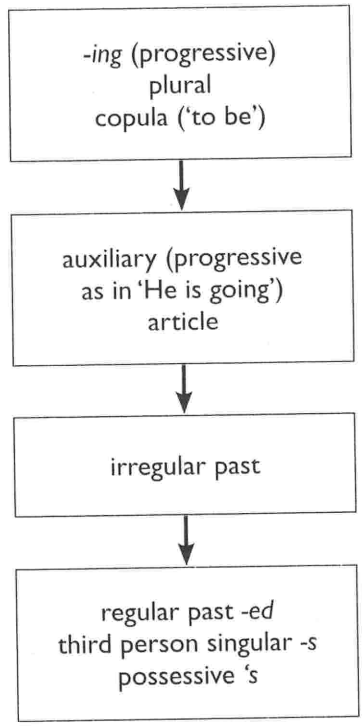

Figure 2.1 Krashen's (1982) summary of second language grammatical morpheme acquisition sequence

The similarity among learners suggests that the accuracy order cannot be described or explained in terms of transfer from the learners' first language, and some researchers saw this as strong evidence against the CAH. However, a thorough review of all the 'morpheme acquisition' studies shows that the learners' first language does have an influence on acquisition sequences. For example, learners whose first language has a possessive form that resembles the English *'s* (such as German and Danish) seem to acquire the English possessive earlier than those whose first language has a very different way of forming the possessive (such as French or Spanish). And even though articles appear early in the sequence, learners from many language backgrounds (including Slavic languages, Chinese, and Japanese) continue to struggle with this aspect of English, even at advanced levels. Learners may do well in supplying articles in certain obligatory contexts but not others. If the language sample that is analysed contains only the 'easier' obligatory contexts, the learner may have a misleadingly high accuracy score.

Another reason why something as difficult as English articles appears to be acquired early is that the order in the diagram is based on the analysis of