

# 3

## Acquiring Grammatical Competence

*This* chapter focuses on how speakers acquire grammatical competence in their native language, with some attention to how grammatical competence can be acquired in another language as well. We focus on the acquisition of oral language in this chapter, leaving written language to Chapter 5.

Since the more recent and insightful analyses of language acquisition have drawn upon modern linguistics, we first introduce some principles, concepts, and terminology based upon transformational linguistics and its immediate predecessor, structural linguistics.

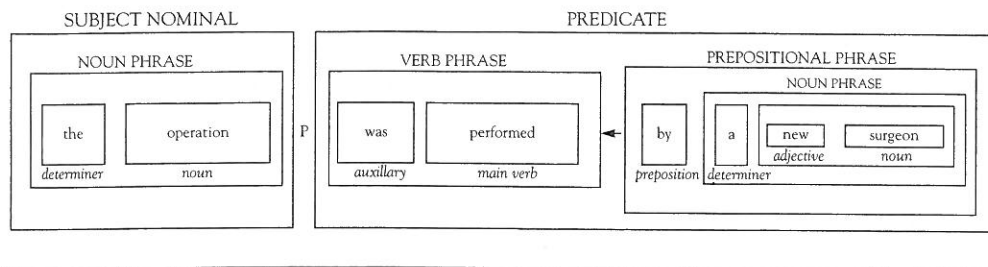
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### Linguistic Tools for Understanding and Analysis

The beginnings of structural linguistics are often traced to Leonard Bloomfield's landmark work *Language*, published in 1933. But it was not until the 1950s that structural linguistics began to attract the attention of teachers, with such texts as Charles Fries's *The Structure of English* (1952), Paul Roberts' *Patterns of English* (1956), W. Nelson Francis's *The Structure of American English* (1958), and James Sledd's *A Short Introduction to English Grammar* (1959).

In sharp contrast to traditional school grammarians and their grammars, the structuralists were determined to base their grammars on an analysis of the structures of a language as actually spoken by native speakers. They focused on oral language—that is, on actual language use, or *perform-*

FIGURE 3.1 Example of structuralists' Immediate Constituent Analysis (adapted from Francis, 1958).



ance. And in so doing, they also focused on what we later came to call *surface structure*. In analyzing the surface structure of a sentence, they typically used Immediate Constituent Analysis, or ICA (Francis, 1958). That is, they analyzed sentences into increasingly smaller constituents. Figure 3.1 offers an example, based on the procedures of W. Nelson Francis (1958).

The person who introduced a distinction between *surface structure* and *deep structure* was the linguist Noam Chomsky, the originator of transformational-generative linguistics, or transformational linguistics for short (see Chomsky, 1957, 1965, 1968a; and early popularizations of transformational grammar by Thomas, 1965, and Malmstrom and Weaver, 1973). In his *Syntactic Structures* (1957), Chomsky suggested that what a grammar really ought to do is account for native speakers' intuitive understanding of language structure. That is, a grammar ought to explain the unconscious but functional knowledge of grammar that enables all of us to comprehend and produce language, rather than analyze the language actually produced. In other words, Chomsky was interested in accounting for native speakers' language *competence*.

It was his attempt to account for speakers' intuitive knowledge of grammar that led Chomsky to distinguish between deep structure and surface structure. Take, for instance, the following sentences:

The operation was performed by a new surgeon.

The operation was performed by a new technique.

On the surface, these sentences have the same structure: noun phrase, verb phrase, prepositional phrase. Nevertheless, our intuitive sense of the deep structure tells us that the superficially parallel phrases *by a new surgeon* and *by a new technique* work differently in their respective sentences.

In the first sentence, *a new surgeon* is the deep or underlying subject of *performed*: a new surgeon performed the operation. But in the second sentence, we know that *a new technique* cannot perform an operation and that *technique* therefore cannot be the deep or underlying subject of *performed*.

Chomsky thought of deep structure as being grammatical in nature, but such examples as this suggested to other linguists that deep structure was even deeper: that it involved meaning or semantics, rather than just structure or syntax. Thus other linguists developed the concept of *propositions* (e.g., Fillmore, 1968). A proposition expresses a state or action and the entities involved in that state or action. Thus in propositional terms, a simplified deep structure of the two example sentences might be as follows, with the terms in square brackets indicating the semantic relationships between each entity and the verb:

SENTENCE	PROPOSITION
The operation was performed by a new surgeon.	Perform (surgeon, operation) [agent, object]
The operation was performed by a new technique.	Perform ( <i>someone</i> , technique) [agent, means]

Notice that, as Chomsky had noted, the agent or doer of an action does not necessarily occur in subject position within a sentence. It's the subject in *A new surgeon performed the operation*, but it's the object of the preposition *by* in *The operation was performed by a new surgeon*.

An article of Chomsky's, "Language and the Mind" (1968b), provides an introduction to the philosophical differences between structural and transformational linguistics, as well as to what Chomsky thought a linguistic grammar should do (see also Katz, 1964, and Hillocks and Smith, 1991).

Part of what interested Chomsky was the fact that the same deep structure could have more than one surface structure. Because deep structures were not to be thought of as actual sentences but only as elements and structures underlying them, Chomsky chose to depict deep structure words and other elements as joined by plus symbols. He called the basic structures of the language *kernel* structures and showed how more complex sentences could be derived from underlying kernels, with a single set of deep structures often generating more than one surface structure. Take, for example, the following deep structure kernels, which can be combined in more than one way in the surface structure:

DEEP STRUCTURE KERNEL

a + new + surgeon + performed  
+ the + operation  
my + uncle + had + the +  
operation

SURFACE SENTENCE

A new surgeon performed the operation  
that my uncle had.  
A new surgeon performed the operation  
my uncle had.  
A new surgeon performed my uncle's  
operation.  
The operation that my uncle had was  
performed by a new surgeon.  
The operation my uncle had was  
performed by a new surgeon.  
My uncle's operation was performed by a  
new surgeon.

Let us recapitulate, then, some of the concepts and terms that are often used in grammatical descriptions and in the research on the acquisition of grammar, while also adding some new terms or explanations. In some instances, these definitions reflect my attempt to clarify through simplification.

**SURFACE STRUCTURE** The linear sequence of words, phrases, clauses, and sentences, as they are uttered or written.

One important measure of surface structure is what is commonly called a minimum terminable unit, or T-unit, after the research of Kellogg Hunt (1965a). A *T-unit* consists of an independent clause plus the dependent clause(s) or phrase(s) (if any) that are attached to it or embedded within it. In this book, a *grammatical sentence* is the same as a T-unit. However, a T-unit (grammatical sentence) is not necessarily the same as a *punctuated sentence*, which consists of whatever occurs between the initial capital letter and the end punctuation (period, question mark, exclamation point). In fact, a punctuated sentence may consist of one T-unit, more than one T-unit, or less than a T-unit; in the last instance, the punctuated sentence would be called a fragment, or a minor sentence (Kline and Memering, 1977). The possible relationships between grammatical sentences (T-units) and punctuated sentences are further clarified in Chapter 5, where these terms become more important (p. 125). See also the Glossary's entries for **T-unit** and **punctuated sentence**.

**DEEP STRUCTURE** One or more basic, or kernel, structures that underlie the structure of actual spoken or written sentences, according to transformational grammar. Often, there is no one-to-one correspondence between deep (kernel) structures, on the one hand, and grammatical or punctuated

FIGURE 3.2 Surface and deep(er) structures.

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Surface structures	The operation was performed by a new surgeon. or A new surgeon performed the operation. <i>The deep structure is modified by transformations to produce either surface structure.</i>
Deep structure	A + surgeon + performed + the + operation The + surgeon + was + new <i>Semantic relationships in the deeper structure underlie the deep structure.</i>
Deeper structure (propositions)	Perform [agent, object] + New [agent, attribution]

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sentences, on the other hand. The deep structure of a sentence is what we understand about structural relationships among the words, even when these relationships are not clearly signaled by the surface structure.

**PROPOSITIONS** These are what we might call deeper structures: the semantic relationships among the words in a kernel structure and the meaningful elements that signal those relationships.

The surface structure of sentences, the linear order of words, phrases, and clauses, is something like the tip of an iceberg: the part we actually see or hear. The deep and deeper structure is like the submerged part: the part we do not see. Figure 3.2 is an attempt to represent, in nontechnical terms, the relationships between two alternative surface structures and their underlying deep and deeper structure. As we shall see in Chapter 5, a major hallmark of increasing grammatical competence is the ability to incorporate more deep(er) structures into a single T-unit, or grammatical sentence.

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### Grammatical Competence and Its Acquisition

Before they even enter school, children have acquired a complex set of grammatical structures and a complex set of rules for combining elements into such structures. To gain an appreciation for the elegance and subtlety of the grammatical system that is internalized, it often helps to try to verbalize some of the rules that we all use quite unconsciously in our

speaking and writing. Therefore, without making any claim as to exactly when such knowledge is acquired, I invite you to try to formulate rules, or generalizations, that account for the following phenomena.

### Invitation 1

Part of what native speakers have learned about English is the proper order of any auxiliary (“helper”) verbs that may come before a main verb (when the sentence is “active,” not “passive”). Below is a list of the major kinds of auxiliary verbs, followed by some sample combinations. In addition to examining these, you might try other combinations of your own to see what sounds grammatical and what doesn’t. Then try to formulate the basic rule that governs the ordering of auxiliaries. In what order must these three major kinds of auxiliaries occur?

- Modal auxiliaries: *will, can, shall, may, must* (“present tense” forms); *would, could, should, might* (“past tense” forms)
- HAVE verb: *have* and *has* (present tense); *had* (past tense and past participle); *having* (present participle)
- BE verb: *am, is, are* (present tense); *was, were* (past tense); *being* (present participle); *been* (past participle)

In the following example sentences, the main verb and all preceding auxiliaries are italicized:

Sharon *is leaving* at noon today.

She *has left* instructions.

Jerry *will be taking over* her job. [*Take over* seems to function as a two-word or *phrasal* verb.]

He *must try* to figure out what to do.

Carla *might have written* that memo.

Sharon *must have been eating* ketchup on her hot dog.

### Invitation 2

Something else native speakers have learned about English is when *any* (or *anyone, anything, etc.*) is required in a sentence, when *some* (or *someone, something, etc.*) is required, and when either word may be used. Supply the appropriate choice or choices in each blank, without taking time to agonize over which response seems natural. Then consider: how might we formulate the rule that apparently governs our use of *any* and *some* and their compound forms?

I don't want \_\_\_\_\_ dessert.  
The weather forecaster doubts that  
we'll have \_\_\_\_\_ rain today.  
He'll never agree to \_\_\_\_\_ kind of  
settlement.  
We don't have \_\_\_\_\_ thing to  
worry about.  
I can't imagine \_\_\_\_\_ one doing  
that.  
I can't think of \_\_\_\_\_ thing else,  
can you?

I'd like \_\_\_\_\_ ice cream, please.  
We're supposed to have \_\_\_\_\_ rain  
today.  
I'd appreciate it if \_\_\_\_\_ one could  
help.  
She might agree to \_\_\_\_\_ kind of  
settlement.  
I just thought of \_\_\_\_\_ thing else.  
Does \_\_\_\_\_ one have another  
question?  
Is there \_\_\_\_\_ thing else you need?  
I wonder if she'd like \_\_\_\_\_ new  
magazines.  
Let's ask whether they have \_\_\_\_\_  
candy.

### *Discussion of Invitations 1 and 2*

Regarding the major kinds of auxiliaries, we might adopt a simplification of the transformationalists' concise rule:

Aux → (Modal) (HAVE) (BE)

What this says is that an auxiliary consists of an optional modal, followed by an optional form of HAVE, followed by an optional form of BE. That is, we don't have to use an auxiliary at all: it is entirely optional. But if we have more than one of them, they have to occur in this order (unless the sentence is passive). The examples also demonstrate other interesting rules about the structure of verb phrases, as long as the sentence is active rather than passive. Namely, a HAVE auxiliary is always followed by a past participle form, and a BE auxiliary is always followed by a verb in the present participle form. Transformationalists captured these insights in a slightly more complex rule, Aux → (M) (HAVE + EN) (BE + ING). The EN means that the following word will be in the past participle form; likewise, the ING means that the following word will be in the present participle form. A sentence with all these elements is *Sharon must have been eating ketchup on her hot dog.*

This one rule covers a complex variety of examples. But how did we learn to use it? Clearly not through direct instruction: most parents and, for that matter, most teachers, don't know this rule. But we do not have to know it consciously. This is part of what we unconsciously learn as we acquire the grammatical structure of English. (See the Appendix for a sample lesson that elicits this structure, and for the additional point that the first word in a verb phrase carries the tense marker.)

In Invitation 2, what we find is that sentences with a negative element

in them seem to require *any* rather than *some*; most native speakers will agree that this rule accounts for all or most of the sentences in the left-hand column. The first five in the second column imply certainty and seem to require *some*. The last four in that column suggest uncertainty and seem to take either *any* or *some*. This is an example of the kinds of insights that transformationalists have captured in their descriptive “rules.” This particular concept comes from William Rutherford’s *Sentence Sense* (1973), a text designed to lead students to discover some of these insights for themselves.

We don’t know, of course, how young children acquire such “rules.” What we do know is that such rules are not directly taught to children, and that children show evidence of beginning to acquire them by about the age of two or three, when they typically begin using auxiliary verbs and modifiers like *any* and *some*.

In one experimental study, for instance, three-year-olds were shown pictures of a tool, a substance, and an action. When asked which one was “a sib,” they typically chose the tool. When asked which was “some sib,” they typically chose the substance. When asked which one showed “sibbing,” they typically chose the action (Brown, 1957, as cited in De Villiers and De Villiers, 1979). The children’s incipient understanding of this use of *some* must surely be one of the prerequisites to their coming to understand subtle distinctions in the use of *some* and *any*.

Invitations 3 and 4 are designed to inspire insight not only into the nature of the structure that is acquired, but into the process of language acquisition and how linguists have come to understand it.

### Invitation 3

This invitation involves a phenomenon that is not strictly grammatical: it involves an intersection of the sound, or phonological, system with the grammatical system. Specifically, it involves the pronunciation of the regular past tense ending. Consider what sound(s) we add in making the following regular verbs past tense. What seems to determine which sound or sounds we add? Try to determine one or more rules to account for our automatic choices.

stop	stab	slam	play	wait
lick	plug	sin	tee	wade
laugh	love	clang	sigh	
unearth	writhe		slow	
kiss	fizz		cue	
wish			try	
lurch	judge			



#### Invitation 4

Often by the age of four, young children have developed several increasingly sophisticated rules for making sentences negative. For each group of sentences, try to decide what that rule must be.

- |   |  |  |
|---|--|--|
| a. No money.<br>No a boy bed.<br>No fall!<br>No singing song.<br>No the sun shining.<br>No sit there. | b. That no Mommy.<br>He no bite you.<br>There no squirrels.<br>I no want envelope.<br>I no taste them.<br>That no fish school. | . This not ice cream.<br>They not hot.<br>Paul not tired.<br>I not crying.<br>He not taking the<br>walls down. |
| c. I didn't did it.<br>You didn't caught me.<br>I didn't caught it.                                   | d. I don't sit on Cromer coffee.<br>I don't want it.<br>I don't like him.<br>I don't know his name.                            |  |

These examples are from Klima and Bellugi-Klima (1966, pp. 192–196), with the stages simplified somewhat for the sake of the adults trying to determine the rules that characterize each set.

#### Discussion of Invitations 3 and 4

Like the rule that accounts for the ordering of auxiliary verbs, the rule that accounts for the regular past tense endings is elegant and simple. To make a regular verb past tense, we add a / t / sound if the verb ends in an unvoiced consonant (one with the vocal cords not vibrating), and we add a / d / sound if the verb ends in a voiced sound, whether consonant or vowel; however, if the verb ends in a / t / or a / d / sound, we add a schwa-like vowel, plus / d /. How do children learn this rule? Again, it certainly isn't by direct teaching! Nevertheless, children give evidence of learning this as a rule around the age of two or three.

The way we know children are learning this rule is by observing what they do with the past tenses of irregular verbs—the ones that don't follow the rule. Initially, they seem to imitate adult forms: they may say “went” or “bought,” for example. But as they learn the regular rule for past tense (around age two or three), they begin saying “goed” and “buyed” (or, less often, “wented” and “boughted”). Indeed, this is how we know they have learned the rule for making verbs past tense, and not just a lot of separate past tense forms. The same thing happens with irregular plurals: children will at first say “men” and “feet,” then switch to “mans” and “foots” (usually) when they have learned the rule for making regular nouns plural. Before

long, in each case, the children learn the irregular forms of the adult language community in which they are immersed. Unconsciously, perhaps, they learn these forms as exceptions to the regular rules they have unconsciously learned.

Rules to account for the negative sentences in Invitation 4 can be formulated as follows, for the groups (a)–(d):

- a. Put *no* or *not* at the beginning of the entire utterance.
- b. Put *no* or *not* between the subject and predicate parts of the sentence.
- c. When the verb does not already have an auxiliary verb, add the appropriate present or past tense form of *do* to carry the negative *n't*, and put this before the main verb. (This is described in transformational terms as changing an underlying positive kernel structure to a negative surface structure.)
- d. Add the appropriate present or past form of *do* to carry the negative marker and simultaneously remove the tense marker associated with the main verb. (Again, this is explained as a transformation from a positive deep structure to a negative surface structure.)

If these rules sound complicated, that's part of the point: that the child develops an increasingly sophisticated set of rules for making sentences negative, all without direct instruction or intervention from adults. (Indeed, when adults try to hasten the process, they typically do not succeed.)

Taken together, these four invitations and the discussion of them should make clear several points:

- The grammatical system children learn is complex and abstract; it can be captured in sometimes elegant rules, but these are not rules that adults typically know or could teach.
- Children develop increasingly sophisticated hypotheses about the structure of their language—hypotheses that can be expressed in the form of rules that explain their grammatical competence and are responsible for their actual language performance.
- Errors are necessary concomitants of growth in language acquisition.
- Children acquire the grammar of their language without direct instruction.

The next section elaborates on these critical observations about language acquisition, specifically the acquisition of grammatical competence.

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## The Process of Language Acquisition

Of course, we don't really know how children acquire grammatical competence in their native language. We can only extract the patterns from recorded utterances and formulate rules that would account for those utterances, consider what the environment contributes to language acquisition, and speculate about the contributions that are made by the human mind. Other methods of investigation are used too (Ingram, 1989), but no investigative method can actually get inside the learner's mind.

The first evidence of children's beginning to learn grammar comes when they begin to put two words together to form sentences, that is, utterances that have the intonation patterns of a sentence. Such utterances can be called *meaning units* or *M-units* (McCaig, 1972), since they express basic elements of propositions. Examples of some of the earliest kinds of semantic relationships, taken from various published sources, are illustrated in Figure 3.3. These examples are labeled with terms common in language acquisition studies rather than with strict propositional notations. Notice that in the examples of nonexistence (De Villiers and De Villiers, 1979), "all gone" and "no more" may function as single words. These examples do not illustrate all of the semantic relationships evident in children's two-word sentences, but they illustrate most of them.

Several interesting observations can be made regarding such early utterances:

1. They express a variety of semantic relationships.
2. At first, only two words of a proposition can be uttered at a time. So, for instance, if a child wanted to convey the proposition that "Daddy is moving the TV," she might say "Daddy move" (agent/action), "Move TV" (action/object), "Daddy TV" (agent/object), or perhaps two of these in sequence: "Daddy move, move TV." But the child just beginning to put two words together in M-units would not yet be able to put three words together in a single utterance (R. W. Brown, 1973). This, indeed, seems to be a universal fact of language acquisition: no matter what language is being acquired, children typically go through a stage wherein they can put two words together to form a sentence, but not three or more (Slobin, 1972).
3. These two-word sentences do not include grammatical markers, such

FIGURE 3.3 Semantic relationships in early utterances.

AGENT/ACTION Mommy read. Sarah write. I sit. Doggie bite.	ACTION/OBJECT Hit ball. Pick flower. Push cat. Eat cookie.	AGENT/OBJECT Snoopy bone. [watching Snoopy bury it] Daddy TV. [watching Daddy move the TV]
ATTRIBUTION Big dog. Dirty pillow. Spoon sticky.	POSSESSION Mommy sock. [holding up her sock] My ball. Ursula nose. [putting a finger on her nose]	NOMINATION (LABELING) That car. That baby. Here baby.
RECURRENCE 'Nother cookie. More milk. Tickle again.	ENTITY/LOCATION Cookie here. Sweater chair. Mouse cup.	ACTION/LOCATION Sit chair. Play outside. Walk street.
NONEXISTENCE No money. Beads all gone. No more soup.	REJECTION No wash. [to mean "Don't wash me"]	DENIAL No wet. [meaning "I am not wet"]

- as plural or past tense endings, or function words like *a/an* or *the*; *and* or *but*; *with* or *to* or *in*. Emergent speakers first use nouns, then add verbs, adjectives, and adverbs in creating two-word sentences.
4. The grammar of such utterances, then, consists entirely of word order. Such word order follows the word order of adult utterances. Note, for instance, that an adult model for "Big dog" might be "It's a big dog," while an adult model for "Spoon sticky" might be "The spoon is sticky." In other words, adult language includes instances in which an adjective precedes a noun, but also instances in which the adjective follows the noun and a linking verb. Thus the differing patterns confirm rather than contradict the generalization that children's early utterances follow the word order of adult utterances.

#### *Representing More of the Surface Structure*

Gradually a child becomes able to produce longer and more complex utterances, making the propositions and deep structure more and more explicit in the surface structure. Let us take, as an example, a child who has been wrongly accused of having eaten the last cookie in the cookie jar

(Weaver, 1979). The father, poor suspicious soul, has just accusingly asked his daughter Sally, "Did you eat the cookie?" The child might merely shake her head from side to side or say "no" to express the proposition False (Eat [Sally, cookie]), that is, "It is false that Sally ate the cookie." However, if she is about two years old (give or take a little), she might say "no eat" or "no cookie" or "Sally no," using sentences of no more than two words. As the child grows in language acquisition, she will be able to express more and more of the underlying deep structure in the surface structure of her reply. One might predict the following sequence of increasingly mature surface structures (with other alternatives being possible, but perhaps less likely):

#### UTTERANCE

- "No." (Obviously this answer is common at any age because, in context, it is adequate to express the underlying proposition.)
- "No eat. No cookie." (The child may produce either utterance or both in sequence, with an intonation break between.)
- "No eat cookie. Me no eat." (Either, or both in sequence.)
- "Me no ate cookie."

"Me no ate the cookie."

"Me didn't ate the cookie."

"Me didn't eat the cookie."

"I didn't eat the cookie."

#### INCREASING COMPLEXITY

- One morpheme. (The child is able to express just one *morpheme* per utterance—just one minimal unit of meaning.)
- Two morphemes, or a sequence of two two-morpheme utterances.
- Three morphemes, or a sequence of two three-morpheme utterances.
- Four morphemes. (At this point, "ate" may still be a single morpheme for the child, not a combination of "eat" + past tense.)
- Five morphemes. (The definite article "the" is added.)
- Six morphemes, assuming that both "did" and "ate" are still one-morpheme units for the child.
- Seven morphemes. (The tense marker is removed from the main verb, indicating that past is now a separate morpheme.)
- Seven morphemes. (The pronoun is in the subject form.)

This hypothetical sequence is based partly on my own observations but mainly on inferences from Klima and Bellugi-Klima (1966), Dale (1976, p. 107), Cazden (1972, p. 54), and R. W. Brown (1973, p. 274). The details of increasingly complex surface structure may not be entirely correct for any individual child (in particular, the use of *I* is likely to be acquired

earlier). Nevertheless, the general pattern of development seems universal. As their linguistic abilities mature, young children seem to go through at least the following overlapping stages or phases in learning to make their utterances conform to adult norms:

1. They express more and more of the nouns or "arguments" that are involved in a proposition. For example, once the child can utter three-word sentences, she can express both the agent (using the pronoun *me*) and the object (*cookie*), while still specifying the action, *eat*.
2. They express more and more of the grammatical markers, beginning with those that are the least complex but convey the most important meanings. For instance, the progressive *-ing* on verbs, the plural *-s* on nouns, and the prepositions *in* and *on* are among the first grammatical markers to appear. The articles *a* and *the* appear noticeably later, while the verb third person singular (as in "It looks funny") usually appears still later (R. W. Brown, 1973; De Villiers and De Villiers, 1973). It is logical that the third person singular should be a relatively late acquisition, since word order alone will make the meaning clear.
3. As children are beginning to express more and more of the grammatical markers, they are also beginning to combine propositions. For example, Sally might say "Me no ate Daddy cookie" if she thought the cookie belonged to her father. One underlying proposition is that Sally did not eat the cookie, and another is that the cookie belonged to Daddy.
4. They make requisite alterations in the surface structure. For instance, *didn't ate* becomes *didn't eat*, and the pronoun *I* replaces *me* or *my* in subject position.

As this discussion indicates, the first aspect of grammar to emerge is an incipient command of *word order*, which can be seen even in the child's two-word utterances. *Word endings* and *function words* follow, as the child's command of syntactic structures continues to increase.

Perhaps the most important generalization we can make is that in acquiring grammatical competence, children increasingly express more of the deeper propositional structures in their surface structures. Considering just the surface structure, such learning might appear to proceed from part to whole. But viewed from the point of the deeper, underlying structure, it is just the opposite: first comes the whole, the underlying propositions, and

then gradually comes an ability to represent the parts that reflect and convey that whole.

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### What Is Acquired

Considering some of the research into the syntax of kindergartners gives an even greater appreciation of the complexity of the grammatical system children acquire before they enter first grade.

In 1967, O'Donnell, Griffin, and Norris reported the results of a massive study of the syntax of elementary school children. They compared the use of syntactic constructions in the spoken language of kindergartners and students in grades 1, 2, 3, 5, and 7, and in the writings of students in grades 3, 5, and 7.

In oral language, there was significant growth in the use of syntactic structures between the end of the kindergarten year and the end of the first-grade year; as the investigators put it, "The first-grade year was one of rapid and extensive development in exploiting language structures" (p. 99). What may seem more surprising, however, is the fact that the kindergartners used almost all the constructions used orally by the older students. The following are some of the investigators' observations:

1. The eleven basic sentence patterns of main clauses that were tabulated in the study "were all used in the speech of kindergarten children, although six of them occurred very infrequently" (p. 88). Indeed, four of these six patterns were not used much more often by the older students—not even by the seventh graders (p. 72). Figure 3.4 includes simple examples to illustrate these patterns, as well as the other constructions and functions analyzed. However, the investigators seldom included speech samples to illustrate them, so most of the examples are mine.
2. Of the thirty-nine specific structures and functions analyzed for this study, the three completely missing from kindergartners' speech were not much used by older children either (p. 91). Those three were noun + adverb constructions (**man outside**), indirect objects (*Give **the dog** a bone*), and objective complements (*We elected him **secretary***). On the other hand, some items seem clearly to be early acquisitions, well used by the kindergartners (p. 92).

FIGURE 3.4 Grammatical constructions and patterns, other than coordinate constructions, analyzed by O'Donnell, Griffin, and Norris (1967).

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#### STRUCTURAL PATTERNS OF THE MAIN CLAUSES ANALYZED

Subject-verb: *The baby cried.*  
Subject-verb-object: *He took my pencil.*  
Subject-verb-predicate nominal: *Our dog is a German shepherd.*  
Subject-verb-predicate adjectival: *Our dog is big.*  
Subject-verb-indirect object-direct object: *I gave the dog a bone.*  
Subject-verb-object-object complement (nominal): *We elected Candace president.*  
Subject-verb-object-adjectival complement: *Our teacher considers her responsible.*  
Adverbial-verb-subject: *Slowly ticked the clock.*  
*There*-verb-subject: *There were lots of kids at the party.*  
*It*-verb-subject: *It would be easy to blame him.*  
Passive constructions: *Our garden was eaten by rabbits.*

#### HEADED NOMINAL CONSTRUCTIONS

[Each of these constructions consists of a noun, the "head" of the construction, preceded or followed by something that modifies it and is therefore functioning like an adjective, regardless of its internal structure.]

Noun + noun: *barn door*  
Noun + adjective: *cold rain; time in immemorial*  
Noun + genitive [possessive] form: *man's coat; children's boots*  
Noun + relative [adjectival] clause: *boy who was riding his bike*  
Noun + prepositional phrase: *bird in a tree*  
Noun + infinitive phrase: *food to eat*  
Noun + participle or participial phrase: *falling leaves; woman washing her car*  
Noun + adverb: *man outside*

#### NONHEADED NOMINAL CONSTRUCTIONS

[These are all nominal constructions if and when they function like nouns.]

Noun clause: *I know **that it costs a lot.***  
Infinitive phrase: ***To leave early** would be sensible.*  
Infinitive with subject: *I want **you to go with Michael.***  
Gerund phrase: ***Watching TV** is Greg's favorite sport.*

#### ADVERBIAL CONSTRUCTIONS

Adverbial clauses: ***Since the rates went up,** I canceled our cable TV service. Let me know **if you lower the rates again.***  
Sentence adverbials: ***Nevertheless,** it's true. You, **I think,** might become a writer. **The store being closed,** I can't, **unfortunately,** get you more paper right now.*  
Adverbial infinitives: *He saved up his money **to buy a new computer.***

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3. All three major kinds of subordinate clauses—nominal, adjectival, and adverbial—were used quite often by kindergarten children: “relative [adjectival] clauses, in fact, were used most frequently in kindergarten” (p. 98).

We shall see in a later chapter that low-achieving students typically do not demonstrate as good a command of the syntactic resources of our language as the children whose speech and writing were analyzed by O’Donnell, Griffin, and Norris. However, even the low-achieving students’ command of syntax is impressive (Loban, 1976). And surely even this chapter’s brief introduction to language acquisition gives the lie to statements like “He doesn’t even know what a sentence is.” Except, perhaps, for children with severe language disorders, this simply is not true. Of course, none of us speak exclusively in grammatically complete sentences, and in fact, the sentences of middle-class, educated adults are often the most convoluted and the least grammatical (Labov, 1969). It is also true that children and adults may not always write in grammatically complete or coherent sentences, and we do not always punctuate our writing in units that correspond precisely to grammatical sentences. However, even the youngest schoolchildren have already acquired a functional command of the grammar of their language and their community dialect, including most of its sentence structures, clauses, and various kinds of phrases. Youngsters entering school are already proficient language users who demonstrate that they have acquired most of the grammatical resources of their native language.

Two particularly good discussions of child language acquisition are Lindfors (1987) and Genishi and Dyson (1984). An especially readable introduction to language acquisition is De Villiers and De Villiers, *Early Language* (1979).

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### Evidence from Reading Miscues

In addition to direct evidence of grammar acquisition through oral and written use, we have indirect evidence from reading miscues. Coined by Kenneth Goodman (1965), the term *miscue* refers to any departure the reader makes from the actual words of the text. Miscues not only provide insight into the reading process but also demonstrate that readers have an intuitive sense of the grammar of the language that they draw upon while reading. This holds true for most of the youngest and least proficient readers as well as for good readers.

To illustrate, let us first examine some of the miscues made by an exceptionally good reader, Jay. At the time he read the O. Henry story "Jimmy Hayes and Muriel" (Porter, 1936), Jay was in the sixth grade. Here are some sentences in which Jay made one miscue and then restructured the rest of the sentence so that it would be grammatical.

JAY: *"Ain't heard much about her beauty. . . ."*

TEXT: "Ain't ever heard anybody call her a beauty. . . ."

JAY: *"This here's Muriel," said Hayes, with an oratorical wave of his hand. "She's got qualities."*

TEXT: "This here Muriel," said Hayes, with an oratorical wave of his hand, "has got qualities."

These restructurings make it clear that Jay has a strong intuitive grasp of the structure of English.

But even most younger and less proficient readers demonstrate an intuitive awareness of the grammar of English through the miscues they make. For example, Karl, a first grader, was enrolled in the Reading Recovery program for children deemed at risk of failure in learning to read. (Thanks to Grace Vento-Zogby for these examples. The books Karl was reading from are *Look* [Cutting, 1988]; *Huggles Goes Away* [Cowley, 1986]; *The Bicycle* [Cowley, 1983] *Ratty-tatty* [Cowley, 1987]; *Mom's Haircut* [Semple and Tuer, 1987].) Even in October, during his first lesson, Karl was making miscues that fit the grammar of the sentence. Indeed, his miscues showed him attentive to grammar and meaning, but not always to the actual letters of the word. For instance, with the following miscues, Karl read the actual words of the text except where indicated:

KARL: *bird Food!*

TEXT: "Look," said the birds. /"Bread!"

Here are some other examples from early lessons:

KARL: *food,*

TEXT: some sandwiches,

[The picture shows a stack of sandwiches.]

KARL: *Huggles goes away.*

TEXT: Goodbye!

During his nineteenth lesson, Karl made three interrelated miscues, showing that, like Jay, he could draw upon his intuitive knowledge of grammar to restructure text and maintain grammaticality. For example:

KARL:           *bear goes splat*  
TEXT:   and the bicycle got . . . / squashed.  
          [The bear was riding the bicycle and indeed  
          went splat, on top of the bicycle.]

By March, Karl was beginning to make miscues that cannot be viewed as logical substitutions for the words in the text. However, these miscues almost always fit with the preceding grammar, suggesting that Karl was using grammar to predict what was coming next. When his predictions were not grammatical with the following text, Karl typically corrected them. For example:

KARL:           *wasn't*  
TEXT:   It went off **snap!**  
          [The miscue *wasn't* fits with *off*, but not with *off snap!* Karl corrected it, making the sentence grammatical.]  
KARL:                                    *the*  
TEXT:   Mom needed a haircut, so she decided . . .  
          [The miscue *the* fits with the preceding grammar, but not with the following grammar. Karl corrected it.]

Miscue patterns like Karl's are not unusual. Rather, they are quite common among even the first graders in the Reading Recovery program. Such miscue patterns show that these children have a strong intuitive sense of grammar, which they use in their reading.

Further evidence that even the less proficient readers have a strong sense of grammar comes from Jaime, a child who was nine at the time her reading was recorded for a miscue analysis (Weaver, 1996). Although she seldom corrected miscues that failed to go with the *following* grammar or meaning, she made effective use of grammar (and usually meaning) to predict what was coming next. Of the 75 consecutive miscues that were analyzed, 73 percent went with the grammar and meaning of the preceding context, and another 7 percent went with the preceding grammar *or* meaning, but not both. The following examples are from Jaime's reading of *Clifford Takes a Trip* (Bridwell, 1966). Except as indicated, Jaime read the actual words of the text:

JAIME:           *he didn't*  
TEXT:   but it did hurt his feelings  
          [Jaime read "but he didn't," then omitted the rest of the sentence.]

JAIME: *take a*  
TEXT: The little old man gave Clifford a little lunch, to thank him for his help.

[Both miscues go with the grammar of the preceding part of the sentence. The first miscue, *take*, also goes grammatically with the next word in the text.]

JAIME: *every car*  
TEXT: Clifford just tip-toed over the cars.

JAIME: *He don't had come*  
TEXT: We didn't know Clifford was coming.

[Jaime commonly says "he don't" in normal speech.]

JAIME: *look their mother*  
TEXT: Good old Clifford / took the baby bears / back to Mama Bear.  
[Each of the miscues fits with the grammar of what comes before.]

Thus Jaime's miscues lend further evidence to the argument that we use our intuitive knowledge of grammar in reading as well as in speaking and writing, even though we may be completely unable to explain grammatical patterns and rules, and may even be unaware that we unconsciously know the grammar of our native language.

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## Second Language Acquisition

Those unfamiliar with second language acquisition research may be surprised to learn of the substantive evidence demonstrating that a second or additional language may be most readily acquired in much the same way as one's native language: through immersion in oral and written language—that is, through immersion in situations where one needs and wants to listen, speak, read, and write in order to understand and be understood. This is true for adults as well as children. Indeed, even when second language learners are taught the grammatical structure and rules of the second language, they may acquire these in a different way or a different order—or not acquire some of them at all (Terrell, 1991).

Stephen Krashen's model of second language acquisition has been especially influential, providing a theoretical explanation for why this should be so. Krashen (1981, 1982, 1985) contrasts *language learning* with *language acquisition*. "Learning" another language is what many of us have done in

school. We have memorized vocabulary, studied grammar, translated passages, perhaps rehearsed conversational phrases (all depending upon the instructional approach). In short, we have studied the language, but we may never have achieved much facility in listening to or speaking the language, or in reading or writing it for any authentic purpose outside of class. Such language learning involves "knowing about" a language, but it doesn't necessarily lead to knowing the language in the same sense as if it were truly acquired. Or to put it differently, many of us have studied a language in school, but few have acquired genuine competence in the language through that process.

As we have seen with children learning their native language, language acquisition is a subconscious process that leads to functional command of the rules of a language, though not necessarily to conscious knowledge about the language or its rules. Krashen has pointed out that what is minimally required for first or second language acquisition is *comprehensible input* from others in the environment: language that is comprehensible enough that the language learner can unconsciously abstract the patterns and rules from the language heard and/or read. Thus someone acquiring a second language entirely through exposure to it might, even as an adult, go through some of the same stages as a child learning that language natively. For example, Puerto Rican teenagers suddenly transplanted to New York City typically go through the same sequence of rules for negation as do young children learning English as their native language. Several studies show that adults acquiring a second language will acquire the grammatical markers of that language in a fairly predictable order, even if the grammar has been explicitly taught to them in a different order (Terrell, 1991, p. 55). And pidgin languages that arise when speakers of mutually unintelligible languages need to communicate bear striking resemblance to the early sentences and structures of young children (e.g., compare child language with the structure of pidgins, as in Schumann, 1974).

To be comprehensible, language input must be rich enough to provide raw data for the abstraction of patterns and the construction of rules. On the other hand, the language input must be sufficiently comprehensible for the language learner to connect meaning with form (Snow, 1986). In addition to the concept of comprehensible input, two other hypotheses in Krashen's theory of second language acquisition are especially relevant here. One is his hypothesis that a *low affective filter* is necessary for language acquisition to take place. Briefly put, a low affective filter means that the person is relatively open to learning from the comprehensible input, which

includes being relatively unafraid of taking risks and making mistakes. This is obviously the situation with young children learning their native language, but it may also be a necessary condition for adults to truly acquire a language. When speakers and writers edit their language production by drawing upon their conscious understanding of the forms of the language, they are using their language *monitor*. Continual use of the monitor may result in somewhat more "correct" language production, but it can also raise the affective filter—one's mental block against learning from the comprehensible input and taking risks in speaking and/or writing (Krashen, 1985; I have gone somewhat beyond Krashen in emphasizing the importance of taking risks).

In *The Input Hypothesis* (1985), Krashen discusses some of the evidence for his theory of second language acquisition. What I would like to do here is review some of the evidence from studies in which the acquisition of English through reading is contrasted with the learning or acquisition of English through more direct means.

#### *Elley's Review of Nine Studies*

In "Acquiring Literacy in a Second Language: The Effect of Book-Based Programs," Warwick Elley (1991) reviews nine studies of the acquisition of English as a second language, most of which were undertaken in the South Pacific and Southeast Asia. Most notable among these is his own earlier study (Elley & Mangubhai, 1983). Typically these studies compared the results of programs based on structured systematic instruction in English with "book flood" programs, which exposed children to large numbers of high-interest storybooks. In other words, the studies compared the effects of a direct instruction approach with an indirect instruction approach designed simply to provide children with comprehensible input, through books.

The direct instruction approach typically was based upon the principles articulated by structural linguists (e.g., Bloomfield, 1942) and audiolingual methodology: practice on a carefully sequenced set of grammatical structures, through imitation, repetition, and reinforcement. In contrast, the book flood approaches reflected "natural" or whole language learning principles. They usually involved sustained silent reading of an extensive number of picture books; the Shared Book Experience (Holdaway, 1979), which included not only reading but related discussion and activities; or a combination of Sustained Silent Reading and the Shared Book Experience. In one instance, these two procedures were supplemented by a modified lan-

guage experience approach involving children in reading material they had dictated.

From these combined studies, the following patterns emerged:

1. Students in the book flood programs did better on almost all standardized measures of reading, including not only comprehension skills but also word identification and phonics skills.
2. Usually favoring the book flood students were differences in measures of oral and written language and vocabulary (e.g., listening comprehension, written story completion), and sometimes differences in other aspects of school achievement as well (see also Elley, 1989).
3. Among the book flood students, those in Shared Book Experience programs typically showed greater gains on various tests than those in silent reading programs. (Probably this result suggests the value of reading and discussing the text together.)
4. Students in the book flood programs generally had a more positive attitude toward books and reading. (One wonders if these programs also affected children's attitudes toward English as a second language.)
5. *Students in the book flood programs often did better on tests of the grammatical structures explicitly taught in the audiolingual programs.* Elley notes that this interpretation "was [also] supported by an incidental study in which knowledge and use of English in natural settings was found to be largely unaffected by deliberate instruction in them" (1991, p. 389). (This correlates, too, with the research that grammatical markers tend to be learned in a consistent order, regardless of the order in which they are taught.)

Elley summarizes, in part, as follows: "That pupils showed equally large gains in the discrete-point tests of grammatical structures and vocabulary as they did in the more integrative measures of reading, listening, and writing is particularly damaging for those who argue that structures and vocabulary should be deliberately taught" (1991, p. 402).

In short, Elley's summary of these nine studies provides strong evidence for the hypothesis that comprehensible input and a low affective filter facilitate language acquisition more readily than direct teaching of grammar and vocabulary. This is not to say that the direct teaching of grammar plays no role at all in the acquisition of a second language, especially for adults and adolescents. But the research evidence *does* suggest that direct teaching

of grammar is not necessary for acquiring the basic structure of a second language, anymore than for acquiring one's native language.

### *The CUNY Experiment*

In "Fluency First: Reversing the Traditional ESL Sequence" (1991b) and "Fluency Before Correctness: A Whole Language Experiment in College ESL" (1991a), Adele MacGowan-Gilhooly describes an interesting experiment in teaching English as a Second Language to students wanting to enter the City University of New York (CUNY). While the initial experiments at CUNY did not include a control group, the instructors did have data available for comparing their experimental approach with the approach they had used previously.

Basing their approach on already existing research into the acquisition of a second language, they decided to emphasize first fluency, then clarity, and to work explicitly on correctness only after the first two goals had been achieved. (See 1991a, pp. 39-40, for their working definitions of fluency and clarity.) Essentially the fluency-to-clarity-to-correctness sequence parallels the stages of first language acquisition; it is in effect a whole-to-part approach, wherein communication is the first goal. The teachers adopted these and other principles of whole language learning and teaching, including the idea that emergent speakers of a language must be immersed in using it. Because the students had to pass tests in reading and writing in order to be admitted to regular courses at the university, the revised sequence of three courses emphasized wide reading and extensive writing, but discussion of the readings and the students' writings also involved the language learners in a substantial amount of speaking and listening as well.

A description of the three courses will help clarify how these principles were realized in practice.

ESL 10 The students read 1,000 pages of popular fiction, along with autobiographical and biographical works. They had to read about 70 pages a week, plus copy passages that struck them and respond to those passages in a double-entry journal. They also worked on a writing project that had to total 10,000 words by the end of the semester (about 40 to 50 typewritten pages). Most of the ESL students wrote autobiographical pieces or family histories. Their partners helped the students make the pieces more comprehensible, logical, and interesting; teachers then gave more of this kind of feedback for the writers to consider for final revisions. "By semester's



end, most [students] were reading and writing fluently and even more correctly than in the beginning, without having received any corrections or grammar instruction" (1991b, p. 80). (For the text developed for this class, see MacGowan-Gilhooly, 1993.)

ESL 20 This course focused on clarity in organizing and developing expository papers. But the teachers eased the students into expository writing by beginning with the reading of historical fiction or nonfiction having to do with the United States. Again, the students responded to the readings in double-entry journals and discussed their readings in small groups. They also wrote a 10,000-word, semester-long project on some aspect of the United States—its people, history, culture, or problems. Various kinds of writing were included. By the end of the term, most students were writing clearly enough to pass the course. (For the text developed for this class, see MacGowan-Gilhooly, 1995).

ESL 30 This course focused on the elimination of the most serious and most frequently occurring errors, and on looking just for these errors while editing. "This eliminates the bulk of students' errors without the cognitive overburden of trying to correct every error" (1991b, p. 81). The other major focus was preparing for the test that the university requires of ESL students before they can take most of their regular courses. In ESL 30, students read and wrote argumentative prose, often real-world prose like letters to newspapers or public officials. Again, they received help in revising, but in this course they also received help in editing to eliminate errors. They kept individualized study lists of spelling words, new vocabulary, useful facts, grammar points they needed to focus on, mechanics issues, and style issues. (MacGowan-Gilhooly notes her disappointment that this course had to be narrowed to a test-preparation course and indicates that some students who were writing well at the end of ESL 20 do not progress in ESL 30, and a few even seem to regress under the pressure of preparing for the university's writing assessment test; see 1991a, p. 45.)

MacGowan-Gilhooly reports that since CUNY implemented this whole language approach, the passing rate on the reading assessment test has almost doubled (1991a, p. 45). The writing test passing rate increased from 35 to 56 percent (1991b, p. 83). Fewer students were repeating ESL 10, 20, or 30, and the external readers of the writing test commented on what good writers the ESL students had become (1991a, p. 45). Furthermore, these

improvements occurred even though only about two-thirds of the faculty were using the new whole language approach (1991b, p. 74). However, the most compelling evidence, MacGowan-Gilhooly believes, is qualitative rather than quantitative. In comparison with previous classes, the teachers of the new whole language-oriented classes reported such changes as these in their students and their classes (1991b, pp. 83–84):

- More confidence, better ability to work in groups, more tolerance for divergent views
- More daring in their use of new vocabulary
- Greater ability to write interesting pieces
- Essays of greater depth and richness, more fluency, and better grammar
- Better reading comprehension and speed
- Greater enjoyment of reading than in previous ESL courses
- Better discussions of readings
- Better analytical thinking, much greater intellectual curiosity
- Improvement in speaking (according to many students)
- Students were more serious, concentrated, self-reliant, and open to others

While these are only impressions, many of them are obviously worth researching to document in more rigorous fashion. MacGowan-Gilhooly (1991b) also reports:

Traditional approaches seemed to inhibit experimentation and exaggerate the importance of errors. Before the course, students could not apply rules they had learned to their writing; but after it, it seemed they could. Yet the only grammar instruction they had had was in the context of questions about their own writing as they revised it. (p. 84)

On a personal note, I was so impressed with the results of the early CUNY experiments that I incorporated a literature-and-response element into my graduate course in the reading process, which at that time enrolled mostly students in a master's degree program in teaching English as a second language. Many of the students were themselves non-native speakers of English; several had already taught English in their home countries. In addition to extensive professional reading in journals, I required students to read about 75 pages of literature (usually fiction) per week, and to respond with dialogue journal entries. Often, they wrote a typewritten page or two of response, though I didn't really expect that much. After I incorporated

this requirement, one of the students wrote at the end of the semester that at first she could only read three or four pages at a time in English and write a few sentences, but by the end of the semester she could read a hundred pages and write several pages of her own. Other students likewise made major leaps in fluency.

Obviously the students had achieved greater fluency through immersion in reading and writing, but what of their acquisition of grammar? Dan Cupery (1992) reports the results of research he conducted for his final paper in that class. In brief, those international students who had the most limited command of the syntactic resources of English at the beginning of the term made noticeable syntactic progress by the end of the term. Compared with their pre-test stories, the post-test stories generally showed noticeable syntactic growth in words per T-unit, clauses per T-unit, free modifiers per T-unit, and especially in embeddings per T-unit (embeddings include subordinate clauses, free modifiers, and a few other constructions). The writers who were originally most proficient showed little change in their use of grammatical elements. The study was much too small (eight subjects) to achieve statistical significance, but it suggests a direction for further research.

The studies discussed reflect the range of research bearing on the question of how learners can most readily acquire the grammar of a second or other language. While they vary from rigorously conducted research (e.g., Elley and Mangubhai, 1983) to noncomparative teacher research among a small group of students in a single classroom (Cupery, 1992), they all exemplify a recent interest in investigating whether a second language is best acquired through immersion in the language itself, or through direct instruction in the structures and vocabulary of the language, or through some combination of both. Substantive evidence suggests that basic grammatical competence is best developed through exposure to comprehensible input and through attempting to communicate in the target language, relatively unhampered by initial concerns about correctness. In second language acquisition as well as in first language acquisition, grammatical correctness may be best achieved by focusing on fluency first, rather than on grammar itself. Furthermore, the evidence from the studies summarized by Elley (1991), from other studies of learning English as a second language (e.g., Gradman and Hanania, 1991), and from a comprehensive summary by Krashen (1993) strongly suggests that reading, reading, and more reading may be critical for first *and* second language learners, both in developing fluency and in expanding their command of the syntactic resources of the

language (e.g., Perera, 1984). Krashen's *The Power of Reading* (1993) summarizes a considerable body of research, but we may have only just begun to document the powerful effects of reading.

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## How Language Is Acquired: A Summary

Language acquisition is a complex process. While clearly children do imitate adult speech in some ways, it is also clear that imitation, repetition, and habit formation are nowhere near adequate to account for the acquisition of one's native language, including its grammatical patterns or rules. Neither is direct teaching. Even though parents and other caretakers may tell children the names of things, they do not directly teach babies and toddlers the grammatical system of the language.

Particularly relevant for our purposes here are the following conclusions from studies of first language acquisition:

1. At first, the underlying propositions—what we have called the deeper structure—are only minimally represented in the surface structure of a child's language. Gradually, however, more and more of the semantic and syntactic elements are represented in the surface structure of children's sentences.
2. If propositions are considered the whole of what children are trying to express, then we can logically say that language acquisition proceeds from whole to part: from a minimal representation of propositions to increasingly greater representation of the parts.
3. Adults do not—indeed, they could not—directly teach children the grammatical rules of their language. Children abstract these rules from the comprehensible input in their environment.
4. Children unconsciously form hypotheses about language structure. As the structure of the language input to which they are exposed becomes increasingly understood, children abandon less sophisticated hypotheses and formulate more sophisticated ones—all unconsciously, of course.
5. Children's competence in grammar is acquired only gradually, with successive approximations coming closer and closer to adult norms. What seem like "errors" from the viewpoint of adult language performance are absolutely necessary for language development.

6. One important factor in children's ready acquisition of language is their naturally low affective filter. Unless an adult intervenes punitively, young children will just naturally take risks in using language; they are uninhibited by fear of failure, punishment, or embarrassment.

7. There are many ways that adults facilitate children's acquisition of language: for instance, by exposing them to rich and only slightly simplified language; by considering language acquisition to be as natural a process as learning to walk, and acting accordingly; by responding to what children are trying to say rather than to the correctness of their utterances; and, in many homes, by reading to children. In fact, there is clear evidence that reading even to secondary school students generates growth not only in vocabulary and an understanding of story, but also in understanding and use of syntactic constructions (Perera, 1984, 1986).

Although a second or other language is often taught through audiolingual or grammar/translation methods (e.g., as explained in Freeman and Freeman, 1994), there is significant evidence that an additional language may also be best acquired through essentially the same processes as one's first language. Of course, formal study may facilitate and refine that process (Terrell, 1991), but it can also impede it, by encouraging language learners to overly monitor their language use and refrain from taking the risks that genuine language acquisition requires.